

Digital Governance for Sustainable Tourism in Rural Kerala: A Qualitative Exploration

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Abstract: Kerala tourism became one of the major economic drivers in India. Tourism impacts the local people by increasing their livelihood, standard of living and environmental consciousness. This study explores the impact of digital governance on the transformation of rural tourism to Sustainable rural tourism in Kerala. It examines how digital strategies from e-governance initiatives to digital marketing, promote sustainable tourism development. The study explored how digital technologies can highlight the unique cultural heritage, natural beauty and traditional livelihoods of rural Kerala. A qualitative research approach was employed for the study which identified the challenges such as inadequacy of digital infrastructure, skill deficits, and problems in community involvement in the digital transformation in rural areas. It also identifies ways to mitigate these challenges. The findings revealed that digital governance is transforming the rural tourism destinations of Kerala into sustainable tourism destinations that offer a replicable model for sustainable tourism development globally.

Key Words: Digital Governance, Rural Development, Sustainable Development Goals, Sustainable Tourism.

1. INTRODUCTION:

In Kerala, tourism is one of the major economic drivers and a well-promoted sector efficiently managed by the state government. Kerala's digital governance is characterised by its dedication to boosting digital literacy and improving access to government services that reshaped the landscape of public service delivery (Jerab, 2024). As a significant powerhouse, tourism highlights its growing potential for economic growth and development. Information technology is pivotal with various stakeholders effectively utilising technological innovations to enhance the overall tourist experience amid a dynamic landscape of market shifts, crises, and visitor expectations; technology helps stakeholders accelerate adaptation, improve inter-organizational coordination, and maintain consistent service quality and competitive positioning as external conditions fluctuate (The Hindu, 2020). Kerala intends to foster sustainable growth by integrating tourism development with digital governance. It balances rapid tourism expansion with strong social responsibility and establishing a scalable model for the entire industry.

Digital governance provides a structured framework to establish accountability, define specific roles and empower decision-making for the digital presence of an organisation (Urban e-Governance Defining E-Governance, n.d.; Jerab, 2024). It encompasses all digital platforms and tools including official websites, mobile applications, active social media channels and other internet-enabled products and services it provides. It emphasises determining accountability for the overall digital strategy, specific policies, and established standards (Jerab, 2024). It reflects the government's strategic utilisation of contemporary information and communication technologies such as the internet, Local Networks (LANs), and mobile devices to enhance public service delivery efficiency, effectiveness, and quality while upholding, fostering, and promoting democratic principles (Buhalis & Law, 2008).

In the dynamic tourism sector, digital governance is vital in advancing areas such as promotional strategies, visitor experience enhancement, efficient data management, regulatory adherence, and the integration of environmental and social sustainability etc. It also significantly improves accessibility for diverse user groups (Buhalis & Law, 2008). As a foundational pillar, digital governance ensures that the tourism industry functions efficiently and responsibly in the digital era and delivers substantial benefits to experienced travellers and the overall tourism ecosystem (Das & Rajendran, 2019). This paper critically analyses the practical application of digital governance by the Department of Tourism, Kerala, focuses on how it uses digital technologies to promote and facilitate tourism development.

2. Review of Literature:

The rapid pace of digital transformation and the increasing urgency of sustainable development have profoundly reshaped the global tourism landscape.

2.1. Digital Governance and E-Tourism

Digital governance fundamentally leverages information and communication technologies (ICTs) to enhance public service delivery and citizen engagement. It has become a cornerstone in modern public administration (Urban e-Governance: Defining E-Governance, n.d.). Within the tourism sector, this translates into "e-tourism," a broad term that refers to the digitalisation of travel and hospitality services. Scholars like Buhalis and Law (2008) have traced the evolution of e-tourism, highlighting how ICTs have fundamentally transformed operational and strategic management in the industry over the decades. Based on this foundation, Sigala (2018) and others have emphasised how advancements such as websites, mobile applications, social media platforms, and data analytics have empowered tourism enterprises by facilitating real-time information access, enhancing customer satisfaction, and generating sustained competitive advantages globally.

In India, the journey into e-tourism began in the late 1990s, driven by growing internet penetration and economic liberalisation. As Sharma and Goel (2011) observed, the initial stages were modest and focused on basic informational websites for tourism boards. However, this landscape evolved rapidly. Raina and Agarwal (2017) highlight the expansion to more sophisticated functionalities which include real-time booking systems, integrated payment gateways, emerging applications of virtual reality technologies and so on. The launch of the national "Digital India" initiative has further accelerated this transformation, promoting widespread adoption of ICTs across various sectors, including tourism. The Ministry of Tourism has actively responded and introduced e-governance initiatives such as the Incredible India Tourist Facilitator Certification Programme and simplifying e-visa facilities and assured the government's commitment to digital leverage (Ministry of Tourism, 2022).

Kerala has emerged as a pioneer in ICT implementation and e-governance, striving to transform into a "knowledge economy." 'God's Own Country', a part of Kerala, is a globally recognised brand with immense reach through digital channels. Das and Rajendran (2019) highlight Kerala's proactive adoption of digital tools, including initial engagement with Artificial Intelligence, robotics, and virtual reality, to enhance tourist satisfaction, strengthen destination branding, and streamline policy-making. The Kerala Tourism Department's innovative digital initiatives—such as the AI-driven Maya WhatsApp chatbot, gamified promotional campaigns like Holiday Heist, revamped District Tourism Promotion Council (DTPC) websites, and various user-friendly mobile applications, are tangible examples of digital innovation initiatives. However, as Gautam and Singh (2021) point out, the adoption of advanced technologies like AI-powered marketing, while promising, remains in an early phase even within digitally progressive states, indicating both the potential and the challenges of profound digital transformation in tourism governance.

2.2. Sustainable Tourism and Digitalisation

The integration of digitalisation and sustainability is critical in the field of inquiry especially in navigating the complexities of Industry 4.0. Scholars such as Dwivedi et al. (2020) have thoroughly explored how digital platforms are transformative in advancing various Sustainable Development Goals (SDGs) within the tourism industry. It includes influencing economic inclusivity by connecting local businesses to global markets, impacting labour dynamics through new digital job roles, and fostering environmental responsibility by enabling paperless operations and promoting eco-friendly choices. Digital tools can promote environmentally conscious practices by providing real-time information on green transport options, empowering local artisans, and producers through user-friendly e-commerce platforms, and fostering responsible tourism by delivering transparent reviews and sustainability-oriented guidelines, aligning with broader sustainable development objectives (UNWTO, 2021).

Achieving truly sustainable digital tourism is not without its prerequisites including robust foundational digital infrastructure encompassing consistent internet penetration, adequate speed, and stringent security measures to protect user data (Jones & Smith, 2022). In this context, the responsible application of digital governance is essential. It ensures that technological advancements contribute positively to environmental protection, social inclusivity, and cultural preservation. Without such governance, digital solutions could deepen existing inequalities, creating new challenges such as data privacy breaches, digital exclusion, or cultural commodification.

2.3. Rural Tourism and Digital Transformation in India

International organisations like the UNWTO endorse rural tourism in India and hold immense, yet realised, potential for socio-economic progress, cultural preservation, and environmental conservation. It offers diverse and authentic experiences, from nature-based activities to agricultural tourism to engagement with traditional rural lifestyles and indigenous cultures. Despite these strengths, rural tourism remains an underdeveloped segment, hindered by systemic challenges.

One of the most prominent and recurrent challenges is the persistent lack of adequate digital infrastructure, particularly the absence of reliable, high-speed internet access in many remote rural regions (Kumar & Sharma, 2018;

Reddy & Devi, 2019). This "digital divide" severely hampers the effective implementation of digital technologies and online services, directly limiting the visibility and market reach of rural tourism providers, who mainly rely on traditional word-of-mouth rather than targeted digital marketing strategies (Patel, 2020). The absence of robust connectivity means that even the most innovative digital platforms struggle to generate meaningful impact in the areas where they could offer transformative benefits.

Another critical barrier to the advancement of rural tourism in India is the limited technological awareness and digital literacy among rural communities and small-scale tourism entrepreneurs (Singh & Gupta, 2017). Many individuals in those areas are unfamiliar with digital tools and lack the confidence to use them. Giving them the training to use the tools effectively and making adopting and utilising technology in tourism operations a significant challenge. The issue is compounded by insufficient structured capacity-building programmes and training facilities designed to empower rural stakeholders to use digital platforms for marketing, booking, and managing tourism destinations (Mohan & Nair, 2019). Without such foundational skills and institutional support, the transformative potential of digital tourism remains inaccessible to several rural tourism providers, which causes the perpetuation of existing gaps in reach, competitiveness, and sustainable growth.

The fragmented nature of the Indian tourism industry results in the lack of integrated mechanisms to connect various stakeholders, including government officials, local communities, and private entrepreneurs. This fragmentation impedes the collective effort required for effective digital marketing and developing sustainable business models in rural areas (Verma & Singh, 2016). Gomez and Sanchez (2020) highlighted that engaging local communities can also be challenging due to resistance to change, lack of awareness about the benefits of digital platforms, or preference for traditional, face-to-face communication methods. Such factors contribute to a slow and uneven digital transition, constraining the potential of digital governance to support inclusive and sustainable rural tourism development. Besides these challenges, digital transformation presents compelling opportunities for advancing rural tourism. It enables market expansion, reaches broader domestic and international audiences, and facilitates direct connectivity between tourists and local service providers, which reduces reliance on intermediaries and boosts local revenues (Das & Mondal, 2021). Digital marketing can effectively promote niche tourism segments, offering authentic, personalised, and culturally rich experiences that align with the preferences of increasingly conscious and discerning travellers (Sharma et al., 2022). Government initiatives like 'Digital India' are mainly designed to bridge these digital gaps through targeted infrastructure development and digital literacy programmes, actively encouraging the development of specialised online platforms tailored for rural tourism development.

2.4. Research Gaps

This study addresses critical gaps in the existing literature by focusing on digital governance for sustainable tourism in rural Kerala. Studies on digital transformation in Kerala and e-governance in India already exist. However, there is a gap in an in-depth exploration of the unique dynamics and stakeholder perceptions within rural Kerala's diverse population. The study aims to provide a deeper understanding of how specific challenges like infrastructure and skill gaps manifest locally and to capture the lived realities of those challenges. Additionally, the study seeks to establish an empirical link between digital governance interventions and tangible, sustainable outcomes from the field. Finally, this study prioritises the unheard voice of local communities and beneficiaries, who are underrepresented in documented policies and initiatives, to provide a comprehensive qualitative perspective on implementation challenges, perceived benefits, and desired improvements.

2.5 Theoretical Framework

This study explores digital governance in sustainable rural tourism and is grounded in three key theoretical perspectives. Diffusion of Innovations Theory (Rogers, 2003) helps explain how digital tools such as mobile apps and online platforms are adopted in rural tourism settings. It highlights how relative advantage, compatibility, complexity, trialability, and observability influence stakeholder adoption, particularly in areas with different digital literacy levels. Stakeholder Theory (Freeman, 1984) provides a lens to examine how different actors such as government officials, local communities, tourists, private operators, and tech providers, interact and influence the success of digital governance. It emphasises the importance of inclusive engagement for sustainable outcomes. The Sustainable Development Goals (SDGs) act as a guiding framework for evaluating the broader impact of digital interventions. Goals such as SDG 8 (Decent Work), SDG 9 (Innovation and Infrastructure), SDG 11 (Sustainable Communities), and SDG 12 (Responsible Consumption) help assess how digital tourism initiatives contribute to inclusive economic growth, environmental protection, and cultural sustainability. These frameworks guide the study in understanding the adoption, impact, and inclusivity of digital governance in promoting sustainable tourism in rural Kerala.

3. Objectives:

- To explore and identify the digital innovation techniques employed by the tourism department in Kerala.

- To examine the mechanisms through which digital governance contributes to enhancing the performance of the tourism department in Kerala.
- To examine the perceptions of stakeholders on the effectiveness of the service delivery of the Kerala Tourism Department through the implementation of digital governance initiatives.

4. Methodology:

This study employed a qualitative and descriptive analysis approach to provide in-depth insights into the study area. A purposive sampling method using a semi-structured interview protocol was employed for the primary data collection. In-person and telephonic interviews were conducted to maximise participant accessibility and convenience. In total, 19 individuals were interviewed, encompassing a diverse range of beneficiaries such as local homestay owners, community members involved in tourism, frequent rural tourists and key government officials from the Department of Tourism and related local bodies. Secondary data was thoroughly gathered from various qualitative sources, including academic journals, e-books, articles, and relevant government documents. The study areas encompassed Kasaragod, Idukki, Wayanad, and Kollam, which were explicitly chosen for their distinct geographical differences. Thematic analysis was used for the data analysis.

5. Findings:

5.1. Digital Innovations by the Department of Tourism of Kerala

The Department of Tourism in Kerala has implemented various digital innovations to enhance its services and promote tourism. Maya, Kerala Tourism's official WhatsApp chatbot, is an automated information provider and a responsive assistant for tourists. It offers readily accessible support and quick answers to common queries. The Kerala government launched the 'Holiday Heist' bidding game, an interactive game. It is a novel and engaging approach to actively involve and attract tourists to the state (The Hindu, 2023), creating a unique digital experience. Kerala Tourism was honoured with the prestigious Pacific Asia Travel Association (PATA) Gold Award for its groundbreaking digital marketing campaign, 'Holiday Heist.' (Kerala Tourism Wins PATA Gold Award 2024 for Innovative Digital Marketing Campaign | Kerala Tourism, n.d.). Virtual Kerala Travel Mart (KTM), a virtual platform, is designed to increase investments in infrastructure development, foster essential capacity building, and enhance marketing efforts for the sustained growth of the travel and hospitality industry (The Hindu Business Line, 2023), extending its reach beyond physical events. The department relaunched the websites of all fourteen District Tourism Promotion Councils (DTPCs) in Kerala on August 23, 2023. These new platforms incorporate Artificial Intelligence (AI) for improved functionality and a more personalised user experience, making local information more accessible. Online travel information platforms serve as comprehensive repositories, providing up-to-date information created for travellers' needs, from destination guides to travel advisories. The 'Find on the Map' feature links tourism centres in each district with Google Maps, simplifying navigation and exploration for travellers and making it easier to discover attractions. Mobile App for Women-Friendly Tourism, an application specifically introduced to make the state's tourism sector increasingly gender-inclusive, actively promoting safety and accessibility for women travellers. Kerala Tourism App provides detailed information on Kerala's diverse tourist destinations, offers clear directions, highlights nearby attractions, and features engaging pictures and videos, serving as a comprehensive digital guide. The virtual Travel Assistant project is designed to offer personalised virtual assistance to tourists, enhancing their planning and on-ground experiences through AI-powered recommendations and support. Virtual Kerala mobile application delivers lively and visually rich videos of Kerala's real-world experiences. It makes them accessible and engaging through smartphones, offering a taste of the destination from anywhere. Muziris Virtual Tour Guide Mobile app is a personal guide for tourists exploring the historical significance and attractions of Muziris, bringing history to life through digital narration and interactive features. The website of the Tourism Club, www.tourismclubkerala.org, was launched to foster and promote active youth participation in the tourism sector. The Kerala Tourism Department's digital event calendar for 2025–26 offers a comprehensive and visually engaging guide to the state's rich cultural tapestry. This interactive platform features vibrant photographs and an impressive collection of 75 curated videos provides immersive glimpses into Kerala's diverse festivities. Each event listing includes detailed information on its cultural significance, schedule and location. It is an indispensable tool for domestic and international travellers planning meaningful and memorable experiences. District-specific apps such as 'Kottayam Tourism' and Idukki's 'VIBGYOR' are made to guide tourists in Munnar and further enhance the digital experience.

6. Discussion:

6.1. Digital Governance in Enhancing the Performance of the Tourism Department in Kerala.

The study gathered rich insights from various stakeholders. The demographic composition of individuals in the inquiry included male and female participants from diverse age groups. Key qualitative insights regarding the effectiveness of digital governance and service delivery reveal several significant themes :

6.1.1. Accessibility for Bridging the Digital Divide

Stakeholders generally conveyed that Kerala Tourism's digital platforms were easy to access, suggesting a positive initial experience for many users. However, our discussions also highlighted that some individuals, particularly in more remote areas, encountered difficulties, often stemming from limitations in local digital infrastructure. As one resident from a rural area highlighted, "Sometimes in our village, the internet just cuts out for hours. When that happens, the app becomes useless when you need it most, even for basic information." This sentiment was echoed by others, with one participant adding, "I appreciate the apps, but for my elderly parents, finding information is a challenge. They often prefer to ask someone face-to-face." Importantly, the qualitative data display that accessibility issues could inadvertently exclude individuals with disabilities, preventing them from fully utilising the digital offerings and underscoring the need for inclusive design.

6.1.2. Depth and Authenticity of Content Availability

Regarding the information and content available on Kerala Tourism digital platforms, feedback indicated a mixed but generally satisfied perspective among respondents. While many stakeholders appreciated the wide range of available information some highlighted the need to improve its quality and depth. One tourist suggested "The pictures are beautiful but I wish more detailed stories about local traditions or specific activities were available in each village. It would make it feel more authentic not just a list of places." It highlights a desire for richer narratives.

6.1.3. Ease of Use

The user-friendliness of the digital platforms of the Kerala Tourism Department was generally well-received, with many stakeholders describing them as easy to navigate. Despite this positive sentiment some suggestions for improvements were made. These included perceived slow loading times, interfaces that occasionally felt overly complex or non-intuitive in design, or intermittent technical glitches such as app freezes and website downtime. Such issues could lead to user frustration and interrupt planned activities. One tourist shared "The website was good but sometimes the pages took ages to load especially when I was trying to book something with limited data. It was frustrating."

6.1.4. Building Trust on Information Security and Privacy

A notable and recurring concern among respondents was privacy when using digital platforms with many expressing apprehensions about data security. A stakeholder articulated this sentiment : "I worry about my data when I book things online; I hope the government ensures it is safe and does not share it with third parties because we are giving sensitive information like addresses and payment details." It reflects a growing awareness and demand for robust data protection. There was also a strong emphasis on the expectation that the platform would adhere strictly to relevant laws and regulations particularly concerning data protection and appropriate content moderation reflecting a profound desire for transparent and trustworthy digital interactions (Yallop et al., 2023 ; Shrestha et al., 2020).

6.1.5. Service Delivery

The analysis revealed that many stakeholders had utilised various services the Kerala Tourism Department provided through digital platforms, such as booking accommodations or tour packages. One respondent highlight, "Booking hotels through the website is easy. Earlier, I used to book hotels through Goibibo, Make My Trip, and Agoda. However, now, I will check the tourism website first." From these experiences a sentiment of satisfaction with the services received highlighted the convenience and efficiency of the digital approach.

6.1.6. Citizen Engagement

A key finding was the limited extent of active citizen engagement through digital platforms of Kerala Tourism department. Many stakeholders indicated they had not actively participated in providing feedback or submitting queries or writing reviews yet. It suggests a missed opportunity for the department to develop more proactive and inviting strategies to encourage greater interaction and foster a more profound sense of community involvement through its digital channels. As one community member said, "They put out information, which is good, but it does not feel like there is a real place for us to give our ideas or even complain easily online. It is mostly one-way communication."

6.1.7. Digital Promotion

Discussions indicated widespread awareness of Kerala Tourism's digital promotional campaigns. Stakeholders perceived these digital promotion efforts as highly effective in attracting tourists with substantial reach and significant impact of online marketing across various platforms in shaping perceptions and stimulating interest in visiting Kerala. A tourist remarked, "I first saw Kerala on Instagram. The videos were so captivating. That made me want to visit, and it looked like a dream." It highlights the power of visual and engaging digital content.

6.1.8. Digital Infrastructure

While stakeholders generally expressed satisfaction with the digital infrastructures include website performance and app usability qualitative feedback highlighted areas where improvements could be considered. These suggestions often

revolved around enhancing seamlessness and robustness to ensure a consistently smooth digital experience for users. "The basic website works, but it could be much faster and handle more users without crashing especially, during peak season," suggested a local tour operator pointing to scalability needs.

6.1.9. Comprehensive and Accessible Online Information

The online information provided about tourist destinations and activities by Kerala Tourism was regarded mainly as good and comprehensive, with most respondents expressing happiness with the content available on digital platforms. Many appreciated the information that one tourist stated, "I found everything I needed from bus routes to historical facts about local temples all in one place online. It was beneficial for planning."

6.1.10. Need for Digital Literacy

An inevitable finding was that stakeholders had not participated in any specific digital literacy programmes or workshops related to tourism in Kerala conducted by the Department of Tourism. It underscores a potential challenge where varying levels of digital literacy among users might lead to difficulties in navigating more complex digital platforms. The data also revealed that the marketing campaigns done by the tourism department influenced the decisions of individuals to explore other parts of Kerala, which indicates the power of digital outreach. A rural homestay owner responded, "I should be on Facebook and Instagram more for my business, but I do not know how to start properly or make good posts. Not many local training sessions teach us these practical skills." It highlights a direct need for targeted education

6.1.11. Challenges faced by the Kerala Tourism Department in Digital Governance

While Kerala has made commendable initiatives in digitalising its tourism sector this qualitative exploration revealed several persistent challenges particularly, pronounced in its rural contexts. If not immediately addressed these hurdles could challenge the full realisation of sustainable digital tourism.

- **Limitations in Digital Infrastructure :** Some rural areas still have inconsistent high-speed internet access and unreliable mobile network coverage. It is a foundational issue. As one local government official from a remote area in Idukki pointed out, "We can build the best apps with all the features, but if tourists and locals do not have stable internet, it is all in vain. Connectivity is still our biggest bottleneck, especially in the more remote areas of Idukki." This fundamental infrastructure problem makes it hard for tourists and locals to use digital services, creating a transparent barrier to digital access and the smooth functioning of online tourism activities.
- **Existing Skill Gaps :** This study identified a notable skill gap among certain tourism officials, local community members, and small business owners regarding advanced digital tools and effective digital marketing techniques. While basic digital literacy might exist a clear and pressing need exists for more specialised practical training. A Tourism official thoughtfully commented, "Our team needs more hands-on training on using advanced digital marketing tools and analytics to maximise our online presence and reach specific tourist demographics effectively. We are trying to cope in the new digital world. The current level is insufficient to compete in today's digital world." This prevalent skill deficit limits the full potential and effective utilisation of digital governance initiatives at the grassroots level, affecting everything from online content creation to direct bookings.
- **Dynamics of Community Involvement:** Engaging local communities as crucial stakeholders in sustainable tourism and digital governance initiatives present unique and often complex challenges. The study observed instances of resistance to change, a prevailing lack of awareness about the tangible benefits of digital platforms or a strong preference for traditional face-to-face communication methods, which can significantly hinder active digital participation. For instance, "Some community elders felt quite excluded from digital discussions about local tourism projects, preferring direct, in-person meetings for important decisions about development in their villages," a local community leader shared. It highlights potential power imbalances and a digital divide if digital channels become the sole mode of engagement a point strongly underscored by Stakeholder Theory. Ensuring truly equitable digital inclusion requires proactively addressing these socio-cultural barriers and building trust through diverse inclusive engagement strategies that respect local preferences.

7. Conclusion:

Tourism is a vital economic catalyst in Kerala. The adoption of digital governance by the Kerala Government which focuses on enhancing digital literacy and improving access to government services has transformed the delivery of public services in the tourism sector. The convergence of tourism development and digital innovation reflects the need to achieve a balance between rapid tourism expansion and rising demand for social responsibility. Notable progress has been made in digital accessibility, user experience, content availability, information security, and service efficiency, but several challenges include infrastructural limitations in rural regions, gaps in digital skills among stakeholders, and the need for more inclusive citizen engagement strategies also persist. Addressing these issues is important to ensure that digital governance initiatives in tourism are inclusive and effective. It benefits all stakeholders in the rural tourism sector in Kerala and secures its long-term sustainability.

8. Limitations:

This qualitative study has several limitations, as follows;

- **Temporal Limitations:** The study's conclusions are based on the data and context available during the research. The study may not reflect changes in government policies, rapid technological advancements, or shifts in the tourism industry after the study period.
- **Contextual Specificity:** The findings are deeply rooted in the distinct geographical and socio-cultural context of rural Kerala that may not be fully generalisable to all tourism destinations or regions outside the state because each location possesses unique characteristics and faces different challenges.
- **Subjective Nature:** Some aspects of the research, such as stakeholder perceptions and experiences, are subjective and may vary among individuals.

9. Recommendations:

Based on the rich qualitative insights gathered from this study, the following detailed recommendations are proposed for the Kerala Tourism Department to enhance its digital governance for sustainable tourism;

- **Strategic Investment in Robust Digital Infrastructure:** The Kerala Tourism Department invests in robust digital infrastructure, particularly expanding reliable, high-speed internet access in remote hilly areas like Idukki and Wayanad. It is essential for enhancing digital service accessibility for tourists and local communities.
- **Development of Comprehensive Digital Literacy and Skill Initiatives:** Targeted training programmes should be developed for tourism officials to enhance their advanced digital marketing skills and analytical capabilities and for community members to improve their basic and intermediate digital literacy. This recommendation focuses on empowering them with the knowledge and practical skills to effectively utilise digital tools, ensuring technology is an enabler rather than a barrier to sustainable tourism development.
- **Promote Inclusive Citizen Engagement:** There is a clear need to develop and implement more proactive and inviting citizen engagement strategies through digital platforms, directly addressing the active citizen. This qualitative means creating accessible and intuitive channels for active feedback, constructive suggestions, and genuine concerns from tourists and local communities. The goal is to foster a true sense of participation and shared ownership in tourism development, moving beyond passive information dissemination to active dialogue and equitable inclusion for all stakeholders, including those who may still prefer traditional communication channels.
- **Ensure quality and authenticity of digital content:** This recommendation emphasises that all information on digital platforms should consistently reflect Kerala's unique cultural narratives and natural beauty and build positive feedback about online information while addressing opportunities for more in-depth content. Regular website and app content reviews should be conducted to maintain high relevance, appeal, and representation standards.
- **Continuous User Experience Enhancement through Qualitative Feedback Loops:** Implement an ongoing program of User Experience research to gain a more profound, nuanced understanding of how tourists perceive, interact with, and emotionally respond to the digital services and platforms offered by the Kerala Tourism Department. It directly addresses observations related to Ease of Use, such as slow loading times and complex interfaces. Continuous insights can be gathered through qualitative interviews, focus groups, and usability testing to refine and improve digital offerings' design, functionality, and overall user satisfaction.
- **In-depth Research and Implementation for Universal Accessibility and Inclusivity:** Conduct dedicated, in-depth qualitative research into how digital services can be made universally accessible to a diverse range of tourists. It includes specifically addressing the unique needs of individuals with disabilities, providing robust multi-lingual support to overcome language barriers, and designing platforms that accommodate users across varying levels of technological literacy. This recommendation directly responds to concerns about potentially excluding individuals with disabilities and ensures that digital platforms uphold principles of equity and inclusion for all potential visitors.
- **Strengthening Transparent Data Security and Privacy Communications:** It is essential to implement robust data protection frameworks based on the concerns raised by stakeholders about privacy and information security. These measures must be communicated transparently and consistently to the users. This active communication will build essential trust and foster confidence in the digital services provided by the Kerala Tourism Department and will encourage its adoption and engagement.

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