



Enhancing Tourism Potentials of African Cities Through Infrastructure Development: Evidence from Ekiti State, Nigeria

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ABSTRACT

Infrastructure development in support of sustainable tourism is required for a futuristic appeal in the tourism sector. Adequate transportation, accommodation, and other facilities are essential for attracting and accommodating tourists, while also ensuring that their activities do not harm the environment or disrupt local communities. Sustainable tourism development is a crucial goal for many regions, and Ekiti State is not left out of this. One key factor in achieving this goal is the development of infrastructure that supports the tourism industry while minimizing negative impacts on the environment and local communities. With a critical study of tourist attractions to examine the state of infrastructures that support sustainable tourism. Findings reveal that most of the attractions visited lack infrastructure projects that support sustainable tourism development when compared with international standards. These include the construction of eco-friendly hotels and resorts within the vicinity of the attraction, the development of sustainable transportation options such as bike-sharing programs, and the implementation of waste management systems to minimize the environmental impact of tourism. This article recommends that government should invest in infrastructure that supports the tourism industry while minimizing negative impacts and that Ekiti State can continue to attract visitors while preserving its natural and cultural heritage for future generations.

Keywords: Sustainable Tourism, Infrastructure Development, Ekiti State, Natural and Cultural Heritage.

1 Introduction

Tourism encompasses all the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business, and other purposes. (World Tourism Organization, 2019, p. 4). The World Tourism Organization (UNWTO) further clarifies that tourism can be categorized into various types, including: Leisure tourism (recreation, holiday, and vacation), Business tourism (conferences, meetings, and exhibitions), Visiting friends and relatives (VFR) tourism, Health tourism, Sports tourism, Cultural tourism, Adventure tourism, Educational tourism. (Holloway, 2009; UNWTO, 2019).

However, relative to country of residence and location, tourism is further categorized the between:

1. Domestic tourism (travel within one's own country)
2. International tourism (travel across national borders)
3. Inbound tourism (foreign visitors arriving in a country)
4. Outbound tourism (residents traveling abroad)

(Leiper, 2008; UNWTO, 2019).

Tourism is a vital sector for employment and local identity, providing opportunities in transportation, accommodation, and services while promoting economic growth and sustainability. However, rapid urbanization can distort city



identities, and tourism must be managed responsibly to avoid environmental degradation. Successful tourism development requires collaboration with complementary sectors like agriculture and security. Engaging local communities in planning ensures sustainable practices and mitigates negative impacts. Ultimately, when managed well, tourism can be a powerful tool for sustainable development.

1.1 Benefits of Tourism to the Economy

Tourism significantly contributes to nations, states, and communities, generating substantial economic, social, environmental, and cultural benefits (UNWTO, 2019; WTTC, 2020). Here are key importance:

Economic Benefits:

1. Job creation and employment opportunities (ILO, 2019)
2. Foreign exchange earnings and revenue generation (World Bank, 2018)
3. GDP growth and economic diversification (OECD, 2019)
4. Infrastructure development and investment (Asian Development Bank, 2020)

Social Benefits:

1. Cultural exchange and understanding (Reisinger, 2017)
2. Community development and empowerment (Manyara & Jones, 2017)
3. Preservation of heritage and traditions (UNESCO, 2017)
4. Enhanced quality of life and well-being (Kim et al., 2019)

Environmental Benefits:

1. Conservation and protection of natural resources (IUCN, 2019)
2. Sustainable development and eco-tourism (Gössling et al., 2017)
3. Environmental awareness and education (Holden, 2018)
4. Protected areas and wildlife conservation (WWF, 2020)

Cultural Benefits:

1. Cultural revitalization and preservation (UNESCO, 2017)
2. Community engagement and participation (Mbaiwa, 2018)
3. Local economic development and entrepreneurship (Scheyvens, 2017)
4. National pride and identity (Hall, 2019)

Tourism can also reduce poverty and inequality (UNWTO, 2019), promote cross-cultural understanding (Reisinger, 2017), and support environmental conservation (IUCN, 2019).

1.2 Tourism Systems

Tourism systems encompass a variety of interconnected components that work together to create a cohesive travel experience. Key components include:

1. **Attractions:** These are the primary draws for tourists, including natural wonders, cultural sites, and events. Attractions serve as the focal point of the tourism experience (Govers & Go, 2016).
2. **Transportation:** This component includes all modes of transport that facilitate the movement of tourists, such as airlines, buses, trains, and local transit systems. Efficient transportation networks are crucial for accessibility and influence travel decisions (Morrison, 2018).



3. **Accommodation:** This encompasses various lodging options, from hotels to hostels and vacation rentals. Quality and availability of accommodations can significantly impact tourists' satisfaction and overall experience (Ong & Keng, 2021).
4. **Tourism Infrastructure:** This refers to the physical facilities and services necessary to support tourism activities. This includes roads, airports, public transportation, signage, utilities, and sanitation services. Well-developed infrastructure enhances the tourist experience and is vital for sustainability (Dwyer et al., 2018).
5. **Services:** These include all additional services provided to tourists, such as tour guides, restaurants, and entertainment options. Quality service delivery is essential for creating memorable experiences (Patterson et al., 2019).
6. **Destination Management:** This involves the planning, development, and marketing of tourism destinations. Effective management ensures that the tourism system operates smoothly, balancing the needs of tourists and local communities (Kozak et al., 2020).

In summary, tourism infrastructures, as part of the broader tourism system, play a critical role in facilitating travel, ensuring safety, and enhancing the overall experience for tourists. Investment in infrastructure is essential for sustainable tourism development and can lead to increased tourist satisfaction and economic benefits for destinations.

1.3 Gaps in Literature Regarding Tourist Infrastructure

1. **Sustainability and Environmental Impact:** While many studies address the need for infrastructure development, there is limited research on sustainable practices and the long-term environmental impacts of tourism infrastructure (González & de la Torre, 2021).
2. **Impact on Local Communities:** More research is needed on how tourism infrastructure affects local communities, including social, cultural, and economic dimensions. Existing studies often overlook the voices and experiences of local residents (Mason, 2020).
3. **Technology Integration:** The role of digital technology in enhancing tourist infrastructure—such as smart transportation systems and digital wayfinding—has been underexplored, particularly in developing regions (Lamsal et al., 2023).
4. **Infrastructure Resilience:** There is a lack of studies focusing on the resilience of tourism infrastructure in the face of natural disasters or crises, including climate change impacts and pandemics (Becker et al., 2022).
5. **Measurement and Evaluation:** Few studies provide comprehensive frameworks for measuring the effectiveness and quality of tourism infrastructure, making it challenging to assess its impact on tourist satisfaction (Chen & Rahman, 2019).
6. **Equity and Accessibility:** Research often fails to address issues of equity and accessibility within tourist infrastructure, particularly regarding marginalized groups and individuals with disabilities (González et al., 2021).
7. **Interconnectivity and Integration:** Limited literature explores the interconnectivity between various components of tourism infrastructure, such as transportation, accommodation, and attractions, and how these relationships affect the overall tourist experience (Fuchs & Weiermair, 2020).

Addressing these gaps can lead to a more holistic understanding of tourist infrastructure and its implications for sustainable tourism development.

1.4 Impact of Infrastructure on Tourist Satisfaction

One of the major attractiveness to a tourism site is its infrastructural base, which is facilities that support tourism activities on a site. This infrastructure comprises basically transportation, accommodation, Public Facilities and Digital infrastructure:

Table 1: Impact of Infrastructure on Tourist Satisfaction from past studies

Study	Infrastructure Type	Findings
Smith & Smith (2019)	Transportation	Improved accessibility increases tourist arrivals.
Johnson & Lee (2020)	Accommodation	Quality of lodging correlates with repeat visits.
Brown & Wang (2021)	Public Facilities	Clean and well-maintained facilities enhance satisfaction.
Davis et al. (2022)	Digital Infrastructure	Online booking systems improve travel planning.

Related studies also reveal appreciable increase in frequency of visits to tourism sites both for first time and repeat visitations where the quality of tourism infrastructures such as transportation, accommodations and attractions were upgraded.

Table 2: Economic Impact of Tourism Infrastructure Investment

Year	Investment in Infrastructure (₹)	Tourism Revenue (₹)	Visitor Numbers
2018	100 million	500 million	1,000,000
2019	150 million	700 million	1,500,000
2020	200 million	1 billion	2,000,000
2021	250 million	1.5 billion	2,500,000

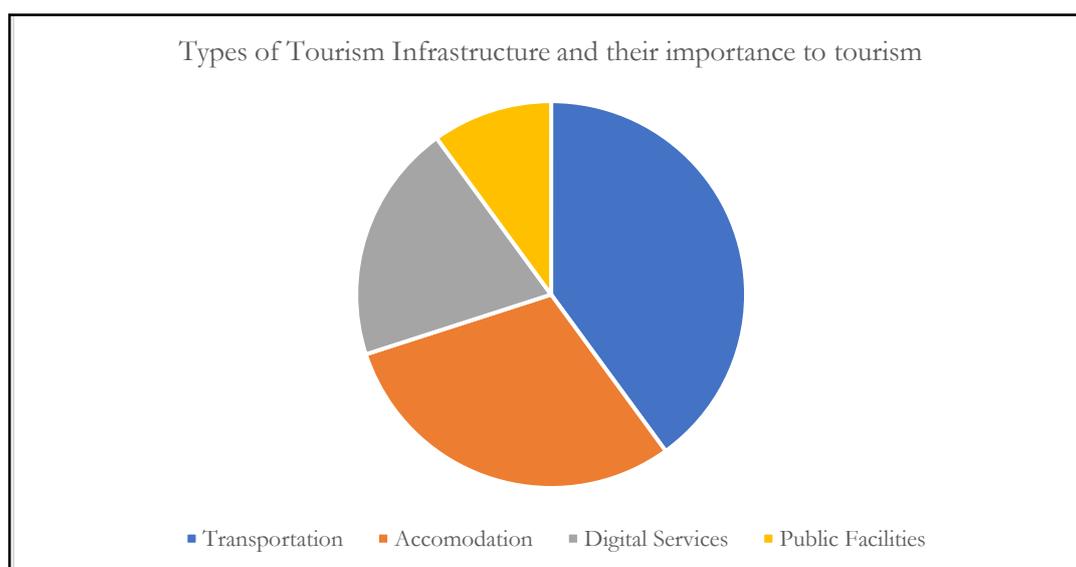


Figure 1: Types of Infrastructure and Their Importance to Tourism



Transportation: 40% Accommodation: 30% Digital Services: 20% Public Facilities: 10%

Data Visualization Sources

1. Smith & Smith (2019) - Analysis of how transportation improvements lead to increased tourist satisfaction and arrivals.
2. Johnson & Lee (2020) - Study correlating accommodation quality with repeat visits.
3. Davis et al. (2022) - Research showing the significance of digital booking platforms in enhancing the tourist experience.

These infrastructures represent part of the pull factors to the site and their availability and maintenance largely determine the level or frequency of patronage of the tourist site. Infrastructural facilities at a tourist destination, otherwise called tourism infrastructures are one of the major consumables at a tourist location. Ayeni (2012) posited that infrastructure has the tendency of attracting tourists who in turn will use such facilities and create a lasting memory, and whether to visit again or not. Hamzar (2009), stated that high-quality infrastructure will create high-quality tourist experience and high-quality tourist experience will increase the attractiveness of a tourist product as well as the level of visitation.

Tourism infrastructure is the basis of tourism development and utilization of existing destination resources, as these are the tourist experience enriching facilities. Tourism infrastructure includes many services, necessary to meet the needs of tourists and increase satisfaction during their stay at the destination. It can also be regarded as the physical elements that are designed and erected to cater for the visitor's experience and satisfaction. The strong relationship between tourism development and infrastructure has been theoretically established by several authors (Imikan & Epko, 2012; Adebayo & Iweka, 2014; and Nguiyen, 2021) The importance of tourism infrastructure is reflected in the fact that it can contribute to increasing the efficiency of production and distribution of tourism services, and, in some cases, such as remote destinations, it can increase the supply of tourism services (Jovanović and Ilić, 2016). Awaritefe (2004) and Khadaroo and Seetanah (2008), argued that the attractiveness of the destination, quality services, facilities or amenities, favorable location, and accessibility of centers also emerged as important considerations in tourist destination choice. Therefore, improving the infrastructure increases the attractiveness of a destination. The Tourism Task Force (2003) of Australia asserted that infrastructure is a big part of the tourist equation.

There is an association between infrastructure and tourism development that is theoretically established. Authors have underlined the special role of tourism in modernizing infrastructure as demanded, also the generation of multiplication effects of infrastructure development on tourism has been analyzed (Gunn and Var, 2002; Eagles and Mc Cool, 2002).

2 Literature Review

2.1 The Concept of Tourism Infrastructure

Tourism infrastructure refers to the physical and organizational structures necessary for the functioning of the tourism sector. It encompasses a wide range of components, including transportation networks, accommodations, attractions, public facilities, and services that collectively create an environment conducive to tourism (Dwyer et al., 2018).

Transportation infrastructure is critical as it enables the movement of tourists to and within destinations. This includes roads, airports, and public transit systems, which must be well-maintained and accessible to enhance tourist experiences (Morrison, 2018). Accommodation infrastructure involves hotels, hostels, and other lodging options, which play a crucial role in attracting visitors and influencing their stay duration (Ong & Keng, 2021).

Moreover, attractions, such as cultural sites and natural parks, form the heart of any tourism destination, while public facilities—including sanitation, health services, and information centers—are essential for ensuring a safe and enjoyable experience for visitors (González & de la Torre, 2021). Effective tourism infrastructure not only improves tourist satisfaction but also fosters economic growth and sustainable development (Becker et al., 2022).



In the context of African cities, including Ekiti State, the lack of adequate infrastructure can severely limit tourism potential, necessitating targeted investments and improvements to stimulate growth (Olowofoyeku, 2019).

2.2 Common Methods Used in Evaluating Tourism Infrastructure

Evaluating tourism infrastructure is crucial for identifying gaps and areas for improvement. Several common methods are used in this evaluation process:

1. **Surveys and Questionnaires:** These tools gather quantitative data from tourists and stakeholders regarding their experiences with existing infrastructure. They can measure satisfaction levels, accessibility, and perceived quality (Chen & Rahman, 2019).
2. **Case Studies:** Detailed analyses of specific destinations can provide insights into effective infrastructure models and their impacts on tourism. Case studies often explore best practices and lessons learned from successful infrastructure projects (Fuchs & Weiermair, 2020).
3. **Observational Studies:** Researchers may conduct on-site observations to assess the physical condition and functionality of tourism infrastructure. This method helps identify practical issues that may not be captured in surveys (Davis et al., 2022).
4. **Geospatial Analysis:** Utilizing Geographic Information Systems (GIS), researchers can analyze spatial relationships between tourism infrastructure and attractions, helping to understand accessibility and distribution patterns (Kozak et al., 2020).
5. **Cost-Benefit Analysis:** This economic evaluation method assesses the financial viability and impact of infrastructure projects, considering both direct benefits to tourism and broader economic implications for local communities (Mason, 2020).

Each of these methods provides valuable insights, and a mixed-methods approach is often recommended to achieve a comprehensive understanding of tourism infrastructure's effectiveness and impact.

2.3 International Standards of Tourism Infrastructure

International standards for tourism infrastructure aim to ensure quality, safety, and sustainability in the development and management of tourism facilities. Organizations such as the World Tourism Organization (UNWTO) and the International Organization for Standardization (ISO) have established guidelines that countries can adopt.

1. **Accessibility Standards:** Infrastructure should be designed to accommodate all users, including people with disabilities. The UNWTO emphasizes the importance of universal design principles in tourism facilities, which include accessible transport, accommodations, and attractions (UNWTO, 2020).
2. **Sustainability Criteria:** International standards advocate for environmentally sustainable practices in tourism infrastructure development. This includes using eco-friendly materials, energy-efficient technologies, and waste management systems to minimize the ecological footprint (González et al., 2021).
3. **Safety and Security Protocols:** Compliance with safety regulations is essential to protect tourists and ensure their well-being. International standards include guidelines for health and safety measures in hospitality, transportation, and public facilities (Olowofoyeku, 2019).
4. **Quality Assurance:** Establishing benchmarks for service quality in accommodations and attractions is critical. Certification programs, such as those provided by ISO, help ensure that tourism facilities meet recognized quality standards (Morrison, 2018).

Adhering to these international standards can significantly enhance the tourism potential of cities in Africa, including Ekiti State, by improving infrastructure quality, attracting more tourists, and fostering sustainable practices that benefit local communities.

3 Study Area

Ekiti State located in the southwestern part of Nigeria offers serenity and a wide variety of tourist attractions such as the spectacular warm and cold-water springs oozing out and touching, yet retaining its thermal identity at Ikogosi warm spring, a globally unique experience. Fajuyi Park, Ero dam, extended rivers, magnificent waterfalls like the Arinta water falls at Ipole-Iloro, conducive hilltop holidaying climates. Other attractions include traditional ways of life preserved in local customs; rich and varied handicrafts and other colourful products depicting or illustrative of native arts, lifestyle, dance and the authentic and unsophisticated but friendly attitude of both the indigenes and residents of the State. Ekiti State is blessed with many tourist sites, many of which are yet to be explored and developed. This research beams searchlight on three tourist centers in the state as a study to examine the development of tourism through infrastructure. The sites are The Ikogosi warm spring, ero dam and the Ipole-Iloro waterfalls.

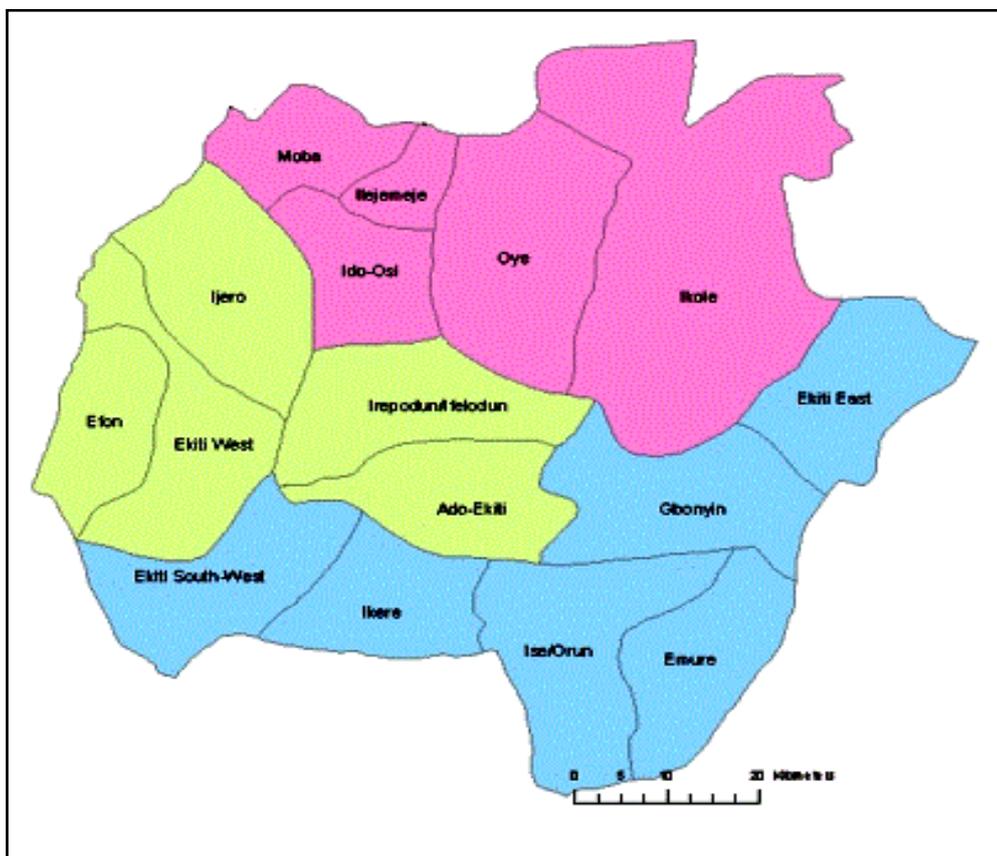


Figure 2: Map of Ekiti State
 Source: www.nigeriagallery.com

3.1 Ikogosi Warm Spring

The Ikogosi warm spring is described as the Haven of tourists in Nigeria. Tourists to the state would be irresistibly charmed with the beauties of Ikogosi where warm and cold-water oozing from different sources flowing separately to join in a pool but each retaining its thermal identity. Ikogosi is in Ekiti West Local government of Ekiti State of Nigeria. The Ikogosi warm spring is as at today the most developed tourist site in Ekiti state with a public private partnership sustaining it. It is a serene environment with chalets to accommodate tourists who come from different places, tour

guides available to take day and lodging visitors around, showcasing the beauty, history, and intrigues of the tourist attraction.



Figure 3: Plate 3 - The beautiful and welcoming entrance to Ikogosi Warm Spring



Figure 4: Plate 4 - A part of the chalets for accommodation



Figure 5: Plate 5 - The swimming pool - water channelled from the spring



Figure 6: Plate 6 - The restaurant



Figure 7: Plate 7 - Signages around the site for visitors' information



Figure 8: Plate 8: The spring in its natural channel tourist centre.



Figure 9: Plate 9 - The connection of paths around the cold water



Figure 10: Plate 10 - The meeting point of warm and water

3.2 Arinta Waterfalls, Ipole-Iloro

Arinta Waterfalls is a beautiful natural attraction in Ipole-Iloro, Ekiti State, Nigeria. It is in the same tourism corridor as the Ikogosi Warm Spring, which is about 10 minutes drive away. Arinta Waterfalls has seven different levels of cascades, each with its special purpose and significance. The waterfalls are surrounded by lush green vegetation, rocky hills, and a flowing stream. The sound of the plunging water and the smell of the moist air create a serene and refreshing atmosphere for visitors. Some of the activities that tourists can engage in at Arinta Waterfalls are hiking, swimming, picnicking, and sightseeing. Because of the natural environment enriched with flora and fauna, visitors can also learn about the ancient rituals and medicinal herbs that are practiced by the locals. As rich and luxuriant as the environment is, Arinta Waterfalls is not fully developed and utilized. This was corroborated by Ajani et al. (2015), as they posited that some of the challenges faced by the site are poor infrastructure, inadequate funding, lack of promotion, low awareness, and environmental degradation. A visit to the tourist site as shown in plates 11 to 16, shows a degraded environment due to lack of attention and lack of constant use. The relaxation centres provided are not with seating, no electricity, even the security guards at the gate were not the ground upon arrival. They were called over the phone before they came to attend to the researcher.



Figure 11: Plate 11 - The entrance to Arinta waterfalls



Figure 12: Plate 12 - The road inside leading to the waterfall



Figure 13: Plate 13 - The first level of the waterfall



Figure 14: Plate 14 - Some of the facilities on the site



Figure 15: Plates 15 - Dilapidated shed for relaxation



Figure 16: Plates 16 - Dilapidated shed for relaxation

Possible upgrades for the site are required to sell it to visitors, taking advantage of its proximity to the developed Ikogosi Warm Spring. They include improving the road network, providing accommodation and recreational facilities, enhancing security and safety measures, providing electricity, creating awareness and publicity campaigns, and involving the local community in the management and conservation of the site. If these upgrades are implemented, Arinta Waterfalls can have a high potential impact on the environment, socio-cultural life, and economy of the host community.

4 Conclusions

It is evident that these tourist sites are capable of hosting tourists and capable of promoting recreation and tourism while, improving the standard of living of the residents of the people of Ekiti State. As evident in this research, there is more patronage on the Ikogosi warm spring which is developed and supported with infrastructure which attracts tourists but an upgrade is required for the sites and attendant infrastructures are imminent to enhance the development of the host communities.



4.1 Recommendations

1. Private investors should be encouraged to take up the responsibilities of the development of Ero dam and Arinta waterfalls as it is with Ikogosi warm spring, to help them reach a globally accepted tourism site but this should be subject to community involvement through adequate consultations and engagement. This is important as lack of community acceptance can have a negative effect on the development.
2. There should be adequate publicity and promotional activities of these tourist sites through the media and other sources.
3. It will be necessary that shuttle buses be made available for tourists' for easy access to the villages. This could also serve as a good source of income to the members of the community.

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