Stakeholders' Role in the Adoption of Green Practices among Star Rated Hotels along Coastal Kenya: Partnerships and Collaborations

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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. Climate change impacts on ecological sustainability alongside considerable growth in the industry have raised critical concerns through increased emission of greenhouse gases, water, and energy consumption, and vast volumes of food waste. A rapid move from carbon and material-intensive ways of delivering visitor experiences with an emphasis on stakeholder involvement and ecosystem wellbeing makes tourism a leader in transforming the emerging green economy. This paper aims to determine the role of stakeholder engagement in the adoption of green practices by star-rated hotels along the Kenyan Coast. A cross-sectional survey design was applied in this study. Sample hotels for the study were identified using stratified random selection. Stratification of management tiers for selecting general managers and heads of sections was applied. Data from heads of sections were obtained using a semi-structured questionnaire while semi-structured interview schedule was used for general managers. Analysis of data included descriptive statistics in determining the frequencies, means, standard deviations, and percentages for each survey item. One sample t-test was used to test the statistical significance of Likert scale responses. Hypothesis testing was conducted using a multiple linear regression model. Qualitative data were analyzed using thematic analysis. The findings indicated that stakeholders' engagement contributes significantly to the adoption of green practices (p=≤0.000≤0.05). Stakeholder' engagement was also revealed as a key predictor of adoption of green practices in star rated hotels (β= .760, P - value<0.05). The study concluded that stakeholders' engagement provide new ideas, define performance indicators for monitoring, auditing, comparison, and reporting green practices adopted by the star-rated hotels. The study recommended that hotel managers, hotel associations, and government agencies need to enhance green practices by strengthening the capacity of existing institutions to partner and collaborate with key

stakeholders, mobilize green climate funds, develop and review curricula, training resources, and short courses in hospitality, tourism, and environmental studies.

Keywords: Environmental sustainability, Green economy. Hospitality, Tourism

1.0 Introduction

The hospitality and tourism industry has contributed significantly to economic growth over the last decade. There were optimistic forecasts for exponential growth in the future before the onset of the Covid-19 pandemic (Khatter, White, Pyke and McGrath, 2021). It is worth noting that considerable growth in the hotel sector globally has been attained while disregarding its impact on the environment (Rahman, 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 endeavour to pursue green marketing, this may be perceived as depriving luxury, cost-reducing and inconvenient. 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, Méxas and Meiriño, 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 industry is one of the key economic sectors that is central to leadership in transforming the emerging green economy.

Greening of hospitality refers to adoption of environmentally friendly and sustainable practices. These include energy management, water conservation, bio-diversity, noise pollution reduction, green building design, organic food, green procurement, waste management, carbon footprint reduction, environmental education, environmental partnership and indoor air quality.
A green hospitality facility is one that recognises the principles of sustainability by providing eco-friendly products or services that supersede demand for non-green products and services (Irungu and Njoroge, 2022).A major step of sustainable hospitality facility is to bring down the impact made on the environment by harmful waste materials and emissions generated from its operations and adopt social responsibility (Boğan, Dedeoğlu and Dedeoğlu, 2021).
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 as illustrated in Figure 1.

Internal	Supply	Consumers

	Institutional Decisions related the elimination, reduction, substitution, and offsetting carbon emissions	**Supply chainchoices** related to the reduction, elimination, substitution, and offsetting carbon emissions	**Institutional encouragement** on consumers' choices related tothe reduction, elimination, substitution, and offsetting carbon emissions
Eliminate			
Reduce			
Substitute			
Offset			

External	Environmental Legislation	Environmental Policies

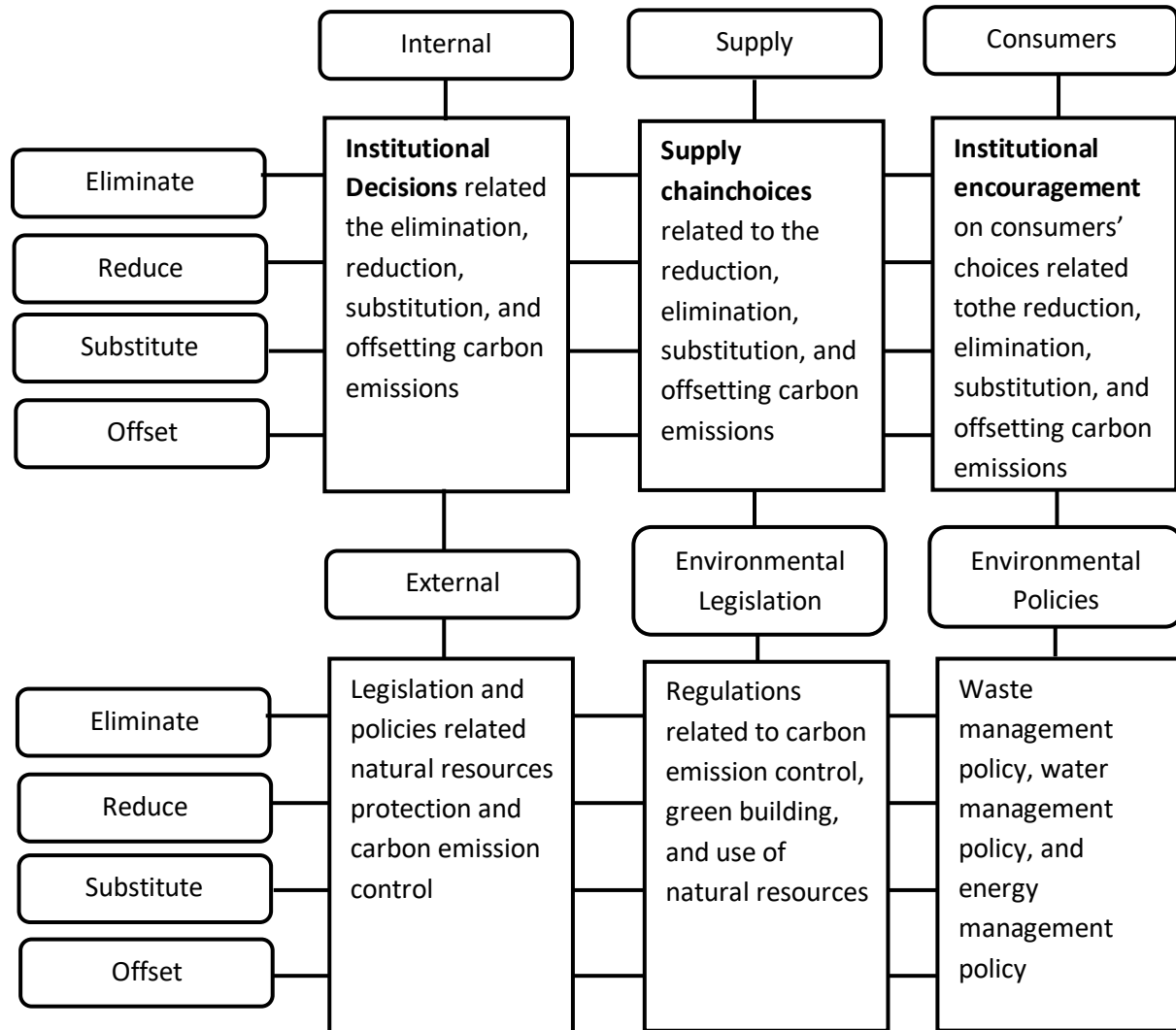|	Legislation and policies related natural resources protection and carbon emission control	Regulations related to carbon emission control, green building, and use of natural resources	Waste management policy, water management policy, and energy management policy
Eliminate			
Reduce			
Substitute			
Offset			

Figure 1: Four steps to carbon neutrality for businesses and institutions.
Source: Adapted from Simpson et al. (2008).

Hotel managers who engage and consider the environmental 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 and Buhovac, 2014). However, the role of stakeholder engagement in adopting green strategies and actions still has a shortage in research studies. The objective of this research paper was to investigate the role of stakeholders' engagement in adoption of green practices by star rated hotels along the Kenyan Coast. This paper was also guided by a null hypothesis from the objective; there is no significant relationship between stakeholders' engagement and adoption of green practices among star-rated hotels along the Kenyan Coast. The paper is based on research study conducted before the onset of Covid 19 which may have altered hotel operations, stakeholder concerns and policies.

2.0 Literature Review

The hotel sector generates Green House Gases (GHG) and pollutants which accelerate climate change accounting for almost 10% of global GHG emissions (Simpson, 2008). Hospitality and Tourism industry consume enormous resources and have a great effect on 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. Carbon dioxide and waste generated by hotels lead to global climate change (UNEP, 2016). Many countries across the world have realised the hotel sector's remarkable negative effects on the environment. In Europe for instance, hotels consume 39 terawatt hours of energy per year, and their customers use up to 440 liters of water per guest, per night. The average water use in African hotels is 466 liters per guest, per night. Energy use and waste management are also critical concerns (United Nations World Tourism Organisation, 2018). Hospitality facilities therefore need to design an environmentally responsible model and implement an all-round view of sustainability.

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. 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 the industry growth (UNWTO, 2019).

While investigating the adoption of the Davos Declaration by hotels in Mombasa, Njoroge (2016) found out that hoteliers acknowledge climate change and its effects on hotel operations and the environment. Davos Declaration aimed at persuading key stakeholders globally to prioritize green actions (adoption of green practices). However, it was noted that little has been done in implementing the guidelines and recommendations, such as energy efficiency measures, waste reduction and recycling, green building designs, and communication of green action to stakeholders. This status was attributed to both policy and action challenges in the hotel sector.

According to Glasgow Declaration (UNEP, 2021), the hospitality and tourism industry's carbon emissions grew by 60% from 2005 to 2016. The sectors' carbon emissions may rise 25% or more by 2030, compared to 2016 if decarbonization is not accelerated. 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 rapid move from carbon and material-intensive ways of delivering visitor experiences with an emphasis on stakeholder involvement and ecosystem wellbeing makes tourism a leader in transforming the emerging green economy (UNFCCC, 2021).

Adopting green practices in the hospitality and tourism industry is an intricate task owing to the various interests of stakeholders. Therefore, creating a sustainable path entails a conflict within 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 (Chen, 2019).

The long term repercussions of critical green action challenges have not yet sunk in the minds of hotel stakeholders (Chen, Bernard and Rahman, 2019). The leadership of most hotel organizations may not be awake to the implications of their decision-making approaches on the local and global eco-system (Chan, E, Okumu and Chan, W, 2018). Hotels, therefore, have to inevitably formulate strategies to operate sensitively to the demands and concerns of different stakeholders in line with Paris Agreement. Professionals have embraced stakeholder inclusion in hospitality and tourism decision-making; however, it has not been realized substantially (Khatter et al., 2019).

Stakeholders who influence management decisions have a critical role in promoting green practices. Stakeholder theory posits that leaders are likely to implement socially and ecologically responsible 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 (Epstein and Buhovac, 2014).

While most research studies have concentrated on attitudes toward green consumerism and the development of competitive green strategies in business organizations, limited studies have addressed stakeholder involvement with respect to the formulation of environmental design and subsequent green practices adoption in the hospitality and tourism industry. This study, therefore, sought to determine the role of stakeholder engagement in adoption of green practices by star rated hotels along the Kenyan Coast.

3.0 Research Methodology
This section focuses on the design of the study, target population, sampling procedure and size, data collection instruments/ procedures, validity and reliability of measures, and data analysis.

3.1 Design of the Study
Embedded mixed methods design was applied in this study where both quantitative and qualitative approaches were used in a single study. This process involved data collection to provide in depth understanding to queries regarding subjects in the study without manipulation (Creswell and Clark, 2010). A cross-sectional survey was conducted that sought to determine the role of stakeholder engagement in the adoption of green practices among star-rated hotels along the Kenyan Coast.

3.2 Target Population
The study targeted general managers and heads of sections/line managers from the kitchen, restaurant, front office, housekeeping, and maintenance departments in 41-starrated hotels located along the Kenyan Coast.

3.3 Sampling Procedure

A stratified random sample of 25-star rated hotels were drawn for the study comprising 2 five-star hotels, four-star hotels, 8 three-star hotels, and 7 two-star hotels. The second step involved random stratification using management tiers to include general managers and heads of sections/line managers from the kitchen, restaurant, front office, housekeeping, and maintenance departments. The third step involved determining the line managers sample size and allocating them proportionately to each hotel cluster. The final sample size comprised 127 line managers and 25 general managers

3.4 Sample Size

The sample size for the study was determined using Yamane (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 proportionately depending on the size of the strata as indicated on Table 1.

Table 1: Summarized Sample Size (Managers)

Star Rating	Hotels sampled	General Managers	Section Heads	Total
Five Star	2	$\frac{3}{41} \times 25 = 2$	$\frac{15}{205} \times 127 = 10$	12
Four-star	8	$\frac{13}{41} \times 25 = 8$	$\frac{65}{205} \times 127 = 40$	48
Three-star	8	$\frac{13}{41} \times 25 = 8$	$\frac{65}{205} \times 127 = 40$	48
Two-star	7	$\frac{12}{41} \times 25 = 7$	$\frac{60}{205} \times 127 = 37$	44
Total	**25**	**25**	**127**	**152**

3.5 Data Collection Instruments and Procedures

Research methods that were applied to attain the study objectives entailed both quantitative and qualitative approaches. While semi-structured questionnaire was used to collect quantitative data, a semi-structured interview schedule was used to collect qualitative data from hotels' general managers. A semi-structured questionnaire that was self-administered was used to collect the data from the five heads of sections/ line managers for each hotel. The questionnaire consisted of 5-point Likert scale in which the respondents were asked to rate the extent to which they engaged stakeholders in adoption of green practices at the hotels. The scale ratings were as follows: (no extent =1, some extent=2, Neutral=3, great extent=4 and very great extent =5).

3.6 Validity and Reliability of Measures

An extensive review of extant literature on voluntary green practices produced the measures adopted for the study thus providing content validity. A further refinement of the measures was conducted through a pre-test of the research instrument with a set of twentyhotel managers but these managers were not included in the final study. The reliability of the study measures were ensured though a test-retest reliability whereby the research instrument was administered twice to respondents at intervals of one month under nearly equivalent conditions as possible.The research instruments' reliability was further analyzed using Cronbach's alpha coefficient of internal consistency prior to its use in the research study. The reliability alpha coefficients for all the constructs were above the threshold point of .70 (Kothari, 2012).

3.7 Data Analysis

The descriptive data were analyzed mainly with frequency distributions to obtain a representation over the 5-point Likert scale response levels for the manager's opinions of stakeholders' engagement in the adoption of green practices at the hotels. Inferential statistics applied were multiple linear regression analysis to determine the relationship between the independent variable and the dependent variable. On the other hand, independent sample t-test was used to verify the significant contribution of stakeholders' engagement to the variation in adoption of green practices. Data obtained were presented in tables, graphs and models.

4.0 Results and Discussion

The purpose of this study was to examine the role of stakeholders' engagement in adoption of green practices by star-rated hotels along the Kenyan Coast. This section therefore covers the statistical analysis of data, discussion of findings and significance testing for Likert scale responses. One hundred and twenty seven questionnaires were distributed to section heads/line managers. One hundred and six questionnaires were returned and deemed fully filled and adequate for data analysis. This response represented an overall return rate of 83.5%.Twenty-three interviews were successfully conducted with general managers.

Line managers believed that key stakeholders for the star-rated hotels convey their perspectives about solving the hotels' green practices problems successfully to a very great extent(39.6%)and to a great extent(21.7%). According to 40.6% and 9.4% of the line managers, stakeholders participate in identifying green practices to a very great extent and great extent respectively.The complete findings are highlighted in Table 2.

Table 2: Extent of Stakeholder Engagement in Adoption of Green Practices

Our key stakeholders…	1	2	3	4	5
i. convey their perspectives about how to solve the hotels green practices problems successfully	0 (0.0%)	29 (27.4%)	12 (11.3%)	23 (21.7%)	42 (39.6%)
ii. provide new ideas for improving green practices	4 (3.8%)	19 (17.9%)	11 (10.4%)	32 (30.2%)	40 (37.7%)
iii. 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%)
iv. 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.

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 3 (one-sample t-test results). The significance of hotels seeking new ideas from key stakeholders to improve green practices and their participation in defining of green practices performance indicators were ranked highly in terms of the role played by stakeholders' engagement.

The study noted that there were several past experiences where guests, staff and beach operators were among the stakeholders who collaborated in enhancing green initiatives planning, adoption, and improvement as narrated by some general managers who gave the following comments;

> *"[…] 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 generally create awareness on the benefits of tourism. We have also mounted stickers in the rooms to encourage linen reuse, water and energy management among the guests."*

Performance indicators are crucial in developing the 'minimum set of indicators' for monitoring and evaluating green practices adoption and subsequent emissions control in star rated hotels based on their location. These findings imply that stakeholder participation in green practices among star-rated hotels along the Kenyan Coast is significant.

Table 3: Significance of Stakeholder Engagement in Adoption of Green Practices

	Mean	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
						Lower	Upper
i. 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
ii. Our key stakeholders provide new ideas for improving green practices	3.80	6.712	105	.000	.80189	.5650	1.0388
iii. 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
iv. 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

4.1 Hypothesis Testing and Results

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

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

The general multiple regression model for the hypothesis was:

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$

Where: - Green practices (Y) = β_0 + β_1 Stakeholder engagement + β_2 Stakeholder perceived benefits+ ε. The resulting model was:

Green practices = 1.890 + 0.760 stakeholder engagement ……………

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)

The effect of the stakeholders' engagement (B = .760) on the adoption of green practices was positive and statistically significant ($p <$ .001 and $p <$ .05respectively).Thus, H_{01} was rejected as shown in Table 4.

Table 4.Multiple Regression Model Coefficients

	Model	Unstandardized Coefficients		Standardized Coefficients			Decision on Hypothesis
		B	S.E	Beta	T	p	
1	(Constant)	1.890	.406		4.660	**.000**	
	Stakeholders engagement	.760	.044	.885	17.363	**.000**	Reject H_{01}
Note. a. Dependent Variable: green practices, R = .864. R^2 = .747. F (2,103) = 151.736, p < .000							

The findings in Table 4.1 revealed that stakeholder engagement has a statistically significant effect on the adoption of green practices in star-rated hotels. Stakeholder engagement, therefore, is a key predictor of the adoption of green practices in star-rated hotels (β= .760, P-value<0.05). This implies that a unit change in stakeholder engagement will lead to .760 unit increase in green practices if the other predictors remain constant. If stakeholder engagement was rated as zero, green practices would be constant (β_0 = 1.890).

5.0 Conclusion

Stakeholder engagement contributes significantly to adoption of green practices especially in acquiring new ideas to improve on green practices as well as defining performance indicators for auditing, comparison and reporting green practices adopted by the star rated hotels. Star rated hotels along the Kenyan Coast should therefore, promote collaborative relationships with key stakeholders, develop a standard framework for stakeholder engagement in terms of capacity building, performance monitoring and reporting back to stakeholders.

6.0 Managerial Implications

Hotel managers, hotel associations and government agencies need to enhance green practices by strengthening the existing capacity-building institutions to partner and collaborate with key

stakeholders, mobilize green climate funds for star-rated hotels, develop and review curricula, training resources and short courses in hospitality, tourism and environmental studies.

7.0 Recommendations for Future Research

Further research is needed in assessing stakeholders' perceived benefits and costs in adoption of green practices by star rated hotels along the Kenyan Coast. The data for this research study were obtained from star-rated hotels in Coastal Kenya, therefore, similar studies can be conducted in other tourist circuits with different geographic features and tourist facilities. The study applied a cross-sectional survey design however, a longitudinal survey research design can be used in similar studies.

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