



RESEARCH ARTICLE

Digital Platforms for Sustainable Tourism Development: A Case Study of NashikExplore in the Context of SDG 8.9

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ABSTRACT

Tourism contributes significantly to regional economic activity, cultural exchange, and the overall development of local communities. Despite this potential, many emerging destinations face challenges, including scattered tourism information, a weak digital presence, and limited promotion of local experiences. Sustainable Development Goal (SDG) 8.9 emphasizes promoting sustainable tourism that generates employment opportunities while supporting local culture and products (United Nations, 2015). In this context, digital technologies and online platforms have emerged as powerful tools for improving tourism accessibility, information dissemination, and community participation.

This study explores the role of digital platforms in enabling sustainable tourism development, particularly in alignment with Sustainable Development Goal (SDG) 8.9. The study presents NashikExplore, a digital tourism platform concept designed to enhance the discovery of tourist attractions, local businesses, and cultural experiences in Nashik, India. The platform aims to provide structured and accessible tourism information while promoting local economic participation and cultural visibility. Using a conceptual research approach supported by a case study framework, the chapter examines how technology-driven tourism platforms can contribute to sustainable tourism ecosystems by connecting tourists, local communities, and cultural resources. The analysis highlights the potential of digital platforms to improve destination visibility, strengthen community engagement, and support local entrepreneurship. The findings suggest that digital tourism platforms such as NashikExplore can play a significant role in strengthening local economies, enhancing tourist experiences, and supporting sustainable tourism initiatives in emerging cities.

Keywords: Sustainable Tourism, Digital Tourism Platforms, Sustainable Development Goals (SDG 8.9), Smart Tourism, Local Economic Development, Community-Driven Tourism, NashikExplore.

INTRODUCTION

Across the world, tourism has become an important sector supporting economic development and regional identity. In developing regions, tourism acts as a catalyst for local growth by encouraging entrepreneurship and increasing demand for local goods (UNWTO, 2018). However, traditional tourism systems often face challenges, including limited accessibility to reliable information and fragmented services. This "digital divide" often leads to "over-tourism" in popular spots while hidden gems remain neglected. In response, sustainable tourism has gained attention as an approach that balances economic growth with environmental and cultural protection (Gössling et al., 2020). SDG 8.9 specifically emphasizes promoting sustainable tourism that creates employment and supports local products.

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With the advancement of digital technologies, tourism systems are shifting toward "smart tourism" platforms where mobile applications and location-based services enable travelers to interact with local communities more efficiently (Xiang & Fesenmaier, 2017).

This chapter presents NashikExplore, a conceptual digital tourism platform designed for Nashik, India. Nashik is a unique destination attracting visitors for religious, wine, and cultural heritage tourism. By integrating digital discovery and community participation, NashikExplore demonstrates the potential of technology-driven systems in supporting sustainable tourism.

Research Objective

The objective of this study is to examine the role of digital tourism platforms in supporting sustainable development. Through NashikExplore, we explore how digital platforms can enhance destination visibility, promote local businesses, and contribute to the objectives of SDG 8.9.

Research Contribution

This study contributes to research on digital tourism by presenting a localized framework for emerging cities. Unlike global platforms that prioritize high-commission stakeholders, NashikExplore focuses on community-driven visibility and cultural storytelling, ensuring that local artisans and small vendors are at the forefront of the digital experience.

2. Literature Review – Digital Tourism and Sustainability

2.1 The Evolution of Smart Tourism

The rapid advancement of digital technologies has significantly transformed the global tourism industry. Travelers increasingly rely on digital platforms to search for information, explore destinations, and plan travel experiences. As a result, tourism systems are gradually shifting from traditional information channels toward technology-driven ecosystems that integrate digital services, data, and user participation.

The concept of "Smart Tourism" has emerged as a paradigm shift. Smart tourism refers to the integration of information and communication technologies (ICT) with tourism infrastructure to enhance visitor experiences, improve service delivery, and support destination management (Gretzel et al., 2015). Smart tourism ecosystems utilize technologies such as mobile applications, digital maps, location-based services (LBS), and data analytics to provide real-time information. According to Buhalis and Amaranggana (2014), the "smartness" of a destination lies in its ability to utilize interconnected technology to create value for both the visitor and the host community.

2.2 Digital Platforms and Accessibility

Digital tourism platforms play an important role in improving destination visibility and accessibility. Online tourism portals allow travelers to discover attractions, explore cultural activities, access accommodation and transportation information, and design personalized travel itineraries. These platforms act as centralized information hubs that connect tourists with destinations, services, and experiences.

However, there is a noted disparity in how these

platforms operate. While global platforms like TripAdvisor or Booking.com provide immense reach, they often favor established brands. Localized platforms, on the other hand, can provide a "hyper-local" perspective that captures the soul of a destination. This niche focus is essential for "long-tail" tourism—where the diverse, less-frequented experiences collectively offer significant value but are often lost in a generic search result.

2.3 Sustainability and the SDGs

Sustainable tourism aims to balance economic growth with environmental protection and cultural preservation while ensuring that tourism activities benefit local communities (UNWTO, 2018). By enabling digital discovery and structured information access, tourism platforms can reduce information gaps and encourage responsible travel behavior. Digital platforms allow for the promotion of "off-season" travel or "off-the-beaten-path" locations, which helps mitigate the negative environmental impacts of over-tourism in concentrated areas.

The United Nations' SDG 8.9 is particularly relevant here. It calls for the implementation of policies to promote sustainable tourism that creates jobs and promotes local culture and products. Digital platforms serve as a bridge to this goal by lowering the barrier to entry for local entrepreneurs. When a digital platform highlights a local handicraft market in Nashik, it directly supports the economic pillar of sustainability.

2.4 Community-Driven Models

Another emerging concept in tourism research is community-driven tourism platforms. In such platforms, local residents, cultural organizations, and small businesses actively contribute tourism-related content and experiences. This participatory model helps promote authentic cultural representation and strengthens community engagement in tourism development (Xiang & Fesenmaier, 2017). Community-driven platforms can therefore support inclusive tourism ecosystems where economic opportunities are distributed more widely among local stakeholders. This democratization of content ensures that the narrative of a city is told by those who live in it, rather than purely through a commercial lens.

2.5 The Indian Context and Regional Gaps

In the Indian context, tourism is deeply intertwined with pilgrimage (Tirtha) and heritage. While major circuits like the "Golden Triangle" have extensive digital footprints, regional hubs like Nashik are often caught in a digital "gray zone." They have massive footfall but lack a cohesive digital identity that links their spiritual heritage with their emerging modern identity as India's "Wine Capital." This gap represents a missed opportunity for sustainable economic growth. This study addresses this gap by examining how a localized platform can act as a catalyst for regional development.

3. Methodology / Research Approach

This study adopts a qualitative, conceptual research approach to examine the role of digital platforms in supporting sustainable tourism development. Qualitative methods are particularly suited to exploratory studies

where the phenomenon under investigation is emergent or in early stages of development, and where contextual understanding is prioritized over statistical generalization (Yin, 2014).

3.1 Case Study Design

A case study methodology is employed as the primary research design. Case studies are widely recognized in tourism and technology research as effective tools for examining real-world systems within their socio-economic and cultural contexts (Gretzel et al., 2015). This approach allows for an in-depth examination of how a specific digital platform—NashikExplore—can contribute to sustainable tourism objectives as outlined under SDG 8.9.

The rationale for selecting Nashik as a case study is its multifaceted tourism appeal. Nashik is not a one-dimensional destination; it offers religious, historical, agricultural (viticulture), and adventure tourism. This complexity makes it an ideal testing ground for a digital platform that must balance diverse stakeholder interests.

3.2 Data Sources and Evidence

The study draws on three primary sources of evidence:

1. **Conceptual Platform Design Analysis:** This involves examining the intended features, UI/UX philosophy, and technical architecture of NashikExplore. We analyze how
2. features like "Local Business Directory" or "Heritage Walks" map onto sustainability goals.

3. **Secondary Literature Synthesis:** A systematic review of existing research on smart tourism, digital platforms, community-driven tourism, and SDG-aligned development frameworks was conducted to provide a theoretical foundation.
4. **Tourism Ecosystem Mapping:** Analyzing the tourism landscape of Nashik, India. This includes identifying key stakeholders (temple trusts, vineyard owners, local municipal corporations, and artisanal cooperatives) to contextualize the platform's potential contribution.

3.3 Analysis Framework

The analysis evaluates the platform across five key dimensions:

- **Tourism Discovery and Accessibility:** How easily can a traveler find relevant info?
- **Cultural Representation:** Are the city's traditions accurately and respectfully portrayed?
- **Local Business Promotion:** Does the platform favor local SMEs over global chains?
- **Community Participation:** Can locals contribute and feel "ownership" of the platform?
- **Digital Information Structuring:** Is the data organized in a way that promotes "slow" and "sustainable" travel?

The relationship between these elements is visualized in the Conceptual Framework (Figure 1).



Figure 1: Conceptual Framework of Digital Platforms Supporting Sustainable Tourism Development in the Context of SDG 8.9

3.4 Limitations

Since NashikExplore is currently at the conceptual design stage, this study does not include empirical user data, real-time traffic logs, or quantitative performance metrics. It serves as a "blueprint" analysis. Future research should

validate the platform's impact through pilot testing, user experience (UX) studies, and economic impact assessments in collaboration with local tourism stakeholders and government bodies.



4. Case Study: NashikExplore Platform

4.1 The Context of Nashik

NashikExplore is a conceptual digital tourism platform designed to enhance the discovery and accessibility of tourism experiences in Nashik, India. Nashik is a city of contrasts. It is one of the four sites of the Kumbh Mela, making it a cornerstone of Hindu spirituality. Simultaneously, it produces over 80% of India's wine, earning it a spot on the global map of oenotourism.

Despite this dual appeal, the "digital journey" for a tourist in Nashik is currently fragmented. A traveler might find information about the Trimbakeshwar Temple on one site, but nothing about the nearby local artisans who make copper vessels. This lack of integration leads to a "transactional" tourism experience where visitors come for a specific purpose and leave without exploring the broader local economy.

4.2 Platform Philosophy

NashikExplore aims to provide a centralized digital space built on "Deep Discovery," rewarding "Community Value" by giving visibility to entities that contribute to local culture. Key features include:

- **Hyper-Local Discovery:** Structured info on temples, vineyards, and landmarks through "Thematic Circuits."
- **Business Visibility:** "Digital Storefronts" for small vendors and artisans to showcase products at no upfront cost.
- **Cultural Storytelling:** Multimedia narratives and audio guides to preserve local identity.
- **Community Module:** A portal for local residents to share "local secrets" and events.
- **Mobility Integration:** Real-time info on local transport and safety.

The proposed interface for these features, designed to be intuitive for diverse users, is shown in Figure 2.

4.3 Key Features of the Platform

- **Hyper-Local Tourism Discovery:** The platform provides structured information about destinations such as temples, vineyards, historical landmarks, local markets, and cultural festivals. Beyond just a list, it offers "Thematic Circuits." For example, a "Heritage and Handicraft" circuit might lead a tourist from a 2,000-year-old cave complex to a contemporary workshop where local weavers produce Paithani saris.
- **Local Business Visibility and Onboarding:** NashikExplore highlights local vendors, artisans, and tourism service providers who may otherwise lack a digital presence. A key feature is the "Digital Storefront" for small vendors, allowing them to showcase their products or services with no upfront cost, thereby lowering the barrier to digital entrepreneurship.
- **Cultural Storytelling and Digital Archives:** The platform integrates cultural narratives, regional traditions, and festival information. This includes audio guides for historical
- **sites and "Digital Exhibits"** for festivals like the Nashik Kumbh Mela or the Grape Harvest Festival. This helps preserve local identity while enriching tourist experiences with context.
- **Community-Led Content Module:** Local residents and cultural organizations can contribute content. This might include "Local Secrets"—recommendations for a specific street food stall or a hidden viewpoint. This participatory ecosystem ensures the platform remains dynamic and authentic.
- **Integrated Mobility and Safety:** By providing real-time information on local transport (buses, rickshaw rates) and safety protocols, the platform enhances the "ease of travel," making the city more accessible to solo travelers and international tourists.

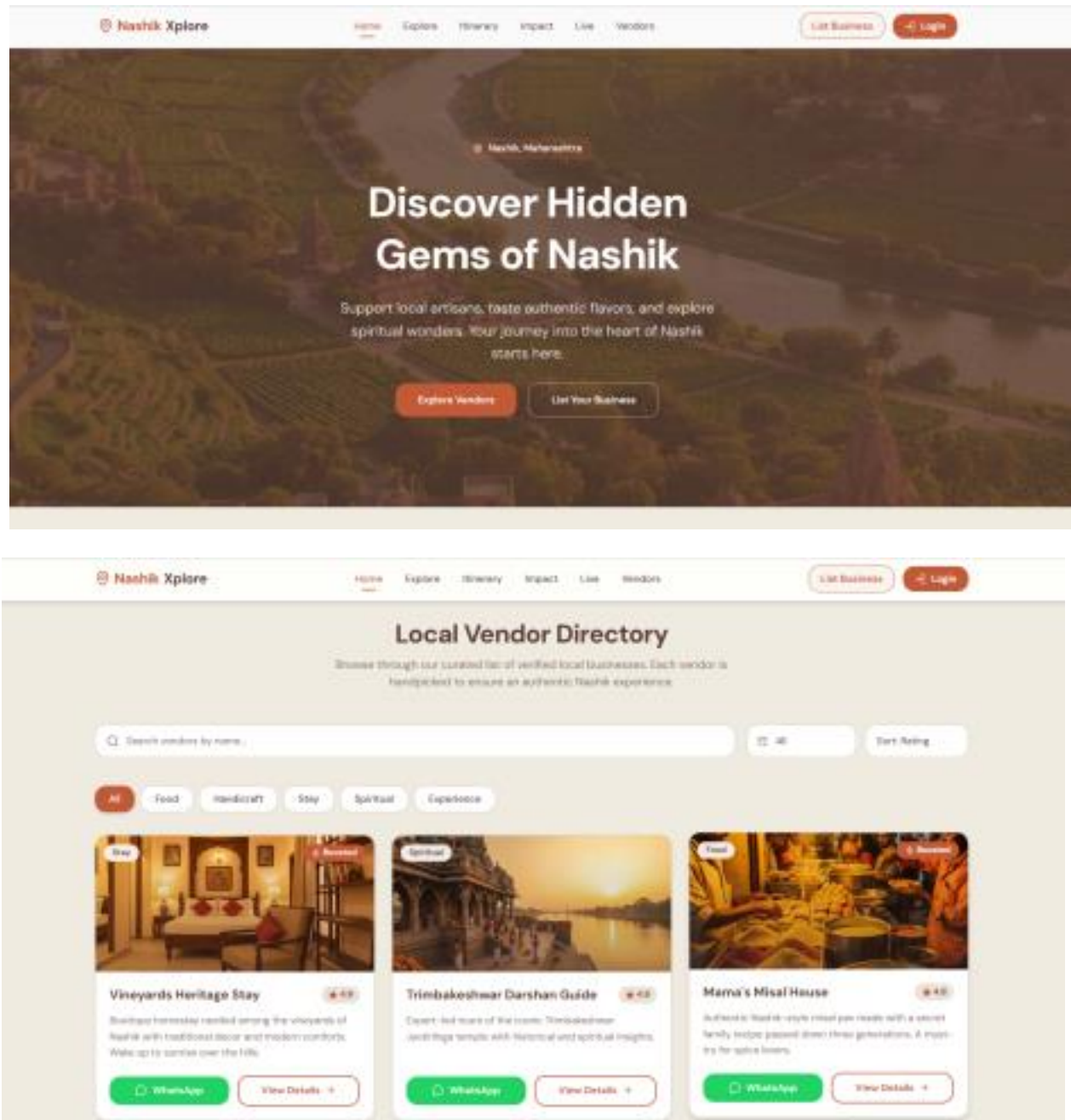


Figure 2. Homepage of the NashikExplore digital tourism platform.

5. Discussion – Contribution to SDG 8.9

5.1 Mapping Features to SDG Targets

Sustainable Development Goal 8.9 focuses on promoting tourism that creates employment opportunities while

supporting local culture and products. Digital platforms such as NashikExplore can contribute to these goals by acting as an economic and cultural bridge.

Table 1: Contribution of NashikExplore Features to SDG 8.9

Platform Feature	Technical Description	Specific Contribution to SDG 8.9
Tourism Discovery	Digital map with thematic layers	Increases visibility for lesser-known sites, reducing congestion and spreading wealth.
Local Business Directory	Verified listings for SMEs/Artisans	Directly supports local entrepreneurship and job creation.
Cultural Storytelling	Multimedia narratives & audio guides	Preserves intangible heritage and promotes local "cultural products."

Community Portal	User-generated content from locals	Empowers residents to have a voice in how their culture is presented.
Booking Integration	Direct link to local service providers	Reduces leakages (money staying in the local economy).

The holistic impact of these digital interventions on the sustainability ecosystem is summarized in Figure 3

5.2 Improved Destination Visibility and the "Long Tail"

Emerging tourist destinations often lack the SEO (Search Engine Optimization) power to compete with major cities. NashikExplore solves this by creating a "niche authority" site. When a platform is dedicated solely to a specific region, it can provide a level of detail that global platforms cannot match. This "long-tail" approach ensures that even a small pottery workshop in the outskirts of Nashik is discoverable, aligning with the goal of inclusive economic growth.

5.3 Local Economic Development and "Leakage" Prevention

One of the biggest challenges in tourism is "leakage"—where the money spent by tourists does not stay in the local community but goes to international hotel chains or booking agencies. By focusing on local business listings and encouraging direct interaction between the tourist and the

local provider, NashikExplore minimizes this leakage. It promotes the "Vocal for Local" sentiment, ensuring that a visitor's expenditure directly fuels the prosperity of Nashik's citizens.

5.4 Cultural Preservation through Digital Documentation

Culture is often lost when it is not documented or when it

is "commodified" for mass tourism. NashikExplore treats culture as an asset to be shared, not just a product to be sold. By including storytelling and historical context, the platform educates the traveler. A traveler who understands the spiritual significance of the Godavari River is more likely to respect the local environment and traditions. This "mindful tourism" is the cornerstone of sustainability.

5.5 Sustainable Tourism Distribution (Decentralization)

Over-crowding at sites like the Panchavati area can lead to environmental degradation and local resentment. NashikExplore can use "Digital Nudging"—suggesting alternative, quieter attractions during peak times. This helps distribute tourist flows more evenly across the city, ensuring that the environmental "carrying capacity" of a single site is not exceeded.

5.6 Implications for Policy and Management

The findings suggest that digital platforms should not be viewed merely as IT projects but as strategic tools for destination management. Local governments can use the data generated by platforms like NashikExplore to understand traveler preferences, identify gaps in infrastructure, and tailor their sustainable development policies accordingly. This creates a feedback loop between the tourist, the community, and the policymaker.

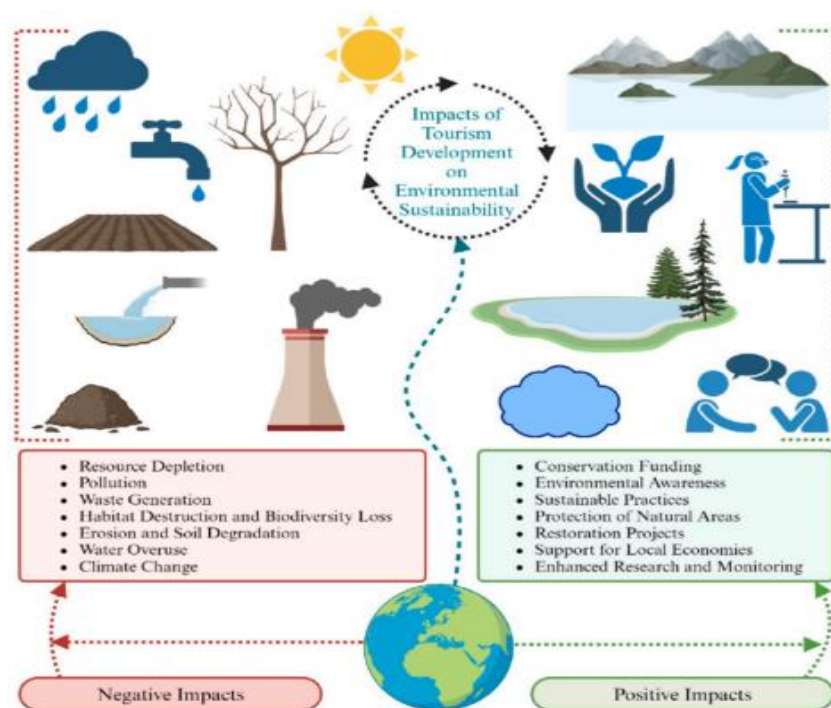


Figure 3. Contribution of Digital Tourism Platforms to Sustainable Development Goal 8.9.

6. Conclusion and Future Scope

6.1 Summary of Findings

Sustainable tourism has become a key strategy for promoting economic growth while preserving cultural heritage and supporting local communities. The digital era provides the tools necessary to make this vision a reality. As demonstrated through the conceptual framework of NashikExplore, localized digital tourism platforms can bridge the information gap, empower local businesses, and create a more inclusive tourism ecosystem.

By aligning platform features with the targets of SDG 8.9, NashikExplore illustrates how technology can be a force for good. It transforms the tourist from a passive consumer into an engaged participant and the local resident from a bystander into a primary stakeholder.

6.2 Future Scope and Technological Evolution

6.3 Final Call to Action

1. The integration of digital platforms with sustainable tourism strategies represents an important pathway toward achieving inclusive economic growth and cultural preservation. For cities like Nashik, the digital frontier is the next great opportunity. By embracing community-driven, technology-enabled tourism, emerging destinations can ensure that they grow not just in numbers, but in the quality of life they offer to their residents and the quality of experience they provide to their guests.
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The future of platforms like NashikExplore lies in the integration of even more sophisticated technologies:

- Artificial Intelligence (AI): Using AI to provide personalized "Sustainable Itineraries" based on a traveler's interests and the city's real-time needs.
- Augmented Reality (AR): Allowing tourists to see "reconstructions" of historical sites through their smartphones, bringing Nashik's history to life without physical intervention.
- Blockchain for Fair Trade: Utilizing blockchain to ensure that payments to local are transparent and immediate, further reducing economic leakage.
- Data-Driven Sustainability Metrics: Implementing real-time tracking of a destination's "Sustainability Score" based on user feedback and environmental sensors.

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