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THE ROLE OF WEBSITE PLATFORM TECHNOLOGY IN BOOSTING NIGERIA'S TOURISM INDUSTRY

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Abstract

Nigeria boasts a rich diversity of cultural heritage, natural beauty, and historical significance, yet its tourism sector remains underdeveloped due to lack infrastructure, insufficient information dissemination, and inadequate promotion of available resources. This paper addresses these limitations by proposing the design of a comprehensive website aimed at promoting Nigerian tourism through convenient accessibility and user-friendly interfaces for both local and international tourists. The website will serve as a central repository of essential information for prospective visitors, enabling them to plan their trips effectively by offering details on destinations, virtual tours, and interactive platforms for experience sharing. By integrating multimedia elements and user-centric design, this initiative seeks to broaden the audience reach for Nigeria's tourism and travel industry. Key features will include dedicated pages for tourist attractions, event schedules highlighting cultural festivals, an informative travel blog, and a secure payment system for accommodation and tour bookings. This paper posits that strategic investment in the digital and technological space, specifically through web-based platforms, holds significant potential to revolutionize the operation of Nigeria's tourism sector, enhance business opportunities through improved information transfer and service provision, overcome language barriers, and ultimately establish Nigeria as a preferred travel destination within Africa and globally, thereby bolstering its contribution to the national economy.

Keyword: Accessibility, Digital Promotion, Information Dissemination, Nigerian Tourism and Website Design

1.0 Introduction

Tourism offers a significant pathway for countries to achieve economic growth, as it demonstrably increases Gross Domestic Product (GDP) and contributes to employment opportunities. Beyond economic metrics, the tourism industry fosters vital people-to-people interactions and promotes cultural exchange (World Travel & Tourism Council [WTTC], 2024). With its rich civilization, diverse natural scenery, and historical sites, Nigeria possesses considerable potential to emerge as a leading tourist destination within the African continent. The advent of technology, particularly the internet, has drastically reshaped the tourism industry globally, influencing how regions are marketed and experienced by travelers (Rodolfo et al., 2014). While often cited as the world's largest industry and a significant source of

employment, the definition of the tourism industry is not always clear-cut. As Holden (2023) points out, the boundaries of what constitutes "tourism" can be somewhat ambiguous. Different individuals and organizations may have varying perspectives on which activities and services should be included within the tourism sector. This lack of a universally agreed-upon definition can lead to discrepancies in statistics and analyses of the industry's economic impact. The inherent complexity of tourism stems from its multifaceted nature. It encompasses a wide range of activities, from leisure travel and recreation to business trips and visiting friends and relatives. Furthermore, the industry relies on a diverse network of interconnected sectors, including transportation, accommodation, food service, entertainment, and retail. Determining which elements definitively fall under the umbrella



of "tourism" and which belong to related but distinct industries requires careful consideration and can be subject to interpretation. This inherent ambiguity highlights the challenges in accurately quantifying the full scope and economic significance of the global tourism industry (Holden, 2023).

Although Nigeria is still far from even matching up in the tourism sector with such well developed nations. Africa's biggest economy has failed to fully utilize the tourism industry due to poor marketing strategies, use of security measures that are not utilized, and lack of development of the infrastructure.

2.0 Literature Review

A nation rich in cultural heritage and natural landscape, Nigeria, currently, still has great potential that is yet to be tapped into the tourism sector, but hitherto frustrated by the challenge of its lack of visibility and ease of access for potential visitors. In this regard the digital platforms such as social media networks, dedicated websites and mobile applications are now crucial tools for overcoming these limitations (Nwaeze, 2025). According to data recorded from January 2024, similarly, Nwaeze (2025), find the percentage of the national population is 16.2% that actively uses social media with a total figure of 36.75 million. In their study, Olasupo et al (2024) seek to find out how the Internet will affect marketing tourism Nigeria's sector, particularly Ikogosi Warm Spring in Ekiti State. The research acknowledges the large socioeconomic role tourism plays in contributing to the economy of any country but identifies the digital marketing as a major strategy that visitors to lesser known destinations such as Ikogosi can be used to increase their visibility and raise

visitor numbers. It has been acknowledged by stakeholders in the Nigerian tourism and travel industry across both public and private sectors that technology deployment plays a pivotal role in the industry (Ojoye,2019). According to these stakeholders, the use of advanced technologies has opened new channels for growth in the industry (Ojoye,2019). This is a perspective that underscores the increasing recognition in the Nigerian technology and tourism sectors about the transformative potential of digital tools in shaping the future of travel and tourism experiences.

Okeke-Korieocha (2023) highlights the well-established global trend of the travel industry's reliance on technology for both operational efficiency and enhanced customer experiences. This evolution has led various stakeholders, including hotels, airlines, and restaurants, to invest in contemporary technological advancements. This perspective is corroborated by Bayo Adedeji, the Group Chief Executive Officer (GCEO) of Wakanow, who, during his address at the 19th Akwaaba African Travel Market, underscored the critical importance of technology within the travel and tourism sector. Adedeji specifically emphasized the intrinsic link between travel and technology, identifying two key dimensions: digital transformation, which encompasses the profound changes technology has brought to the industry, and data-driven insights, which showcase the strategic application of data for creating personalized experiences and employing predictive analytics. According to Adedeji (Okeke-Korieocha, 2023), technology acts as a facilitator for seamless booking processes, efficient navigation, and enriched overall travel experiences. Furthermore, it enables the leveraging of data for tailored services and predictive forecasting, ultimately improving customer



service, informing strategic decision-making, ensuring secure and reliable transactions, and promoting more environmentally conscious and responsible tourism practices. This review underscores the recognized and multifaceted role of technology in the global and African travel and tourism industries.

Ibanga (2021) highlights the pervasive influence of digital technology on various aspects of modern life, including business and travel, noting that transformative digital innovations have created new competitive avenues for tourism businesses in the global marketplace. This development has given rise to the concept of "digital tourism," which encompasses the use of digital tools to organize, manage, and enhance the entire travel experience. In this context, digital tourism leverages the tools of digital transformation to reshape both individual travel practices and the operational framework of the tourism sector itself. Finally, Ibanga (2021) believes that digital technologies are crucial to facilitating optimization of daily operations in tourism and travel industry, adapting the existing business models, and significantly enhancing the customer journey. In this paper, Olasupo et al (2024) the influence of the internet in the transformation of tourism marketing in Nigeria with particular reference to the Ikogosi Warm and Cold Spring Holiday Resort. The authors stress the significance of digital platforms such as websites, social media, etc. to bring a destination to the attention of a global audience. The authors suggested that e-tourism tools can be integrated to improve visibility, attract international tourists and for effective marketing. The article also talks about the challenges Nigerian tourism faced, including a lack of technological infrastructure and digital literacy of local stakeholders. The authors offer an analysis of the state of e-

tourism as a method to increase Nigeria's tourism industry, and consequently, contribute to a greater economic growth and sustainability of local resorts such as Ikogosi.

In their study, Gutierrez, et. al (2023) analyzes how digital transformation is transforming the tourism industry. Finally, the authors review the literature on integration of digital technologies to tourism, addressing the key issues that led to the transformation as key drivers and their related challenges. The appearance of the new combinations of digital tools, such as Artificial Intelligence, Big Data, and Internet of Things (IoT) also improve customer experience and the operational efficiency of the sector. Based on the review, significant trends related to the personalized services and smarter destination management are identified, and the digital transformation is discussed as a way that digital transformation contributes to the sustainability and competitiveness of tourism businesses. The authors also discussed challenges such as the digital divide, cybersecurity concerns, and the importance of human capital with technology management skills that could be in shortage. Finally, the article suggests that digital innovation should be used to leverage the future of tourism in the face of such challenges. Furthermore, Yusuf and Abel (2025), also studied the adoption of social media platforms such as Instagram and Twitter by tour operators in Lagos State. Their findings revealed the use of these two platforms, particularly sharing visual content and influencer collaboration, is substantial and they are associated with improving the e-marketing effectiveness as well as service delivery.

SYSTEM ARCHITECTURE

The system architecture of a tourism website platform in Nigeria (figure 1) is designed

such that it integrates various essential components to achieve hassle free user experience, scalability and security. In the core architecture we have a frontend user interface (UI) that allows visitors to visit and interact with the platform. The accommodation, events, activities, transportation and cultural experiences are all be given their own specific sections. In order to improve user engagement, the frontend have features like search filters, virtual tour, reviews with real time data. A responsive design that provides best performance for devices such as smartphones, tablets and desktops would support the frontend. With this, the website platform would be accessible to the greater public, both local and foreign, thereby increasing traffic and bookings. In the backend of the system, there is a database management system (DBMS) that contains the key information about the different tourism offerings – such as hotel details, tourist attraction, booking schedule, price, and payment information. The server-side infrastructure should scale up with regards to high traffic traffic during peak tourism season, and such security should be employed to assist in protecting sensitive user data. An Application Programming Interface (API) integration would enable the services of third-party services like the payment gateways and transportation service providers and local tour operators to connect with the platform. Moreover, such advanced technologies such as artificial intelligence (AI) and machine learning can help with the implementation of personalized recommendations and targeted advertising.

System Architecture

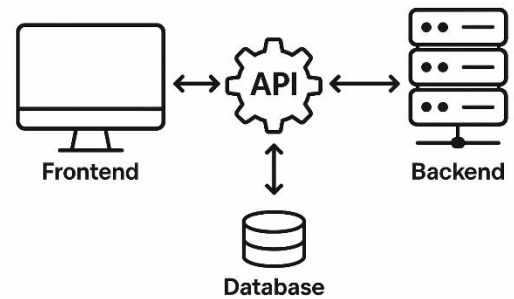


Figure 1: system architecture

System Design and Development

The system design and development in this case refers to the frontend and backend components of the platform. The responsive web design principles will be used to develop this frontend to work across the devices without any issue. For that reason, we considered the user experience (UX) in making the website easy to navigate, implementing content that is tailored to the needs of users, adding virtual tours, advanced search filters and integration with social media platforms. The backend was set up with a database system to store and manage data of tourist accommodations, attractions, transport options and event listings. The platform also included several third-party APIs for features such as real time availability updates and payment processing. The platform was tested and quality assured to ensure that the system runs well under different conditions.

In this, functional testing, performance testing and security testing will be carried out to find the potential vulnerabilities. Additionally, the platform is tested by the users for user acceptance testing (UAT) to make sure the platform serves the users as it



should. Then the platform will be deployed, monitored and evaluated, and tested successfully. The training will be around collecting user feedback, tracking the metric like, number of users engaged, number of users booked in and traffic patterns and refining the platform using agile development principles. The AI driven features such as personalized recommendations and targeted advertising will be a continuous integration of AI driven features as it will be an iterative process of improvement to keep the platform relevant and efficient in promoting Nigerian tourism.

System Implementation

The system has been implemented through a layered architectural framework to enable

expansion, safety and versatility. Each module corresponds to a specific function such as destination information, booking services, provides virtual tours, user management and includes analytics. The figure 2 below shows the flowchart of the system. The backend of the platform was designed in terms of effective data transfer capacity with the purpose of maintaining large databases on tourist products and client data. In order to improve the user experience, an adaptive frontend was implemented based on Bootstrap, allowing smooth navigation across devices. A range of tests were carried out as part of the implementation process to confirm that the system was able to work and be effective across multiple platforms.

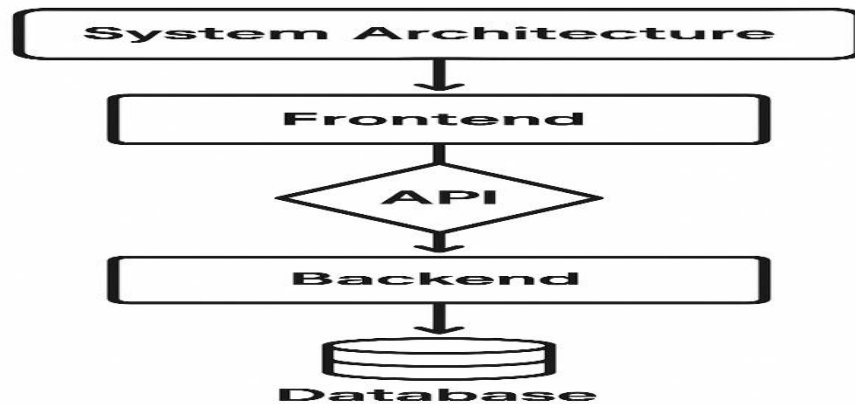


Figure 2: flowchart of the system.

Graphical User Interface

Homepage: As seen in the homepage of the tourism website (fig.3), the tourism website homepage has an interesting and visually attractive interface which is meant to attract travelers. The site's appeal is further enhanced by a high-quality image of a luxury travel bus set against a scenic backdrop, following the theme of adventure and exploration. Furthermore, the package list

section clearly labeled is to help users browse the numerous tour options offered in the platform, which is excellent not having the functionality or lack of aesthetics present. The site's appeal is increased by a high-quality image of a luxury travel bus set in a scenic backdrop that reinforces the theme of adventure and exploration. The user-friendly interface does not require much explanation as it has a clearly labeled "Package List"



administrators can quickly review and address customer concerns, ensuring effective issue resolution and user satisfaction.

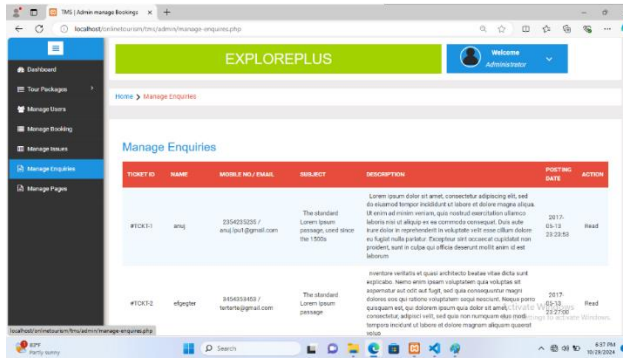


Figure 7: Issues Management

Dashboard: The interface in fig.8 bellow, includes a dashboard menu on the left with options like "Tour Packages," "Manage Users," "Manage Bookings," "Manage Issues," "Manage Enquiries," and "Manage Pages." The main section is titled "Update Page Data" and contains a dropdown labeled "Select page" with the default value "SELECT ONE."

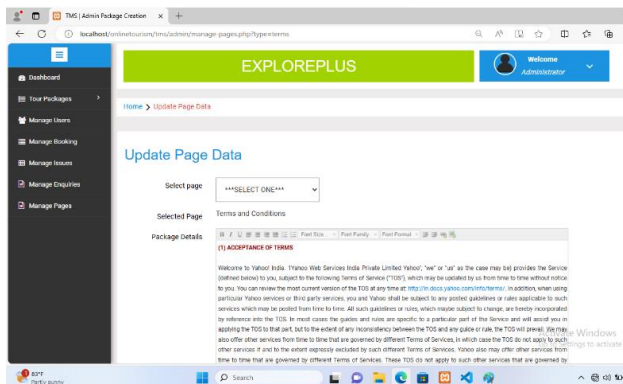


Figure 8: Dashboard

Conclusion

In Nigeria, the use of platform technology in boosting the tourism industry has been a significant step towards digital transformation in the sector. This research

sought to fill the accessibility voids for local and foreign tourists through an all-inclusive, booking and virtual experience stimulating site about diverse tourist sites in Nigeria. With this, tourists are now able to reach sites, cultures, and locals that were hardly accessible before due to geographical barriers. The platform has significantly facilitated the relationship between tourists and service providers, making the tourism environment more robust and inclusive, enabling people to appreciate culture and make economic transactions.

The platform did good by increasing user engagement while making it easier for the users to access tourism services and increasing potential income for local businesses. Perhaps by application of data analytics techniques, stakeholders would be able to appreciate where the tourists appreciate most, where the most of the demand comes from and many more, which would just make everything that touches all the supply chain and strategic parameters to be in line with the market and grow the economy. Besides, the platform helped in enhancing visibility for tourism in Nigeria and created a link between the would-be tourists and local services in a more effective and friendly way. On the other hand, the picture is not all that rosy as there are persisting areas of concern, enhancement of infrastructure coverage in rural areas, data security and safety through additional coverage in other languages. When fully developed, this platform has the potential of being a game changer for Nigeria's tourism industry as well as promoting inclusive economic growth.

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