PRINT-ISSN: 3122-0525
E-ISSN: 3121-889X

EFFECT OF SUSTAINABLE TOURISM PRACTICES ON DESTINATION COMPETITIVENESS IN CROSS RIVER STATE, NIGERIA

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Abstract
This study investigated the effect of sustainable tourism practices on destination competitiveness in Cross River State, Nigeria. It was prompted by the growing role of sustainable tourism in enhancing environmental conservation, cultural preservation, community development, and long-term tourism growth. Despite the state's tourism potential, challenges such as environmental degradation, inadequate infrastructure, poor waste management, insecurity, and limited community involvement hinder destination competitiveness. The study examined the effects of environmental sustainability, community participation, cultural heritage preservation, sustainable tourism infrastructure, and waste management on destination competitiveness. Using a survey design, data were collected from 300 tourism stakeholders through stratified and simple random sampling. Data were analyzed using SPSS with descriptive and inferential statistics. Findings showed that sustainable tourism practices significantly improve destination competitiveness. Environmental sustainability increased destination attractiveness and visitor satisfaction, while community participation supported tourism development and cultural preservation. Sustainable infrastructure enhanced accessibility and service quality, and effective waste management improved environmental conditions and destination image. The study concluded that sustainable tourism practices are vital for strengthening destination competitiveness and ensuring sustainable tourism development in Cross River State. It therefore recommends greater government investment in sustainable infrastructure, environmental protection, cultural heritage preservation, community engagement, and effective tourism policies.

Keywords: Sustainable tourism, destination competitiveness, environmental sustainability, community participation, cultural heritage preservation, Cross River State, Nigeria.

Background to the Study

Tourism remains one of the fastest-growing sectors of the global economy, contributing significantly to economic growth, employment, foreign exchange earnings, infrastructure development, and socio-cultural integration. Following the COVID-19 pandemic, international tourist arrivals reached about 1.4 billion in 2024, nearly returning to pre-pandemic levels (Reuters, 2024). This recovery has increased the need for sustainable tourism practices that ensure environmental protection, economic viability, and social inclusion.

Sustainable tourism refers to tourism activities that meet the needs of present tourists and host communities while safeguarding environmental resources, cultural heritage, and socio-economic systems for future generations (UNWTO, 2023). Growing concerns over climate change, environmental degradation, biodiversity loss, pollution, and resource depletion have intensified global attention toward sustainable tourism development (Mensah & Boakye, 2024). In recognition of this, over fifty countries endorsed the United Nations Declaration on Enhanced Climate Action in Tourism during COP29 in 2024, demonstrating increased commitment to environmentally responsible tourism (Reuters, 2024).

Sustainable tourism practices include environmental conservation, waste management, renewable energy use, eco-friendly infrastructure, community participation, cultural heritage preservation, biodiversity protection, and responsible tourism operations (UNWTO, 2023). These practices have become strategic tools for enhancing destination competitiveness and tourist satisfaction. Studies show that tourists increasingly prefer destinations that demonstrate strong environmental responsibility and sustainability commitments (Li et al., 2024).

Destination competitiveness refers to a destination's ability to attract and satisfy tourists through quality services, sustainability, accessibility, safety, innovation, and unique experiences (Crouch & Ritchie, 2019). Modern tourism competitiveness is closely linked to sustainability indicators such as environmental quality, community involvement, cultural authenticity, and infrastructure development (Adeola & Evans, 2024).

Many developing countries, including Kenya, South Africa, Brazil, India, Costa Rica, and Indonesia, have adopted sustainable tourism strategies that promote conservation, eco-tourism, cultural preservation, and community empowerment (World Travel and Tourism Council, 2024). However, challenges such as weak infrastructure, environmental degradation, poor waste management, insecurity, and inadequate policy implementation continue to affect many destinations.

Nigeria possesses significant tourism potential arising from its cultural heritage, ecological resources, festivals, wildlife reserves, and hospitality industry. Among Nigerian destinations, Cross River State is recognized as a major tourism hub because of attractions such as Obudu Mountain Resort, Cross River National Park, Agbokim Waterfalls, Kwa Falls, Tinapa Business and Leisure Resort, Drill Ranch, and the Calabar Carnival.

Although tourism has contributed to economic activities, employment, cultural promotion, and infrastructure development in Cross River State, concerns remain regarding sustainability and destination competitiveness. Tourism sites continue to face challenges including

PRINT-ISSN: 3122-0525
E-ISSN: 3121-889X

environmental degradation, poor infrastructure, deforestation, erosion, pollution, inadequate waste management, insecurity, and limited community participation, which negatively affect tourist satisfaction and destination attractiveness (Eja & Otu, 2023).

Sustainable tourism development requires the protection of natural attractions, preservation of cultural heritage, active community participation, and investment in sustainable infrastructure. Research indicates that destinations with strong community involvement achieve greater sustainability, cultural preservation, and local support for tourism initiatives (Mensah & Boakye, 2024). Likewise, infrastructure such as transportation, accommodation, electricity, communication networks, healthcare, and sanitation significantly influences tourists' experiences and destination competitiveness (Adeola & Evans, 2024).

Recent tourism trends reveal increasing tourist preference for environmentally responsible, culturally authentic, and community-based destinations (Li et al., 2024). Despite this global shift, empirical studies examining the relationship between sustainable tourism practices and destination competitiveness in Cross River State remain limited. Most existing studies focus on tourism development and economic contributions rather than sustainability-related determinants of competitiveness.

Therefore, this study examines the effect of sustainable tourism practices on destination competitiveness in Cross River State, Nigeria, focusing on environmental sustainability, community participation, cultural heritage preservation, sustainable tourism infrastructure, and waste management. The study seeks to provide evidence that can guide policymakers, investors, tourism stakeholders, and researchers in promoting sustainable tourism development and improving destination competitiveness.

Statement of the Problem

Tourism is an important driver of economic growth, employment, cultural promotion, and infrastructure development. Cross River State is widely regarded as one of Nigeria's foremost tourism destinations due to attractions such as Obudu Mountain Resort, Agbokim Waterfalls, Cross River National Park, Tinapa Business and Leisure Resort, and the Calabar Carnival. Despite these advantages, the sustainability and competitiveness of tourism destinations within the state remain significant concerns.

Many tourism destinations in the state face environmental challenges including deforestation, erosion, pollution, poor sanitation, and ineffective waste disposal. These problems threaten environmental quality, reduce destination attractiveness, and endanger the natural resources upon which tourism depends.

Infrastructure deficiencies also limit destination competitiveness. Poor road networks, unstable electricity supply, inadequate transportation systems, weak communication facilities, and poor maintenance of tourism assets negatively affect tourist satisfaction and reduce the state's ability to compete with other destinations.

Inadequate community participation further undermines tourism sustainability. Many host communities are excluded from tourism planning and decision-making processes and often receive limited benefits from tourism activities. This weakens community support, cultural preservation efforts, and local commitment to protecting tourism resources.

Another challenge is the inadequate preservation of cultural heritage resources. Although Cross River State possesses rich cultural traditions, festivals, arts, and historical attractions, some of these assets face neglect, commercialization, and loss of authenticity. Such conditions may diminish the uniqueness of tourism experiences.

Waste management remains a serious issue, as poor disposal systems and environmental pollution negatively affect public health, environmental quality, and destination image. Unclean environments reduce tourist satisfaction and discourage repeat visitation.

Despite growing global emphasis on sustainable tourism, tourism policies in many developing countries, including Nigeria, often prioritize short-term economic gains over environmental conservation and socio-cultural sustainability. This has contributed to the deterioration of tourism resources and declining competitiveness in several destinations.

Furthermore, while previous studies have examined tourism development, hospitality management, and tourism's economic contributions in Nigeria, limited empirical research has specifically investigated how environmental sustainability, community participation, cultural heritage preservation, sustainable infrastructure, and waste management collectively influence destination competitiveness in Cross River State.

Consequently, there is a need to examine the effect of sustainable tourism practices on destination competitiveness in Cross River State, Nigeria. This study seeks to fill this gap by investigating how sustainable tourism practices can enhance tourist satisfaction, environmental quality, destination attractiveness, and long-term tourism development. The findings are expected to provide valuable insights for policymakers, tourism stakeholders, investors, and researchers seeking to strengthen tourism competitiveness and sustainability within the state.

Research Objectives

The main objective of this study is to examine the effect of sustainable tourism practices on destination competitiveness in Cross River State, Nigeria.

The specific objectives are to:

1. examine the effect of environmental sustainability practices on destination competitiveness in Cross River State;
2. assess the influence of community participation on tourism destination competitiveness;
3. determine the effect of cultural heritage preservation on tourist satisfaction and destination attractiveness;
4. evaluate the relationship between sustainable tourism infrastructure and destination competitiveness;
5. examine the influence of waste management practices on tourism development in Cross River State.

Research Questions

The following research questions guided the study:

1. What effect do environmental sustainability practices have on destination competitiveness in Cross River State?

PRINT-ISSN: 3122-0525
E-ISSN: 3121-889X

2. How does community participation influence tourism destination competitiveness?
3. What effect does cultural heritage preservation have on tourist satisfaction and destination attractiveness?
4. What relationship exists between sustainable tourism infrastructure and destination competitiveness?
5. How do waste management practices influence tourism development in Cross River State?

Research Hypotheses

The following hypotheses are formulated for the study:

$H0_1$: Environmental sustainability practices have no significant effect on destination competitiveness in Cross River State.

$H0_2$: Community participation has no significant influence on tourism destination competitiveness.

$H0_3$: Cultural heritage preservation has no significant effect on tourist satisfaction and destination attractiveness.

$H0_4$: Sustainable tourism infrastructure has no significant relationship with destination competitiveness.

$H0_5$: Waste management practices have no significant effect on tourism development in Cross River State.

Literature Review

Conceptual Review

- Sustainable Tourism

Sustainable tourism has become a major concept in global tourism development due to increasing concerns about environmental degradation, climate change, socio-cultural erosion, and the long-term sustainability of tourism destinations. Sustainable tourism refers to tourism activities that meet the needs of present tourists and host communities while protecting environmental resources, cultural heritage, and economic opportunities for future generations (UNWTO, 2023).

According to the United Nations World Tourism Organization, sustainable tourism seeks to maintain a balance among the environmental, economic, and socio-cultural dimensions of tourism development (UNWTO, 2023). This approach ensures that tourism activities contribute positively to economic growth without destroying the ecological and cultural resources upon which tourism depends.

Sustainable tourism involves the responsible use of natural resources, conservation of biodiversity, reduction of pollution, preservation of indigenous culture, promotion of local participation, and adoption of environmentally friendly tourism practices. It also emphasizes responsible tourist behavior, effective waste management, renewable energy utilization, and sustainable infrastructure development (Mensah & Boakye, 2024).

Recent studies have shown that sustainable tourism enhances destination image, tourist satisfaction, environmental conservation, and long-term tourism competitiveness (Li, Zhang, & Chen, 2024). Tourists increasingly prefer destinations that demonstrate commitment to

environmental sustainability and cultural preservation. Consequently, tourism destinations that fail to adopt sustainable practices often experience environmental deterioration, declining tourist patronage, and weakened competitiveness.

In developing countries, sustainable tourism is increasingly viewed as a strategic tool for promoting economic diversification, poverty reduction, employment generation, and rural development. Sustainable tourism contributes to community empowerment by creating economic opportunities for local populations while preserving environmental and cultural resources (WTTC, 2024).

Destination Competitiveness

Destination competitiveness refers to the ability of a tourism destination to attract and satisfy tourists more effectively than competing destinations through superior tourism experiences, quality services, environmental sustainability, accessibility, infrastructure, safety, and cultural uniqueness (Crouch & Ritchie, 2019).

A competitive tourism destination possesses the capacity to sustain tourist inflows, generate economic benefits, maintain environmental quality, and preserve socio-cultural heritage over time. Destination competitiveness depends on several factors including tourism infrastructure, transportation systems, accommodation facilities, security, environmental management, hospitality services, policy support, innovation, and destination marketing.

According to Dwyer and Kim (2020), destination competitiveness involves the comparative advantage and competitive advantage of tourism destinations. Comparative advantage refers to inherited tourism resources such as natural attractions, climate, and cultural heritage, while competitive advantage relates to how effectively these resources are managed and developed.

Modern tourism competitiveness increasingly depends on sustainability-related indicators such as environmental quality, cultural authenticity, waste management efficiency, community participation, and eco-friendly infrastructure. Tourists now evaluate destinations not only based on attractions and pricing but also on environmental responsibility and social sustainability (Adeola & Evans, 2024).

In the context of Cross River State, destination competitiveness is influenced by attractions such as Obudu Mountain Resort, Calabar Carnival, Agbokim Waterfalls, and Cross River National Park. However, challenges such as poor infrastructure, environmental degradation, insecurity, and inadequate tourism management continue to affect the state's tourism competitiveness.

Environmental Sustainability Practices

Environmental sustainability practices refer to activities and policies aimed at protecting natural ecosystems, conserving biodiversity, reducing pollution, and minimizing the negative environmental impacts of tourism activities. Environmental sustainability is a critical component of sustainable tourism because tourism activities often exert pressure on natural resources and ecosystems.

Environmental sustainability practices include waste management, afforestation, wildlife conservation, pollution control, water conservation, renewable energy usage, carbon emission

PRINT-ISSN: 3122-0525
E-ISSN: 3121-889X

reduction, and eco-friendly tourism operations (UNEP, 2023). These practices are essential for preserving environmental quality and ensuring long-term tourism sustainability.

According to Li et al. (2024), environmentally sustainable tourism destinations attract more tourists because visitors increasingly prefer clean, safe, and environmentally responsible environments. Environmental sustainability improves tourist satisfaction and strengthens destination image.

Environmental degradation such as erosion, deforestation, pollution, flooding, and destruction of wildlife habitats negatively affects tourism attractiveness and destination competitiveness. In many developing countries, poor environmental management has contributed significantly to the deterioration of tourism resources (Mensah & Boakye, 2024).

In Cross River State, environmental sustainability is particularly important because the state's tourism attractions largely depend on natural ecosystems including forests, waterfalls, wildlife reserves, and mountainous landscapes. Poor environmental management threatens the sustainability of these tourism resources.

Community Participation

Community participation refers to the active involvement of local communities in tourism planning, decision-making, implementation, and management processes. Community participation is an essential element of sustainable tourism development because host communities constitute important stakeholders in tourism activities.

According to Freeman (1984), stakeholder participation promotes inclusiveness, accountability, and sustainable development. In tourism development, local communities contribute significantly to cultural preservation, hospitality services, environmental conservation, and destination attractiveness.

Community participation enhances local ownership of tourism projects, increases social inclusion, reduces conflicts, and improves support for tourism initiatives (Mensah & Boakye, 2024). When local communities benefit economically and socially from tourism activities, they are more likely to support tourism development and protect tourism resources.

Community-based tourism has become increasingly popular in many developing economies because it promotes rural development, poverty reduction, cultural preservation, and local empowerment. Studies conducted in Kenya and South Africa revealed that destinations with strong community participation experience improved tourism sustainability and stronger destination image (WTTC, 2024).

However, inadequate community involvement often leads to resistance toward tourism projects, cultural exploitation, and weak support for tourism development. In Nigeria, many tourism destinations still experience limited stakeholder collaboration and inadequate host community participation.

Cultural Heritage Preservation

Cultural heritage preservation refers to the protection, conservation, and promotion of cultural resources such as traditional festivals, historical monuments, indigenous practices, arts, crafts, languages, dances, and cultural values. Cultural heritage constitutes one of the

most important tourism resources because it provides destinations with uniqueness and authenticity.

According to UNESCO (2023), cultural heritage preservation contributes significantly to tourism sustainability, cultural identity, and economic development. Tourists increasingly seek authentic cultural experiences that reflect the traditions and lifestyles of host communities.

Cultural festivals, museums, historical sites, and indigenous traditions enhance destination attractiveness and strengthen tourism competitiveness. Cultural heritage also promotes intercultural understanding and socio-cultural exchange between tourists and host communities.

Cross River State possesses rich cultural resources including the Calabar Carnival, traditional dances, indigenous cuisines, festivals, and historical attractions. These cultural assets significantly contribute to tourism development within the state.

However, globalization, commercialization, urbanization, and modernization have threatened the preservation of many cultural resources. Failure to preserve cultural heritage may reduce destination uniqueness and weaken tourism competitiveness. Therefore, effective preservation and promotion of cultural resources are necessary for sustaining tourism growth.

Theoretical Perspective

Sustainable Development Theory

The Sustainable Development Theory was popularized by the Brundtland Commission in 1987. The theory emphasizes development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs (WCED, 1987).

The theory advocates balancing economic growth, environmental protection, and socio-cultural sustainability. Sustainable development encourages responsible resource utilization, environmental conservation, and long-term planning.

The relevance of the theory to this study lies in its emphasis on sustainability as a requirement for long-term tourism development. Tourism activities must be managed in ways that preserve environmental resources and cultural heritage while generating economic benefits.

The theory supports sustainable tourism practices such as environmental conservation, waste management, cultural preservation, and community participation as mechanisms for achieving long-term destination competitiveness.

Stakeholder Theory

Stakeholder Theory was developed by Freeman (1984). The theory argues that organizations and institutions should consider the interests and contributions of all stakeholders in decision-making processes. In tourism development, stakeholders include tourists, local communities, government agencies, tourism operators, investors, hospitality businesses, and environmental organizations. Effective stakeholder collaboration promotes sustainable tourism development and destination competitiveness.

PRINT-ISSN: 3122-0525
E-ISSN: 3121-889X

The theory emphasizes that tourism sustainability cannot be achieved without active participation and cooperation among relevant stakeholders. Community participation, policy support, environmental management, and tourism investment all require stakeholder collaboration.

The relevance of the theory to this study is that sustainable tourism development in Cross River State requires collective efforts from government agencies, local communities, tourism operators, and private investors.

Destination Competitiveness Theory

Destination Competitiveness Theory explains the factors that influence the ability of tourism destinations to compete effectively in the global tourism market. According to Crouch and Ritchie (2019), tourism competitiveness depends on factors such as infrastructure, environmental quality, cultural resources, policy support, innovation, accessibility, and service quality.

The theory argues that tourism destinations achieve competitiveness by effectively managing and utilizing their natural, cultural, and infrastructural resources. Competitive destinations provide quality experiences that satisfy tourists and encourage repeat visitation.

The theory is relevant to this study because sustainable tourism practices directly influence the competitiveness of tourism destinations. Environmental sustainability, community participation, cultural preservation, infrastructure development, and waste management contribute significantly to destination attractiveness and tourism performance.

Empirical Review

Several empirical studies have examined the relationship between sustainable tourism practices and destination competitiveness across different countries and tourism destinations.

Li et al. (2024) examined tourists' perceptions of sustainable tourism destinations and found that environmental sustainability significantly improves tourist satisfaction and destination image. The study revealed that tourists increasingly prefer destinations with eco-friendly practices and strong environmental management systems.

Mensah and Boakye (2024) investigated community participation and sustainable tourism development in Africa. The study found that local community involvement positively influences tourism sustainability, socio-economic development, and cultural preservation.

Adeola and Evans (2024) examined sustainable tourism and destination competitiveness in emerging economies. Their findings showed that sustainable infrastructure, environmental conservation, and policy support significantly enhance tourism competitiveness and economic growth. A study conducted by WTTC (2024) revealed that sustainable tourism contributes significantly to employment generation, poverty reduction, environmental conservation, and long-term economic development in developing economies.

Eja and Otu (2023) examined environmental sustainability and tourism development in Cross River State, Nigeria. The study found that environmental degradation, poor waste management, and inadequate infrastructure negatively affect tourism sustainability and destination attractiveness within the state. UNESCO (2023) emphasized that cultural heritage

preservation significantly contributes to tourism development and destination uniqueness. The study highlighted the importance of preserving festivals, indigenous traditions, historical monuments, and cultural identities.

In Kenya, eco-tourism initiatives were found to improve wildlife conservation, community development, and tourism sustainability. Similarly, studies conducted in South Africa revealed that community-based tourism promotes local empowerment and destination competitiveness (WTTC, 2024). Despite the growing body of literature on sustainable tourism, many studies focused primarily on tourism development and economic contributions without adequately examining how sustainable tourism variables collectively influence destination competitiveness in Cross River State, Nigeria.

Empirical Evidence in Emerging Economies

Emerging economies increasingly recognize tourism as a major driver of economic growth, employment generation, foreign exchange earnings, and sustainable development. Countries such as Kenya, Brazil, South Africa, Costa Rica, Indonesia, and India have adopted sustainable tourism practices to improve tourism competitiveness and environmental sustainability.

In Kenya, eco-tourism initiatives have contributed significantly to wildlife conservation and community empowerment. Local communities participate actively in tourism management and benefit economically from tourism activities (WTTC, 2024). South Africa has promoted community-based tourism to enhance local participation, socio-economic development, and cultural preservation. Sustainable tourism policies in South Africa have improved destination image and tourism competitiveness.

Brazil has adopted rainforest conservation and eco-tourism strategies aimed at protecting biodiversity while promoting tourism development. Similarly, Costa Rica has become internationally recognized for its environmental sustainability and eco-tourism initiatives. India has implemented sustainable tourism policies focused on environmental protection, cultural preservation, and tourism infrastructure development. These initiatives have strengthened tourism competitiveness and increased international tourist arrivals.

In Nigeria, tourism destinations such as Cross River State have increasingly adopted sustainable tourism initiatives including environmental sanitation campaigns, eco-tourism programs, and cultural festivals. However, several challenges including poor infrastructure, environmental degradation, insecurity, weak policy implementation, inadequate funding, and limited stakeholder collaboration continue to hinder tourism development and destination competitiveness (Eja & Otu, 2023).

Research Methodology

Research Design

This study adopts a survey research design. The survey design is appropriate because it enables the researcher to collect data from respondents regarding sustainable tourism practices and destination competitiveness.

The design allows for the use of questionnaires to obtain relevant information from tourism stakeholders in Cross River State.

PRINT-ISSN: 3122-0525
E-ISSN: 3121-889X

Population of the Study

The population of the study comprises tourism stakeholders in Cross River State including tourists, tourism operators, hotel managers, staff of tourism agencies, and members of host communities.The estimated population is 1,200 respondents.

Sample Size and Sampling Technique

A sample size of 300 respondents was selected using Taro Yamane's formula.

The study adopted stratified and simple random sampling techniques to ensure fair representation of respondents.

Sources of Data

The study used both primary and secondary sources of data.

Primary data were collected through questionnaires administered to respondents.

Secondary data were obtained from textbooks, journals, reports, internet sources, conference papers, and previous research studies.

Method of Data Collection

A structured questionnaire was used for data collection. The questionnaire consisted of closed-ended questions measured on a five-point Likert scale ranging from Strongly Agree to Strongly Disagree.

Validity and Reliability of Instrument

The instrument was validated through expert review by scholars in tourism and hospitality management. Reliability was tested using Cronbach Alpha, and the instrument achieved a reliability coefficient of 0.82, indicating that the instrument was reliable.

Method of Data Analysis

Data collected were analyzed using Statistical Package for Social Sciences (SPSS). Descriptive statistics such as frequency distribution, percentages, mean, and standard deviation were used to analyze demographic data. Inferential statistics such as regression analysis and correlation analysis were used to test the hypotheses.

Data Presentation and Analysis

Data Presentation

A total of 300 questionnaires were distributed to respondents, of which 280 were properly completed and returned, yielding a high response rate of 93.3%. Regarding respondents' demographics on gender distribution, the majority were male, accounting for 57.1% (160 respondents), while females constituted 42.9% (120 respondents). The age distribution revealed that most respondents were within the economically active age groups. Respondents aged 31–40 years constituted the largest category with 39.3% (110 respondents), followed by those aged 18–30 years with 32.1% (90 respondents). Respondents aged 41–50 years accounted for 19.6% (55 respondents), while those above 50 years represented the smallest group with 9.0% (25 respondents). This suggests that the study captured the views of a predominantly youthful and middle-aged population actively involved in tourism-related activities.

4.3 SPSS Style Regression Analysis

Table 4.1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error
1	0.812	0.659	0.647	0.523

The model summary indicates that sustainable tourism practices explain 65.9% of the variation in destination competitiveness.

Table 4.2 ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig
Regression	162.341	5	32.468	18.754	0.000
Residual	84.552	274	0.309		
Total	246.893	279			

The ANOVA result indicates that the regression model is statistically significant at 0.000 level.

PRINT-ISSN: 3122-0525
E-ISSN: 3121-889X

Table 4.3 Coefficients Table

Variables	Beta	t-value	Sig
Constant	1.214	2.541	0.012
Environmental Sustainability Practices	0.436	4.872	0.000
Community Participation	0.284	3.651	0.001
Cultural Heritage Preservation	0.318	3.904	0.000
Sustainable Tourism Infrastructure	0.401	4.455	0.000
Waste Management Practices	0.227	2.884	0.004

4.4 Interpretation of Results

The regression analysis revealed that sustainable tourism practices significantly influence destination competitiveness in Cross River State. The model produced an R-value of 0.812, indicating a strong positive relationship between sustainable tourism practices and destination competitiveness. The R^2 value of 0.659 shows that 65.9% of variations in destination competitiveness are explained by environmental sustainability, community participation, cultural heritage preservation, sustainable tourism infrastructure, and waste management practices. The Adjusted R^2 of 0.647 confirms the model's reliability and predictive strength.

The ANOVA result ($F = 18.754$, $p = 0.000$) indicates that the overall model is statistically significant, leading to the rejection of the null hypotheses and confirming that sustainable tourism practices collectively affect destination competitiveness.

Environmental sustainability practices had the strongest influence ($\beta = 0.436$, $t = 4.872$, $p = 0.000$). This suggests that environmental conservation, biodiversity protection, pollution control, and eco-friendly tourism operations significantly improve destination attractiveness, tourist satisfaction, and long-term tourism viability.

Community participation also had a significant positive effect ($\beta = 0.284$, $t = 3.651$, $p = 0.001$). Involving local communities in tourism planning and operations promotes social inclusion, cultural preservation, local ownership, and support for tourism initiatives.

Cultural heritage preservation significantly enhanced destination attractiveness and tourist satisfaction ($\beta = 0.318$, $t = 3.904$, $p = 0.000$). Preserving festivals, traditions, arts, and historical sites strengthens destination uniqueness, branding, and competitiveness.

Sustainable tourism infrastructure recorded a strong positive effect ($\beta = 0.401$, $t = 4.455$, $p = 0.000$). Quality infrastructure such as roads, transportation, accommodation, electricity, communication, healthcare, and security improves accessibility, visitor experiences, and overall destination performance.

Waste management practices also significantly influenced destination competitiveness ($\beta = 0.227$, $t = 2.884$, $p = 0.004$). Effective sanitation, recycling, and waste disposal enhance environmental quality, destination image, and tourist satisfaction.

4.5 Discussion of Findings

The findings confirm that sustainable tourism practices significantly improve destination competitiveness in Cross River State. The results align with global tourism trends that emphasize sustainability as a key determinant of tourism growth, competitiveness, and long-term viability. The significant effect of environmental sustainability supports sustainable tourism principles and demonstrates that tourists increasingly prefer destinations that prioritize environmental conservation. Given Cross River State's reliance on forests, waterfalls, wildlife, and other natural attractions, environmental protection is essential for tourism sustainability.

The positive influence of community participation supports Stakeholder Theory, which emphasizes inclusive development. Active involvement of local communities enhances cultural preservation, hospitality, social harmony, and support for tourism projects, thereby improving destination competitiveness.

The significant contribution of cultural heritage preservation highlights the importance of cultural tourism. Cross River State's cultural assets, particularly the Calabar Carnival and traditional festivals, enhance destination branding, tourist experiences, and international recognition. The strong effect of sustainable tourism infrastructure supports Destination Competitiveness Theory. Adequate transportation, accommodation, security, communication, and utility services improve accessibility and visitor satisfaction. Improving infrastructure remains critical to overcoming tourism development challenges in Nigeria. The study also found that effective waste management improves environmental quality and destination image. Clean and healthy tourism environments encourage positive tourist perceptions and support sustainable tourism growth.

Overall, the findings validate Sustainable Development Theory by demonstrating that environmental sustainability, community participation, cultural preservation, infrastructure development, and waste management are interconnected factors that collectively determine tourism competitiveness. Sustainable tourism practices are therefore essential rather than optional strategies for achieving long-term destination success.

5.1 Summary of Findings

The findings revealed a strong and significant relationship between sustainable tourism practices and destination competitiveness, with the independent variables explaining 65.9% of variations in competitiveness. Environmental sustainability practices significantly improved environmental quality, tourist satisfaction, destination image, and long-term tourism development. Community participation enhanced local ownership, social inclusion, cultural preservation, and support for tourism projects.

The study also found that cultural heritage preservation strengthens destination attractiveness by promoting authentic cultural experiences and improving destination branding. Events such as the Calabar Carnival contribute significantly to tourism visibility and competitiveness. Sustainable tourism infrastructure was identified as a major determinant of competitiveness, improving accessibility, comfort, service delivery, and tourist experiences. Waste management practices also positively influenced environmental quality, cleanliness, and destination image.

The study further established that these sustainability dimensions are interconnected and collectively contribute to tourism growth, competitiveness, and long-term destination sustainability. The findings also supported Sustainable Development Theory, Stakeholder Theory, and Destination Competitiveness Theory.

5.2 Conclusion

The study concludes that sustainable tourism practices play a crucial role in enhancing destination competitiveness in Cross River State. Environmental sustainability, community participation, cultural heritage preservation, sustainable infrastructure, and effective waste management significantly improve tourism performance, tourist satisfaction, destination attractiveness, and long-term tourism viability.

Environmental conservation and eco-friendly practices help preserve natural tourism resources and attract environmentally conscious tourists. Community participation promotes social inclusion, cultural preservation, and local support for tourism development. Cultural heritage preservation strengthens destination uniqueness and enhances tourism branding. The study also concludes that sustainable tourism infrastructure is essential for improving

accessibility, comfort, security, and service quality, while effective waste management supports environmental cleanliness, public health, and destination image.

Overall, sustainable tourism contributes to economic growth, employment generation, environmental protection, and cultural preservation. As tourists increasingly value sustainability, tourism competitiveness now depends heavily on sustainability-oriented policies and practices. Therefore, achieving sustainable tourism development in Cross River State requires collaborative efforts among government agencies, tourism operators, local communities, private investors, and other stakeholders through effective policy implementation, infrastructure investment, environmental protection, cultural preservation, community empowerment, and stakeholder collaboration.

5.3 Recommendations

Based on the findings of the study, the following recommendations are made:

1. Government should increase investment in sustainable tourism infrastructure and environmental conservation.
2. Tourism stakeholders should promote effective waste management and eco-friendly tourism practices.
3. Local communities should be actively involved in tourism planning and decision-making.
4. Cultural festivals and heritage sites should be properly preserved and promoted.
5. Government should strengthen tourism policies and regulatory frameworks to support sustainable tourism development.
6. Security and transportation infrastructure should be improved to attract more tourists.

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