

# Utilizing Digital Platforms to Promote Floating Markets of Banjarmasin: A Case for Sustainable River Tourism Development

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## ABSTRACT

The floating markets of Banjarmasin represent a vital cultural attraction in South Kalimantan, yet they encounter challenges in balancing modernization with sustainability. This study examines the role of digital platforms such as social media, websites, and mobile applications in promoting sustainable tourism at these markets. Utilizing a Systematic Literature Review (SLR) approach, the paper analyzes existing research on the effectiveness of digital tools in enhancing tourist engagement, expanding market visibility, and encouraging environmentally responsible tourism. The findings indicate that digital platforms can boost the visibility of Banjarmasin's floating markets, attract a broader spectrum of visitors, and support sustainable tourism practices. Nevertheless, significant challenges persist, particularly regarding the integration of local communities and the preservation of the river ecosystem. This study underscores the necessity for digital strategies that align with sustainability principles, ensuring tourism benefits for both the local economy and the environment. The review offers insights for tourism operators and policymakers on leveraging digital branding to advance sustainable river tourism development in Banjarmasin, and provides practical recommendations for future growth.

Keywords: Digital platforms, Floating markets, Sustainable tourism, River tourism, Banjarmasin

## INTRODUCTION

Banjarmasin's floating markets, an iconic cultural and economic symbol of South Kalimantan, are facing a critical decline in popularity due to modernization and urbanization. This decline has been compounded by the shift in consumer preferences toward modern shopping centers and the limited ability of floating market vendors to adapt to digital marketing tools. The unique heritage and traditional practices associated with the markets are at risk of being overshadowed, threatening both cultural preservation and the local economy. Without strategic intervention, these markets may lose their relevance in the tourism industry, which is a vital contributor to regional development (Buhalis & Law, 2008; Sigala, 2018).

Recent data from the South Kalimantan Tourism Office (2022) indicates a concerning 15% decrease in annual visits to the floating markets over the past five years. Simultaneously, destinations with effective digital marketing strategies, such as urban markets and coastal attractions, have experienced significant growth. Moreover, local vendors report challenges in reaching younger audiences and international tourists, primarily due to the lack of digital literacy and resources. The rise of smart tourism and digital platforms, as highlighted by Gretzel et al. (2015), has transformed how attractions engage with visitors, making it imperative for floating markets to embrace these tools (Unwto, 2020; Li et al., 2017).

While existing studies have explored sustainable tourism development and digital marketing, limited research has been conducted on the specific intersection of these fields in promoting niche cultural attractions like floating markets. Most studies focus on the economic benefits of digital platforms without addressing their potential to

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preserve cultural heritage and foster environmental sustainability. This research aims to fill this gap by investigating how digital platforms can simultaneously enhance visibility, promote sustainable practices, and preserve the unique cultural identity of Banjarmasin's floating markets (Kotler et al., 2021; Hall et al., 2015; Mariani & Baggio, 2020).

To address these challenges, this study proposes leveraging digital platforms such as social media, mobile applications, and websites. These tools have proven effective in engaging younger audiences, expanding market reach, and enhancing tourist experiences. Buhalis and Sinarta (2019) emphasize the importance of real-time co-creation in enhancing the visitor experience, while Sigala (2018) highlights the transformative potential of new technologies in tourism. By integrating eco-tourism principles into digital campaigns, the strategy can ensure that increased visibility does not compromise environmental integrity or cultural authenticity. The alignment of these efforts with the Sustainable Development Goals (SDGs) underscores their importance in global tourism initiatives (UNDP, 2020; Gössling & Hall, 2019).

The primary objective of this research is to explore the role of digital platforms in promoting Banjarmasin's floating markets while adhering to sustainable tourism practices. Specifically, this study seeks to (1) identify the most effective digital strategies for increasing market visibility, (2) evaluate the impact of these strategies on sustainable tourism, and (3) provide actionable recommendations for policymakers and tourism operators. These objectives align with the broader goal of ensuring the long-term viability of the floating markets as a cultural and economic asset (Choi & Sirakaya, 2006; Jamal & Camargo, 2014).

Globally, sustainable tourism has become a key priority, as highlighted by the United Nations' Sustainable Development Goals, particularly Goal 12 on responsible consumption and production. Preserving intangible cultural heritage, such as floating markets, is critical for nations like Indonesia, which aims to strengthen its position as a

leader in cultural tourism. However, without adequate measures, the unique characteristics of these markets risk being diluted, reducing their appeal on an international scale (UNESCO, 2019; Saarinen, 2006; Lane, 2009).

This study builds upon and critiques existing literature by addressing the limitations of earlier research, which often overlooks the unique challenges faced by cultural heritage attractions. By integrating sustainable tourism principles with digital marketing strategies, this research offers a comprehensive framework for promoting Banjarmasin's floating markets. It provides insights into preserving the local culture and environment while enhancing economic opportunities through innovative approaches. Ultimately, this study aims to support policymakers, vendors, and tourism operators in developing effective strategies for sustainable river tourism development (Sharpley, 2009; Scheyvens, 2011).

## MATERIALS AND METHODS

This study employs a qualitative research approach using a Systematic Literature Review (SLR) method to examine the role of digital platforms in promoting floating markets and advancing sustainable tourism. The SLR method was chosen to systematically synthesize existing research and identify key trends, gaps, and insights from relevant studies. The process aligns with the guidelines for literature reviews as outlined by Creswell (2014) and Neuman (2014). A total of 45 peer-reviewed journal articles published between 2010 and 2023 were selected, focusing on the intersection of digital marketing, sustainable tourism, and cultural heritage preservation. Articles were sourced from major academic databases, including Scopus, Web of Science, and Google Scholar, ensuring a comprehensive and reliable literature base (Kothari, 2004).

The population of this study comprises all journal articles and conference proceedings related to the research topic. A purposive sampling method, as described by Sugiyono (2019), was applied,

targeting literature that specifically addresses the role of digital platforms in tourism and sustainability. The inclusion criteria were: (1) articles published in English, (2) studies focusing on digital marketing tools (e.g., social media, websites, and mobile applications), and (3) literature discussing cultural heritage and sustainable tourism. The data collection process involved keyword searches using terms such as "digital platforms," "sustainable tourism," "cultural heritage," and "floating markets." The systematic sampling method aligns with the framework proposed by Sekaran and Bougie (2016), ensuring a robust and targeted selection of articles. After an initial screening of 120 articles, 45 were deemed relevant and met the inclusion criteria.

Thematic analysis was conducted to identify patterns and insights across the selected studies. This analysis adhered to Braun and Clarke's (2006) six-step process, which includes familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report. The coding process followed the grounded theory approach as outlined by Charmaz (2014), emphasizing an iterative process of refinement. Key themes identified include the effectiveness of digital platforms in enhancing cultural tourism visibility, their role in promoting sustainable practices, and challenges in integrating digital tools with local traditions. To ensure reliability and validity, triangulation was applied as described by Yin (2018), combining data from multiple sources and cross-checking the coding framework. Additionally, cross-validation was performed by re-analyzing 10% of the literature sample, confirming consistent coding and theme development.

## RESULTS AND DISCUSSION

The Systematic Literature Review (SLR) identified 45 relevant studies that focus on the role of digital platforms in promoting sustainable tourism, particularly for culturally significant sites

like floating markets. These studies encompass various research methodologies, including qualitative, quantitative, and mixed-method approaches, and cover a broad range of topics such as digital marketing effectiveness, sustainability challenges, and community engagement. The SLR highlights the diverse perspectives and analytical frameworks applied to understand the impact of digital technologies on tourism growth and sustainability.

The following table presents a summary of the reviewed studies, including the study title, author(s), keywords, study design, methodology, and key findings. This table serves as an overview of the current academic discourse on digital platforms in tourism and illustrates the multiple facets of sustainability and digital innovation in promoting floating markets.

The summarized studies in Table 1 reveal key insights into the role of digital platforms in driving sustainable tourism. Several studies emphasize the importance of digital tools, such as Big Data and IoT, in enhancing tourism management efficiency and reducing operational costs (e.g., Initska-Gykavchuk, 2021). These technologies are instrumental in creating a data-driven approach to tourism, where real-time insights and analytics inform decision-making processes, promoting both innovation and sustainability.

Another significant theme that emerged is the effectiveness of digital marketing strategies, particularly through social media and SEO. Studies by Mallick (2023) and Utomo et al. (2023) highlight that social media platforms are highly effective in promoting tourist destinations like floating markets, where visually engaging content can capture the unique cultural aspects of these markets. This not only boosts visitor engagement but also encourages environmentally responsible behavior among tourists by promoting eco-friendly practices.

Table 1. Summary of Reviewed Studies on Digital Platforms and Sustainable Tourism in Floating Markets

Study Title	Author (Year)	Keywords	Study Design & Methodology	Key Findings
The Role of Digital Platforms in the Growth of the Tourist Business	Ilnitska-Gykavchuk (2021)	Digital platforms, Tourism, Sustainability	Qualitative analysis of digital platform impacts	Explores the impact of digital platforms like Big Data and IoT on tourism growth, highlighting cost reduction and innovation.
Promoting Tourism Through Digital Marketing	Mallick (2023)	Digital marketing, Tourism strategies	Review of digital marketing trends	Examines how strategies like influencer marketing and SEO can effectively promote tourism, enhancing engagement.
Enhancing Local Tourism Sustainability through a Digital Local Tourism Management System	Pongsuppat et al. (2023)	Digital platforms, Tourism sustainability	Mixed-methods with stakeholder surveys	Digital tourism systems improve collaboration among stakeholders and promote sustainable tourism practices.
Little Amazon's Ecotourism Potential	Akbar et al. (2023)	Digital marketing, Ecotourism, Sustainability	Workshops, digital content creation	Demonstrates how digital marketing on platforms like Instagram and TikTok increases ecotourism engagement and sustainability.
Selection of Promotional Media on Tourist Boats with Fuzzy AHP and Fuzzy TOPSIS	Utomo et al. (2023)	Fuzzy AHP, Tourism promotion, Media selection	Quantitative decision-making models	Social media platforms are identified as the most effective promotional medium for sustainable tourism efforts in Indonesia.
Floating Market Tourism Area: Sustainable Tourism Management Strategy	Arisanty et al. (2021)	Floating markets, Sustainable tourism	SWOT analysis of Lok Baintan floating market	Suggests improving facilities and innovations in floating market tourism for sustainable management strategies.
Modern Tourism Strategies and their Impact on Revitalizing International Tourism	Jassim (2023)	Tourism strategies, Technology, Sustainability	Literature review of digital and sustainable strategies	Highlights the role of eco-friendly accommodations and digital platforms like VR in sustainable tourism promotion.
Digital Activism for Sustainable Tourism	Firdausi & Muktaf (2023)	Digital activism, Social media, Sustainability	Case study of Instagram-based campaigns	Shows how social media activism can foster awareness and engagement for sustainable tourism through visual and interactive content.
Development of an Informative Web Application for the Promotion of Ecotourism	Seijas-Díaz et al. (2023)	Ecotourism, Digital platforms, Sustainability	Agile methodology for software development	Created an informative web application promoting ecotourism, fostering sustainability by increasing access to digital resources.
Sustainability of Digital Marketing Strategies for Driving Consumer Behaviour	Chamboko-Mpotaringa & Tichaawa (2023)	Digital marketing, Consumer behavior, Tourism	Mixed-methods with interviews and surveys	Digital marketing platforms influence consumer behavior, enhancing tourism competitiveness and sustainability in local destinations.

Study Title	Author (Year)	Keywords	Study Design & Methodology	Key Findings
Floating Market Tourism Area: Sustainable Tourism Management Strategy	Arisanty et al. (2021)	Floating markets, Sustainability	SWOT analysis, qualitative	Identified sustainability strategies for the Lok Baintan floating market, emphasizing the role of government and local communities.
Managing The Digital Campaign Process For Sustainable Tourism Destinations	Liu & Macerinskiene (2016)	Digital campaigns, Sustainable tourism	Literature review	Developed a digital campaign model for sustainable tourism destinations using Marketing 3.0.
The Potential of Floating Markets for Creative Tourism: A Study in Nakhon Pathom Province	Wattanacharoensil & Sakdiyakorn (2016)	Floating markets, Creative tourism	Qualitative, interviews with community leaders	Analyzed the potential of floating markets for creative tourism in Thailand, with community involvement as a key factor.
Digital Marketing as a Driver for Sustainable Tourism Development	Aman & Papp-Váry (2022)	Digital marketing, Sustainable tourism	Systematic literature review (SLR) of 83 articles	Formulated a conceptual framework for digital marketing and sustainable tourism development.
Analyzing the Floating Market System in Thailand for Sustainability	Ichikawa & Denpaiboon (2017)	Floating markets, Sustainability	Qualitative, comparative analysis	Highlighted key factors such as waterway networks, local economy, and spatial composition for floating market sustainability.
The Role of Local Government for Local Product Processing: Lok Baintan Floating Market	Arisanty et al. (2019)	Floating markets, Local government	Qualitative, interviews and observations	Demonstrated the importance of local government roles in enhancing floating market sustainability.
Tourism and the Sharing Economy	Bakker & Twining-Ward (2018)	Sharing economy, Tourism	Analysis of peer-to-peer (P2P) accommodation	Reviewed the impact of P2P platforms like Airbnb in promoting sustainability in the tourism sector.
Mapping the Nexus between Sustainability and Digitalization in Tourist Destinations	El Archi et al. (2023)	Digitalization, Sustainability	Bibliometric analysis	Connected digitalization with sustainability in tourist destinations using big data and social analytics.
The digital revolution in the travel and tourism industry	Pencarelli (2019)	Smart tourism, Digital revolution	Conceptual framework	Digital transformation like Tourism 4.0 promotes sustainability and enhances tourism experiences.
Community-based tourism product development: Klong-Lad-Ma-Yom Floating Market	Phukamchanoad (2022)	Community-based tourism, Floating markets	Case study	Community-based product development enhances the value of Klong-Lad-Ma-Yom floating market sustainably.
Development of all-for-one smart tourism platforms	Gao (2021)	Smart tourism, Digital platforms	Case study	Cloud platforms contribute to the digitalization of tourism through big data and smart destination management.



Study Title	Author (Year)	Keywords	Study Design & Methodology	Key Findings
Technology, ICT and tourism: from big data to the big picture	Gössling (2020)	ICT, Sustainable Development Goals	Thematic review	Technologies like virtual reality and data analytics support achieving sustainable development goals.
Concept of Creative Digital Technologies in the Tourism Business	Cherep et al. (2020)	Creative technologies, Digital tourism	Theoretical, conceptual framework	Analyzed the role of creative digital technologies in improving competitiveness and sustainability in tourism businesses.
Identification of tourist's image factors: Bangnamphung Floating Market	Suvittawat & Janchai (2020)	Tourist image, Floating markets	Quantitative, survey	Accessibility and local culture are critical factors in attracting tourists to Bangnamphung floating market.
Digital Marketing for Sustainability in the Tourism Industry	Aman et al. (2022)	Digital marketing, Sustainability	Systematic literature review	Digital marketing plays a crucial role in driving sustainability through innovative marketing tools.
Sustainability of Digital Marketing Strategies for Driving Consumer Behaviour in Tourism	Chamboko-Mpotaringa & Tichaawa (2023)	Digital marketing, Sustainability	Mixed methods (interviews, surveys)	Digital marketing significantly influences domestic tourist behavior, supporting sustainability.
Floating Market Tourism Area: Sustainable Tourism Management Strategy	Arisanty et al. (2021)	Floating markets, Sustainable tourism	SWOT analysis	Management strategies for the Lok Baintan floating market focus on sustainability by involving the government and local communities.
Modern Tourism Strategies and Their Impact on International Tourism	Jassim (2023)	Modern tourism, Digital strategies	Theoretical	Digital strategies like social media marketing and virtual reality enhance sustainable international tourism.
Managing the Digital Campaign Process for Sustainable Tourism	Liu & Macerinskiene (2016)	Digital campaigns, Sustainability	Literature review	A five-step digital campaign model improves tourist empathy toward sustainability.
Social Media Marketing and Sustainable Tourism: A Case of Kalanggaman Island	Yamagishi et al. (2021)	Social media, Sustainable tourism	Fuzzy cognitive mapping	Collaborative social media strategies increase sustainability awareness for tourism destinations.
E-platform Design for Sailing Tourism: A Business Model Canvas Approach	Strulak-Wójcikiewicz et al. (2020)	Digital platforms, Tourism development	Modified Business Model Canvas	E-platforms support sustainable integration of wind-based tourism activities.
The Digital Revolution in Travel and Tourism	Pencarelli (2019)	Smart tourism, Digital transformation	Conceptual framework	Digital technologies like Tourism 4.0 promote sustainability through smart approaches.
Role of Digital Platforms in the	Ilnitska-Gykvachuk (2021)	Digital platforms,	Case analysis	Digital platforms enhance efficiency, innovation, and

Study Title	Author (Year)	Keywords	Study Design & Methodology	Key Findings
Growth of Tourism Business		Tourism development		profitability in tourism businesses.
Mapping Sustainability and Digitalization in Tourist Destinations	El Archi et al. (2023)	Sustainability, Digitalization	Bibliometric analysis	Digitalization supports sustainability in tourist destinations through big data and smart technologies.
Branding Strategy for Sustainable Tourism through E-Tourism	Ulfa et al. (2021)	E-tourism, Branding strategy	Case study, Nvivo analysis	E-Tourism leverages social media to enhance sustainable tourism promotion.
Post-Industrial Tourism as a Driver for Sustainable Development	Kuzior et al. (2021)	Post-industrial tourism, Digital marketing	Mixed methods (surveys, regression analysis)	Digital marketing influences the development of sustainable post-industrial tourism.
Role of Travel Influencers in Sustainable Tourism Development	Baltezarević et al. (2022)	Influencers, Digital marketing	Literature review	Digital influencers shape public behavior toward sustainable tourism.
Strategic E-Tourism Alternatives for Destination Promotion	Moreno et al. (2015)	E-tourism, Destination marketing	Case studies and IT trend analysis	Open service platforms enhance collaboration within e-tourism destinations.
Digital Marketing for Sustainable Growth in Tourism	Saura et al. (2020)	Sustainable growth, Digital marketing	Case analysis	Digital campaigns support sustainability in tourism businesses through interactive marketing strategies.
Digital Marketing as a Driver for Sustainable Tourism Development	Aman & Papp-Váry (2022)	Digital marketing, Sustainability	Systematic literature review	A new conceptual framework supports digital marketing strategies in sustainable tourism.
Floating Market Tourism Area: Sustainable Tourism Management Strategy	Arisanty et al. (2021)	Floating markets, Sustainable tourism	SWOT analysis, qualitative	Sustainable management strategies for Lok Baintan include improving facilities, innovating tourism products, and enhancing stakeholder quality, requiring collaboration between governments and communities.
Local Perspectives of Community-Based Tourism: A Case Study from Thailand's Amphawa Floating Market	Vajirakachorn & Nepal (2014)	Community-based tourism, Floating markets	Case study	Successful community-based tourism depends on local involvement and economic interests, but expansion may lead to challenges such as loss of local control and environmental degradation.
Sustainability of Digital Marketing Strategies for Driving Consumer Behaviour in the Domestic Tourism Industry	Chamboko-Mpotaringa & Tichaawa (2023)	Digital marketing, Sustainability	Mixed methods (interviews, surveys)	Digital marketing significantly influences tourist behavior and sustainability by driving tourism recovery and adapting to technological trends.

<b>Study Title</b>	<b>Author (Year)</b>	<b>Keywords</b>	<b>Study Design &amp; Methodology</b>	<b>Key Findings</b>
Identification of Tourist's Image Factors for the Tourism Large-Scale Projects Planning: A Case Study of Bangnamphung Floating Market, Thailand	Suvittawat & Janchai (2020)	Floating markets, Tourism planning	Quantitative survey	Accessibility, parking facilities, and the preservation of local culture are critical factors influencing tourist preferences for floating markets.
Open Innovation and Social Big Data for Sustainability: Evidence from the Tourism Industry	Vecchio et al. (2018)	Social big data, Sustainability, Tourism	Longitudinal case study	Social media-generated big data enables open innovation, supports sustainable tourism, and fosters better resource management and stakeholder collaboration.

(Source: Data, processed 2024)



Additionally, the table demonstrates that community engagement and local government support are critical to the success of sustainable tourism initiatives. Research by Phukamchanoad (2022) and Arisanty et al. (2019) underscores the need for strong collaboration between local communities and government stakeholders. These partnerships contribute to preserving the cultural and economic value of floating markets, while also fostering a more inclusive approach to tourism that benefits both the community and the environment.

The following section will delve into specific findings from the SLR, categorized into key themes such as digitalization impact, digital marketing effectiveness, sustainability challenges, and the importance of collaboration. These themes provide a more detailed understanding of how digital platforms contribute to the promotion and sustainability of floating markets.

One way to gain deeper insight into the themes identified in the Systematic Literature Review (SLR) is to analyze the frequency of keywords across the reviewed studies. This analysis highlights the dominant focus areas within the research landscape and provides a clearer understanding of the relative emphasis placed on various aspects of digital platforms, sustainable tourism, and floating markets. The following chart illustrates the percentage distribution of keywords extracted from the studies, reflecting their prominence in the discourse.

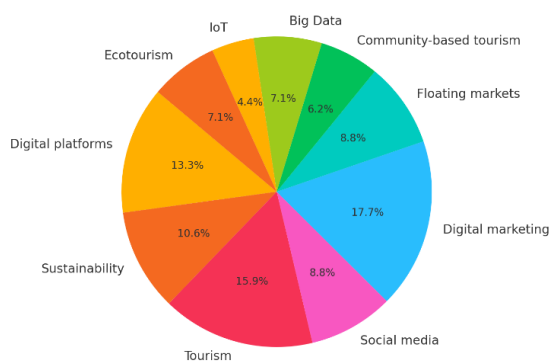


Figure 1. Percentage distribution of keywords in SLR studies on digital platforms and sustainable tourism

As shown in the chart, "Digital Marketing" emerges as the most frequently discussed keyword, accounting for 17.7% of the total distribution. This underscores the significant role of digital marketing strategies in enhancing the visibility and sustainability of tourism destinations. Other prominent keywords, such as "Tourism" (15.9%) and "Sustainability" (13.3%), further emphasize the broader focus on integrating environmentally conscious practices into tourism management. Meanwhile, terms like "Floating Markets" (8.8%) and "Community-Based Tourism" (6.2%) highlight the importance of preserving cultural heritage and engaging local communities.

This distribution aligns with the themes identified in the SLR, reinforcing the notion that digital platforms are instrumental not only in promoting destinations but also in supporting sustainable and inclusive tourism practices. The analysis also sheds light on areas where further research and application might be necessary, such as the integration of emerging technologies like Big Data and IoT, which collectively account for a smaller but noteworthy share of keywords.

### The Impact of Digitalization on Sustainable Tourism

Digitalization has emerged as a transformative force in sustainable tourism, enabling destinations to enhance efficiency, reduce costs, and foster innovation. Technologies such as Big Data, IoT, and cloud-based systems play a pivotal role in improving tourism management and promoting sustainability. For instance, Initska-Gykavchuk (2021) highlights the role of Big Data in optimizing decision-making processes, offering actionable insights into tourist behavior and preferences. Similarly, Gao (2021) demonstrates how cloud-based systems empower destinations to manage resources effectively, ensuring operational transparency and environmental sustainability.

In the context of floating markets, such as those in Banjarmasin, digital platforms can address critical challenges, including visitor overcrowding, limited international visibility, and resource mismanagement. Real-time data from IoT devices could help monitor visitor density and water quality, ensuring that the natural ecosystem remains intact. Additionally, digital platforms like e-commerce sites and social media provide small-scale vendors with tools to increase their market reach, thus promoting economic inclusivity.

The findings underline the potential of digitalization to drive sustainable tourism development, particularly for culturally unique destinations like Banjarmasin's floating markets. Digital platforms enable efficient resource management, such as monitoring visitor density and allocating infrastructure resources dynamically. This is particularly relevant to floating markets, where unmanaged tourist activity often leads to environmental degradation and disrupts the local economy. Studies like Gössling (2020) and Aman & Papp-Váry (2022) emphasize that digitalization not only enhances tourism experiences but also mitigates ecological impacts by guiding tourist flows and promoting under-visited destinations.

Moreover, digital storytelling and immersive technologies like VR and AR offer unique opportunities for promoting floating markets while preserving their cultural identity. Platforms like Instagram and TikTok can showcase the vibrant atmosphere of these markets, attracting younger, tech-savvy tourists while emphasizing the cultural and historical significance of the destinations. Mallick (2023) shows that such strategies also encourage responsible tourism behavior, aligning with global sustainability goals.

For Banjarmasin's floating markets, adopting digital platforms must also address socio-economic factors, such as the digital literacy gap among local vendors. Without proper training and access to technology, small-scale traders may struggle to capitalize on the benefits of digitalization. This could exacerbate existing inequalities, undermining

efforts toward inclusive economic growth. As highlighted by Phukamchanoat (2022), involving local communities in digital strategies through participatory workshops and training programs can bridge these gaps, ensuring that all stakeholders benefit equitably.

Finally, government support is indispensable for implementing these technologies effectively. Public-private partnerships can provide the necessary infrastructure and resources, while local policies can regulate digital marketing practices to ensure alignment with sustainability principles. The integration of traditional and digital approaches is crucial, as floating markets are not just economic hubs but living representations of cultural heritage. Strategies must respect and amplify these cultural narratives to ensure that digitalization enhances, rather than diminishes, the unique identity of Banjarmasin's floating markets.

By combining technological innovation with cultural sensitivity, digital platforms can position Banjarmasin's floating markets as a model of sustainable river tourism development. Such an approach not only safeguards the cultural and environmental integrity of these markets but also ensures their viability in a competitive, digitally driven tourism industry.

### **The Effectiveness of Digital Marketing in Enhancing Tourist Engagement and Promoting Sustainability**

Digital marketing has proven to be a highly effective tool for enhancing tourist engagement while promoting sustainable tourism practices. Studies such as those by Aman & Papp-Váry (2022) and Mallick (2023) highlight that strategies like influencer marketing, search engine optimization (SEO), and content marketing significantly increase destination visibility and appeal. Social media platforms, in particular, play a central role by offering visually engaging and interactive content that captures the essence of unique destinations such as floating markets.

In the context of Banjarmasin's floating markets, digital marketing strategies can be utilized to showcase the vibrant cultural experiences these markets offer. Platforms like Instagram, TikTok, and YouTube allow for storytelling through high-quality images, short videos, and live streams. Utomo et al. (2023) demonstrated that visual content enhances tourist interest and influences their decisions to visit destinations, particularly those emphasizing cultural and environmental sustainability. Furthermore, Chamboko-Mpotaringa & Tichaawa (2023) found that digital campaigns encourage responsible travel behavior by highlighting eco-friendly tourism practices.

The results underscore the transformative potential of digital marketing in bridging the gap between traditional tourism destinations and the modern, tech-savvy audience. For Banjarmasin's floating markets, digital marketing provides an opportunity to rebrand and reach a wider demographic, including younger travelers and international tourists. Visual platforms like Instagram and TikTok are particularly effective for showcasing the markets' cultural richness, from traditional boat vendors to unique local products. Studies by Mallick (2023) and Utomo et al. (2023) highlight how these platforms not only increase engagement but also enable destinations to emphasize their sustainability efforts.

However, for digital marketing to truly promote sustainability, it must align with eco-tourism principles. This includes promoting low-impact travel options, such as eco-friendly transportation to the floating markets, and educating visitors on practices that minimize environmental harm. Aman & Papp-Váry (2022) emphasize that successful campaigns integrate messaging around cultural preservation and environmental responsibility, creating a narrative that resonates with eco-conscious travelers.

Another critical aspect of digital marketing is its ability to empower local stakeholders. Social media campaigns and digital marketplaces can directly connect small-scale vendors at Banjarmasin's

floating markets with a global audience. However, as highlighted by Phukamchanoad (2022), the success of such initiatives depends on improving digital literacy and providing access to affordable digital tools. Collaborative workshops and training programs can equip vendors with the skills needed to create and manage their online presence, ensuring that digital marketing benefits are distributed equitably among all participants.

Despite its advantages, there are challenges to implementing digital marketing strategies in floating markets. Limited access to reliable internet connectivity and lack of marketing expertise among local stakeholders are significant barriers. Public-private partnerships are crucial in addressing these issues by investing in infrastructure and providing targeted training. Moreover, campaigns should prioritize authenticity by involving local communities in content creation, as this ensures the cultural integrity of the destination while enhancing its global appeal.

In conclusion, digital marketing is not just a tool for increasing tourist numbers but also a means to foster sustainability and cultural preservation. For Banjarmasin's floating markets, an integrated digital strategy that combines storytelling, eco-tourism principles, and community involvement can enhance the markets' visibility and viability as a sustainable river tourism destination. By leveraging digital marketing's potential, these markets can redefine their position in the global tourism landscape while maintaining their cultural and environmental integrity.

### **Challenges and Strategic Approaches for Sustainable Floating Market Tourism**

Sustainable tourism development in floating markets, such as those in Banjarmasin, faces several challenges. Key issues include limited infrastructure, inadequate support from local government, and a lack of digital literacy among vendors. Arisanty et al. (2021) highlighted these concerns in their SWOT analysis of the *Lok Baintan*

floating market, where insufficient facilities and logistical inefficiencies hinder the visitor experience. Additionally, studies by Suvittawat & Janchai (2020) emphasized that accessibility and the preservation of cultural elements are critical factors influencing the attractiveness of floating markets.

Another significant challenge is the balancing act between increasing tourist numbers and preserving the river ecosystem. Overcrowding can lead to pollution and damage to the natural environment, undermining the very appeal of floating markets. Furthermore, the absence of coordinated management strategies often results in fragmented efforts to address these sustainability issues. Vendors and stakeholders operate independently, limiting the potential for collective action and holistic solutions.

To address these challenges, strategic approaches are necessary to integrate sustainability into the development and promotion of floating markets. Infrastructure improvement is one of the most immediate and impactful solutions. Arisanty et al. (2021) suggest upgrading facilities such as docking areas, waste management systems, and eco-friendly transportation options to enhance both the visitor experience and environmental sustainability. In Banjarmasin, government initiatives can play a pivotal role in funding and implementing such improvements, particularly by leveraging public-private partnerships.

Preserving cultural identity is another critical aspect of sustainable floating market tourism. As Suvittawat & Janchai (2020) noted, the unique cultural practices and traditional trade systems of floating markets are key attractions for tourists. Digital storytelling, such as creating virtual tours and documentaries, can highlight these aspects while mitigating the risk of over-tourism. Collaborative projects involving local communities, digital marketing agencies, and tourism boards can ensure that the cultural narrative remains authentic and appealing to global audiences.

Addressing the issue of digital literacy among vendors is also crucial for achieving sustainability.

Many small-scale traders lack the knowledge and resources to utilize digital platforms effectively, limiting their ability to reach broader markets. Phukamchanoad (2022) emphasizes the importance of community-based workshops and training programs to equip vendors with essential skills in digital marketing and e-commerce. Such initiatives not only empower vendors but also create a more inclusive and equitable tourism model.

A coordinated management strategy is essential to unify the efforts of various stakeholders. Establishing a floating market management body could streamline decision-making, improve communication, and foster collaboration among vendors, government agencies, and tourism operators. This body could also oversee the implementation of eco-friendly practices, such as limiting plastic use and promoting sustainable modes of transportation.

In conclusion, the challenges facing sustainable floating market tourism require multifaceted and collaborative solutions. Infrastructure improvements, cultural preservation, vendor empowerment, and coordinated management are vital components of a successful strategy. For Banjarmasin's floating markets, integrating these approaches with digital innovation can ensure their long-term viability as both cultural and economic hubs. By addressing these challenges strategically, floating markets can continue to thrive while maintaining their environmental and cultural integrity.

### **The Importance of Community and Government Collaboration**

Community and government collaboration is a critical factor in achieving sustainability for floating markets. Studies, such as those by Phukamchanoad (2022) and Arisanty et al. (2019), emphasize the need for local communities to actively participate in tourism development to ensure that cultural values are preserved while promoting economic growth. Floating markets like *Lok Baintan* rely on the



involvement of local vendors, boat operators, and artisans to maintain their cultural authenticity.

On the other hand, government support plays a pivotal role in providing infrastructure, regulations, and funding for sustainability initiatives. Research by Arisanty et al. (2021) highlights the government's contribution to developing eco-friendly tourism policies, improving waste management systems, and facilitating digital transformation. However, the absence of coordinated policies often leads to fragmented efforts, limiting the impact of these initiatives.

The reviewed studies also reveal that collaborative strategies, such as public-private partnerships, can enhance the effectiveness of tourism management. Such partnerships allow for resource sharing and innovative solutions, including the development of digital marketing campaigns and the promotion of local products to international markets.

The collaboration between community members and government agencies is essential for sustainable tourism development in floating markets. Communities bring local knowledge, cultural insights, and a sense of ownership to tourism initiatives. Their involvement ensures that tourism development aligns with local traditions and values, creating an authentic experience for visitors. As highlighted by Phukamchanoad (2022), empowering local vendors through skill-building programs and participatory decision-making fosters a sense of inclusivity and strengthens community resilience.

In the context of Banjarmasin's floating markets, the government's role extends beyond policy-making. Investments in infrastructure, such as eco-friendly transportation systems and modern docking facilities, can significantly enhance tourist experiences while protecting the environment. Studies by Wattanacharoensil & Sakdiyakorn (2016) emphasize the importance of infrastructure upgrades in improving accessibility and safety, which are critical for sustaining the appeal of floating markets.

Digital transformation is another area where collaboration between communities and governments can drive significant impact. By providing vendors with access to digital tools and training, governments can empower them to promote their products online, expanding their reach to a global audience. Public-private partnerships can facilitate the creation of centralized e-commerce platforms and digital marketing campaigns that highlight the unique cultural aspects of Banjarmasin's floating markets. As noted by Arisanty et al. (2021), such initiatives not only boost market visibility but also ensure that local vendors reap the economic benefits of increased tourism.

However, collaboration must also address potential challenges, such as power imbalances and conflicting interests between stakeholders. Transparent communication and shared decision-making are essential to ensure that all voices are heard, and benefits are distributed equitably. Governments should act as facilitators, bringing together diverse stakeholders to create integrated tourism management plans. This approach aligns with the recommendations by Ichikawa & Denpaiboon (2017), who stress the need for coordinated management strategies to preserve the ecological and cultural integrity of floating markets.

In conclusion, community and government collaboration is a cornerstone of sustainable tourism in floating markets. By combining local knowledge with government resources and support, stakeholders can create a robust framework for promoting Banjarmasin's floating markets as global icons of cultural and environmental sustainability. This collaborative approach ensures that the benefits of tourism extend to all stakeholders while preserving the unique identity of these cultural treasures.

### **The Development of Digital Campaign Models for Floating Markets**

Digital campaign models have become essential tools for promoting sustainable tourism



destinations, including floating markets. Studies such as Liu & Macerinskiene (2016) and Aman & Papp-Váry (2022) emphasize the importance of integrating cultural storytelling into digital campaigns to attract eco-conscious and culturally interested tourists. Platforms like Instagram, TikTok, and YouTube provide immersive and interactive experiences, allowing potential visitors to explore destinations remotely.

For floating markets like those in Banjarmasin, digital campaigns can highlight the unique aspects of the markets, such as traditional trading practices, vibrant river scenes, and local artisanal products. Studies by Utomo et al. (2023) reveal that the use of visually engaging content increases tourist interest and participation. Furthermore, digital campaigns enable small-scale vendors to connect with a global audience, driving economic benefits while ensuring cultural preservation.

Additionally, campaigns must align with sustainability principles, emphasizing low-impact tourism practices and eco-friendly initiatives. Liu & Macerinskiene (2016) propose a five-step digital campaign model focusing on identifying target audiences, curating culturally rich content, selecting the most effective platforms, monitoring campaign performance, and integrating feedback for continuous improvement.

The development of tailored digital campaign models is critical for enhancing the visibility and sustainability of Banjarmasin's floating markets. These campaigns must serve a dual purpose: attracting tourists while preserving the cultural and environmental integrity of the markets. Visual storytelling plays a pivotal role in achieving this balance. Platforms such as Instagram and TikTok can be used to create compelling narratives that showcase the daily life of vendors, the history of the markets, and the importance of sustainable tourism practices. Aman & Papp-Váry (2022) highlight that campaigns with strong cultural narratives tend to resonate more with audiences, fostering deeper engagement and appreciation for the destination.

To maximize their impact, digital campaigns should leverage immersive technologies like virtual reality (VR) and augmented reality (AR). These tools allow tourists to experience the floating markets virtually, offering a sense of connection without physically being there. This approach is particularly relevant for eco-conscious travelers who prioritize low-impact tourism. As demonstrated by Utomo et al. (2023), campaigns integrating VR tours and AR interactions significantly increase tourist interest and create opportunities for sustainable tourism.

However, the effectiveness of digital campaigns depends heavily on the participation of local stakeholders. Small-scale vendors, artisans, and boat operators must be actively involved in creating content that authentically represents the markets. Community workshops and training programs can equip these stakeholders with the skills needed to contribute to and benefit from digital campaigns. Phukamchanoad (2022) emphasizes that such participatory approaches ensure inclusivity and equity, ensuring that all community members share in the benefits of increased tourism.

Moreover, campaigns must address the challenge of balancing commercialization with cultural preservation. Over-commercialization can dilute the authenticity of the markets, reducing their appeal to culturally interested tourists. Therefore, digital campaigns should emphasize the markets' cultural heritage, focusing on unique aspects such as traditional trading customs, local crafts, and the significance of the river as a cultural lifeline.

Public-private partnerships can play a vital role in funding and supporting these campaigns. Government agencies can collaborate with digital marketing firms to design campaigns that align with both cultural preservation and sustainability goals. Additionally, metrics for evaluating campaign success, such as tourist engagement, environmental impact, and vendor economic benefits, should be established to ensure continuous improvement.

In conclusion, digital campaign models are indispensable for promoting Banjarmasin's floating

markets as sustainable tourism destinations. By combining technological innovation with cultural storytelling, these campaigns can enhance market visibility, attract a global audience, and preserve the unique identity of the markets. A collaborative approach involving local communities, government agencies, and private stakeholders is essential to ensure the success of these campaigns while maintaining the cultural and environmental integrity of Banjarmasin's floating markets.

### **Consumer Behavior Influenced by Digital Marketing Strategies**

Digital marketing strategies significantly influence consumer behavior, particularly in the context of sustainable tourism. Studies such as those by Chamboko-Mpotaringa & Tichaawa (2023) and Mallick (2023) show that digital campaigns can effectively shape tourists' preferences by emphasizing eco-friendly and culturally responsible travel options. Social media platforms like Instagram and Facebook have been found to be highly effective in promoting sustainable tourism by creating visually compelling content that resonates with environmentally conscious travelers.

In the context of floating markets, such as those in Banjarmasin, digital marketing strategies can shift consumer behavior toward practices that align with sustainability principles. For instance, Utomo et al. (2023) demonstrated how targeted campaigns using decision-making models like Fuzzy AHP and Fuzzy TOPSIS help prioritize sustainable travel options. These strategies encourage visitors to explore less crowded markets, purchase eco-friendly products, and respect the cultural and environmental integrity of the destination.

The influence of digital marketing on consumer behavior is particularly evident in its ability to create awareness and demand for sustainable tourism. Campaigns that highlight the cultural uniqueness and environmental significance of destinations like Banjarmasin's floating markets can inspire tourists to adopt more responsible travel behaviors. For

example, interactive content such as live streams of market activities or behind-the-scenes videos showcasing traditional crafts can foster a deeper connection between tourists and the destination. Mallick (2023) emphasizes that such campaigns not only attract visitors but also educate them about the importance of preserving cultural heritage and minimizing their ecological footprint.

Social proof, facilitated by user-generated content on platforms like TripAdvisor and Google Reviews, also plays a crucial role in influencing tourist behavior. Positive reviews and recommendations about the cultural and sustainable aspects of floating markets can encourage more visitors to prioritize these destinations. Studies by Chamboko-Mpotaringa & Tichaawa (2023) highlight that tourists are more likely to choose destinations with strong online reputations for sustainability.

Moreover, the strategic use of digital marketing can mitigate the risk of over-tourism in popular floating markets by promoting lesser-known alternatives. Targeted campaigns can redirect tourist traffic to under-visited markets, ensuring a more equitable distribution of tourism benefits while alleviating pressure on the most popular sites. This approach not only supports sustainability but also introduces tourists to diverse cultural experiences.

However, the success of these strategies hinges on the authenticity and relevance of the campaign content. As noted by Aman & Papp-Váry (2022), campaigns must avoid superficial messaging and instead focus on authentic storytelling that reflects the values and traditions of the destination. For floating markets, this could involve featuring real-life stories of vendors, the historical significance of the market, and its role in supporting local livelihoods.

Challenges remain, including the digital divide among local vendors and the potential for cultural commodification. Many vendors in floating markets lack the technical skills and resources to participate actively in digital marketing efforts. To address this, governments and private stakeholders should invest

in digital literacy programs and provide accessible tools for small-scale traders. Phukamchanoad (2022) emphasizes the importance of inclusive strategies that ensure all stakeholders can benefit from increased tourist engagement.

In conclusion, digital marketing is a powerful tool for shaping consumer behavior in ways that support sustainable tourism. For Banjarmasin's floating markets, strategies that emphasize cultural authenticity, environmental responsibility, and equitable promotion can drive sustainable consumer behavior while enhancing the market's global appeal. Collaboration between marketers, community members, and policymakers is essential to ensure that these strategies align with the goals of sustainability and cultural preservation.

## CONCLUSIONS AND RECOMMENDATIONS

This study demonstrates the transformative potential of digital platforms in promoting Banjarmasin's floating markets as sustainable river tourism destinations. By analyzing 45 relevant studies, it is evident that digital tools such as Big Data, IoT, and social media play pivotal roles in enhancing the visibility, accessibility, and sustainability of these unique cultural assets. Digital marketing strategies, when combined with immersive technologies like VR and AR, can effectively showcase the cultural richness of floating markets while attracting a global audience. However, achieving these outcomes requires careful balancing of modernization and cultural preservation, as over-commercialization or inadequate stakeholder participation may jeopardize the authenticity of these markets.

The findings further underscore the importance of collaborative efforts among local communities, governments, and private stakeholders. Infrastructure improvements, digital literacy programs, and public-private partnerships are essential components in creating an inclusive and sustainable tourism model. By integrating traditional elements into digital campaigns and

emphasizing eco-friendly practices, Banjarmasin's floating markets can solidify their position as iconic destinations for cultural and environmental harmony. These efforts not only enhance the economic benefits for local communities but also ensure the preservation of their cultural heritage for future generations.

To realize the full potential of digital platforms in promoting Banjarmasin's floating markets, stakeholders should adopt a holistic and collaborative approach. Governments must prioritize investments in digital infrastructure and training programs to empower local vendors and ensure equitable access to technology. Community workshops should be organized to equip stakeholders with the skills needed to leverage digital tools effectively. Public-private partnerships can support the development of innovative digital campaigns that emphasize cultural storytelling and sustainability principles. Lastly, an integrated management strategy should be established to coordinate efforts, monitor outcomes, and align digital marketing initiatives with the long-term goals of sustainable tourism development. By addressing these recommendations, Banjarmasin's floating markets can thrive as sustainable and culturally significant tourism destinations.

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