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Abstract

Purpose: The objective of this study was to assess energy conservation practices implemented by lodges and camps in Kenya and to determine their effect on performance of Kenyan lodges and camps.

Methodology: The study adopted a descriptive correlation research design where data was collected from 294 lodge and camp managers in Kenya using self-administered questionnaires. Sample selection was through multistage sampling technique consisting of stratification, proportionate and simple random sampling. The data collected was analysed using descriptive statistics and linear regression analysis in SPSS.

Findings: Lodges and camps in Kenya mainly implemented energy conservation practices related to daylighting (*M = 4.06, SD =.88*) and use of renewable sources of energy (*M = 4.02, SD =.87*). Further results indicate that energy conservation practices ($F [1, 292] = 124.76$, $p < .001$, $R^2 = .30$) significantly effected performance of Kenyan lodges and camps ($\beta = .55$, $t = 11.17$, $p < .01$). the findings imply that energy conservation practices accounts for 30% of the variation in performance of Kenyan lodges and camps.

Recommendations: The current study makes theoretical and empirical contributions to eco-friendly practices and the performance of lodging facilities by providing insights into implementation of energy conservation practices, which seems to be lacking in the Kenyan context. As a result, the study recommends that lodging facilities should focus on implementing energy conservation practices, such as use of renewable sources of energy and installation of energy efficient systems in order to achieve positive performance ratings by stakeholders in the industry.

Keywords: *Energy Conservation Practices, Kenyan Lodges and Camps, Lodge and Camp Performance*

1.0 INTRODUCTION

The hospitality and tourism industry continues to be one of the world's leading industries in terms of job creation and socioeconomic regeneration of most countries (World Travel and Tourism Council (WTTC), 2022). Globally, tourism contributes about 10.3% of gross domestic product (GDP) (WTTC, 2022). In Kenya, the hospitality and tourism sector accounts for approximately 10.4% of the gross domestic product (GDP) and about 5.5% of formal employment (Tourism Research Institute [TRI], 2023). According to TRI (2023), the sector contributed up to KES 268.09 billion to the country's GDP as of September 2022, representing an increase of 83% over the previous year.

Despite this, there is a growing concern on hospitality industry practices regarding sustainability and performance (Elshaer, Azazz and Fayyad, 2023; Langgat, Ramdani, Pavic & Tok, 2023; Yusof & Ma'asor, 2020), particularly in relation to energy consumption. Tourism activities are estimated to contribute approximately 8% of greenhouse gasses (GHGs), with accommodation facilities consuming large number of resources in their daily operations (Lenzen et al., 2018; Verma & Chandra, 2018). In particular, the hotel sector ranks high regarding energy consumption (Cingoski and Petrevska, 2018; Mak and Chang, 2019), which presupposed comes from non-renewable sources of energy, such as fossil fuel and electricity (Cingoski & Petrevska, 2018; Fadhili, 2015).

The majority of this energy is used to ensure guest comfort via heating, ventilation, and air conditioning (HVAC) systems, as well as food and beverage production, entertainment, housekeeping services, and building transportation via lifts and escalators. As a result, stakeholders are increasingly urging the hospitality industry to adopt energy conservation practices and to use more renewable energy sources such as solar energy. According to the US Environmental Protection Agency (EPA), a 10% reduction in energy consumption by the hospitality industry globally would result in a $285 million savings. This would significantly reduce GHG emissions from these facilities (Fadhili, 2015; Lenzen et al., 2018; Verma & Chandra, 2018).

Lodges and camps though operate in a slightly different environmental setups from hotels are no exception to requirements of implantation of sustainable practices. A lodge, according to Jacholke (2022), is a business located in a protected area that provides lodging as well as food and beverage options for a fee. Unlike lodges with concrete structures, camps are usually made up of large safari tents that are located in protected areas and offer similar facilities and services as lodges (Jacholke, 2022). Given the vulnerability of the areas in which these facilities are located, operations in these facilities are expected to adhere to environmental quality preservation (Bulatović, 2017).

Kenya has several lodges and tented camps, mostly in or near protected areas, with tented camps encouraging environmental conservation by avoiding permanent structures. While these facilities are expected to conform to environmentally friendly practices such as implementing energy conservation practices in their operations (Bulatović, 2017; Daraman et al., 2017; Elshaer et al., 2023; Houtte, 2023; Park, Park, Yoo & Yu, 2021; Yusof & Ma'asor, 2020), limited studies have examined implementation of such practices in the context of Kenyan lodges and camps. In addition, limited studies have examined the effect of implanting energy conservation practices on performance of lodges and camps in Kenya. The few studies that have attempted to examine this relationship provides contradictory results. This study therefore set out to examine energy conservation practices implemented by lodges and camps in Kenya, and to determine the effect of the implemented energy conservation practices on performance of lodges and camps in Kenya. The following hypothesis was therefore postulated:

H_{01}: Energy conservation practices does not have a significant effect on performance of lodges and camps in Kenya.

2.0 LITERATURE REVIEW

Resource Based View Theory

The Resource Based View theory (RBV), proposed by Penrose, is one of the dominant theories in management research and environmental management studies (1959). According to the theory, organizations can gain and keep a competitive advantage by acquiring and integrating valuable, rare, inimitable, and non-substitutable (VRIN) resources (Sirmon et al., 2011; Barney, 1991). According to Jay Barney, the modern RBV school of thought emphasizes resource identification, development, and deployment in order to maximize returns.

As a result, energy conservation practices can be viewed VRIN through the RBV lens, and businesses can use them to gain a competitive advantage (Shang, Lu, & Li, 2010; Shi et al., 2012). Houtte (2023), Kim and Hall (2020), for example, emphasized that implementing such practices allows a company to gain a competitive advantage. Although the hospitality industry encourages competition, energy conservation practices can be implemented by lodges and camps as a strategic resource that leverage their performance (Mak & Chang, 2019). The growing competition in lodges and camps justifies basing this research on RBV theory. As a result, in order to gain a competitive advantage as a sustainable lodge or camp, lodges and camps must adopt strategic resources, in this case energy conservation practices, which is a recommended standard in eco-rating. As a marketing strategy and best environmental management practices, this would contribute to efficient management of their strategic resources and performance.

Energy Conservation Practices and Performance of Accommodation Facilities

Energy conservation or energy-saving practices is one of the domains in environmentally friendly practices, also known as green practices or eco-friendly practices by other authors (Cingoski & Petrevska, 2018; Langgat et al., 2023). These are routine actions taken by organizations, including those in the hospitality industry, to reduce energy consumption or use within the organization. Energy-efficiency and increased use of less carbon-concentrated fuels are the two widely cited group of energy conservation practices. These include the use of renewable energy sources such as solar and wind power, the implementation of energy control systems, and the installation of energy-efficient equipment and gadgets (Barakagira & Paapa, 2023; Cingoski & Petrevska, 2018; Fadhili, 2015; Kularatne et al., 2019).

While various studies (e.g., Barakagira and Paapa, 2023; Chomba, Bichage and Kariuki, 2022; Cingoski and Petrevska, 2018; Kularatne et al., 2019; Langgat et al., 2023; Moise et al., 2021) have been dedicated to assessing level of implementation of environmentally friendly practices and their effect on performance, few such studies have focused on energy conservation practices and performance of lodges and camps in Kenya. The findings of the few studies are also contradictory.

Kularatne et al. (2019) investigated the impact of environmentally sustainable practices on the performance of 24 medium and large-scale Sri Lankan hotels. They used data envelopment analysis (DEA) to analyse energy conservation data collected through field surveys between 2010 and 2014. According to their findings, implementing environmentally friendly practices such as energy conservation by hotels increased hotel efficiency by 46.8%. In Bogota, Colombia, Moise et al. (2021) investigated the impact of environmentally friendly practices on hotel image, hotel guest trust, and satisfaction. Their study included 303 guests from 3- and 4-star hotels in Bogota, Colombia. In order to test the research hypotheses and model, they used

exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and partial-least square structural equation modelling (PLS-SEM). Their findings show that environmentally friendly practices like energy conservation have a significant positive impact on image, guest trust, and satisfaction.

On a similar note, Chomba et al. (2022) studied how energy conservation practices affect customer satisfaction. The study polled 243 people from 24 star-rated hotels in the Mt. Kenya Region. According to the findings of their regression analysis, energy conservation practices had a significant and positive relationship with customer satisfaction in Mt. Kenya Region star-rated hotels. In another study, Langgat et al. (2023) surveyed 169 managers of 3-5-star hotels in Malaysia to investigate the impact of environmentally sustainable practices such as energy conservation on overall hotel performance. The quantitative data collected in their study was analysed using factor-based PLS-SEM. According to their findings, energy conservation practices implemented by 3-5-star hotels had no significant effect on overall hotel performance.

On the contrary, Barakagira and Paapa (2023) investigated the impact of energy conservation practices on the environmental sustainability of four and five-star hotels in Uganda's Kampala district. Their research included 322 employees from Uganda's five-star hotels. According to the results of the regression analysis, energy conservation practices had no significant effect on the performance of four- and five-star hotels in Uganda. Cingoski and Petrevska (2018) analysed responses from 127 hotel managers to investigate the use of energy efficiency practices in three to five-star hotels in Macedonia. Their study, however, did not link energy conservation practices to hotel performance.

3.0 METHODOLOGY

Research Approach and Design

This study used a quantitative research approach to address the research objectives. This method entails gathering and analysing quantitative data, examining relationship between variables, and testing of research hypotheses (Saunders, Lewis & Thornhill, 2019; Creswell & Creswell, 2018). The current study adheres to this research approach by employing a postpositivist research paradigm. This paradigm promotes a deterministic viewpoint with a cause-and-effect relationship (Creswell & Creswell, 2018). In keeping with the postpositivist viewpoint, this study used a descriptive correlational research design.

Study Population

The study targeted managers of 234 lodges and 129 camps in Kenya as recognized by the Tourism Regulatory Authority [TRA] (2021). As a result, the target population consisted of 363 lodge and camp managers.

Sample Size and Sampling Methods

To arrive at an appropriate sample size for the study, Krejcie and Morgan (1970) formula (see Equation 1) was applied as shown below:

$$S= \frac{X^2NP(1-P)}{d^2(N-1) + X^2P(1-P)} \quad [1]$$

Where by

S = Required sample size.

X^2 = The table value of chi-square for 1 degree of freedom at the desired confidence level(3.841) i.e., 1.96 x 1.96

N = The population size (363).

P = The population proportion (assumed to be .50 since this would provide the maximum sample size).

d = The degree of accuracy expressed as a proportion (.05).

$$S= \frac{3.841^2 \times 363 \times 0.5(1-0.5)}{0.05^2(363-1)+3.841^2 \times 0.5(1-0.5)}$$

$$S= \frac{14.753281 \times 363 \times 0.5 \times 0.5}{(0.0025 \times 362) + (14.753281 \times 0.5 \times 0.5)}$$

$$S= \frac{1338.86025075}{0.905 + 3.68832025}$$

$$S= \frac{1338.86025075}{4.59332025}$$

$$S= \frac{1338.86025075}{4.59332025}$$

$$S=292$$

The study used a multistage sampling method that included stratification, proportionate, and simple random sampling to select the minimum sample size of 292 lodges from a total of 363. To ensure fair representation, the population was stratified based lodges and camps, as well as circuit regions. The study used proportionate sampling to determine the number of managers to be drawn from each stratum, using the formula in Equation 2.

$$\text{Actual Sample} = \frac{\text{Population Strata}}{\text{Study Population}} \times \text{Min. Sample Size for the Study} \qquad [2]$$

Where:

Population strata = 234 for lodges and 129 for camps, 15 for lodges on the central Kenya circuit, 5 for camps on the central Kenya circuit, and so on (see Table 1); *study population* = 363; and *minimum sample size = 292* as previously calculated.

Table 1: Study Population and Sample Distribution

Strata by Circuit	Population Strata		Sample Strata	
	Lodges	Camps	Lodges	Camps
Central Kenya circuit	15	5	13	5
South rift circuit	42	56	34	46
Coast line circuit.	58	16	47	13
North rift circuit	48	19	39	16
Eastern circuit	14	7	12	6
Southern rift circuit	48	26	39	21
Western circuit	6	0	5	0
Nairobi circuit	3	0	3	0
Total	234	129	192	107
Grand Total	**363**		**299**	

The proportionate sample calculation yields a total of 299 managers targeted (see Table 1). The variation in the new sample size is caused by rounding up sample computation results using equation 2. For instance, the actual number of managers to be drawn from Central Kenya lodges was 12.07, which was rounded up to 13. The number of desired managers was then chosen using simple random sampling from each population stratum.

Data Collection Instrument

Data was collected from respondents using self-administered questionnaires. The questionnaire was divided into three sections. Section one concentrated on the demographics of the lodges and camps, as well as the managers. The second section focused on energy conservation practices implemented by lodges and camps, while the final section focused on lodge and camp performance. Energy conservation practices implemented by Kenyan lodges and camps were evaluated using five criteria: lighting efficiency, daylighting, renewable energy sources, energy consumption control, and green energy use. Customer satisfaction, repeat guests, guest recommendations, competitiveness, quality services, recognition by stakeholders, and resource utilization were used to evaluate the lodge and camps' performance. Respondents were asked to rate their level of agreement with statements about energy conservation practices and lodge and camp performance. Their answers were based on a five-point Likert scale ranging from 1-strongly disagree to 5-strongly agree, with a value of five carrying more weight.

Pilot Study

Before data collection, the questionnaire was piloted using 10% of the final study sample size (i.e., 30) in line with Connelly (2008). The 30 respondents were directly drawn from the study population and were excluded when drawing the 299 participants for the study. Piloting was conducted to test the questionnaire in order to identify its flaws and improve it prior to data collection in the main survey (Fraser, Fahlman, et al., 2018; Saunders et al., 2019). The

responses of these participants were then evaluated for internal consistency using a Cronbach's alpha (α) threshold of greater than 0.7 (Saunders et al., 2019; George & Mallery, 2019).

Data Analysis

Data collected was subjected to both descriptive and regression analysis in SPSS.

Descriptive Analysis

After entering the data into SPSS, it was checked for missing values, outliers, reliability, and normality. In SPSS, missing value analysis was performed to identify cases of missing values. In addition, box plots were created in SPSS and examined as part of the outlier analysis. The internal consistency of the items in measuring their respective constructs was determined using the reliability analysis option in SPSS. The data's normality was determined by using both statistical approaches i.e., a skewness and kurtosis threshold of ±1, and graphical techniques that included Q-Q plots and histogram.

Descriptive analysis was also used to describe the study's sample composition. In this regard, frequencies were generated in SPSS to better understand the demographic makeup of the study participants in terms of gender, age, and educational level as well as the lodge and camp characteristics. Descriptive statistics were also used to rank energy conservation practices implemented by lodges and camps in Kenya, as well as the lodges' and camps' performance.

Regression Analysis

Before performing linear regression analysis to test the hypotheses, the data was examined to see if it met the regression analysis assumption. In addition to the normality described above, these included linearity, autocorrelation, and multicollinearity assessments. Linearity was investigated using SPSS scatter plots. According to the rule of thumb, energy conservation practices, as the predictor variable, should have a straight-line relationship with lodge and camp performance, which is the outcome variable. Pearson's Bivariate Correlation coefficients were used to evaluate autocorrelations, and the coefficients are expected to be low (i.e., $r < .7$). Skewness and kurtosis were used to assess normality, as previously described. Graphical techniques such as Quintile-Quintile plots (Q-Q plots) and histograms were used to supplement this. A variance inflation factor (VIF) threshold value of < 3 was used to assess multicollinearity (Hair et al. 2022).

Data was then subjected to linear regression analysis with lodge and camp performance as the dependent variable and energy conservation practices as the independent variable. To arrive at one construct in each case, the means of the measurement items were computed in SPSS in such a way that the five measurement items for energy conservation and the seven measurement items for lodge and camp performance produced one construct in each case. The regression model is represented by equation 3 as shown.

$Y = \alpha + \beta_1 X_1 + Ɛ$ ……...…Equation 3

Where:

Y-Represents lodge and camp performance

α- the constant of the equation (represents the changes that cannot be explained by energy conservation practices in the model)

$\mathbf{X_1}$-Represents Energy Conservation Practices (ECP)

$\boldsymbol{\beta_1}$, the coefficients of energy conservation practices

Ɛ - error term.

4.0 FINDINGS

Questionnaire Response

Out of the 299 questionnaires distributed, 294 complete questionnaires were returned, resulting in a 98.3 percent response rate.

Data Screening and Cleaning Results

Box plot results generated in SPSS indicated that there were no outliers in the data set. The results (see Table 2) also indicate that the data exhibited normal distribution, though with negative skewness.

Table 2: Mean Ranking of Energy Conservation Practices and Performance of Lodges and Camps

	Skewness		Kurtosis	
	Stat	**SE**	**Stat**	**SE**
Energy Conservation Practices				
Lodges/camp has adopted daylighting initiatives.	-.56	.14	-.56	.28
The lodge/camp make use of renewable energy sources.	-.53	.14	-.36	.28
Lodge/camp has energy efficient lighting e.g., LED bulbs etc.	-.49	.14	-.11	.28
The lodge/camp has installed energy consumption control e.g., installation of occupancy sensors, light controls.	-.66	.14	.06	.28
The lodge/camp has incorporated biomass-fuelled system in place to power its energy needs (green energy).	-.56	.142	.12	.28
Lodge and Camp Performance				
Our customer always reports that they are satisfied with our facility.	-.46	.14	-.44	.28
The lodge/camp experience high number of repeat customers on a regular basis.	-.44	.14	-.26	.28
Our services are ranked high by our customers in terms of efficiency.	-.38	.14	-.57	.28
We are recognised by the local community for fair use of local resources.	-.60	.14	.27	.28
Our guests are always happy to recommend our facility to other potential guests.	-.52	.14	-.20	.28
The lodge/camp has been recognised by other stakeholders for their best practices.	-.42	.14	-.19	.28
Our lodge/camp competitive standings are attributable to our concern for the environment.	-.44	.14	-.16	.28

Note: Stat – Statistics; SE – Standard Error

Demographic Profile

The demographic profile results are highlighted in Table 3. According to the results, the majority of those who completed the questionnaires were male (65.30%), aged between 40-49 years (39.10%), and had attained undergraduate education (60.90%). The findings also indicate that the majority of the lodges and camps (73.13%) considered in this study had not been eco-rated. The remaining 26.87% of the lodges and camps had been eco-rated with facilities eco-rated under bronze category accounting for the least (0.68%) in the eco-rated category.

Table 3: Demographic Profile of Managers and Lodges/Camps

Managers Profile			**Lodge/Camp Profile**		
	Freq	**Percent**		**Freq**	**Percent**
Gender			**Eco-Rating**		
Male	192	65.3	Not Rated	215	73.13
Female	102	34.7	Bronze	2	0.68
Total	294	100.0	Silver	36	12.24
			Gold	41	13.95
Age			**Total**	**294**	**100.0**
20 - 29 Years	14	4.8			
30 - 39 Years	106	36.1	**Year of Existence**		
40 - 49 Years	115	39.1	< 10 Years	70	23.8
50 - 59 Years	53	18.0	10 - 19 Years	112	38.1
60 Plus Years	6	2.0	20 - 29 Years	31	10.5
Total	294	100.0	30 Plus Years	81	27.6
			Total	**294**	**100.0**
Education Level					
Diploma	86	29.3			
Undergraduate	179	60.9			
Postgraduate	29	9.9			
Total	**294**	**100.0**			

Descriptive Statistics of the Study Constructs

Table 4 shows that daylighting initiatives were the most widely implemented energy conservation practices (*M = 4.06, SD =.88*), followed by the use of renewable energy sources such as solar and wind (*M = 4.02, SD =.87*). The incorporation of a biomass-fuelled system

(green energy) was the least implemented energy conservation practice by Kenyan lodges and camps (*M = 3.94, SD =.85*).

Table 4 also shows that the most commonly agreed upon lodge and camp performance in Kenya was guest satisfaction (*M = 3.97, SD =.84*), followed by customer repeat visits to lodges and camps (*M = 3.96, SD =.84*). The agreed-upon performance of lodges and camps in Kenya was lodge competitive standings attributed to environmental concern (*M = 3.87, SD =.84*).

Table 4: Descriptive Statistics of the Study Constructs

Study Constructs and Measurement Items	Min	Max	Mean	SD
Energy Conservation Practices				
Lodges/camp has adopted daylighting initiatives.	2.00	5.00	4.06	0.88
The lodge/camp make use of renewable energy sources.	1.00	5.00	4.02	0.87
Lodge/camp has energy efficient lighting e.g., LED bulbs etc.	1.00	5.00	3.97	0.83
The lodge/camp has installed energy consumption control e.g., installation of occupancy sensors, light controls.	1.00	5.00	3.95	0.87
The lodge/camp has incorporated biomass-fuelled system in place to power its energy needs (green energy).	1.00	5.00	3.94	0.85
Mean Average			**3.99**	
Lodge And Camp Performance				
Our customer always reports that they are satisfied with our facility.	2.00	5.00	3.97	0.84
The lodge/camp experience high number of repeat customers on a regular basis.	1.00	5.00	3.96	0.84
Our services are ranked high by our customers in terms of efficiency.	2.00	5.00	3.94	0.85
We are recognised by the local community for fair use of local resources.	1.00	5.00	3.94	0.84
Our guests are always happy to recommend our facility to other potential guests.	1.00	5.00	3.93	0.87
The lodge/camp has been recognised by other stakeholders for their best practices.	1.00	5.00	3.88	0.84
Our lodge/camp competitive standings are attributable to our concern for the environment.	1.00	5.00	3.87	0.84
Mean Average			**3.92**	

Note: Valid N listwise = 294; Min – Minimum; Max; Maximum; SD = Standard Deviation

1 – Strongly Disagree, 2 -Disagree, 3 – Neither Agree nor Disagree, 4 – Agree, 5 – Strongly Agree

Regression Analysis Results

Regression Assumption Results

According to the regression assumption results (see Table 5), there was no autocorrelation among the study variables, as the correlation between energy conservation practices and lodge performance was < .7 (i.e., r =.55). The scatter plot results (see Figure 1) also show a linear relationship between the variables. The study's data was also normally distributed, as evidenced by skewness and kurtosis values between -1 and +1 (see Table 2). The graphical results of the Q-Q plots (see Figures 2a and Figure 2b) and the histograms support this (see Figure 3a and Figure 3b). The VIF value of 1 (see Table 8) indicates that multicollinearity was not an issue in the variables studied.

Table 5: Correlations

	Energy Conservation	Performance
Energy Conservation	1	
Performance	.55**	1

**. Correlation is significant at the 0.01 level (2-tailed); N = 294

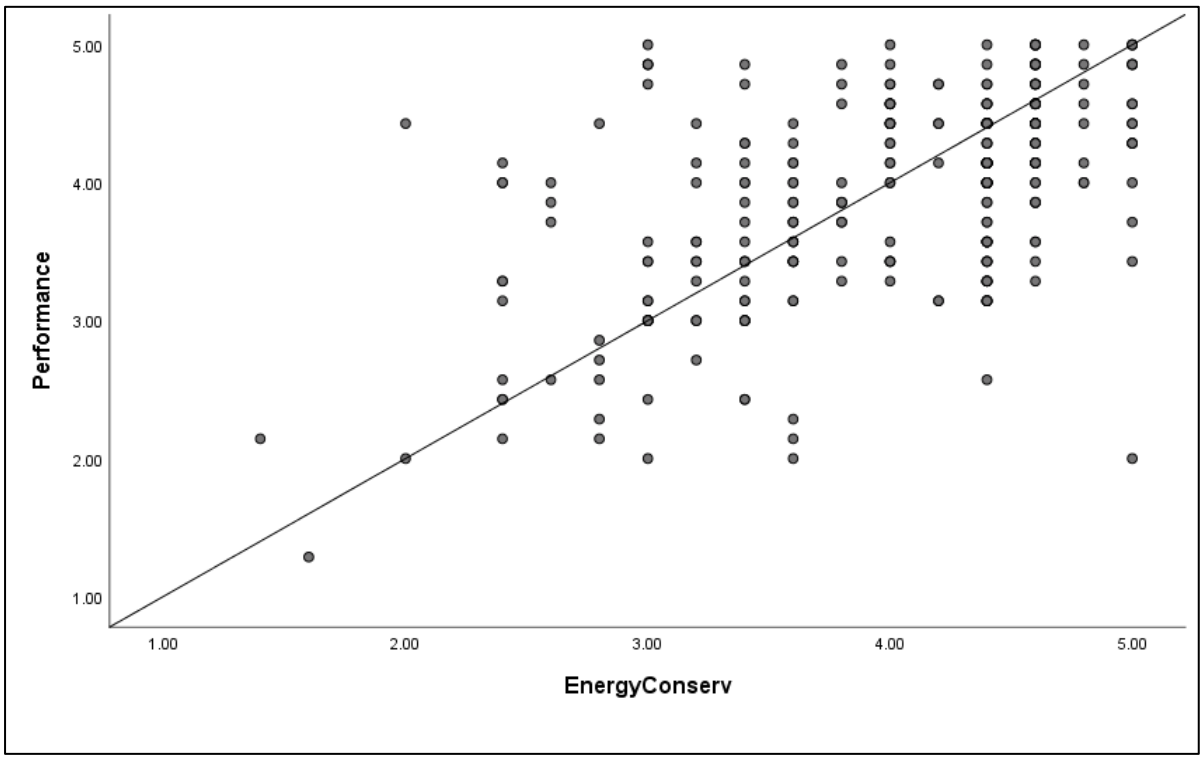

Figure 1: Scatter Plot of Energy Conservation Practices and Lodge and Camp Performance

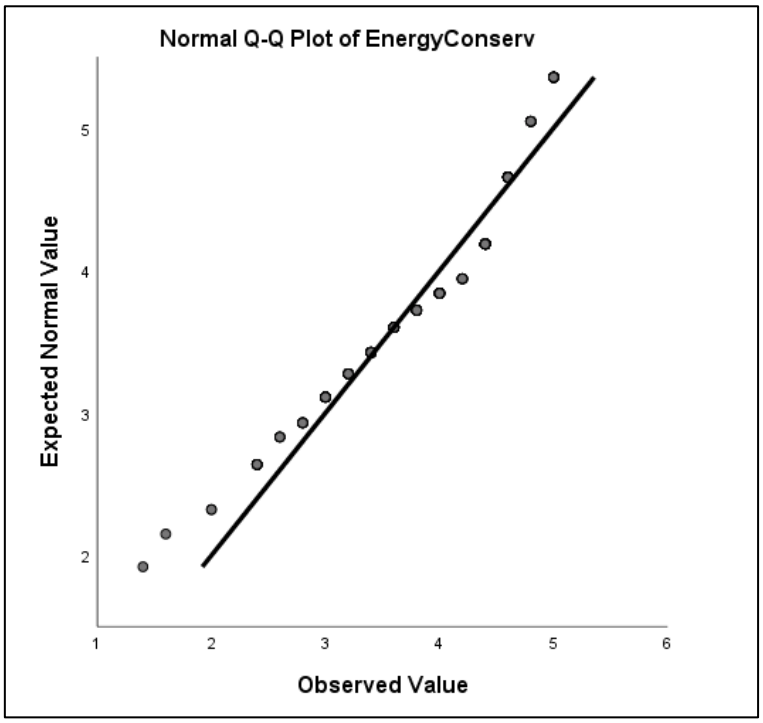

Figure 2a: Q-Q Plot of Energy Conservation Practices

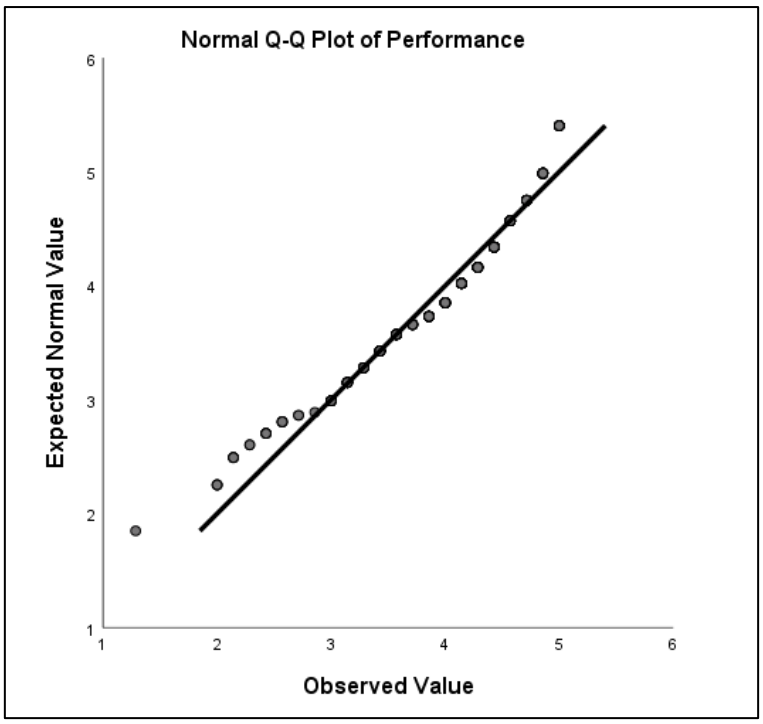

Figure 2b: Q-Q Plot of Lodge and Camp Performance

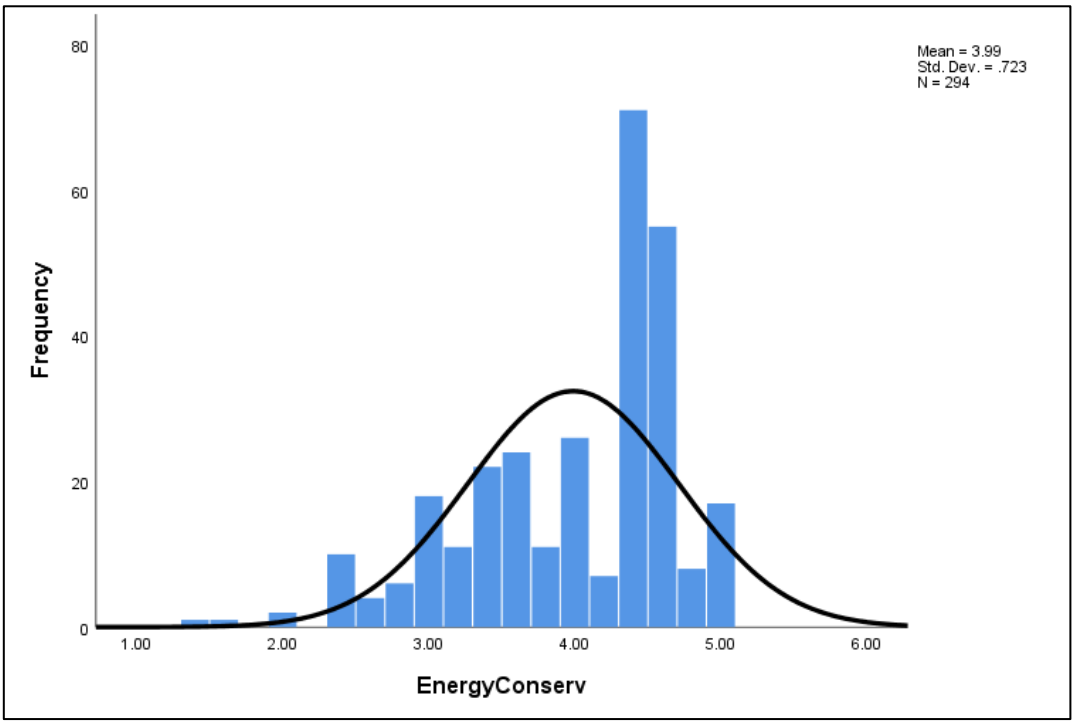

Figure 3a: Histogram of Energy Conservation Practices

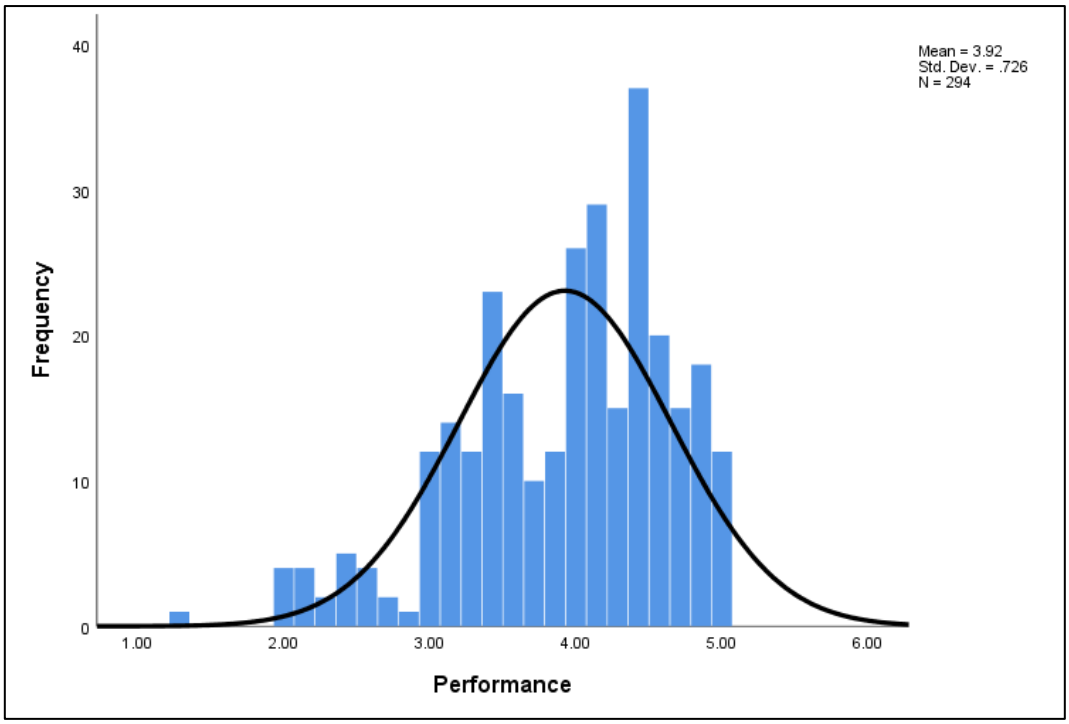

Figure 3b: Histogram of Lodge and Camp Performance

Effect of Energy Conservation Practices on Performance of Lodges and Camps

According to the regression results (see Table 6 and Table 7), the regression model was significant ($F [1, 292] = 124.76$, $p < .001$, $R^2 = .30$), implying that energy conservation practices account for 30% of the variation in performance of Kenyan lodges and camps. Table 8 indicate that energy conservation practices had a significant effect on the performance of Kenyan lodges and camps ($\beta = .55$, $t = 11.17$, $p < .01$). This suggests that a percentage increase in energy

conservation practices implemented by Kenyan lodges and camps would result in .55% increase in performance of Kenyan lodges and camps. As a result, the null hypothesis was rejected, and the alternative hypothesis for the study was adopted.

Table 6: Model Summary

				Change Statistics				
R	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**R Square Change**	**F Change**	**df1**	**df2**	**Sig. F Change**
.55	.30	.30	.61	.30	124.76	1	292	.00

Note: Predictors: (Constant), Energy Conservation Practices; Dependent Variable: Lodge and Camp Performance

Table 7: ANOVA

	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Regression	46.23	1	46.23	124.76	.00
Residual	108.21	292	.37		
Total	154.44	293			

Note: Predictors: (Constant), Energy Conservation Practices; Dependent Variable: Lodge and Camp Performance

Table 8: Regression Coefficients

	Unstandardized Coefficients		**Standardized Coefficients**			**Collinearity Statistics**	
	B	**Std. Error**	**Beta**	**t**	**Sig.**	**Tolerance**	**VIF**
(Constant)	1.74	.20		8.71	.00		
Energy Conservation Practices	.55	.05	.55	11.17	.00	1.00	1.00

Note: Dependent Variable: Performance

Discussions

The study's goal was to evaluate energy conservation practices implemented by Kenyan lodges and camps and to determine their effect on the performance of Kenyan lodges and camps. According to descriptive findings, daylighting was the most widely agreed upon energy conservation practice implemented by Kenyan lodges and camps. Daylighting utilizes natural solar energy and is thus one of the simplest energy conservation practices that does not necessitate a large investment because it is less expensive to implement. This was followed closely by the use of renewable energy sources. Renewable energy sources include the use of solar powered systems as well as wind energy. Because of their geographical location, most lodges and camps are compelled to install solar-powered systems in their facilities, as well as

to comply with eco-friendly practices. This is an attribute considered in their eco-rating in order to obtain a specific eco-rating scheme.

Lodges and camps in Kenya strive for eco-rating and will take advantage of any opportunity to ensure they meet the set criteria for eco-rating. While lodges and camps in Kenya indicated the use of green energy by incorporating a biomass-fuelled system to meet their energy needs, the results showed that this was the least used practice. This could be due to the fact that installing a biomass-fuel system requires a significant financial investment, so not all lodges and camps would readily implement such systems and would instead opt for alternative systems such as solar and wind power. The findings corroborate those of Cingoski and Petrevska (2018), who reported that three-to-five-star hotels in Macedonia primarily used renewable energy and energy-efficiency systems as energy-saving strategies.

The regression results also revealed that energy conservation practices had a significant effect on the performance of Kenyan lodges and camps. Energy conservation practices implemented by lodges and camps in Kenya would portray such organizations as environmentally conscious, earning them high ratings and recognition from stakeholders. Energy efficiency and energy control systems implemented within the facility reduce energy consumption, which improves operational efficiency. Environmentally conscious customers would be drawn to such facilities, resulting in increased patronage, high satisfaction, and positive feedback about the lodges and camps.

The current study's findings support the findings of numerous other studies (e.g., Kularatne et al., 2019; Moise et al., 2021; Zareh et al., 2023) that reported a positive impact of energy conservation practices on the performance of hospitality organizations. For example, Kularatne et al. (2019) reported that energy conservation practices improved the operational efficiency of medium and large-scale hotels in Sri Lanka. The findings also support the findings of Moise et al. (2021), who reported that the implementation of environmentally friendly practices by 3- and 4-star hotels in Bogota, Colombia had a positive impact on the image of the hotels surveyed, as well as guest trust and satisfaction. The current study's findings, however, contradict those of Langgat et al. (2023) and Barakagira and Paapa (2023). Langgat et al. (2023) found no significant effect of energy conservation practices on the performance of 3-5-star hotels in Malaysia in their study. Similarly, Barakagira and Paapa (2023) found that energy conservation practices had no effect on the performance of 4- and 5-star hotels in Uganda's Kampala district.

5.0 CONTRIBUTIONS, CONCLUSIONS AND RECOMMENDATIONS

Research Contributions

The current study makes theoretical and empirical contributions to environmentally friendly practices and the performance of Kenyan lodges and camps. This study looks into the relationship between energy conservation practices and performance in Kenyan lodges and camps. In Kenya, there is little literature on energy conservation practices and how they affect the performance of lodges and camps, despite the fact that these facilities are in excellent condition to encourage such research. As a result, this study contributes to research that focuses on eco-friendly practices, such as energy conservation, as determinants of lodging facility performance.

Conclusions

Kenyan hospitality establishments, including lodges and camps, have reportedly been chastised for having a negative impact on the environment, severely affecting their performance ratings. As a result, environmentally conscious agents are increasingly urging hospitality organizations

to incorporate environmental practices into their operations. The purpose of this study was to evaluate energy conservation practices used by lodges and camps in Kenya and to determine their effect on lodge and camp performance. According to the findings, Kenyan lodges and camps mostly implemented energy conservation practices involving the use of renewable energy sources and energy efficient systems. Overall, the findings indicated that energy conservation practices have a significant effect on the performance of Kenyan lodges and camps. As a result, the study recommends that lodge and camp managers in Kenya focus on implementing energy conservation practices, such as use of renewable sources of energy and installation of energy efficient systems in order to achieve positive performance ratings by stakeholders in the industry.

Recommendations

While this study provides important insights into energy conservation practices and the performance of Kenyan lodges and camps, it did not take into account variables such as lodge age and other control variables on these relationships. Future research could look into the moderating effects of such factors on the relationship between energy conservation practices and lodge performance. Future research could also consider evaluating guests' and the community's opinions on the subject and comparing their findings to those of this study.

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