Fostering Market Penetration Strategies for Sustainable Conservation of Heritage Sites in Nyeri County, Kenya

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Abstract

Sustainable conservation has become popular in tourism, accepted by developers and stakeholders as an economically viable, socially acceptable, and environmentally friendly model for heritage tourism development models. However, heritage tourism encounters challenges like cultural commercialization, deterioration, development pressure, marketing gaps, and insufficient maintenance. Consequently, Kenya has prioritized long-term heritage tourism development goals to realize Vision 2030. This paper examines how market penetration strategies can leverage the sustainable conservation of heritage sites in Nyeri County, Kenya. The study adopted a cross-sectional descriptive survey design, targeting the local community members, tourists visiting the heritage sites, key informants from the local government of Nyeri, officials from the National Museums of Kenya, and site supervisors. The sample size was 762 respondents, 11 were interviewed, and 752 were administered questionnaires. The results of correlation analysis revealed that market penetration strategies exhibited a positive and statistically significant relationship with sustainable conservation ($r=0.620, P=0.000$), explaining 38.4% of heritage sites' sustainable conservation variations. The study concludes that market penetration catalyzes the sustainable preservation of heritage sites. The study recommends integrating heritage sites into the County's economic plans and employing a comprehensive approach that engages the local community at all stages. This approach should encompass these sites' social, cultural, and economic importance for the local population. Furthermore, the findings highlight the need for a collaborative effort involving multiple government levels and diverse agencies to develop, expand, and market heritage products, with due consideration for biodiversity conservation.

Keywords: *Biodiversity, Heritage Sites, Market Penetration Strategies, Nyeri County, Sustainable Conservation, Tourism.*

1.0 Introduction

Tourism is a rapidly growing economic sector that involves interactions among the host community, tourists, the environment, and suppliers. The industry employed 272 million people globally in 2020 but experienced an 18.5% decline in employment due to coronavirus disease (COVID-19). It also contributed $4671 billion to the world's GDP but experienced a drop from $9170 billion in 2019 (World Travel and Tourism Council (WTTC), 2021). In Africa, tourism provided 17.5 million jobs and contributed $86 billion to the region's GDP in 2020. However, Europe outperformed Africa with 34.9 million jobs and contributed $1,065 billion to Europe's GDP (WTTC, 2021). The industry has been ranked third in Kenya in Sub-Saharan Africa (Nyasuguta, 2019), just behind Nigeria and South Africa. The Kenyan government has aggressively supported the industry through policy formulations and positive publications (Ministry of Tourism, Wildlife, and Heritage (MTWH), 2020). In 2019 the sector recorded 2.03 international visitors, with a considerable drop to slightly over half a million in 2020, due to COVID-19 (Kenya National Bureau of Statistics (KNBS), 2019, 2020, 2021).

Despite these efforts, the sector has been dismally performing, especially after the 2007 post-election violence that resulted in negative travel advisories and insecurities. The above performance statistics only depict a small percentage of the Kenyan tourism sector's full potential, even as the Kenyan government, through the MTWH, continuously formulates tourism policies to revive the industry. Some policy documents, like the National Tourism Blueprint (NTPB 2030), recommend vigorous product and service diversification to move away from safari and beach tourism. Further, the document recommends reviving, conserving, and marketing heritage (natural and cultural) sites (Government of Kenya (GoK), 2017). Heritage tourism, making the focus of the current study, has a vast potential to support tourism development through its sustainable conservation frameworks.

In recent years, tourism's rapid changes have caused discussions on conserving heritage sites. The International Council on Monuments and Sites (ICOMOS) has expressed concerns over the potential extinction of heritage sites due to tourism, lack of maintenance and use, natural disasters, development pressures, and conflicts (Machat & Ziesemer, 2019). To preserve and develop natural and cultural heritage sites, conservation is viewed as a three-dimensional approach to sustainability, encompassing socio-cultural continuity, environmental protection, and economic prosperity. Therefore, heritage conservation now includes technical aspects such as repair, restoration, authenticity, historical value preservation, and aesthetic value maintenance for architects. These sites serve as a memory resource for ancient cultures and market identity, providing tangible and intangible records of history.

Marketing is increasingly used to revive these heritage sites and remain competitive in the volatile tourism market. Understanding the market and its buying behavior is crucial to satisfy customers and ensure profitability. Despite challenges in considering heritage sites as viable tourism products, a marketing approach can link cultural assets to local economies and social development. Whether dealing with low visitation or overcrowding, "marketing management and planning actions are needed to control the visitor experience and minimize impacts" (Vinodan & Meera, 2022).

1.1 Statement of the Problem

The Kenyan government aims to expand and promote its tourism offerings through the National Tourism Blueprint 2030 (GoK, 2017, 2020). However, the National Museums of Kenya (NMK) report for 2017-2019 reveals that cultural heritage sites are not adequately marketed to support conservation. This is due to an overemphasis on safari and beach tourism, while heritage tourism has received less attention and faced challenges such as inappropriate use, lack of

maintenance, over-development, and natural impacts (Alhefnawi, 2017; Machat & Ziesemer, 2019; NMK, 2020). Further, the NTBP 2030 identifies core weaknesses, such as inadequate marketing budgets and overlapping roles of national and County governments resulting from devolution since 2010, that contribute to the collapse of potential in this niche sector (GoK, 2017).

However, a few studies have examined sustainable conservation from technological, strategic innovations, and community role-based approaches (Alhefnawi et al., 2021; Zhang *et al.,* 2021), yet little shows the connection to marketing strategies. For example, Guerrero and Soria (2018) reaffirm the need to re-engineer the traditional heritage-architectural models in Mexico towards sustainable conservation. Chinyele and Lwoga (2019) used Arnstein's participation model in Tanzania and identified that tokenism drives locals' attitudes to participate in conservation. Lastly, Vandesande et al. (2018) identified planned and preventative conservation-based programs that promote the development of heritage conservation. The above studies are limited to case study nature, qualitative approaches, and narrow scope on urban or in-built heritage in developed states. Therefore, the current sought to close these gaps by examining the influence of marketing strategies on the sustainable conservation of heritage sites in Nyeri County.

2.0 Literature Review

2.1 Concept of Sustainable Conservation

Sustainable conservation requires maintaining quality systems and responsible practices to protect heritage relics (Pirok et al., 2019). This aligns with the clarion call from UNESCO's World Heritage Convention and the sustainable development goals (SDGs), particularly SDG 12 and SDG14, which emphasize responsible production, consumption, and integration of sustainable management (Vinodan & Meera, 2022). Following the economic developments, heritage sites' conservation is still incomplete, despite being threatened by industrialization and natural decay. Therefore, heritage site conservation should be incorporated to preserve, conserve, reconstruct, and continue the restoration of heritage structures and activities. This will maintain the society's social-economic and political values (El *et al.,* 2022).

2.2 Market Penetration and sustainable conservation

Qiu (2021) examined the proponents of market penetration strategies among African enterprises. The study used hierarchical linear modeling. The findings revealed that countries with a stable and convenient product-market business environment adopt market penetration to outperform competitors. These findings agree with Auma and Waithaka's (2020) and Waithaka and Mwangi's (2020) studies. They found market penetration strategies key to the efficiency of small and medium enterprises, the education sector, and agrochemical industries in Kenya and Nigeria. These were qualitative studies with a general scope, hence the need for local research with mixed methods to fill these contextual and methodological gaps.

Although in different years, Luvusi and Muthoni (2019) and Bulle (2020) studied market penetration strategies used by Telkom Kenya Limited and their influence on Teleco's sustainability. While using a descriptive design, Luvusi and Muthoni (2019) identified that market penetration significantly impacted performance. Conversely, Bulle (2020) used regression analysis and found that the marketing mix components helped Teleco achieve its marketing goals. Both studies recommended understanding the market's buying behaviors before designing a market penetration strategy. These were case studies in the telecommunication industry, hence the need to adopt a data analysis triangulation with a broader scope in a heritage tourism setting.

Chandola and Fu (2017) examined a multi-case study on the efficacy of market penetration approaches used by China Smartphone Companies in India. Following a multi-case study methodology, four key informants were interviewed on the practical marketing policies of Chinese mobile phone brands entering the Indian market. Similarities in the company's business models were evident in the results linked to their customer segment strategies in creating innovative products affordable by a more comprehensive market network. However, this study used a multi-case methodology, leading to a higher restriction of the study's conclusion (Kumar, 2016). In contrast, the current study used a broader scope and incorporated triangulation in methodology to generalize its findings.

2.3 Theoretical Framework

Igor Ansoff introduced the marketing theory in 1957, which helps marketing managers identify opportunities for their strategies in a firm. The theory suggests that a firm can gain a competitive advantage by adopting one or a combination of four strategies: product development, diversification, market development, and market penetration. Market penetration focuses on increasing sales in existing markets, while product development introduces new products/services to the existing market. Market development involves entering new markets with existing products, and diversification explores new markets with new offerings. These strategies differ in risk levels and require different marketing approaches (Ansoff, 1957). Applying this theory to sustainable conservation marketing benefitted cultural heritage sites in Nyeri County, enabling them to adapt to existing markets and explore new ones. The other theoretical foundation was based on sustainable development discussions, which go beyond mere development to encompass conservation (Gebrehiwot & Gebre, 2015). Sustainable conservation emphasizes the prudent use and preservation of tourism resources for current and future generations. It considers economic, environmental, social-cultural, and even social-political aspects. The World Bank report supports adopting quality development that addresses poverty alleviation (Connelly & Sam, 2018). Sustainable conservation involves interrelated disciplines and techniques, with the tourism industry benefiting from marketing policies and stakeholder engagement. This theory provided a foundation for understanding sustainable conservation in heritage sites.

3.0 Methodology

Study Area and Research Design

The study focused on Nyeri County, which covers an area of 3,356 km² and consists of eight sub-counties: Kieni East, Kieni West, Mathira East, Mathira West, Nyeri Central, Nyeri South, Mukurwe-ini, and Tetu (Kenya National Bearaue of Statistics, 2019). Nyeri County was chosen due to its potential for heritage tourism, as it is home to more than 30 documented cultural sites within the central Kenya Tourism Circuit. The research centered on four cultural heritage sites: the Mau Mau caves in Narumoru, Baden Powell Grave and Cottage-Paxtu, Chinga Dam in Mukurweini, and Nyeri Museum in Nyeri Town. These sites were selected based on their popularity among tourists, as evidenced by visitor statistics within the County (County Government of Nyeri, 2022a). Furthermore, these sites have been recognized by UNESCO for their potential in heritage and sustainable tourism (County Government of Nyeri, 2020). The study employed a cross-sectional descriptive survey research design (Kothari & Gaurav, 2014), allowing for quantitative and qualitative data collection and analysis. This mixed methods approach was chosen to gain comprehensive insights and explore the relationship between marketing strategies and the sustainable conservation of heritage sites in Nyeri County.

Target and Study Population

The study aimed to gather insights and in-depth analysis of the marketing strategies used by heritage sites and their impact on the sustainable conservation of the sites. The research targeted three groups: tourists visiting four heritage sites, residents within the site areas, and 11 key informants, including NMK-Nyeri branch staff, a Nyeri County tourism official, and site supervisors. To determine the number of visiting tourists, familiarization tours and a pretesting period were conducted at the sites. Official data collected from site supervisors revealed that the Mau Mau caves had an average of 15 tourists per day during off-peak seasons and 50 tourists per day during peak seasons. Similarly, Baden Powell Grave and Cottage-Paxtu had an average of 20 tourists per day during off-peak seasons and 55 per day during peak seasons. The third site, Chinga Dam, had an average of 15 tourists per day during off-peak seasons and 65 tourists per day during peak seasons, while Nyeri Museum had an average of 30 tourists per day during off-peak seasons and 100 tourists per day during peak seasons.

Since the study was conducted during the peak season, the peak values were used to calculate the target population for the 27 days of data collection in May 2023. The target population of residents was 314,896 based on the 2019 census data from KNBS. The study employed a combination of stratified random sampling and proportionate sampling methods to select participants from the local population, ensuring equal opportunities for all respondents. Tourists visiting the heritage sites were selected using a simple random sampling technique. Additionally, all 11 key informants were included in the study, adopting a census approach as recommended by Saunders et al. (2016). The sample size for the local community members and the tourists drawn from the four heritage sites was calculated using the Krejcie and Morgan (1970) formula. Therefore,

$$s = \frac{3.841^2 * 7390 * 0.5(1-0.5)}{0.05^2(7390-1) + 3.841^2 * 0.5(1-0.5)} = 367 \text{ tourists}$$

$$s = \frac{3.841^2 * 314896 * 0.5(1-0.5)}{0.05^2(314896-1) + 3.841^2 * 0.5(1-0.5)} = 384 \text{ locals}$$

To get the sample size for each heritage site and locals in the surrounding area, proportionate sampling was used using the formula shown below:

The sample size for tourists in a site= (targeted population in a site/total population for all sites) *367[calculated sample]

The sample size for locals surrounding the site= (targeted population in a site/total population for all sites) *384[calculated sample]

Each heritage site got its sample share based on the proportion values. Further, the study used all the key informants in the sampling, making the total sample size 751, comprising 367 tourists, 384 locals, and 11 key informants.

Pretesting, Validity, and Reliability

The pretest for the study was conducted at the Italian Memorial Church from the 4th to the 11th of May, 2023. A total of 20 participants, five from each site, were randomly selected for this pretest. These participants were not part of the main study population for the heritage site chosen. Their role was to assist the researcher in reviewing the questionnaire for grammatical errors, question tone, and difficulty level. This collaborative effort aimed to make necessary adjustments to ensure clarity of the questions before the actual study. During the pretest, valuable input was provided by study supervisors, two site managers, and one official from

NMK. These individuals later became part of the actual study sample during the field study. The pretesting was conducted in person to observe the respondents' reactions and attitudes while providing their responses. The validity of the study instruments was assessed through content and internal validity tests. Participatory research methods were used to ensure accuracy and reliability, involving continuous engagement with supervisors who provided valuable insights. Likert scales utilized in the study were adapted from established and validated measures used in previous research. To validate the findings, a reliability test was conducted using internal consistency reliability, specifically Cronbach's alpha, to assess the study's constructs. A minimum alpha value of 0.7 is recommended for establishing reliability (Tavakol & Dennick, 2011). The results showed that all study constructs had alpha values greater than 0.7, market penetration (0.743), and sustainable conservation (0.799), thus concluding their reliability. Additionally, inputs from supervisors and feedback from respondents during the pretesting phase were incorporated to enhance the reliability of the interview schedule, including the tone, grammatical errors, and purpose of the questions.

Data Collection and Analysis

The data collection process for this study followed several steps. First, the study proposal was approved by the Graduate School of Kenyatta University, and a research license was obtained from National Commission for Science, Technology, and Innovation (NACOSTI), allowing for field study within 12 months. Two research assistants were then recruited and trained in ethical data collection procedures. Before administering questionnaires, the researcher obtained respondents' consent to ensure their participation agreement. The data collection period occurred from May 15 to June 12, 2023. In addition to questionnaires, interviews were conducted with key informants. These interviews took place through face-to-face interactions and Zoom calls, providing flexibility for both the researcher and interviewees, considering their busy schedules. Detailed notes were taken during the interviews to capture qualitative data, which were later organized thematically and integrated with the quantitative findings. Quantitative data collected from tourists and local community members were cleaned and coded using the Statistical Package for Social Science (SPSS). This process aimed to facilitate easy analysis. After ensuring missing data was absent, descriptive analyses were performed, including frequencies, standard deviations, means, and percentages. Inferential analyses, such as correlation and simple regression, examine relationships and correlations between variables. Qualitative data from interviews with key informants were carefully recorded and transcribed for analysis. A content analysis was conducted to identify and integrate thematic elements with the quantitative results before reporting the findings.

In summary, the study utilized a regression model with the formula:

$Y = \beta_0 + \beta_1\chi_1 + \varepsilon$.

Here, Y represents sustainable conservation, β_0 denotes the constant term, β_1 signifies the coefficients, χ_1 refers to market penetration strategies, and ε represents the error term.

Test of Assumptions

After cleaning and coding the data, diagnostic tests were conducted as a prerequisite for regression analysis. The first test focused on data normality, which is crucial for parametric analyses like linear regressions. In this study, the Kolmogorov-Smirnov test was used to assess normality, with a significance value of 0.05 indicating data normality. Table 1 shows that the predictor and predicted variables in the study had significance values exceeding 0.05, confirming data normality.

Table 1: Normality Test Results

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Market penetration strategies	.042	497	.155	.982	497	.304
Sustainable conservation	0.651	497	.512	.857	497	.621
a. Lilliefors Significance Correction						

The second test examined multicollinearity, which assesses the correlation among independent variables. High correlation can impact the accuracy of regression results and decrease the reliability of findings. Tolerance and variance inflation factor (VIF) values are commonly used indicators to identify multicollinearity. In this study, values greater than 0.1 (for tolerance) and 10 (for VIF) suggest the presence of multicollinearity. Table 2 indicates that the independent variable had tolerance values greater than 0.1 and VIF values greater than one (1), indicating the absence of multicollinearity.

Table 2: Collinearity Statistics

Independent Variable	*Tolerance*	*VIF*
Market penetration strategies	.641	1.560

The last test, linearity, compared the means of the dependent and independent variables. Table 3 shows a significant deviation (.734 > 0.05) between market penetration strategies and the sustainable conservation of heritage sites, suggesting a linear relationship between these variables. These results confirm the presence of linearity, supporting the use of a linear regression model to examine the direct impact of marketing strategies on the sustainable conservation of heritage sites. Therefore, a linear regression model was employed, considering nine (9) sub-variables associated with the independent variable.

Table 3: Linearity Test

ANOVA Table			Sig.
Market penetration strategies * sustainable conservation	Between Groups	(Combined)	.000
		Linearity	.000
		Deviation ifrom iLinearity	.734

Logistical and Ethical Considerations

The data collection process for this study involved recruiting research assistants who received training on May 2, 2023. The training covered important aspects such as participant confidentiality, informed consent, and data collection techniques. A budget schedule was created to outline expenses, and a research schedule was established to determine the timeframe

for data collection. Following ethical guidelines, the field data collection occurred from May 15 to June 12, 2023.

To ensure ethical standards, participants were provided with a clear explanation of the research's purpose and significance. Measures were implemented to prevent misconduct, such as data falsification or fabrication. Participant responses were anonymized using study codes instead of personal information to maintain confidentiality. Participants were also assured that the research was solely for academic purposes and not driven by financial interests. Proper approval and authorization were obtained from the university's graduate school and NACOSTI, adhering to ethical guidelines for data collection.

4.0 Findings and Discussions

The study's objective was to determine the influence of market penetration strategies on the sustainable conservation of heritage tourism sites in Nyeri County. The analysis of this objective and the hypothesis (H0) are described in subsequent sections.

Descriptive Statistics for Market Penetration Strategies

To assess respondents' agreement on market penetration strategies, a 5-Likert scale was used, presenting nine statements (S1-S9). Table 4 provides descriptive statistics, including standard deviation (σ), means ($\bar{X}$), and percentages.

Table 4: Descriptive Statistics for Market Penetration Strategies

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	$\bar{\chi}$	σ
S1	35.8%	26.8%	20.1%	8.7%	8.7%	2.28	1.269
S2	56.5%	16.5%	8.7%	10.1%	8.2%	1.97	1.341
S3	45.9%	38.8%	7.2%	6%	2%	1.79	0.956
S4	22.5%	44.3%	11.9%	13.7%	7.6%	2.40	1.194
S5	20.1%	26%	32.8%	14.5%	6.6%	2.62	1.153
S6	29.6%	39.6%	18.3%	9.7%	2.8%	2.16	1.046
S7	41.9%	33%	17.5%	6.2%	1.4%	1.92	0.993
S8	28.4%	27.8%	25.8%	11.7%	6.4%	2.40	1.196
S9	52.3%	31.2%	8.7%	4.6%	3.2%	1.75	1.013
Average						**2.1438**	**0.649**

The results in Table 4 indicate that 62.6% of respondents agreed that the sites emphasize marketing efforts in the current product markets, while 17.4% disagreed and 20.1% were unsure (S1). Additionally, 73% reported that the site achieves sales of existing products in existing markets, with 18.3% disagreeing and 8.7% unsure (S2). Similarly, 84.7% agreed that the sites use market penetration strategies to enter new markets and develop their businesses, with 8% disagreeing and 7.2% unsure (S3). Regarding advertisement, 66.8% agreed that the sites consistently use advertising initiatives and significant expenditures to acquire more customers, while 21.3% disagreed and 11.9% were unsure (S4). Furthermore, 46.1% agreed that the heritage sites intentionally use R&D and innovations to improve product and service quality for customer satisfaction, while 21.1% disagreed and 32.8% were unsure (S5).

Regarding competitive entry/visitation fees, 69.2% agreed that the sites use such pricing to attract more tourists, 25.5% disagreed, and 18.3% were unsure (S6). Moreover, 74.9% believed that the sites employ value-based pricing appealing to customers with lower finances, with

7.6% disagreeing and 17.5% unsure (S7). Likewise, 56.2% of respondents expressed that market penetration strategies used by the sites create goodwill among the first customers due to aggressive pricing, while 18.1% disagreed and 25.8% were unsure (S8). Lastly, 84.5% acknowledged that the sites have ventured into market segmentation, with 7.8% disagreeing and 8.7% unsure (S9). Overall, the computed mean for all statements on the 5-point Likert scale was 2.1438, suggesting that respondents generally agreed with market penetration strategies. The standard deviation of 0.649 indicates variations in responses.

Content Analysis for Market Penetration Strategies

Using content analysis, qualitative data from key informants were examined, revealing four main themes: pricing, research and development/innovation, advertising, and utilization of existing markets/products.

Regarding pricing, interviewees expressed the need for heritage sites to revamp their pricing strategies. They suggested tailoring prices based on market segmentation, targeting high-end international clients and local markets. Interviewees emphasized the potential of student pricing packages to attract more visitors from learning institutions. Two interviewees noted that:

"*It is not enough to target high-end clients like internationals. The sites can capitalize on favorable local markets and pricing clusters*" IN10.

"*There is great sales potential from learning institutions. The sites can develop student pricing packages to boost the numbers and reach wider markets*" IN11.

Regarding research, innovation, and advertising, interviewees believed these responsibilities should be assigned to relevant tourism ministries. They recommended benchmarking successful heritage tourism practices from countries like France and expressed the need for marketing agencies like Magical Kenya to prioritize heritage sites. They noted that:

"*Our ministries can benchmark with countries doing well in heritage tourism like France. This can help us leverage what we have using their innovations*" IN06.

"*We have enough marketing agencies like Magical Kenya, only that they do not prioritize heritage sites*" IN01.

Regarding existing markets and products, interviewees had mixed views. While acknowledging the limitations of diversifying existing products, they emphasized the importance of expanding existing markets. Collaboration with enterprises near heritage sites was suggested to establish businesses that benefit visitors strategically. Additionally, the importance of educating the public about heritage value was highlighted. Notable comments are shown below.

"*We can collaborate with enterprises to ensure they strategically establish businesses which are beneficial to our customers, near our heritage sites*" IN07.

"*We only need to sensitize more people, educate them on the importance bestowed on our heritage value*" IN09.

The above sentiments show the need to educate the masses on the importance of our culture and history and to have more visitations to the heritage sites. In addition, such heritage sites' pull and push effect can also be nurtured through collaborative frameworks with other businesspeople to ensure tourists visiting the sites can benefit from surrounding businesses like hotels.

Inferential Statistics: Market Penetration Strategies and Sustainable Conservation

A regression model was used to examine the relationship between market penetration strategies and the sustainable conservation of heritage sites. The results in Table 5 indicate a positive correlation between market penetration strategies and the sustainable conservation of heritage sites (R=0.620). The model revealed that market penetration strategies account for 38.4% (R^2=0.384) of the variation in sustainable conservation, while 61.6% remains unexplained. The F-statistics value of 308.425 was significant (P=0.000) at a 95% confidence level.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig.
					Change Statistics				
1	.620ª	.384	.383	.45571	.384	308.425	1	495	.000

a. Predictors: (Constant), Market penetration strategy
b. Dependent Variable: Sustainable conservation

Consequently, the ANOVA statistics in Table 6 demonstrate that the model examining the connection between market penetration strategies and the sustainable conservation of heritage sites was statistically significant. This is indicated by the F-statistic of 308.425 and a probability value of 0.00 (p<0.05). As a result, the null hypothesis (H_O) stating that market penetration strategies have no significant impact on the sustainable conservation of heritage sites in Nyeri County was rejected.

Table 6: ANOVA Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	64.050	1	64.050	308.425	.000ᵇ
	Residual	102.796	495	.208		
	Total	166.847	496			

a. Predictors: (Constant), Market penetration strategy
b. Dependent Variable: Sustainable conservation

Further, Table 7 presents the regression coefficients for the model. The analysis reveals a positive and significant relationship (β=0.60, p=0.000) between market penetration strategies and the sustainable conservation of heritage sites in Nyeri County. This implies that a unit change in market penetration strategies is associated with a 0.553-unit increase in the sustainable conservation of heritage sites in Nyeri County.

Table 7: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.779	.071		11.043	.000
	Market penetration strategies	0.553	.032	.620	17.562	.000

a. Dependent Variable: Sustainable conservation

Therefore, the specific model for market penetration strategies regressed against sustainable conservation is illustrated as follows:

Sustainable Conservation = 0.779+0.553 (Market penetration strategies)

Test of Hypothesis (H₀2)

The study aimed to test the null hypothesis that market penetration strategies have no significant impact on the sustainable conservation of heritage tourism sites in Nyeri County. A simple linear regression analysis was conducted, and the decision to reject the null hypothesis was based on comparing the calculated t-value with the critical value of 1.96. As shown in Table 7, the results revealed that the calculated t-value of 17.562 exceeded the critical value of 1.96, leading to the rejection of the null hypothesis. Thus, the study accepted the alternative hypothesis, indicating a positive association between market penetration strategies and the sustainable conservation of heritage sites in Nyeri County.

Discussion of Findings

The overall results from the null hypothesis revealed that market penetration strategies had a positive and statistically significant relationship with the sustainable conservation of heritage sites in Nyeri County. From the proxy measurements of market penetration strategies, there is a need to have consistent advertising campaigns within the existing markets and channel resources and efforts into R&D and innovations, which will spur tourists' interest. This implies that heritage sites should strive to see their products and services marketed more, and more importantly, the public need to be educated on the value attached to Kenyan history, culture, and heritage.

From the empirical standpoint, Abiero et al. (20117), Giliberto and Labadi (2022), and Zhang et al. (2023) findings resonate with this study on different grounds. For example, Abiero et al. (2017) contend that market penetration using traditional and non-traditional marketing models will lead to the socio-economic performance of the heritage sites and spur the preservation of artifacts and the environment. Further, Giliberto and Labadi (2022) highlight that the modern tourist intending to visit the heritage sites will receive the marketing information, visit the heritage site, share his/her findings, and the results of all these get interesting. According to them, such endeavors would spring three things, (1) tackle poverty levels in areas surrounding the site (through tourism receipt), (2) promote gender equality cum women empowerment (more feminists if conveniences will be advocated for such visitations), and (3) environmental awareness and sustainability (Zhang et al., 2023). Although these authors have gender and women empowerment issues, this goes beyond this study's scope. However, they vividly open a door for further investigations on how much can be achieved through market penetration strategies.

On the other hand, Wang et al. (2021) believe that market penetration may only promote activities that are entirely related to economic development as opposed to other sustainability issues (environmental preservation and social-cultural values). While this can be true to some extent for those heritage site managers who intend to capitalize on economic gains, environmentalists and gender activists are now coming up to defend the marginalized. According to Amer (2019), such inefficiencies should be addressed by having the market penetration models address and promote the absolute heritage values anchored on an all-accommodative structured market penetration strategy.

Finally, the qualitative findings indicated the need to have R&D and innovations as well as aggressive advertisements. These issues can be harnessed, with the adoption of technologized marketing, while not forgetting the traditional marketing models. Further, R& D initiatives can take an institutional framework for it to work. As such, it would encapsulate good governance

(County and National governments), community engagement agencies (with locals as vital stakeholders), and using supranational institutions (UNESCO) to have a well-structured market penetration strategy (Mzembe et al., 2023).

5.0 Conclusions and Recommendations

The study determined the influence of market penetration strategies on the sustainable conservation of heritage tourism sites in Nyeri County. The study findings show a positive correlation between market penetration strategies and the sustainable conservation of heritage tourism sites. This was evident through the marketing and selling of heritage products in current/existing markets, R&D, consistent advertisements, and innovations. This signifies the value of collaborative mechanisms with businesses around heritage sites and radical education of the locals on the importance of integrating heritage value in the tourism industry. Therefore, with the help of the County and National governments, any financial and policy issues related to implementing a market penetration strategy should be actualized smoothly. The use of market penetration strategies as a tool to enhance the sustainable conservation of heritage sites should be incorporated by all. The Kenyan government (national) through the Ministry of Tourism, Wildlife, and Heritage (through their ministerial representatives) should benchmark globally with renowned heritage tourism pioneers like Germany (in Europe), South Africa (in Africa), and the United States of America, to understand the best marketing penetration practices and managerial models. The best and applicable practices should be replicated in Kenya to ensure destinations like Nyeri County accelerates and actualizes their recognition by the UNWTO as a "potential heritage tourism destination."

While this study looked at how marketing strategies, based on Ansoff's theory, influence sustainable conservation, future studies should investigate how technology explicitly shapes the future of marketing strategies geared to promote sustainability within heritage tourism sites. Future studies should examine the specific aspects of market penetration and how they influence specific sustainable conservation proponents like socio-cultural, economic, or environmental protection. Consequently, this study used a cross-sectional descriptive survey approach. Future studies could adopt pure qualitative approaches to gather in-depth analysis of the study variables.

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