

The Supporting Capacity of Majene's Tourism Sector In Supporting Digital-Based Tourism Transformation: A Stakeholder Perspective

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Abstract.

This study aims to analyze the readiness of the tourism sector's carrying capacity in Majene Regency and evaluate the reliability of a spatial-based Smart Tourism application in supporting digital tourism governance transformation. Using an exploratory analytical descriptive approach, primary data was collected through cross-sector Focus Group Discussions (FGDs) involving local government elements, destination managers, business actors, and the community, then analyzed using thematic methods. The results revealed that Majene has strong tourism infrastructure carrying capacity, although its implementation still requires harmonization of spatial planning regulations down to the village level and optimal budgeting support. From a stakeholder perspective, digital innovation is considered reliable as an integrative solution to resolve overlapping BUMDes governance issues, facilitate local MSMEs, and build a cultural database center. In conclusion, the success of regional tourism transformation depends heavily on collaborative synergy across stakeholders in optimizing the use of spatial technology to increase destination competitiveness and boost the local economy.

Keywords: Tourism Carrying Capacity, Digital Transformation, Stakeholders and Destination Governance.

I. INTRODUCTION

Tourism is a crucial sector in supporting a region's economic development due to its ability to create a broad multiplier effect. In addition to directly contributing to Regional Original Income (PAD), this sector also drives job creation, stimulates investment, and builds a strong regional image. Majene Regency boasts a comprehensive tourism asset, ranging from the charm of marine tourism and natural beauty to the local wisdom of Mandar culture, such as weaving and maritime traditions. With its geographical location and cultural richness, Majene has extraordinary potential to be developed into a competitive, leading tourist destination.

The current reality on the ground shows a phenomenon of a massive increase in tourism mobility, but it has not been accompanied by commensurate operational governance readiness. Based on 2026 BPS data on tourist visits, there was a very sharp surge in the number of domestic tourists in Majene Regency, namely from 34,650 people in 2024 to 64,899 people in 2025. Even in 2025, Majene began to record 13 foreign tourist visits, from previously none in 2024. This surge in visit trends is directly proportional to the massive development of rural scales, where the number of Tourism Villages skyrocketed from only 6 villages in 2024 to 37 tourist villages in 2025. In addition, the number of tourist attractions also increased to 85 points in 2025. Unfortunately, this explosion of visitors and the opening of new tourist villages is inversely proportional to the slow growth of the formal business ecosystem, where the number of Tourism Businesses with TDUP has stagnated purely at 255 businesses since 2023. Similar stagnation is also seen in the availability of Creative Zones as Spaces for Expression which are held back at 23 spaces. The gap between the soaring tourism potential and the stagnant support for this business emphasizes that the tourism boom has not been managed in an integrated manner. The lack of a digital tourism information system means that the distribution of this surge in tourists is not precisely mapped, thus hampering the acceleration of Majene's tourism competitiveness.

Theoretically, the concept of tourism management has been extensively explored through various perspectives, such as Butler's (1980) Sustainable Tourism Theory, which emphasizes ecological and economic balance, and Kotler's (1994) Tourism Marketing Theory, which emphasizes the crucial role of regional image formation. However, a theoretical gap exists when examining tourism carrying capacity instruments in the modern era. Classical literature often limits destination carrying capacity solely to demographic dimensions or the physical capacity of environmental spatial planning. The current theoretical framework for tourism carrying capacity has not yet fully integrated indicators of readiness to adapt to information technology and

spatial governance capacity. There are few conceptual models that specifically bridge the gap between conventional carrying capacity capital and ecosystem readiness towards Smart Tourism governance, especially when its effectiveness is measured directly from stakeholder perceptions.

From an empirical perspective, the tourism landscape of Majene Regency has been extensively studied by academics. Previous studies, such as those by Fadli Sahnan et al. (2020), focused on the region's ecological potential; Wahyu et al. (2020) evaluated the limitations of community participation; and Nuryanti Mustari et al. (2021) examined the weaknesses of conventional destination branding strategies. Although recent research by Novayanti Sopia Rukmana et al. (2023) has begun to address the urgency of technology-based governance, a fundamental research gap remains. No studies in Majene Regency have focused on integrating digital tourism transformation through the development of spatial data-based applications as the primary driver of Smart Tourism. Furthermore, there has been no empirical research that comprehensively validates the reliability and supportability of this spatial information system through the participatory perspective of local stakeholders in the field.

As a strategic step to address this gap, this research focuses on an evaluation analysis of the carrying capacity of Majene's tourism sector to support digital transformation through the initiation of spatial-based tourism applications. This solution-based approach emphasizes the elaboration of key stakeholder perspectives, including local governments, tourism actors, and the community, gathered through Focus Group Discussions (FGDs). The series of FGDs was specifically designed to map the initial readiness of the ecosystem and formulate parameters for measuring the effectiveness of these spatial applications in daily governance. This stakeholder engagement is not merely to test the reliability of technological instruments, but also to generate evidence-based policy recommendations that have a real impact on increasing economic independence and destination governance in Majene Regency.

II. LITERATURE REVIEW

1. Tourism Sector Carrying Capacity

The concept of tourism sector carrying capacity is no longer solely focused on the physical and demographic capacity of an environment, but has expanded to encompass aspects of data-driven governance and resource sustainability. Referring to the smart destination guiding principles from the UNWTO (2019), the carrying capacity of modern destinations is evaluated based on their ability to integrate environmental conservation, social resilience, and economic growth in a balanced manner within a regional management framework. Management of potential natural resources and cultural attractions must ensure that they do not damage the sustainability of local ecosystems, while still providing rational growth space for the region.

In an empirical study over the past five years, research by HM Santika (2021) demonstrated that optimizing tourism carrying capacity absolutely requires planned natural resource management to ensure continued tourism growth without environmental degradation. Specifically, in Majene Regency, research by Nursaleh Hartaman et al. (2021) confirmed that maritime resources, traditions, and local wisdom represent a very strong potential carrying capacity. This cultural carrying capacity has proven reliable as a basis for developing superior tourism if managed with a comprehensive and integrated tourism product packaging strategy.

2. Digital-Based Tourism Transformation (Smart Tourism)

Digital transformation in the tourism sector is understood as a fundamental change in how a destination is managed, marketed, and enjoyed through the penetration and adoption of advanced information technology. As conceptualized by Vial (2019) regarding digital transformation and emphasized by Weber & Taufer (2016), digital innovation in tourism (Smart Tourism) essentially drives service efficiency, ease of information accessibility for tourists, and evidence-based decision-making (evidence-based tourism policy). This transformation makes the use of instruments such as spatial-based tourism applications a strategic necessity for mapping destination distribution in real time and accurately.

The urgency of adapting digital instruments aligns with the research findings of Novayanti Sopia Rukmana et al. (2023), who concluded that implementing information technology-based tourism management is crucial for boosting and supporting sustainable tourism in the Majene region. A more in-depth study by Syahrinullah (2025) emphasized the direction of this transformation, stating that tourism modernization

through digital integration and infrastructure improvements are the most essential central drivers for maximizing the potential for visits to significantly increase Regional Original Income (PAD).

3. Stakeholder Perspective

Stakeholder engagement, responsiveness, and acceptance are key to the successful implementation of tourism policies, particularly in adopting a smart tourism ecosystem. Modern literature, such as Sigala's (2018) study, highlights that social engagement (customer engagement) and participatory interactions between stakeholders, including government, local businesses, and the community, are key determinants of the success of destination information systems. The presence of digital tourism application platforms must function not merely as one-way promotional instruments, but rather as collaborative media that encourages a sense of ownership and cross-sector transparency.

The gap in synergy between stakeholders in the field remains a real challenge. This is confirmed by research by Syarifa Yusrifa and Burhanuddin (2023), which revealed that the Majene Regency government's tourism governance policies are often hampered by weak coordination across regional government agencies (OPDs) and minimal data synchronization. To address these barriers, research by Nuryanti Mustari et al. (2021) recommends strengthening the involvement of local stakeholders in implementing destination branding strategies, so that innovative tourism management can boost regional competitiveness in the modern era.

III. RESEARCH METHODS

This research uses a descriptive analytical approach with an exploratory design that focuses on the depth of meaning and perspectives of stakeholders. This approach was chosen to comprehensively understand the empirical conditions of Majene Regency's tourism carrying capacity and to formulate the need for digital transformation through Smart Tourism instruments.

Research Location and Informants

The research was conducted in Majene Regency, West Sulawesi Province, with a focus on natural, cultural, and marine tourism destinations. Informants were selected purposively, involving representatives from the regional tourism ecosystem, including local government officials, tourism businesses, community leaders, and destination managers.

Data collection technique

Primary data collection was conducted through Focus Group Discussions (FGDs) designed to explore initial understanding, tourism ecosystem readiness, community needs, and formulate criteria for measuring the reliability and utilization of spatial tourism applications to support sustainable destination management. In addition to the FGDs, this research was supported by secondary data collection through direct participant observation of destinations and tourism activities, as well as document studies examining tourism policies and official regional reports.

Data Analysis Techniques

Data obtained from focus group discussions, observations, and documentation were analyzed using thematic analysis. The data analysis stages included a systematic process starting with: 1) transcribing data from FGD recordings; 2) initial coding of informant statements; 3) identifying and grouping themes relevant to the dimensions of digital support and governance; and 4) interpreting and drawing conceptual meaning. The results of this analysis were then contextualized to develop recommendations for a digital-based tourism governance transformation strategy in Majene Regency.

IV. RESULTS AND DISCUSSION

Based on cross-sectoral Focus Group Discussions (FGDs) involving representatives from local governments, academics, and community groups, the analysis revealed significant improvements in the readiness and reliability of tourism governance in Majene Regency. The research findings are summarized into three main aspects that align with the research variables and problem formulation:

1. Stakeholder Perceptions of Tourism Readiness and Carrying Capacity

generally view Majene Regency as having a strong and growing tourism potential, evidenced by the massive development of tourist facilities in various villages, despite suboptimal periodic regional budget

support. A diverse range of destination schemes are ready to be developed, encompassing natural tourism, man-made tourism, and even attractive tourism. However, this transformation initiative still faces obstacles in determining the Regional Spatial Planning (RTRW) at the regency and village levels. To address this situation, stakeholders emphasize the urgency of implementing a balanced spatial-based tourism concept that does not damage environmental sustainability.

2. Reliability Measurement and Criteria for Utilization of Digital Innovation

The local government recognizes that optimizing tourism services through digital transformation is time to be implemented. The reliability of this spatial-based Smart Tourism application is measured by its ability to provide real solutions to governance needs, not just a promotional tool. The application's utilization parameters include its ability to untangle overlapping destination management issues by Village-Owned Enterprises (BUMDes), facilitate the recruitment of local MSMEs with a clear legal framework, and provide an integrated cultural information center such as a Mandar history and culture gallery. The reliability of this digital instrument is also assessed by its function as a research base oriented towards real regional needs to generate strengthened strategic policies and their sustainable use.

3. Destination Governance Optimization and Transformation Strategy

The success of digital transformation in boosting Regional Original Income (PAD) depends heavily on cross-stakeholder synergy in leveraging Majene Regency's strategic position as a major transit route on Sulawesi Island. Optimization strategies are aimed at improving the facilities and infrastructure of coastal tourism destinations and ecotourism in Majene Regency, thus encouraging tourists to return. Furthermore, digital applications must be utilized to support standardized culinary prices and promote new opportunities, such as new culinary areas, new accommodations, and entertainment venues. Through this collaborative strategy, the tourism sector is believed to be able to provide sustainable economic input and create a multiplier effect for the welfare of the wider community.

V. DISCUSSION

This discussion integrates empirical findings from focus group discussions (FGDs) with theoretical studies. The analysis focuses on destination capacity readiness, the reliability of digital innovation, and stakeholder collaboration to emphasize the role of Smart Tourism as a key driver of Majene's competitive and sustainable tourism transformation.

1. Readiness and Support for Spatial-Based Tourism

The tourism ecosystem in Majene Regency demonstrates progressive readiness for carrying capacity. The growth of tourism infrastructure at the village level is fundamental to sustaining destinations. Managerial challenges related to harmonizing Regional Spatial Planning (RTRW) in rural areas require a non-exploitative approach to tourism. The implementation of a spatially based tourism concept is projected to ensure that the physical development of destinations remains harmonious and does not damage local ecological sustainability.

This empirical reality reinforces the UNWTO's (2019) view that the carrying capacity of modern destinations must balance economic growth with ecosystem resilience. A study by HM Santika (2021) also confirms that planned natural resource management is crucial for preventing environmental degradation in tourism areas. Wisely managed maritime and cultural resources, as highlighted by Nursaleh Hartaman et al. (2021), have proven to be key pillars in developing leading destinations without sacrificing regional communal assets.

2. The Reliability of Digital Innovation in Integrated Governance

The need for digital transformation of tourism in Majene has been recognized as a cross-sectoral urgency that must be implemented immediately. The reliability of the Smart Tourism application is measured by its ability to address various managerial issues in the field, not simply as a visual promotional showcase. This digital system integration is designed to facilitate the legality of local MSME recruitment, harmonize overlapping governance between Village-Owned Enterprises (BUMDes), and document cultural information centers such as the Mandar history and culture gallery within a single, robust and valid database.

This utilization dimension validates the digital transformation theory of tourism from Vial (2019) and Weber & Taufer (2016), where technological innovation is essential in generating service efficiency and

formulating policies based purely on real data (evidence-based policy). This digitalized managerial implementation addresses the findings of Novayanti Sophia Rukmana et al. (2023) regarding the urgency of adopting information technology in the Majene tourism ecosystem. This integrated governance also reinforces Syahrinullah's (2025) notion that system modernization is the main catalyst for converting the large potential for visitor mobility into a significant surge in Regional Original Income (PAD).

3. **Stakeholder Collaboration in Destination Transformation**

Transforming tourism governance requires comprehensive synergy from all regional actors. Strategic use of spatial data instruments is aimed at optimizing Majene's geographic advantage as a major transit route along the Sulawesi coast. Tactical measures such as standardizing seafood prices, developing coastal ecotourism areas, and exploring alternative potentials such as fisheries cultivation and new culinary areas are believed to create a multiplier effect for the wider community's economic independence.

The success of this optimization tactic is firmly rooted in participatory interactions between stakeholders, in line with Sigala's (2018) conceptual framework regarding the collaborative nature of smart tourism ecosystems. This cross-functional engagement provides a practical solution to the structural challenges identified by Syarif Yusrifa and Burhanuddin (2023) regarding weak coordination across Regional Apparatus Organizations (OPDs) in Majene. This solid partnership strategy embodies the research recommendation of Nuryanti Mustari et al. (2021) that local actors play an active role in formulating a competitive regional identity (branding) in an agile, adaptive, and sustainable manner.

VI. CONCLUSIONS AND SUGGESTIONS

Conclusion

Based on the results of the analysis and discussion that have been described, this study draws three main conclusions as follows:

1. Stakeholders assess that the current condition of the tourism sector's carrying capacity in Majene Regency has demonstrated a progressive readiness to initiate digital transformation, supported by a commitment to developing destination facilities at the village level and, if supported by sustainable budget allocation, will be able to realize this condition. Although the natural and cultural potential is enormous, this initiative must be accompanied by budget harmonization and management of the Regional Spatial Plan (RTRW) so that physical infrastructure development remains in line with ecological sustainability, so that the implementation of a spatial-based tourism approach is an absolute prerequisite that is not exploitative of the environment.
2. The criteria for the reliability and usability of the Smart Tourism application were formulated by stakeholders not merely as a visual promotional tool, but as an integrated solution to address various managerial challenges in the field. This digital innovation is deemed reliable if it can resolve overlapping management issues between Village-Owned Enterprises (BUMDes), facilitate the legality of local MSME recruitment, and provide an integrated cultural information center, so that the application truly functions as a valid database for formulating evidence-based policies.
3. The strategy for optimizing tourism carrying capacity requires collaboration and synergy across stakeholders to maximize Majene's geographic advantage as a major transit route. Through the use of digital spatial instruments, the government and tourism stakeholders can collaboratively improve coastal tourism facilities, standardize culinary services, and promote alternative potentials such as mangrove ecotourism. All of this leads to an integrated governance transformation to boost the competitiveness of tourist destinations, increase Regional Original Income (PAD), and create a multiplier effect for community economic independence.

Suggestion

Based on the conclusions that have been outlined, there are several strategic suggestions recommended to optimize digital tourism transformation in Majene Regency, namely:

1. The Majene Regency Government, through relevant agencies, is advised to immediately synchronize and establish guidelines for Regional Spatial Planning (RTRW) related to tourism down to the village

government level. This step is crucial to ensure that the accelerated development of physical tourism infrastructure in rural areas is based on clear spatial regulations, ensuring data integrated into the Smart Tourism application is more accurate and ensuring that new destination development does not violate environmental sustainability standards.

2. A derivative legal framework and clear Standard Operating Procedures (SOPs) are needed to govern the technical governance of the cross-sectoral use of the Smart Tourism application. These regulations are recommended to specifically define the boundaries of destination management authority for Village-Owned Enterprises (BUMDes), recruitment mechanisms and service standards for local MSMEs, and the obligation to update cultural information data, ensuring the application's continued reliability as a primary database for regional policy formulation.

3. It is recommended that a cross-stakeholder communication forum or task force be established, involving government officials, business actors, academics, and tourism awareness groups (POKDARWIS) to collaboratively oversee the sustainability of this transformation process. This ongoing synergy is crucial for monitoring the effectiveness of standardized coastal tourism service prices and ensuring that the implemented digital instruments truly deliver equitable economic outcomes and multiplier effects for local communities in Majene Regency.

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