Jurnal Kepariwisataan Indonesia

Jurnal Penelitian dan Pengembangan Pariwisata Indonesia

Table of Contents

Cover Source: Wonderful Indonesia Image

Jki

STRATEGIC ROADMAP FOR AI-DRIVEN SUSTAINABLE TOURISM DEVELOPMENT IN INDONESIA: AN EXPERT-BASED MCDM APPROACH

Hariyanto[1], Eko Susanto[2*], Bayu Aji[3], Andar Danova Lastaripar Goeltom[4], Sri Utari Widyastuti[5]

[1,3,4,5]Ministry of Tourism Republic of Indonesia, Indonesia
[2]Tourism Destination Study Program, Politeknik Negeri Bandung, Indonesia

Correspondence: eko.susanto@polban.ac.id

Article Info	Abstract
	While rich in cultural and natural assets, Indonesia's tourism sector faces substantial challenges in adopting digital technologies, particularly artificial intelligence (AI). The persistent digital divide between more developed and remote regions within Indonesia and limited AI readiness among tourism micro, small, and medium enterprises (MSMEs) hampers the sector's inclusive and sustainable growth potential. This study aims to identify and prioritize strategic directions for AI-driven tourism development in Indonesia by employing an expert panel method integrated with the Analytic Hierarchy Process (AHP). In 2025, this study was carried out in various provinces across Indonesia. Through structured pairwise comparisons, the research analyses expert judgments to rank five core strategies: strengthening digital infrastructure, enhancing AI literacy for MSMEs, developing an integrated national AI tourism platform, formulating ethical and data governance frameworks, and promoting sustainable AI utilization. The results revealed that digital infrastructure development is the most critical enabler, followed by capacity building for MSMEs. These two priorities form the foundational basis upon which other strategies depend. The study concludes that a phased and inclusive approach to AI integration is essential, supported by targeted investments, regulatory clarity, and cross-sector collaboration. It recommends a national policy roadmap that ensures AI technologies serve economic objectives and the goals of community empowerment and environmental preservation, positioning Indonesia as a regional leader in sustainable, AI-powered tourism development.

INTRODUCTION

Tourism remains a cornerstone of Indonesia's national economy, contributing significantly to employment, foreign exchange, and regional development. A 1% rise in international tourist arrivals correlates with a 0.11% increase in GDP, illustrating the sector's macroeconomic relevance (Ramadhaniah, 2020). However, despite its rich cultural and natural resources, Indonesia's tourism competitiveness is being reshaped by global digital transformation—particularly through the adoption of artificial intelligence (AI)—yet the country continues to lag due to uneven technology integration and persistent operational inefficiencies (Af'idah et al., 2023; Syafi'i & Uula, 2022). Among emerging segments, post-pandemic recovery has accelerated demand for personalized and immersive experiences, amplifying the relevance of AI-powered solutions such as recommender systems, chatbots, and virtual assistants to enhance tourist satisfaction and operational resilience (Zheng et al., 2021; Rashid & Aziz, 2022). Smart tourism tools like virtual reality (VR) also offer new pathways for destination marketing and sustainable engagement aligned with evolving traveler expectations (Aryaningtyas et al., 2023; Chan et al., 2024).

All over the world, AI technologies like chatbots, assistance apps, big data, and recommendations have changed tourism service models by making things more personal for customers, predicting their actions, and saving resources (Aliyah et al., 2023; Shin et al., 2021). In conjunction with IoT, AI enables the development of smart destinations that feature real-time interactivity and dynamic visitor management, thereby directly supporting sustainability objectives by mitigating overtourism and safeguarding cultural and ecological assets (Jeong & Shin, 2019; Pai et al., 2020; González-Reverté, 2019; Yan et al., 2023). However, Indonesia's AI adoption in tourism remains embryonic, constrained by infrastructural, organizational, and regulatory gaps (Aliyah et al., 2023).

A prominent challenge is the digital divide between advanced tourism hubs like Bali and Yogyakarta and underdeveloped eastern regions like Maluku and Papua. Data from (BPS, 2023; Komdigi, 2024) show that while Java-based provinces enjoy over 80% 4G coverage and higher broadband penetration, several eastern provinces still record less than 70% network access, with limited fiber-optic reach. This disparity hampers the implementation of AI-dependent technologies such as real-time visitor analytics and smart platforms. Further compounding the problem, the 2022 Digital Literacy Index (Statista, 2024) highlights significant digital skill gaps between Java and peripheral regions. Meanwhile, tourism MSMEs—that constitute the majority of sectoral enterprises—face barriers related to low AI awareness, inadequate funding, and limited training opportunities, preventing them from adopting intelligent technologies and adapting to market shifts (Parsons et al., 2022; Nanda et al., 2023). The lack of integrated digital platforms and robust governance for AI ethics and data privacy further inhibits collaboration and erodes consumer trust (Gonçalves et al., 2022; Gretzel et al., 2020).

Despite the extensive literature on tourism digitalization, few empirical studies in Indonesia have examined how AI adoption intersects with MSME empowerment and sustainability goals (Samara et al., 2020; García-Madurga & Grilló-Méndez, 2023). This gap is significant given the growing evidence that strategic AI use can improve service delivery, foster innovation, and enhance resilience, particularly among digitally underserved MSMEs (Doborjeh et al., 2021). Furthermore, AI's potential to drive sustainable tourism through environmental monitoring, resource efficiency, and digital

Strategic Roadmap for AI-Driven Sustainable Tourism Development in Indonesia…
Hariyanto et al. (2025)

Jki

heritage preservation remains underexplored and underutilized (Setiawan, 2024; Elkhwesky et al., 2022; Shafiee, 2024). Lacking both unified systems and good ethics, the broad use of AI may become uncoordinated and not include everyone (Dhamija & Bag, 2020; Skandali et al., 2024).

A new method is presented in this study to support Indonesian tourism using AI through experts and an analysis of various factors. The research highlights and suggests the most important ways to integrate AI to support inclusive growth, sustainability, and cultural values after gathering views from academia, policymakers, and stakeholders in the field. The aim of the findings is to contribute to making the tourism sector in the country strong, creative, and competitive in the global market, using AI responsibly and equally.

METHODOLOGY

This study employs qualitative research (Creswell & Creswell, 2018) and combines it with methods from decision sciences (called MCDM) and the Analytic Hierarchy Process (AHP) to support the development of AI in Indonesia. The data collection process was conducted in January-February 2025 by a purposefully selected expert panel, including people from academia, government groups, tourism practices, and digital technology. Each panelist was chosen based on their wide-ranging knowledge and experience in artificial intelligence, tourism, policy-making, and MSMEs, which ensured diverse perspectives and suggestions. The first step involved identifying the main strategy and dividing it into several parts: digital infrastructure development, building capacity for MSMEs, clear laws, plans for sustainability, and use of technology for growth. For each element, the participants conducted pairwise comparisons and rated their importance level using a (Saaty, 1987) scale from 1 to 9.

The judgments were put into the AHP matrix one by one to evaluate the priority importance of all the criteria. Every matrix was assigned a consistency ratio (CR) and checked to see if it met the requirement for coherence and reliability; the CR was not allowed to exceed 0.1. The calculation of priority scores and the way the ranking was shown were both ensured through data analysis by AHP software and Excel templates. To enhance the validity and credibility of the findings, triangulation was employed by validating qualitative insights from the expert discussions with the quantitative AHP results, ensuring alignment between subjective expert reasoning and empirical outputs. The AHP method was specifically selected for its methodological rigour in translating complex qualitative expert judgments into quantifiable and objective priority rankings. This integrated approach ensures that the resulting strategic framework is empirically grounded and reflective of diverse stakeholder perspectives, providing a robust foundation for actionable policy recommendations to foster inclusive, sustainable, and competitive AI-driven tourism development in Indonesia.

FINDINGS AND DISCUSSION

Overview of Expert Panel and AHP Analysis

The expert panel discussion served as this study's primary data collection method, gathering insights from professionals across academia, government, the tourism industry, and digital technology sectors. A total of 12 experts participated, comprising four academics specializing in tourism and digital transformation, three government representatives from tourism and technology agencies, three industry practitioners,

Jki

including representatives from travel agents and the tourism community, and two AI and digital platform experts. This diverse composition ensured a balanced perspective covering strategic, operational, and technological dimensions of AI-driven tourism development in Indonesia. The panel discussion aimed to confirm crucial strategic elements from the literature review and determine how important they were with the help of AHP. Discussions that involved experts helped them settle on five main priorities for the AI strategy: increasing digital capabilities, helping micro and small businesses, developing united AI platforms, setting up policies on ethics and data, and promoting sustainable AI in tourism.

Once their experience was checked by the experts, each panelist prepared a pairwise comparison matrix, indicating the importance of the different strategic criteria from 1 to 9 created by (Saaty, 1987). The results from the AHP matrices were combined and processed to find out the priority weights and consistency ratios (CR). The analysis showed that the Consistency Ratio (CR) was 0.08, proving that the experts' opinions were consistent and the results were reliable. The result provided numbers that rank the strategic priorities according to how the experts saw them. The use of a step-by-step process made it possible for the created framework to be based on reality and genuine facts from Indonesia's tourism and technology industries. The report concluded that boosting digital infrastructure and MSMEs were the main needs for installing AI in Indonesia's tourism industry.

Priority Ranking of AI-Driven Tourism Development Strategies

The panel members were given a survey that used the Analytic Hierarchy Process to measure the relative worth of five important priorities in AI tourism development for Indonesia. Every expert compared two criteria at a time to measure their level of importance using the strategic elements shown in Table 1.

Table 1. Strategic Criteria

No	Code	Strategic Criteria
1	K1	Strengthening Digital Infrastructure in Tourism Destinations
2	K2	Enhancing Digital Literacy and AI Capacity Building for MSMEs
3	K3	Development of an Integrated National AI Tourism Platform
4	K4	Formulating Regulations for Data Privacy and Ethical AI Utilization
5	K5	Promoting Sustainable and Responsible AI Adoption in Tourism

Source: Research data, 2025

The experts assessed these criteria using Saaty's 1–9 scale to express the relative importance of each element in comparison to the others. The pairwise comparison process allowed the experts to rank each strategy and explain the rationale behind their choices based on Indonesia's unique tourism and digital context, as presented in Table 2.

Table 2. Pairwise Comparison Matrix

Criteria	K1	K2	K3	K4	K5	Priority Vector
K1 - Digital Infrastructure	1	3	4	5	6	0.325
K2 - MSME Capacity Building	1/3	1	2	4	5	0.257
K3 - AI Platform Development	1/4	1/2	1	3	4	0.184
K4 - Ethics & Data Regulation	1/5	1/4	1/3	1	3	0.132
K5 - Sustainable AI Utilization	1/6	1/5	1/4	1/3	1	0.102
Total	1.783	4.95	7.583	13.333	19	**1.00**

Source: Research data, 2025

Strategic Roadmap for AI-Driven Sustainable Tourism Development in Indonesia...
Hariyanto et al. (2025)

Jki

The final AHP output in Table 3 presents the weighted ranking of strategic priorities. "Strengthening Digital Infrastructure" (K1) emerged as the most critical priority with 32.5%, followed by "MSME Capacity Building" (K2) at 25.7%, and "Integrated AI Tourism Platform Development" (K3) at 18.4%. Ethical governance (K4) and sustainable AI adoption (K5) completed the hierarchy.

Table 3. Final Priority Ranking

Rank	Strategic Priority	Weight (%)	Description
1	K1 - Strengthening Digital Infrastructure	32.5%	Improving internet access, connectivity, and digital infrastructure, especially in remote tourist destinations.
2	K2 - Enhancing Digital Literacy and MSME Capacity Building	25.7%	Upskilling tourism MSMEs to adopt AI-based tools, improving digital literacy, and fostering local innovation.
3	K3 - Integrated National AI Tourism Platform	18.4%	Creating a unified platform for AI-driven services, data sharing, and interoperability across stakeholders.
4	K4 - Data Privacy and Ethical AI Regulations	13.2%	Establishing legal and ethical frameworks to protect data and ensure responsible AI implementation.
5	K5 - Sustainable and Responsible AI Adoption	10.2%	Utilizing AI for environmental monitoring, heritage preservation, and sustainable tourism practices.

Source: Research data, 2025

The analysis clearly illustrates that Strengthening Digital Infrastructure (K1) is the most critical priority, receiving the highest weight of 32.5%. Experts consistently agreed that the entire AI-driven tourism ecosystem would struggle to function without robust internet access and digital infrastructure, especially in Indonesia's remote and emerging destinations. Connectivity gaps remain the primary hurdle, preventing equitable access to AI-based innovations. The second priority, Enhancing Digital Literacy and MSME Capacity Building (K2), reflects the panel's concern over the low readiness of local tourism actors to engage with AI technologies. Although MSMEs play a vital role in the country's tourism industry, most lack the necessary skills and resources to operate effectively in the digital era. Consequently, MSMEs need to receive targeted training programs digital incubation efforts, and form partnerships with tech companies to stay ahead in the digital tourism industry.

The experts believe that Indonesia needs a single, unified digital tool for tourism, and this is why the K3 proposal came in third. It would offer AI-powered solutions for recommendations, checking visitor numbers live, and analyzing vast data, improving the tourism sector and assisting policymakers with the right information for making plans. "Formulating Ethical and Data Privacy Regulations" (K4) and "Promoting Sustainable AI Adoption" (K5) may not be as important as others, but they are essential for the organization's future. Specialists agreed that specific rules need to be put in place to secure consumer data and make sure AI is deployed ethically. At the same time, AI should be used to make things more efficient and personal, helping to protect the environment and save Indonesia's precious heritage and resources.

The significant area of infrastructure readiness and people's knowledge must be in place first before proceeding to design platforms, make regulatory laws, and include AI in operations. The priorities depend on each other, yet it is clear from the sequence that other projects will struggle without having solid digital systems and qualified staff. Evidence shows that supporting infrastructure and helping small and medium-sized enterprises with
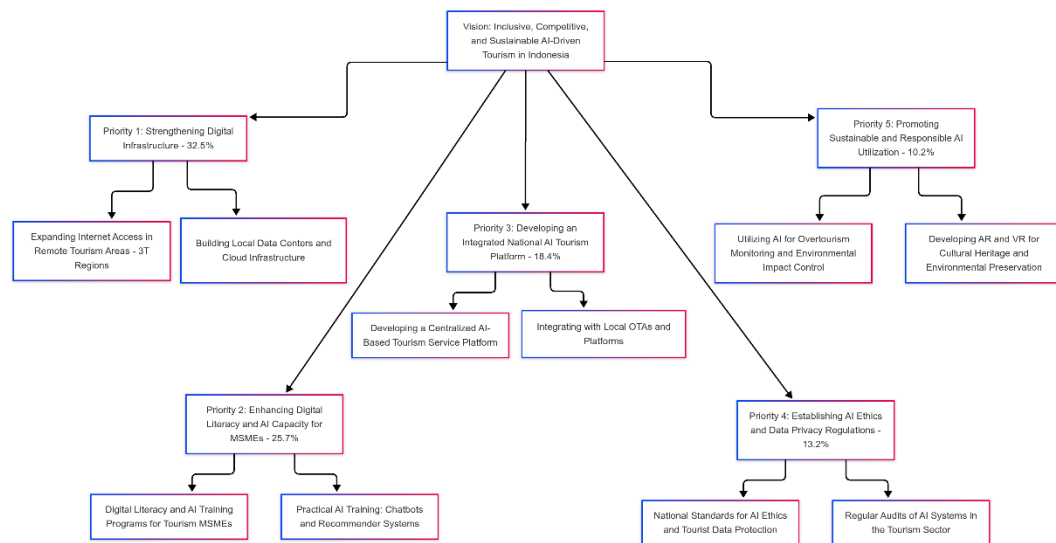
AI is the first priority for policymakers, while developing policy regulations and focusing on sustainability should happen as AI adoption progresses.

Discussion

All members of the expert panel agreed that digital technologies are the most important factor that can drive digital tourism in Indonesia. Since it ranks first with a weight of 32.5%, this shows that Bali and Yogyakarta are still much more digitally connected than the underdeveloped communities in the East. It was highlighted by experts that AI applications such as chatbots, data analytics, and applications for travelers need stable internet, working data centers, and secured environments. If this problem is not solved, there is a possibility that only urban areas can fully use AI, widening the divide between rich and poor regions. Providing remote areas with better access to the internet would facilitate AI implementation, enhance tourism development in new regions, and improve local economies.

Ranked second at 25.7%, capacity building and AI literacy for MSMEs were recognized as a vital step in ensuring that Indonesia's tourism sector can fully benefit from AI integration. MSMEs represent the majority of tourism operators, especially in cultural villages, homestays, local attractions, and culinary tourism. However, they remain digitally marginalized due to limited knowledge, resources, and exposure to AI tools. Although AI offers various benefits, such as operational efficiency and enhanced customer service, tourism MSMEs in Indonesia still face significant barriers, including low digital literacy and inadequate infrastructure (Indaryanto et al., 2023; Lei et al., 2023). Experts highlighted the need for structured government programs, public-private partnerships, and incubators to equip MSMEs with AI utilization, digital marketing, and data-driven decision-making skills. Structured training and community-based empowerment programs have proven essential to improving MSMEs' digital readiness and promoting inclusive, grassroots-level AI-driven innovation (Achmad et al., 2023; Nurhaida et al., 2023). With a weight of 18.4%, the third priority is developing an integrated AI-powered tourism platform that connects stakeholders and enables data-driven services. Experts stressed that current tourism data is fragmented across various systems—government portals, OTAs, and private platforms—making it difficult to generate holistic insights. A centralized national platform would allow interoperability, facilitating AI-driven features such as personalized itineraries, real-time crowd management, and predictive visitor flow analysis. This would enhance tourist satisfaction and support policymakers in designing evidence-based interventions, especially mitigating over-tourism in popular sites.

Strategic Roadmap for AI-Driven Sustainable Tourism Development in Indonesia…
Hariyanto et al. (2025)

JKi

Figure 1. AI-Driven Indonesia Sustainable Tourism Development Strategy Map
Source: Research data, 2025

A greater priority in the adoption of AI in tourism, identified with a weight of 13.2%, is the development of ethical and privacy-based guidelines. As AI becomes more embedded in tourism services, concerns about personal data misuse, algorithmic bias, and diminishing public trust have intensified. Experts emphasize that without proper legal and ethical frameworks, AI systems could unintentionally harm tourists or local communities (Kumar & Suthar, 2024; Singh et al., 2024). Therefore, detailed protocols on data consent, security, transparency, and accountability are necessary to ensure responsible AI implementation (Fan, 2024; Fetahović et al., 2023). These ethical considerations also reflect broader societal concerns around human rights and fairness, making it essential for AI adoption to be governed by principles of non-maleficence and social equity (Huriye, 2023; Ridzuan et al., 2024). In parallel, sustainable AI adoption—though ranked fifth at 10.2%—was deemed equally critical. Experts argue that AI in tourism should support economic viability, environmental preservation, and cultural protection (Ma, 2024; Ray & Ray, 2024). This involves the use of AI to manage tourist flows, reduce overtourism, and promote eco-friendly practices through technologies such as AR and virtual tours, which help preserve heritage sites from physical degradation (Radanliev et al., 2024). Emphasizing ethics and sustainability ensures that AI enhances tourism without compromising privacy or local integrity while fostering trust and long-term resilience.

All in all, the experts emphasize that building AI-driven sustainable tourism in Indonesia requires a solid technological basis and training for the people. It will be difficult to put sophisticated measures such as platform integration or making new rules into practice if the infrastructure and literacy problems are not solved first. On the other hand, first creating ethical and sustainable guidelines for AI and then making related AI-based apps will help sustain both economic growth and society's and nature's strength. Thanks to these priorities, stakeholders can organize their efforts and funds to make sure AI leads to inclusive and sustainable tourism in Indonesia.

Policy Recommendations

Based on what this study discovered, certain policy strategies are needed to make AI-driven tourism in Indonesia effective, inclusive, and sustainable. Such policies deal with issues of infrastructure, boost the role of MSMEs, promote teamwork, and create ethical rules for official duties.

1. Prioritize Digital Infrastructure Investment in Tourism Destinations: The government should allocate targeted investments in expanding internet connectivity and digital infrastructure, particularly in remote and underdeveloped tourism areas (3T regions). Incentives for private sector participation in building local data centres and cloud systems are essential to support AI-based applications and reduce the digital divide.

2. Develop a National AI Literacy and Capacity Building Program for MSMEs: A national-level program focused on enhancing tourism MSMEs' digital literacy and AI adoption capacity is crucial. This should include: a) Regular AI workshops and practical training (e.g., chatbot development, recommender systems); b) Financial support schemes for MSMEs investing in AI technologies; and c) Establishment of regional AI innovation hubs and incubators targeting tourism MSMEs.

3. Establish an Integrated National AI Tourism Platform: The government should initiate the development of a centralized, interoperable AI-based tourism platform to a) Integrate data from OTAs, local governments, and tourism stakeholders; b) Enable real-time analytics, predictive visitor management, and personalized travel experiences; and c) Ensure data accessibility for evidence-based tourism policy-making.

4. Formulate and Enforce Ethical AI and Data Privacy Regulations: Develop comprehensive regulations that govern: a) Ethical AI use in tourism services, ensuring transparency and accountability; b) Personal data protection aligned with global standards (e.g., GDPR-like frameworks); and c) Periodic audits of AI systems deployed in tourism to monitor risks and mitigate bias or misuse.

5. Provide Incentives for Local AI Startups and Industry Collaboration: Introduce fiscal incentives, grants, or low-interest loans for local AI startups developing tourism-specific solutions. Foster public-private partnerships by a) Encouraging AI startups to collaborate with tourism MSMEs, b) Promoting local content and innovations in AI applications, and c) Supporting AR/VR development projects for cultural heritage and environmental preservation.

6. Embed Sustainability and Cultural Preservation into AI Deployment: Ensure that AI strategies contribute to sustainable tourism by: a) Integrating AI tools for over-tourism monitoring and environmental impact assessments; b) Using AI to promote responsible tourist behaviour and minimize ecological footprints; and c) Leveraging AR/VR to enhance cultural education and reduce physical strain on heritage sites.

Based on these prioritized strategies, a phased roadmap was developed (see Table 4) to guide Indonesia's AI-driven tourism transformation through 2030. The roadmap delineates year-by-year milestones aligned with expert-validated priorities.

Table 3. Roadmap AI-Driven Tourism Development in Indonesia (2025–2030)

Year	Strategic Focus / Milestone	Key Actions	Expected Outcome
2025	Foundation: Digital	1. Expand internet connectivity in priority destinations (3T areas)	Digital access parity between major and remote destinations begins to form

Strategic Roadmap for AI-Driven Sustainable Tourism Development in Indonesia…
Hariyanto et al. (2025)

JKí

Year	Strategic Focus / Milestone	Key Actions	Expected Outcome
2026	Infrastructure Strengthening	2. Build local data centres and cloud support	
	MSME Digital Literacy & AI Capacity Building	1. National MSME AI literacy program rollout 2. Pilot AI tools (chatbots, recommender systems) in 5 tourism hotspots	200+ MSMEs adopt basic AI applications; first AI-driven MSME clusters created
2027	Platform Development & Early Integration	1. Launch National AI-based Tourism Platform 2. Integrate OTA platforms 3. Pilot data analytics	An AI-driven ecosystem lives with predictive visitor flow and early smart tourism service personalization.
2028	Regulatory Frameworks and Ethical AI Enforcement	1. Issue AI ethics and data privacy regulations for tourism 2. Conduct the first national audit of AI tourism systems	AI deployment secured by ethical standards, data protection, and system accountability
2029	Sustainability Embedding & Expansion	1. AI tools to monitor over-tourism and environmental impact 2. Scale up AR/VR-based cultural preservation experiences	10+ smart destinations operate with AI-led sustainability and heritage protection modules
2030	Consolidation, Evaluation & Scaling	1. Evaluate AI's impact on tourism sector competitiveness and MSME resilience 2. Expand the model to creative economy sectors	Indonesia is recognized for its inclusive, AI-driven, and sustainable tourism framework.

Source: Research data, 2025

The roadmap begins with foundational investments in digital infrastructure and capacity building (2025–2026), then developing a national AI platform and integrating smart systems (2027). Regulatory frameworks and ethical enforcement are scheduled for 2028, ensuring responsible AI adoption. The plan culminates with sustainability embedding and sector-wide scaling (2029–2030), positioning Indonesia as a global leader in inclusive, AI-driven, sustainable tourism.

The results reveal a coherent and actionable strategy where digital infrastructure and MSME empowerment are the keystones of AI-driven tourism transformation. Ethical and sustainability considerations are designed to evolve in parallel, ensuring that AI integration supports economic growth and environmental-cultural resilience. This study provides empirical guidance for Indonesian policymakers, suggesting that immediate focus should be placed on bridging infrastructure gaps and enhancing MSME readiness. Simultaneously, efforts to build ethical governance structures and integrate AI sustainability must be institutionalized to safeguard long-term sectoral integrity.

CONCLUSION

This study provides a strategic framework for advancing AI-driven tourism development in Indonesia, responding to the growing need for technological transformation in the tourism sector. By gathering experts and conducting an AHP study, the five most important priorities for the adoption of inclusive and sustainable AI were identified. The report notes that setting up strong digital infrastructure is the main priority for adopting AI, mainly when applied in remote and less developed tourist areas. Many areas of Indonesia's tourism sector will not be able to use AI applications unless they have reliable connectivity and adequate technological support. It is just as important to support small and medium businesses by enhancing AI and digital literacy. Because MSMEs are so important to Indonesia's tourism sector, they should have access to technologies that help them offer better service, work smarter, and drive innovation.

The analysis points out that a national AI tourism platform should collect all tourism data and enable AI-driven personalized services and oversee the movement of tourists. If AI is to be adopted safely, ensuring there are ethical rules and data privacy guidelines will building public trust on AI. Besides, adopting sustainability practices in AI is very crucial so that tourism is less harmful to culture and nature. AI should be used to support the country's economy and also increase the strength and sustainability of the nation's tourism destinations. This research prepares clear guidelines for policymakers, businesses in the industry, and those in academia. High-quality infrastructure, a skilled workforce, ethical practices, and environmental stewardship are key factors in positioning Indonesia as a leader in inclusive, sustainable, and AI-powered tourism. Plans for further research could involve piloting these strategies and measuring their effects over time on competitiveness, the strength of communities, and their natural environment.

Future Research Directions

Even though this work steps a way for choosing AI-centered tourism strategies in Indonesia, there are still many possibilities to improve research in this direction. First, future studies should explore empirical implementation models by conducting pilot projects in selected tourism destinations, particularly in Indonesia's underdeveloped regions. This will enable researchers to assess the practical challenges of AI deployment in low-connectivity environments, generate field-based insights, and refine infrastructure strategies that address regional disparities in digital readiness. Second, longitudinal studies are recommended to monitor the evolving impacts of AI adoption on tourism MSME resilience, competitiveness, and innovation capacity. Given the dynamic nature of AI technologies and market behaviours, longitudinal research could provide valuable data on how MSMEs adapt, identifying factors that accelerate or hinder their digital transformation.

Third, future research should focus on developing AI ethics and governance frameworks tailored to tourism contexts, especially within culturally diverse societies like Indonesia. Specific attention should be paid to data privacy issues, algorithmic transparency, and bias mitigation in tourism recommender systems and predictive analytics. Comparative studies examining best practices from other countries could inform regulatory refinement in Indonesia. Fourth, quantitative modelling and simulation techniques—such as system dynamics or agent-based modelling—can be employed to predict AI's long-term socio-economic impacts on tourism ecosystems. This would help policymakers anticipate unintended consequences, such as labour displacement, over-tourism, or widening digital inequalities, and design proactive mitigation measures.

Fifth, given the growing importance of sustainability and heritage preservation, future research could investigate the role of AI-driven AR/VR technologies in enhancing cultural tourism while minimizing physical impacts on heritage sites. Interdisciplinary studies bridging tourism, computer science, and environmental sciences could generate innovative approaches to balance tourism growth with environmental protection. Lastly, future research should consider expanding the stakeholder base to include local communities, tourists, and digital consumers as part of participatory research models. This would provide more nuanced perspectives on AI acceptance, ethical considerations, and user preferences, ensuring that AI-driven tourism development remains inclusive, socially responsible, and culturally appropriate.

Strategic Roadmap for AI-Driven Sustainable Tourism Development in Indonesia…
Hariyanto et al. (2025)

Jki

ACKNOWLEDGEMENT

REFERENCES

Achmad, W., Nurwati, N., & Sofro Sidiq, R. S. (2023). Community Economic Empowerment Through The Development Of Micro And Small And Medium Enterprises: A Case Study In Alamendah Tourism Village. Journal of Economic Empowerment Strategy (JEES), 6(2), 99–104. https://doi.org/10.23969/jees.v6i2.9377

Af'idah, D. I., Anggraeni, P. D., Rizki, M., Setiawan, A. B., & Handayani, S. F. (2023). Aspect-Based Sentiment Analysis for Indonesian Tourist Attraction Reviews Using Bidirectional Long Short-Term Memory. *Juita Jurnal Informatika*, *11*(1), 27. https://doi.org/10.30595/juita.v11i1.15341

Aliyah, Lukita, C., Pangilinan, G. A., Chakim, M. H. R., & Saputra, D. B. (2023). Examining the Impact of Artificial Intelligence and Internet of Things on Smart Tourism Destinations: A Comprehensive Study. *Aptisi Transactions on Technopreneurship (Att)*, *5*(2sp), 135–145. https://doi.org/10.34306/att.v5i2sp.332

Aryaningtyas, A. T., Risyanti, Y. D., & Helyanan, P. S. (2023). Towards Sustainable Tourism: An in-Depth Study of Green Entrepreneurship Strategies in Indonesia. *ICTMT*, *1*(2), 300–311. https://doi.org/10.56910/ictmt.v1i2.44

Badan Pusat Statistik. (2024). Statistik Telekomunikasi Indonesia 2023.

Chan, A. S., Destiadi, R., Hasibuan, A. S., Aranski, A. W., & Ardiansyah, L. (2024). Implementation of IoT-Based Smart Tourism Destination Tools as Tourism Leisure 5.0. *International Journal of Research in Vocational Studies (IJRVOCAS)*, *3*(4), 13–18. https://doi.org/10.53893/ijrvocas.v3i4.105

Creswell, W. J., & Creswell, J. D. (2018). Research Design: Qualitative, Quantitative and Mixed Methods Approaches (5th ed.). Sage Publications Inc.

Dhamija, P., & Bag, S. (2020). Role of Artificial Intelligence in Operations Environment: A Review and Bibliometric Analysis. *The TQM Journal*, *32*(4), 869–896. https://doi.org/10.1108/tqm-10-2019-0243

Doborjeh, Z., Hemmington, N., Doborjeh, M., & Kasabov, N. (2021). Artificial Intelligence: A Systematic Review of Methods and Applications in Hospitality and Tourism. *International Journal of Contemporary Hospitality Management*, *34*(3), 1154–1176. https://doi.org/10.1108/ijchm-06-2021-0767

Elkhwesky, Z., Manzani, Y. E., & Salem, I. E. (2022). Driving Hospitality and Tourism to Foster Sustainable Innovation: A Systematic Review of COVID-19-related Studies and Practical Implications in the Digital Era. *Tourism and Hospitality Research*, *24*(1), 115–133. https://doi.org/10.1177/14673584221126792

Fan, L. (2024). Artificial Intelligence Ethics: A Dialogue between Technological Advances and Human Values. International Journal of Education and Humanities, 14(2), 260–265. https://doi.org/10.54097/tvqkkf40

Fetahović, I., Mekić, E., Kuk, K., Popović, B., & Dolićanin, E. (2023). Ethical Challenges in Open Learning Analytics. Scientific Publications of the State University of Novi Pazar Series A: Applied Mathematics, Informatics and Mechanics, 15(2), 073–085. https://doi.org/10.46793/SPSUNP2302.073F

García-Madurga, M.-Á., & Grilló-Méndez, A.-J. (2023). Artificial Intelligence in the Tourism Industry: An Overview of Reviews. *Administrative Sciences*, *13*(8), 172. https://doi.org/10.3390/admsci13080172

Gonçalves, A. R., Dorsch, L. L. P., & Figueiredo, M. (2022). Digital Tourism: An Alternative View on Cultural Intangible Heritage and Sustainability in Tavira, Portugal. *Sustainability*, *14*(5), 2912. https://doi.org/10.3390/su14052912

González-Reverté. (2019). Building Sustainable Smart Destinations: An Approach Based on the Development of Spanish Smart Tourism Plans. *Sustainability*, *11*(23), 6874. https://doi.org/10.3390/su11236874

Gretzel, U., Fuchs, M., Baggio, R., Höepken, W., Law, R., Neidhardt, J., Pesonen, J., Zanker, M., & Xiang, Z. (2020). E-Tourism Beyond COVID-19: A Call for Transformative Research. *Information Technology & Tourism*, *22*(2), 187–203. https://doi.org/10.1007/s40558-020-00181-3

Hadi, A. F. (2018). Bridging Indonesia's Digital Divide: Rural-Urban Linkages? *Jurnal Ilmu Sosial Dan Ilmu Politik*, *22*(1), 17. https://doi.org/10.22146/jsp.31835

Haedar, A. W. (2023). Digital Marketing Strategies in the Public Sector of Tourism: Enhancing Promotion and Engagement in the Tourism Industry. *Jurnal Ilmiah Ilmu Administrasi Publik*, *13*(1), 343. https://doi.org/10.26858/jiap.v13i1.47689

Huriye, A. Z. (2023). The Ethics of Artificial Intelligence: Examining the Ethical Considerations Surrounding the Development and Use of AI. American Journal of Technology, 2(1), 37–45. https://doi.org/10.58425/ajt.v2i1.142

Indaryanto, A., Harijadi, B. D., & Sinaga, E. (2023). The growing use and impact of artificial intelligence technologies in the tourism industry. Sustainable Engineering and Innovation, 5(2), 189–204. https://doi.org/10.37868/sei.v5i2.id238

Jeong, M., & Shin, H. H. (2019). Tourists' Experiences With Smart Tourism Technology at Smart Destinations and Their Behavior Intentions. *Journal of Travel Research*, *59*(8), 1464–1477. https://doi.org/10.1177/0047287519883034

Komdigi RI. (2024). Banyaknya desa yang menerima sinyal internet telepon seluler 4G. Satu Data Komdigi. https://data.komdigi.go.id/opendata

Kumar, D., & Suthar, N. (2024). Ethical and legal challenges of AI in marketing: an exploration of solutions. Journal of Information, Communication and Ethics in Society, 22(1), 124–144. https://doi.org/10.1108/JICES-05-2023-0068

Lei, J., Indiran, L., & Kohar, U. H. A. (2023). Barriers to Digital Transformation Among MSME in Tourism Industry: Cases Studies From Bali. International Journal of Academic Research in Business and Social Sciences, 13(3). https://doi.org/10.6007/ijarbss/v13-i3/16575

Ma, S. (2024). Enhancing Tourists' Satisfaction: Leveraging Artificial Intelligence in the Tourism Sector. Pacific International Journal, 7(3), 89–98. https://doi.org/10.55014/pij.v7i3.624

Nanda, W. D., Widianingsih, I., & Miftah, A. Z. (2023). The Linkage of Digital Transformation and Tourism Development Policies in Indonesia From 1879–2022: Trends and Implications for the Future. *Sustainability*, *15*(13), 10201. https://doi.org/10.3390/su151310201

Nurhaida, D., Amran, E., Nugraha, E. R., Osman, A. F. Bin, & Shafira, A. N. (2023). Utilizing Artificial Intelligence (AI) Technology to support MSMEs businesses: ChatGPT. Dinamisia : Jurnal Pengabdian Kepada Masyarakat, 7(4), 910–918. https://doi.org/10.31849/dinamisia.v7i4.15005

Pai, C. K., Liu, Y., Kang, S., & Dai, A. (2020). The role of perceived smart tourism technology experience for tourist satisfaction, happiness and revisit intention. *Sustainability (Switzerland)*, *12*(16). https://doi.org/10.3390/su12166592

Parsons, D., Choi, M., Thomas, R., Glyptou, K., & Walsh, K. (2022). The Policy Responses of Tourism Agencies to Emerging Digital Skills Constraints: A Critical Assessment of Six Countries. *International Journal of Tourism Research*, *25*(1), 97–108. https://doi.org/10.1002/jtr.2554

Radanliev, P., Santos, O., Brandon-Jones, A., & Joinson, A. (2024). Ethics and responsible AI deployment. Frontiers in Artificial Intelligence, 7. https://doi.org/10.3389/frai.2024.1377011

Ramadhaniah, M. A. (2020). The Role of Tourism in the Indonesian Economy. *Jurnal Riset Pembangunan*, *2*(2), 98–113. https://doi.org/10.36087/jrp.v2i2.60

Rashid, M. F. A., & Aziz, M. A. A. (2022). A Comprehensive Overview of World Mapping Analysis Research Trends on Impact of Artificial Intelligence in Tourism From 2000 to 2022: A Literature Review and Bibliometric Analysis. *International Center for Research and Resource Development (Icrrd) Quality Index Research Journal*, *3*(3). https://doi.org/10.53272/icrrd.v3i3.4

Strategic Roadmap for AI-Driven Sustainable Tourism Development in Indonesia…
Hariyanto et al. (2025)

Jki

Ray, S., & Ray, D. P. (2024). Artificial Intelligence In Education: Navigating The Nexus Of Innovation And Ethics For Future Learning Landscapes. International Journal of Research - Granthaalayah, 11(12). https://doi.org/10.29121/granthaalayah.v11.i12.2023.5464

Ridzuan, N. N., Masri, M., Anshari, M., Fitriyani, N. L., & Syafrudin, M. (2024). AI in the Financial Sector: The Line between Innovation, Regulation and Ethical Responsibility. Information, 15(8), 432. https://doi.org/10.3390/info15080432

Saaty, R. W. (1987). The analytic hierarchy process—what it is and how it is used. Mathematical Modelling, 9(3–5), 161–176. https://doi.org/10.1016/0270-0255(87)90473-8

Samara, D., Magnisalis, I., & Peristeras, V. (2020). Artificial intelligence and big data in tourism: A systematic literature review. *... of Hospitality and Tourism ....* https://doi.org/10.1108/JHTT-12-2018-0118

Setiawan, B. (2024). The Augmented Reality (AR) Based on Artificial Intellegence (AI) in Integrated Marketing Communication (IMC) in Tourism Villages. *Media Wisata*, 22(2), 341–352. https://doi.org/10.36276/mws.v22i2.695

Shafiee, M. M. (2024). Navigating Overtourism Destinations: Leveraging Smart Tourism Solutions for Sustainable Travel Experience. *Smart Tourism*, 5(2), 2841. https://doi.org/10.54517/st.v5i2.2841

Shin, H. H., Jeong, M., & Cho, M. H. (2021). The impact of smart tourism technology and domestic travelers' technology readiness on their satisfaction and behavioral intention: A c ross-country comparison. *... Journal of Tourism ....* https://doi.org/10.1002/jtr.2437

Singh, C., Dash, M. K., Sahu, R., & Kumar, A. (2024). Artificial intelligence in customer retention: a bibliometric analysis and future research framework. Kybernetes, 53(11), 4863–4888. https://doi.org/10.1108/K-02-2023-0245

Skandali, D., Magoutas, A., & Tsourvakas, G. (2024). Consumer Behaviour Analysis for AI Services in the Tourism Industry. *Majcafe*, 32(1), 332–362. https://doi.org/10.60016/majcafe.v32.13

Statista. (2024). Digital literacy index in Indonesia in 2022. Internet Demography and Use. https://www.statista.com/statistics/1369307/indonesia-digital-literacy-index-by-province/

Syafi'i, M., & Uula, M. M. (2022). Measuring the Productivity of Tourism Sector in Indonesia. *Halal Tourism and Pilgrimage*, 2(2). https://doi.org/10.58968/htp.v2i2.179

Yan, K., Xia, E., Li, J., & Huang, J. (2023). Assessing the effect of business intelligence quality on enterprise innovation performance: a knowledge dynamic capability perspective. *International Journal of Technology Management*, 92(1/2), 112. https://doi.org/10.1504/ijtm.2023.128798

Zheng, D., Luo, Q., & Ritchie, B. W. (2021). Afraid to travel after COVID-19? Self-protection, coping and resilience against pandemic' travel fear.' *Tourism Management*, 83(November 2020), 104261. https://doi.org/10.1016/j.tourman.2020.104261

AUTHOR PROFILE

Hariyanto, S.Sos., M.M.

Deputy for Destination and Infrastructure Development, Ministry of Tourism, Republic of Indonesia. He is a senior government official with over 37 years of public service, specializing in tourism planning, cultural heritage, and creative economy development. Currently serving as Deputy for Destination and Infrastructure Development, he leads strategic programs to enhance Indonesia's tourism competitiveness and creative economy infrastructure.

Dr. Eko Susanto, SST.Par. M.M.

ORCID ID 0000-0002-8944-8711. Lecturer, Tourism Destination Program, Politeknik Negeri Bandung, Indonesia. He is a senior lecturer specializing in tourism destination development and strategic management. His academic interests focus on advancing sustainable tourism strategies and enhancing destination competitiveness.

Bayu Aji, SE., M.M.

Secretary General, Ministry of Tourism and Creative Economy, Republic of Indonesia. He is a senior government official with extensive experience in public financial management, strategic planning, and internal auditing within Indonesia's tourism and creative economy sectors. He currently serves as Secretary General of the Ministry, focusing on strengthening governance, accountability, and sustainable program implementation.

Dr. Sri Utari Widyastuti, M.Kom.

Secretary of the Deputy for Destination and Infrastructure Development, Ministry of Tourism and Creative Economy, Republic of Indonesia. She specializes in destination development, infrastructure planning, and digital transformation in tourism. She currently serves in a strategic role supporting the formulation and implementation of Indonesia's tourism destination and infrastructure development policies.

Dr. Andar Danova Lastaripar Goeltom., M.Sc.

Assistant Deputy for Tourism Human Capital Development and Vocational Education, Ministry of Tourism and Creative Economy, Republic of Indonesia. He specializes in tourism human capital development, vocational education, and tourism policy research. He strategically advances capacity building and professional competencies within Indonesia's tourism sector, focusing on sustainable and competitive tourism development.

Jki

THEMATIC TRENDS OF CAFÉ BOARD GAMES AND THEIR IMPACT ON CONSUMERS' INTENTION TO VISIT

Asep Parantika[1], Cecep Rukendi[2], Suci Sandi Wachyuni[3], Kadek Wiweka[4*]

[1]Tourism Department, Economic & Business Faculty, Universitas Nasional, Indonesia
[2]Pemasaran Pariwisata Regional II, Ministry of tourism and creative economy, Indonesia
[3,4]Tourism Department, Politeknik Sahid, Indonesia

Correspondence: kadek.wiweka@polteksahid.ac.id

Article Info	Abstract
	The rivalry in the café and restaurant industry is intensifying, necessitating that business operators innovate to survive and thrive. Café industry participants vie to satisfy the lifestyle preferences of predominantly younger clientele. The introduction of thematic board game cafes is one such development. Thematic board game cafes offer a playful concept by supplying game boards for user use. Their presence is a beginning to be manifested in major cities across Indonesia. As part of the broader experience-based tourism and creative tourism movement, the emergence of these cafes reflects shifting consumer desires toward interactive, immersive leisure environments. The Purpose of this study is to assess the impact of thematic board game cafes on consumer interest in patronage. This study will offer a comprehensive analysis of customer behavior regarding innovation and originality within the café and restaurant sector. This research methodology employs a quantitative approach utilizing consumer surveys and observations. The subjects of this study were the residents of Jakarta who were potential clients of board game cafes. The research sample comprised 100 consumers of the Maze board game café in North Jakarta. Results and conclusions indicated that thematic board game cafes significantly influenced interest in visitation, contributing 23.5%. Thematic board game cafes are regarded as suitable for all age groups due to their diverse menu and game activities that cater to multiple generational levels. The allure of knowledge and social engagement enhances customer interest in patronizing thematic board game cafés. This study positions thematic board game cafés as a form of urban tourism micro-destination, emphasizing their potential role in shaping local tourism experiences and creative leisure consumption. This study will offer actionable insights that can serve as recommendations for corporate stakeholders to enhance customer interest for visiting.

INTRODUCTION

Currently, patronizing cafés has evolved into a cultural phenomenon, as a majority of community activities, including work, study, and social interaction, that occur within these establishments. The evolution of consumer behavior, including the inclination towards "dining out" and the trend of "working from anywhere" in Indonesia, has significantly intensified the need for cafés (Wachyuni et al., 2021, 2022; Wachyuni & Wiweka, 2022). According to study data from toffin.id, the number of coffee shops in Indonesia in 2019 was 2,950 outlets in total, approximately thrice compared to the 1,000 outlets recorded in 2016 (Halalmui.org, 2024).

Toffin, a company offering products and services for the hotel, restaurant, and cafe sectors in Indonesia, categorizes the evolution of the cafe industry, particularly coffee shops, into four distinct waves. The initial wave throughout the 1980s-1990s saw the emergence of typical coffee shops that marketed instant coffee from several brands, a practice that persists to this day. The second wave in 2001 marked the emergence of multinational franchise coffee establishments. In addition, in 2010, the third wave of coffee enthusiasts emerged, valuing their coffee experience, accompanied by the introduction of the labels Single Origin and Specialty Coffee. Furthermore, the fourth wave in 2016 marked the introduction of coffee shops offering a to-go concept, providing ready-to-drink coffee produced on-site for consumption at home (Hariyanto, 2019).

This substantial development indicates that Indonesians have a preference for visiting cafés. Consequently, café entrepreneurs are competing to offer a conducive environment for patrons to engage in various activities.

Café establishments with diverse thematic concepts—such as retro-style cafés, nature-themed interiors, or minimalistic Scandinavian aesthetics—continue to proliferate. However, the café or coffee shop industry necessitates a competent strategy and innovation for sustainable growth. One emerging strategy is the creation of cafés with distinctive concepts not only in their interior and exterior design but also in the form of interactive engagement. An example of such innovation is the thematic board game café, which provides board games as part of the experience, aiming to foster interaction and social bonding among patrons.

Unlike other thematic cafés that rely predominantly on visual aesthetics and ambience, board game cafés introduce an experiential component that actively involves customers in shared activities. Previous studies indicate that a topic or concept affects visiting interest. Research conducted by (Ilma, 2016) and (Wahyudi et al., 2022) indicates that the café atmosphere and service quality significantly influence shopping decisions. Nevertheless, targeted research concerning visitation interest in thematic board game cafes has not been extensively undertaken. This study seeks to ascertain the impact of thematic board game cafes on consumer visitation interest. Moreover, this study aims to demonstrate that a cafe's distinctive idea can enhance consumer interest in visiting. Consequently, this research can offer tips to café entrepreneurs, particularly local coffee shops, to achieve success inside their own nation.

Board game cafés, as thematic spaces, have the potential to become part of a city's tourist attractions, particularly in the context of experiential tourism, which is gaining popularity among young adults and domestic travelers. They are more than mere dining spaces; they serve as distinctive social and recreational venues that can evolve into urban

Thematic Trends of Café Board Games and Their Impact on Consumers' Intention to Visit
Parantika et al. (2025)

JKi

tourism micro-destinations. Contemporary tourism trends reveal a growing demand for authentic local experiences, including visits to creative and themed leisure venues within urban settings. The inclusion of interactive and educational activities positions board game cafés as providers of experiential tourism, aligning with current demands for immersive, socially engaging tourism experiences.

Thematic board game café

A board game café is an establishment that offers both board games and a selection of food and beverages for patrons to order. (Angie, 2019) asserts that a board game café is ideal for socializing with friends due to its diverse selection of games available to play. According to (Wisana, 2011), a group of individuals is required to participate in a board game. A board game is a game played on a standard board, sometimes serving as a cognitive challenge, shown by titles such as Scrabble or Monopoly. Wahyu (2018) elucidates that board games are regarded as among the earliest forms of games globally. Historically constructed from wood and stone, it is currently comprised of more appropriate materials such as cards and dice (Toemon, 2017).

Based on (Wisana, 2011), the indicators of a board game café encompass the following; First, regulation; a board game is characterized by a multitude of rules. This game can only be played by all participants adhering to the established regulations, which instruct players to comply and maintain honesty. Second, social engagement; the games offered at the Boardgame café accommodate more than three participants. Certain types of board games encourage many participants to collaborate in order to overcome the game. In board games, communication is essential among opponents and allies. Third, education; it means that the board games offered are typically bundled in engaging themes. For instance, Monopoly imparts lessons on investment and land acquisition, while Agricola revolves around farm management. Other board games also impart new knowledge to players, and some players develop an interest in exploring the theme of the board game further. Forth, risk and simulation; which mean that all human actions must exert impact and yield effects, either directly or indirectly. In board games, each decision is rapidly simulated. Players can promptly ascertain the reasons for their actions during the game. Each act of treachery, broken promise, solidarity, fortune, and collaboration will yield a direct reciprocal interaction among the participants. Fifth, generational levels; digital games are not universally accessible, particularly for parents. Numerous digital games depend on technological proficiency, including the manipulation of a mouse or game controller. Meanwhile, the board game cafe offers games suitable for all generations, allowing players to effortlessly invite their parents to participate.

Consumer intention to visit

Indrajaya and Setiawan (Indrajaya et al., 2021; Setiawan et al., 2023) propose that the desire in travelling parallels the interest in purchasing, related to a research that correlates the two interests. (Putra et al., 2015) defined interest in travelling as the desire to explore a location or area deemed intriguing. The aforementioned explanation indicates that interest in visiting refers to an individual's emotion motivated by a specific desire, culminating in the decision to visit a location. According to (Ferdinand, 2014) purchasing interest can be discerned by various signs, including; first, transactional interest refers to the inclination of individuals or organizations to purchase goods or services. Second,

preferential interest refers to the tendency of individuals or organizations to prioritize a product as the primary reference point. Third, exploratory interest, defined as the behavior of an individual who consistently seeks information pertaining to goods or services of interest.

Grounded in theoretical foundations and emerging circumstances the hypothesis formulated in this study is as follows:

H_0: There is no positive influence of thematic boardgame cafe on intention to visit.
H_1: There is a positive influence of thematic boardgame cafe on intention to visit.

METHODOLOGY

This study employed a comprehensive quantitative research methodology, which is designed to systematically collect and analyze numerical data. The primary objective of this approach is to rigorously test hypotheses and address pertinent questions concerning individuals' perceptions and opinions about a specific issue or topic, particularly as it relates to café experiences. By quantifying observations, the study aimed to draw meaningful conclusions that could enhance our understanding of consumer behavior within this context. The research has been conducted at the Maze Boardgame Café, strategically located at Kelapa Hibrida Raya PF18 no.9 in the vibrant Special Capital Region of Jakarta. This locale provided an ideal setting for exploring the intersection of leisure and consumer interest in thematic cafés. The study was scheduled to take place over a five-month period, from September 2023 to January 2024, allowing for a thorough examination of visitor interactions and experiences.

The target population for this research consisted of the diverse Jakarta community, specifically focusing on both current patrons and potential consumers of cafés in the area. This demography is particularly relevant given the rising popularity of boardgame cafés as social hubs. A convenience sampling technique was used to select participants who were readily available and willing to respond during their visit to the Maze Boardgame Café. The sample encompassed 100 visitors to the Maze Boardgame Café, ensuring a representation of varied perspectives within the café-goer community. In accordance with guidelines established by Roscoe, as referenced in (Sekaran, 2017), a sample size of 30 to 500 respondents is considered adequate for conducting robust quantitative analysis. However, it should be noted that the relatively small sample size and the restriction to a single café location may limit the generalizability of the findings. Future research is recommended to adopt a broader approach, incorporating multiple boardgame cafés across various cities to enable comparative insights and stronger external validity.

To gather data, the study utilized structured questionnaires, which included a series of statements aligned with the indicators of Variable X (thematic boardgame café) and Variable Y (interest in visiting). The questionnaire was designed using a five-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5). Sample items for Variable X include: "The board game selection enhances my experience at the café" and "I enjoy interacting with others through board games". For Variable Y, examples included: "I am likely to revisit this café in the near future" and "I would recommend this café to my friends". This instrument was then meticulously crafted to capture the nuances of visitor engagement and preferences. Ethical considerations were also strictly observed. All participants received a clear explanation of the research purpose and procedures, and

Thematic Trends of Café Board Games and Their Impact on Consumers' Intention to Visit
Parantika et al. (2025)

Jki

written informed consent was obtained before their participation. Respondents were assured that their involvement was voluntary, and that their identities remained anonymous. All data collected were kept confidential and used solely for academic purposes. Prior to administration, the questionnaire underwent thorough validity and reliability testing to ensure its effectiveness in measuring the intended constructs.

Upon completion of data collection, the acquired data were subjected to a comprehensive array of analytical techniques. These included quantitative descriptive analysis, classical assumption tests, simple linear regression tests, t-tests, and coefficient of determination tests. This multi-faceted analytical approach will facilitate a deeper understanding of the relationships between the variables of interest and provide insights that could inform future strategies for enhancing consumer engagement in thematic boardgame cafés.

Through this meticulous research design, the study aims not only to contribute to the existing body of knowledge but also to offer practical recommendations for café owners and stakeholders seeking to attract and retain customers in this evolving market. Ultimately, the findings are anticipated to illuminate the dynamics of consumer interest in thematic cafés, thereby enriching the discourse surrounding leisure activities in urban settings.

FINDINGS AND DISCUSSION

Findings

Respondent Demographics

The survey conducted as part of this study reveals intriguing insights into the demographic profile of visitors to the Maze Boardgame Café. A striking 74% of the respondents are male, while female visitors make up 26% of the total samples. This gender distribution highlights a notable predominance of male patrons in this particular café setting, indicating a potential gender bias in the sample that should be acknowledged in interpreting results. This supports the assumption underlying Hypothesis 1 (H_1), suggesting that thematic boardgame cafés attract a specific demographic segment, particularly males.

When examining the age demographics, it becomes evident that the majority of visitors fall within the young and productive age bracket of 23 to 27 years, comprising an impressive 89% of respondents. This is followed by a smaller segment of visitors aged 17 to 22 years (6%), and those in the 28 to 32 age range (5%). Such data indicate that the café attracts a youthful clientele, predominantly from Generation Z and millennials, who are typically active in digital and leisure-based consumption patterns. In terms of occupation, the findings reveal that a significant proportion of respondents, 80%, are employed as Civil Servants or in the private sector, while 11% identify as entrepreneurs. This occupational distribution suggests that the visitors are not only part of a productive demographic but also encompass individuals who are likely to be economically active and engaged in various professional endeavors.

These characteristics paint a vivid picture of the typical boardgame café visitor as a member of the dynamic and resourceful younger generations, who seek out communal spaces for entertainment and social interaction (Damanik et al., 2019; Setiawan et al., 2018; Wiweka et al., 2019). This demographic alignment is relevant to H_1, further indicating that thematic cafés resonate with a specific segment of socially active young adults. For a more

comprehensive view, a detailed demographic table of the respondents can be found in Table 1, which encapsulates these findings and serves as a foundational element for further analysis and discussion within the study.

Table 1. Results of Respondent Demographic Analysis

No	Demography	Option	Percentage (%)
1	Gender	Male	74
		Female	26
2	Age	17-22 Years	0
		23-27 Years	89
		28-32 Years	6
		> 32 Years	5
3	Occupation	Civil Servant/Private Employee	80
		Entrepreneur	11
		Student	9
4	Visiting Frequency	1 time a month	2
		1-3 times a month	7
		3-5 times a month	91
		5 times a month	0

Source: Research data, 2025

As illustrated in Table 1, the visiting patterns of respondents to the Maze Boardgame Café reveal noteworthy trends. A substantial majority, comprising 91% of visitors, visits the café three to five times each month. This high frequency of visits suggests a strong level of engagement and loyalty among patrons. In contrast, a smaller segment of the population, 7%, reports visiting the café one to three times a month, while only 2% indicate that they visit once a month. Further analysis of the respondents' places of residence highlights the geographical distribution of the café's clientele. An enormous 84% of visitors are from North Jakarta, indicating that the café has successfully established itself as a popular destination within this locality. This is followed by visitors from West Jakarta, who represent 8% of the total, and East Jakarta, which accounts for 4%.

These demographic insights underscore the café's appeal to local residents, suggesting that it serves as a community hub for social interaction and leisure activities. The data indicates not only a strong local customer base but also a tendency for repeat visits, reflecting the café's ability to create an inviting atmosphere that encourages patrons to return. This combination of factors points to a market segment that is both geographically concentrated and highly engaged, presenting valuable implications for marketing strategies and customer relationship management within the café industry (Wachyuni et al., 2021).

Validity and Reliability Test of Questionnaire

The validity test was performed to confirm that the research instrument used in this study was valid, while the reliability test was conducted to establish the consistency of the instrument before distribution and further analysis. The findings from the questionnaire reliability test are presented in Table 2. The validity test results indicate that out of 14 questions pertaining to the thematic indicators of the boardgame café and 9 questions related to the interest in visiting, the calculated r values exceeded the critical r value (0.374 for N = 30). Consequently, all statements were considered valid.

Thematic Trends of Café Board Games and Their Impact on Consumers' Intention to Visit
Parantika et al. (2025)

Jki

Table 2. Test results of validity and reliability of the questionnaire

Variabel	Cronbach's Alpha	N items	Result
Thematic board game café (X)	0,873	14	Reliable
Intention to visit (Y)	0,742	9	Reliable

Source: Research data, 2025

In Table 2, the results of the reliability test reveal that the Cronbach's Alpha value for Variable X, which refers to the thematic boardgame café, is 0.873, while Variable Y is 0.742. Since both values exceed the threshold of 0.6, it can be concluded that each of the two variables is considered reliable.

Classical Assumption Test

Before performing linear regression analysis, it is essential for the data to exhibit a normal distribution. To assess this, a classical assumption test must be conducted, which includes tests for heteroscedasticity, linearity, and normality. Once all assumptions are fulfilled, the data can be processed to regression analysis and t-tests.

Heteroscedasticity Test

As noted by (Wachyuni & Tandriano, 2017), the purpose of the heteroscedasticity test is to determine whether there is unequal variance across observations within the regression model. The findings of the heteroscedasticity test in this study will be illustrated using a scatterplot, as shown in Figure 1. This scatterplot displays points that are distributed both above and below the zero mark. The arrangement of these points does not exhibit a wave-like pattern or any discernible structure, leading to the conclusion that there is no issue with heteroscedasticity.
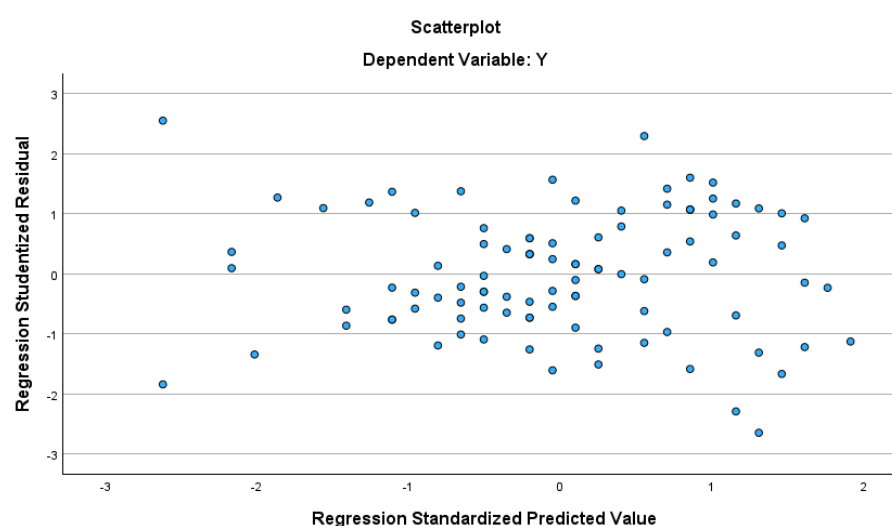

Figure 1. Scatterplot diagram

Linearity Test

As stated by (Sugiyono, 2014), the linearity test serves a crucial role for determining the nature of the relationship between independent and dependent variables in a statistical analysis. This test assesses whether the relationship is linear, providing insights into how changes in the independent variable correspond to changes in the dependent variable. To be classified as linear, the significance value of a relationship for deviation

from linearity must exceed the threshold of 0.05. In examining the results presented in Table 3, the significance value for deviation from linearity is recorded at 0.744, which notably surpasses the 0.05 threshold. This finding allows us to confidently conclude that a linear relationship exists between Variable X and Variable Y. Such a linear correlation indicates that as Variable X changes, Variable Y responds in a predictable manner, thereby reinforcing the validity of utilizing linear regression models in subsequent analyses.

Establishing this linear relationship is essential not only for the robustness of the study, but also for informing practical applications in the field. Understanding the dynamics between these variables enables researchers and practitioners to make informed decisions and predictions based on the observed data. In conclusion, the results of the linearity test provide a foundational understanding of the relationship under investigation, setting the stage for further statistical exploration and analysis.

Table 3. Linearity test

			Sum of squares	df.	Mean square	F	Sig.
y*x	Between Groups	(combined)	734.893	27	27.218	1.813	.024
		Linearity	425.936	1	425.936	28.364	<,001
		Deviation from Linearity	308.957	26	11.883	.791	.744
	Within Groups		1081.217	72	15.017		
	Total		1816.110	99			

Source: Research data, 2025

Normality Test

The results of the normality test conducted in this study are crucial for assessing the distribution of residuals across the variables in question. This test aims to determine whether the residuals exhibit a normal distribution pattern, which is fundamental for the validity of many statistical analyses. The standard significance threshold for normality is established at 0.05; when the significance value falls below this threshold, it indicates that the data does not adhere to a normal distribution. Conversely, a significance value exceeding 0.05 suggests that the data can be classified as normally distributed. In this analysis, the Kolmogorov-Smirnov method was employed to evaluate the normality of the dataset. The findings reveal a significance value of 0.244, which comfortably exceeds the 0.05 threshold. This outcome supports the conclusion that the data are normally distributed, thereby affirming the appropriateness of employing parametric statistical techniques in subsequent analyses.

Descriptive Analysis Results

Boardgame Café Thematic Variable

In addition to the normality assessment, the analysis of the thematic variables associated with board game cafés provides compelling insights into consumer perceptions and preferences. The majority of respondents demonstrated a clear agreement with the statements included in the questionnaire, indicating a strong alignment with the characteristics and offerings of these cafés. Descriptive statistics reveal that the risk and simulation indicator accumulated the highest ratings, suggesting that respondents find board games to be not only engaging but also intellectually stimulating. Furthermore, participants expressed appreciation for the maintenance of board game facilities, indicating

Thematic Trends of Café Board Games and Their Impact on Consumers' Intention to Visit
Parantika et al. (2025)

JKi

a desire for well-kept environments that enhance their gaming experiences.

Moreover, board game cafés are recognized as versatile venues that cater to individuals of all ages. This inclusive atmosphere is supported by the diverse array of food and beverage options available, which appeal to a broad demographic. The variety of games offered further reinforces the cafés' reputation as welcoming spaces where visitors can gather to socialize and enjoy recreational activities together. Collectively, these findings underscore the significance of thematic board game cafés in fostering community engagement and providing enriching leisure experiences for consumers across various age groups. This comprehensive understanding of consumer preferences not only enhances the strategic positioning of board game cafés but also contributes to the broader discourse on leisure and social interaction in contemporary settings.

Table 4. Results of Descriptive Analysis of Thematic Boardgame Cafe Variables

No	Indicator	Statement	Average
1		I can interact socially directly by playing board games when visiting Maze Boardgame Cafe	3,81
2	Social Interaction	Boardgame cafe provides a comfortable place to enjoy quality time with my social circle	3,72
3		At the boardgame cafe, I create scenarios and determine certain roles when playing	3,47
	Total average		3,67
4		I am interested in visiting a boardgame cafe because I get new lessons and knowledge	3,84
5	Education	I want to hone my skills in playing boardgames at a boardgame cafe	3,76
6		I am interested in visiting a boardgame cafe because there are many variations of interesting educational games	3,72
	Total average		3,77
7		The types of board games available are very diverse, so that all age groups	3,85
8	Level of Generation	Boardgame café also provides games for children	3,78
9		Boardgame café has food and beverage products that can also be enjoyed by all age groups	3,89
	Total average		3,84
10		I can play various types of board games because the board game cafe determines the maximum time for visitors to play its board games	3,79
11	Rules	The rules at the board game cafe do not affect the essence of my playing	3,54
12		I always obey the rules when playing board games at the board game cafe	4,04
	Total average		3,79

No	Indicator	Statement	Average value
13	Risk and simulation	I always maintain cleanliness when eating or drinking while playing at a board game cafe, because maintaining the cleanliness of the board game	4,06
14		I am careful when playing board games to avoid damage to the board game cafe facilities	4,1
	Total average		4,08

Source: Research data, 2025

Respondents stated that visiting a board game café encompasses far more than the simple enjoyment of food and beverages; it also offers substantial educational value that leaves a lasting positive impression and significantly enhances their inclination to return. This educational aspect of the games not only stimulates cognitive engagement but also fortifies social bonds among family and friends who are invited to take part in the experience, ultimately strengthening relational ties and fostering a sense of community.

Intention to Visit Variable

A detailed analysis of the visiting interest variable indicates that transactional interest emerges as the most prominent factor, achieving the highest average value among respondents. The data suggest that consumer interest in thematic board game cafés is predominantly driven by the transactional benefits they offer. Visitors enjoy not only the delectable food and drinks available but also access to captivating board game facilities, effectively creating a dual advantage that improves the overall experience.

Furthermore, the interest in visiting these cafés is also influenced by preferential incentives, as consumers demonstrate a clear preference for thematic board game cafés due to the unique and appealing game boards provided. The quality of the culinary offerings in these cafés is noteworthy, rivaling that of other popular dining establishments, which adds to their allure. Additionally, there is a strong desire among consumers to explore the distinctive charms of thematic board game cafés, further motivating them to visit. By engaging with these cafés, consumers gain not only a refreshing dining experience but also an immersive atmosphere that enriches their leisure activities. The results of the descriptive analysis pertaining to the visiting interest variable can be found in Table 5, providing further insights into consumer preferences and behaviors in this unique dining context.

Table 5. Results of Descriptive Analysis of Visiting Interest Variables

No	Indicator	Statement	Average value
1	Transactional Interest	I visited the boardgame café to buy food and beverage products and rent the boardgames provided	4,04
2		I am interested in visiting the Maze boardgame café again	3,91
3		I get two benefits in one transaction if I visit the maze boardgame café	3,83
	Total Average		3,93
4	Preferential Interest	I prefer to visit thematic boardgame cafes compared to other themed cafes	3,47
5		The choice of food and drinks at the boardgame cafe is in accordance with my expectations	3,74

Thematic Trends of Café Board Games and Their Impact on Consumers' Intention to Visit
Parantika et al. (2025)

Jki

6		The food and drink products and attractions provided influence my interest in visiting	3,99
	Total Average		3,73
7	Explorative Interest	I visited a boardgame cafe because I wanted to know more about boardgames	3,8
8		I played boardgames because I wanted to get a new experience	3,54
		I am interested in visiting a boardgame cafe because I want to feel the thematic atmosphere of the cafe	3,73
	Total Average		3,69

Source: Research data, 2025

Linear regression test and t-test

A simple linear regression test is conducted to test the effect of one independent variable on the dependent variable. The results of the analysis in Table 6 show the regression equation Y = 17,340 + 0.315X.

Table 6. Results of Linear Regression Test and t-Test

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	17.340	3.094		5.604	.000
	x	.315	.058	.484	5.480	.000
a. Dependent Variable: y						

Source: Research data, 2025

Furthermore, the t-test results show a significance value of 0.000 <0.05, which means that the thematic boardgame café variable has a positive effect on visiting interest.

The Coefficient of Determination Test

Furthermore, the determination coefficient is carried out to measure how far the model's ability to explain the dependent variable. From the SPSS output display in Table 6, the R Square value is 0.235. This indicates that the contribution of variable X to Y is 23.5%, while the remaining 76.5% is determined by other variables.

Table 7. Results of the Determination Coefficient Test

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.484[a]	.235	.227	3.766

Source: Research data, 2025

Discussion

Profile and Characteristics of Thematic Boardgame Café Consumers

Demographic analysis reveals that the primary consumers of thematic board game cafés are predominantly male, i.e. the Generation Z and Millennial cohorts. This demographic is characterized by its youthful productivity and stable employment, indicating a group that actively seeks out leisure activities to complement their busy lives.

Research by (Chandra, 2006) supports the observation that men generally exhibit a stronger inclination towards gaming, both traditional and online, than women. This preference contributes to the heightened demand for thematic board game experiences among male visitors.

Further exploration into the neurological distinctions between genders, as discussed by (Oktavian et al., 2018), reveals that men tend to have greater activation in the brain regions associated with pleasure and reward when engaged in gaming activities. In neurological terms, this area is known as the mesolimbic dopamine system, which plays a central role in motivational reward processing. This heightened responsiveness underscores a key motivation for male consumers: the pursuit of enjoyment and relaxation. Thematic board game cafés provide an ideal venue for these individuals to unwind and recharge after a demanding day at work. The frequent visits, averaging three to five times per month, underscore the perception of these cafés as enjoyable social spaces. As noted by (Kotler & Amstrong, 2018), such repeat visitation is indicative of consumer satisfaction, reflecting the successful alignment of the café's offerings with the desires of its customers.

However, it is important to note that the current demographic findings—particularly the male dominance and Jakarta-specific context—represent limitations to the study's broader applicability. These demographic biases may influence the generalizability of the findings to other urban or rural settings in Indonesia. As a result, the demographic trends observed may not be generalizable to other Indonesian cities or regions with different socioeconomic or cultural characteristics. Framing this research as a case study allows for in-depth exploration, but future studies in areas such as Bandung, Bali, or other Southeast Asian urban centres would provide comparative insights and enhance external validity.

The Influence of Thematic Boardgame Café on Consumer Visiting Interests

Statistical analyses conducted in this study further corroborate the notion that thematic board game cafés exert a positive influence on consumer interest in visiting. This is evidenced by a statistically significant result ($p < 0.001$) and a moderate effect size ($\beta = 0.315$), which supports Hypothesis 1 (H_1). While the contribution value of this influence may not be particularly large, as shown by the coefficient of determination (R^2) which indicates that other factors may also play a role, it is proven that innovative elements within a café's theme can significantly enhance consumer engagement. This research underscores both theoretical and practical implications: it confirms that theme innovation has a direct and meaningful impact on consumer interest, thereby offering strategic insights for maintaining sustainability and competitiveness in the food and beverage sector.

In the context of thematic board game cafés, the educational benefits of board games serve as an additional catalyst for consumer interest. (Treher, 2011) proposes that board games are not merely recreational; they also function as effective educational tools that foster engagement and critical thinking. They facilitate discussions and collaborative problem-solving among players, creating an enriching environment. This dual value proposition, providing delightful culinary experiences alongside educational entertainment, makes these cafés particularly attractive, as reflected in the observed repeat visitation rates of three to five times per month.

Visual representations of consumer activities within board game cafés, as illustrated in Figure 2, offer further insights into the interactions and experiences that

Thematic Trends of Café Board Games and Their Impact on Consumers' Intention to Visit
Parantika et al. (2025)

JKi

characterize these spaces. The literature reviewed by (Iswinarti & Suminar, 2019) emphasizes the versatility of board games; they can be played in various formats, thus preventing monotony and encouraging players to revisit the material in diverse ways. Such modes include social, cognitive, individual, and cooperative play, each of which caters to different visitor motivations and learning styles. These dynamics contribute to the experiential richness of thematic cafés and help explain the sustained interest observed among patrons.

Accordingly, the findings not only validate the proposed hypothesis but also align with previous literature, reinforcing the idea that consumer interest is driven by a multifaceted combination of thematic novelty, social interaction, and cognitive stimulation.

Figure 2. Visitors' activities at the board game café

Moreover, the social interactions fostered in a thematic board game café add another dimension to the appeal of these venues. As noted by (Finkelstein, 1989), one of the primary motivations for dining out is to engage socially with others. The immersive environment of a thematic board game café not only satisfies the desire for social interaction but also cultivates a sense of community among patrons.

Nevertheless, some limitations of this concept warrant consideration. The niche appeal of board game cafés may inadvertently exclude non-gamers or those unfamiliar with the culture, while practical challenges such as noise levels and limited space may affect visitor comfort, particularly during peak hours. To broaden appeal and inclusivity, operators may consider integrating family-friendly game options, designated quiet areas, or introductory game sessions for new visitors.

This blend of entertainment, education, and socialization positions thematic board game cafés as dynamic spaces that effectively meet the multifaceted needs of today's consumers, enriching their leisure experiences while contributing to the sustainability of the food and beverage industry.

Policy Implications and Theoretical Contribution

Policy Implications

This study suggests that thematic board game cafés have potential to be developed as innovative urban tourism attractions. The Ministry of Tourism and Creative Economy could integrate these cafés into creative tourism strategies by promoting them as interactive

cultural experiences for young travellers. Collaborations with café owners can lead to the creation of tourism packages that combine food, play, and social interaction. As part of destination development, these cafés can be incorporated into urban tourism campaigns to attract domestic and international visitors to commercial districts, thereby enhancing the vibrancy of city-based travel experiences. Additionally, supporting café-based startups through funding or incubation programmes can stimulate the creative economy and youth entrepreneurship. In line with SME support policies, experience design training—such as game curation, staff development, and storytelling-based hospitality—may be subsidised to improve service quality and competitiveness. These cafés also serve as safe, educational spaces for young people, making them suitable for community engagement or school-linked tourism initiatives. To reinforce their role as cultural hubs, zoning incentives could be introduced to encourage clustering of thematic cafés within designated cultural or creative districts, fostering synergies with other entertainment and leisure providers. By recognizing board game cafés as cultural hubs, policymakers can diversify tourism offerings while empowering creative industries.

Theoretical Contribution

The study contributes to the theoretical understanding of consumer behaviour in leisure and tourism by reinforcing the concept of the Experience Economy (Pine & Gilmore, 1999), which emphasizes that consumers seek engaging, memorable experiences rather than just products or services. Thematic board game cafés offer such immersive experiences by combining food, play, and social connection. The research also aligns with Play Theory (Huizinga, 1938), positioning these cafés as modern play spaces where people voluntarily participate in meaningful and enjoyable interactions. By linking café visitation with both experiential and play-based motivations, the study enhances the academic discussion around experience-driven consumer behaviour and the evolving role of themed leisure spaces in urban tourism.

CONCLUSION

The findings from this study reveal a positive correlation between the thematic variables associated with café board games and consumer interest in visiting, with a noteworthy contribution of 23.5%. This insight suggests that café owners specializing in board games could improve their service by diversifying their game selections, refining the overall ambiance, and elevating the quality of their food and beverage options. By continually enhancing the thematic elements of their cafés, it is anticipated that consumer interest and engagement will substantially increase. From a theoretical perspective, this research contributes to the understanding of how theme innovation can significantly affect consumer behavior in the café sector. The practical implications of these findings are equally important, as they provide actionable recommendations for innovation strategies within the food and beverage industry, particularly for cafés and restaurants seeking to ensure long-term sustainability and scalability. For instance, café managers may consider Gender-Targeted Engagement strategies—such as organizing game tournaments or collaborating with e-sports communities—to appeal to the predominantly male visitor base (74%). Additionally, the implementation of Loyalty Programs, including board game rental discounts or themed social night events, may sustain the high visitation frequency (91% visit 3–5 times/month). Another opportunity lies in Educational Marketing, where cafés

Thematic Trends of Café Board Games and Their Impact on Consumers' Intention to Visit
Parantika et al. (2025)

Jkí

could promote the cognitive benefits of board games (mean score: 3.77) to families and schools, positioning the café as an experiential learning space. However, it is important to acknowledge the limitations of this study, which focused exclusively on a single brand of thematic board game café. This narrow scope may limit the generalizability of the results. Future research endeavors could benefit from a broader examination of multiple café brands, allowing for a more comprehensive analysis of consumer preferences. Furthermore, investigating additional variables that influence consumer interest in visiting could enrich the existing body of knowledge and contribute to the development of new theories in consumer behavior. From a tourism policy perspective, the findings hold strategic value. First, thematic board game cafés can be integrated into Destination Development initiatives—particularly urban tourism campaigns—to attract visitors to commercial districts. Second, SME Support policies can include subsidies for experience design training, such as game curation and staff development, thereby enhancing the competitiveness of thematic cafés. Third, Zoning Incentives could be provided to cluster thematic cafés in cultural or creative zones, fostering synergistic entertainment and leisure hubs. Collectively, these measures not only strengthen the local food and beverage sector but also support a broader experience-based tourism ecosystem. Such advancements would be invaluable for practitioners aiming to adapt to the evolving landscape of the hospitality industry, while also informing policy directions for sustainable tourism development.

ACKNOWLEDGEMENT

REFERENCES

Angie, B. (2019). *7 Kafe Asyik di Jakarta yang Punya Banyak Permainan, Bikin Lupa Waktu*. Idntimes.Com.

Chandra, A. N. (2006). Gambaran perilaku dan motivasi pemain games online. *Jurnal Penabur*, *5*.

Damanik, D., Wachyuni, S. S., Wiweka, K., & Setiawan, A. (2019). The Influence of Social Media on the Domestic Tourist's Travel Motivation Case Study: Kota Tua Jakarta, Indonesia. *Current Journal of Applied Science and Technology*, 1–14. https://doi.org/10.9734/cjast/2019/v36i630263

Ferdinand, A. (2014). *Metode Penelitian Manajemen*. Universitas Diponegoro.

Finkelstein, J. (1989). *Dining out: A sociology of modern manners*. University Press.

Halalmui.org. (2024). Bisnis Kedai Kopi yang Tak Pernah Mati. *Jurnal Halal Halal Is My Life*, 8–12.

Hariyanto. (2019). *Riset Toffin: Bisnis Kedai Kopi Makin Menggeliat 2019*. Industry.Co.Id. https://www.industry.co.id/read/58786/riset-toffin-bisnis-kedai-kopi-   makin-menggeliat-di-2019

Ilma, U. C. (2016). *Pengaruh suasana toko (Store Atmosphere) terhadap keputusan pembelian konsumen pada Madam Wang Secret Garden Cafe Malang*. Universitas Islam Negeri Maulana Malik Ibrahim.

Indrajaya, T., Kartini, D., Kaltum, U., Mulyana, A., & Wiweka, K. (2021). An Exploratory Study of the Influence Between Stakeholders Orientation, Strategic Capabilities, and Shared Value Creation towards Competitiveness through Digital Business Strategies in Banten Cultural Tourism Destination. *Systematic Reviews in Pharmacy*, *12*, 647–662. https://doi.org/10.18111/9789284420070

Iswinarti, I., & Suminar, D. R. (2019). Improving Children's Problem-Solving Skills through Javanese Traditional Games. *Jurnal Cakrawala Pendidikan*, *38*(3), 578–589. https://doi.org/10.21831/cp.v38i3.25331

Kotler, P., & Amstrong, G. (2018). *Principles of Marketing (17th Edition)*. Pearson.

Oktavian, N., Nurhidayat, S., & Nasriati, R. (2018). Pengaruh durasi bermain terhadap adiksi game online pada remaja. In *Penerbitan artikel Ilmiah mahasiswa, Universitas Muhammadiyah Ponorogo* (ISSN 2598-1196 (Online)).

Putra, G. B. S., Kumadji, S., & Hidayat, K. (2015). Pengaruh citra perusahaan terhadap minat berkunjung dan Keputusan Berkunjung (Survei Pada Pengunjung Taman Rekreasi PT. Selecta, Kota Batu, Jawa Timur). *Jurnal Administrasi Bisnis*, *26*(2).

Sekaran, U. (2017). *Metode Penelitiaan Bisnis*. Salemba Empat.

Setiawan, B., Arief, M., Hamsal, M., Furinto, A., & Wiweka, K. (2023). The effect of integrated marketing communication on visitor value and its impact on intention to revisit tourist villages: The moderating effect of propensity to travel. *Calitatea*, *24*(194), 319–332.

Setiawan, B., Trisdyani, N. L. P., Adnyana, P. P., Adnyana, I. N., Wiweka, K., & Wulandani, H. R. (2018). The Profile and Behaviour of 'Digital Tourists' When Making Decisions Concerning Travelling Case Study: Generation Z in South Jakarta. *Advances in Research*, 1–13. https://doi.org/10.9734/AIR/2018/43872

Sugiyono. (2014). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D*. Alfabeta.

Toemon, S. (2017). *5 Manfaat Board Game*. Bobo.Grid.Id. https://bobo.grid.id/read/08674190/5-manfaat-board-game-

Treher, E. (2011). *Learning with boardgames. Play for performance, Tools for learning and retention, the learning key.* http://www.thelearningkey.com

Wachyuni, S. S., & Tandriano, W. (2017). Pengaruh Brand Image Terhadap Motivasi Berkunjung Tamu Di Sushi Tei Restaurant Pondok Indah Mall Jakarta. *Jurnal Sains Terapan Pariwisata*, *2*(1), 84–93.

Wachyuni, S. S., & Wiweka, K. (2022). Tourists' Perceptions of Local Street Food: Angkringan, Yogyakarta's Culinary Icon. *International Journal of Travel, Hospitality and Events*, *1*(3), 239–247.

Wachyuni, S. S., Wiweka, K., & Softia, I. (2021). AN EMPIRICAL STUDY OF FOOD BLOGGER INFLUENCE ON COFFEE SHOP BRAND IMAGE AND CONSUMER PURCHASE DECISION IN DELAPAN GRAM. *Journal of Business on Hospitality and Tourism*, *7*(3).

Wachyuni, S. S., Wiweka, K., & Wardhana, I. W. (2022). Tourism Post COVID-19: What's New in Indonesian Tourism Demand Trends? *South Asian Journal of Social Studies and Economics*, *15*(4), 62–73.

Wahyudi, I., Hadi, S. P., & Dewi, R. S. (2022). Pengaruh Kualitas Pelayanan dan Lokasi terhadap Keputusan Pembelian (Studi Kasus pada Tombo Coffe di Kabupaten Batang). *Jurnal Ilmu Administrasi Bisnis*, *11*(2), 127–133. https://doi.org/10.14710/jiab.2022.33596

Wisana, N. G. (2011). *2011. Manfaat Board Game di Tengah Era Digital*. http://indonesiabermain.com/manfaat-board-game-di-tengah-era-digital/

Wiweka, K., Wachyuni, S. S., Simawang, S. P., Adnyana, P., & Wihartaty, E. (2019). Current Issues of Backpacking Tourism Development: Profile and Characteristics of "Sharecost" and "Opentrip" Tourist. *Journal of Education, Society and Behavioural Science*, 1–12. https://doi.org/10.9734/jesbs/2019/v30i230124

Thematic Trends of Café Board Games and Their Impact on Consumers' Intention to Visit
Parantika et al. (2025)

JKi

AUTHOR PROFILE

Dr. Asep PARANTIKA.

Asep currently, is a Lecturer & Researcher in Tourism Department, Economic & Business Faculty, Universitas Nasional, Jakarta, Indonesia. He also obtained Doctor in Geography Tourism from Universite d'Angers - France. He is a member of Indonesian Gastronomy Community, Indonesian Food & Beverage Executive Association, and National Professional Tourism Board under Ministry of Tourism Republic of Indonesia. He is an active member of Scientific and Editorial Review such as Tourism Scientific Journal (TRJ), Jurnal Pariwisata Terapan (JPT). Jurnal Ilmiah Pariwisata (JIP).

Email: asep.parantika@civitas.unas.ac.id

Cecep Rukendi M.B.A.

Cecep Rukendi serves as the Director of Regional II Tourism Marketing at Kemenparekraf (the Ministry of Tourism and Creative Economy) in Indonesia. He is an alumnus of Songkla University, Thailand, where he earned his MBA with a focus on tourism. With extensive experience as a researcher at Kemenparekraf, Cecep has contributed significantly to the development of tourism strategies and initiatives in the region, leveraging his academic background and practical insights to enhance Indonesia's tourism landscape.

Email: ceceprukendi@gmail.com

Dr. Suci Sandi Wachyuni S.ST.M.M.CHE.

Suci Sandi Wachyuni is an Assistant Professor, Lecturer, and Researcher in Hospitality and Tourism Management. She graduated from Doctoral of Tourism Studies, Gadjah Mada University. Suci has experience as an educator and trainer for 13 years. In addition, she is also a guest lecturer on tourism studies at several universities. She is also frequently invited as a trainer to assist local communities in managing destinations and SMEs in tourist villages.

Email: sucisandi@polteksahid.ac.id

Kadek Wiweka S.ST.Par., M.Par., M.Rech., P.hD. CHE.

Kadek holds a Ph.D. from the Ecole Doctorale Sociétés, Temps, Territoires (EDSTT), Tourisme-UNIVERSITÉ ANGERS, France. He is also affiliated with the University of Udayana (Bali) where he completed his double master's degree (Angers University). He is also a member of the Research Department ITRC (Indonesia Tourism Research Consultant), ESO (Espaces et Sociétés in Angers), and assistant prof. at Sahid Polytechnic. He also serves as a reviewer for several international journals indexed by Scopus, Copernicus, and SINTA.

Email: kadek.wiweka@polteksahid.ac.id

Jki

"LINKING RELIGIOSITY AND EXPERIENCE" A STUDY OF MUSLIM-FRIENDLY TOURISM INTENTIONS: INTEGRATION OF TOURISM CONSUMPTION SYSTEMS THEORY AND SOCIAL EXCHANGE THEORY

Muhammad Hanif Ibrahim[1]*, Lukluk Ilmatul Khairi[2], Akmalia Lutfiaturrosyida Agung Putri[3]

[123]Department of Management, Universitas Gadjah Mada, Indonesia

Correspondence: muhammadhanifibrahim@mail.ugm.ac.id

Article Info	Abstract
	This study investigates the primary determinants of Muslim-friendly tourism intentions, emphasizing the roles of Islamic attributes, destination image, past behavior, and attitudes. It further analyzes how religiosity moderates these relationships to uncover the factors shaping Muslim travelers' tourism intentions. 300 Muslim participants from various regions were surveyed, and the data were analyzed using Partial Least Square Structural Equation Modeling (PLS-SEM). This research uniquely applies the Tourism Consumption System Theory (TCS) and Social Exchange Theory (SET) to understand Muslim tourists' decision-making processes. By integrating these theoretical lenses, the study presents a holistic perspective on Muslim travel behavior's cultural, psychological, and economic drivers. The results demonstrate that Islamic attributes, a strong destination image, and prior positive travel experiences significantly influence Muslim-friendly tourism intentions. Moreover, favorable attitudes toward tourism also enhance these intentions. Religiosity is a significant moderating factor, intensifying the influence of Islamic attributes and destination image on tourism intentions. These findings provide important implications for tourism industry practitioners seeking to attract Muslim tourists. Marketing strategies and destination branding that reflect Islamic attributes can increase attractiveness while acknowledging religiosity's role, allowing for more tailored and meaningful experiences. The results serve as a valuable resource for policymakers and tourism operators to design inclusive and sustainable tourism programs that specifically address the needs of Muslim travelers, thereby supporting economic development and fostering intercultural understanding.

JKi

INTRODUCTION

The rapid growth of the Muslim population has the potential to significantly increase the number of Muslim tourists worldwide, with projections estimating the Muslim population to reach 3 billion by 2060 (Wibawa et al., 2023). By 2026, the expansion of the halal tourism industry is expected to reach USD 300 billion. Consequently, halal tourism is anticipated to contribute to global growth by approximately 30%. Moreover, the development of this sector has stimulated the emergence of halal entrepreneurship through innovative business models tailored to the unique needs of Muslim travelers (Ainin et al., 2020).

This presents a valuable opportunity for Muslim-majority countries such as the United Arab Emirates, Malaysia, and Indonesia to offer tourism experiences based on Sharia principles. Simultaneously, non-Muslim-majority countries like the United Kingdom, Japan, South Korea, and Brazil have begun to enter this market by offering Muslim-friendly travel services (Eid & El-Gohary, 2015; Xu et al., 2021). The intensifying competition in Muslim-friendly tourism has created new challenges for Muslim travelers in selecting destinations, as they must weigh various options based on perceived value and benefits (Rodrigo and Turnbull, 2019).

In this context, halal tourism refers to a sector within the tourism industry that includes accommodation, food, recreational activities, and dress codes, all aligned with Islamic Sharia law (Sujibto & M, 2023). Services such as halal food, prayer facilities, transportation, and recreational activities must comply with religious principles (Adeiza et al., 2021). As such, halal tourism destinations are designed to integrate these components to create a social environment that supports and facilitates the religious practices of Muslim travelers (Wibawa et al., 2023). As the popularity of these destinations increases, particularly in Muslim-majority countries such as Bangladesh, the urgency to ensure Sharia-compliant tourism services becomes more critical.

Nevertheless, despite the surge in Muslim tourist numbers, many destinations still fail to understand or accommodate the Islamic aspects of halal tourism. This has created a gap between Muslim tourists' expectations and the services offered, particularly regarding essential Islamic attributes (Rostiani et al., 2024). Common inconsistencies include the absence of halal food options, insufficient prayer facilities, and a lack of a social environment aligned with Islamic norms, which ultimately leads to dissatisfaction among Muslim travelers (Sarpini & Aziz, 2023).

Furthermore, although several destinations have incorporated Islamic attributes into their marketing strategies, concerns remain about their genuine commitment to delivering these services. Muslim tourists often express skepticism toward the economic motives behind promoting Islamic values, especially when they feel that their spiritual needs are not sincerely addressed (Hariani & Hanafiah, 2023). Therefore, this study raises fundamental questions: What factors influence tourists' intentions to visit Muslim-friendly destinations? To what extent does religiosity shape Muslim tourists' preferences when selecting destinations?

Answering these questions requires understanding that adopting Islamic attributes in tourism is not merely about fulfilling religious obligations but also acts as a strategic differentiator among service providers. Sharia-based tourism features enhance the travel experience (Aji et al., 2021). However, the growing commercialization of Islamic attributes

"Linking Religiosity and Experience" A Study of Muslim-Friendly Tourism Intentions…
Ibrahim et al. (2024)

Jki

can foster consumer skepticism. When travelers sense insincerity or perceive religious symbols as being exploited for profit, their intention to visit such destinations may decline (Juliana et al., 2023). In this regard, halal awareness plays a crucial role as a moderating factor that shapes consumer trust and responses toward the Islamic attributes of a destination (Fajriyati et al., 2022).

In addition to Islamic attributes, the destination image is an essential predictor in shaping Muslim tourists' positive perceptions. Perceived destination image influences how travelers assess the functional benefits of a location, such as affordability, infrastructure, and accessibility. A favorable image can enhance the decision-making process by enabling travelers to evaluate the value they may receive based on cognitive and affective assessments (Monoarfa et al., 2022; Nassar et al., 2015).

As academic interest in Muslim tourist behavior grows (Arissaputra et al., 2025 & Rahmawati et al., 2025), many previous studies have treated Islamic attributes and destination images as separate constructs. Such approaches fail to explain how psychological and cultural factors influence travel intentions (Shmailan, 2023). Meanwhile, despite its notable influence on perceptions and decision-making, religiosity is often treated solely as an independent variable rather than as a potential moderating force in the relationship between destination value and travel intention (Rahman et al., 2020).

This study integrates two complementary theoretical frameworks to address this gap. First, Social Exchange Theory (SET), rooted in economics and social psychology, posits that individuals are motivated to reciprocate the benefits they receive from others (Homans, 1958). In tourism, SET provides insights into how perceived value influences traveler behavior (Chang, 2021). When Muslim tourists perceive that Islamic attributes in a destination offer substantial value to their experiences, they are more likely to respond positively and support the development of that destination (Abbasian et al., 2024).

Second, the Tourism Consumption System (TCS) theory conceptualizes tourist behavior as a series of interrelated decisions and actions throughout the travel journey—from pre-trip planning to post-trip evaluation (Woodside & Dubelaar, 2002). TCS emphasizes the holistic nature of the tourism experience, where perceptions of one aspect influence perceptions of others. In this study, TCS explains how Islamic attributes and destination image, when moderated by religiosity, jointly shape the emotional and functional value of the travel experience, especially among younger Muslim travelers who increasingly prioritize spiritual and authentic experiences (Xu et al., 2021).

By integrating these two theoretical approaches, this research offers a novel perspective in explaining Muslim tourists' visit intentions. It underscores the importance of emotional, functional, and spiritual dimensions in shaping travel decisions and how religiosity may strengthen or weaken these relationships. This theoretical contribution enriches the body of research on Muslim consumer behavior and helps address the challenges of the contemporary halal tourism industry (Battour, 2014).

The study aims to broaden the theoretical foundation of Muslim-friendly tourism by linking religiously motivated consumer behavior with destination experiences by integrating Social Exchange Theory and Tourism Consumption System Theory. The findings are expected to provide strategic insights for tourism service providers by emphasizing the importance of delivering sincere and well-aligned Muslim-friendly services that foster emotional attachment and functional satisfaction, ultimately increasing tourist loyalty and revisit intention.
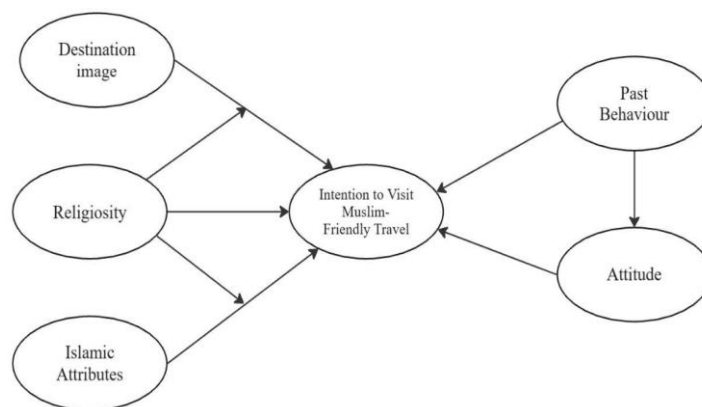
This paper is structured into five main sections. Section 1 provides the introduction, outlining the background, problem statement, and research objectives. Section 2 presents a literature review, including theoretical frameworks and hypothesis development. Section 3 details the research methodology, including research design, variables, and data collection methods. Section 4 presents the data analysis and discussion of findings. Lastly, Section 5 concludes the study by highlighting implications, limitations, and directions for future research.

METHODOLOGY

Sample

A quantitative approach through an online questionnaire with Google Form was used in this study. The online questionnaire was distributed through various platforms, including WhatsApp, LinkedIn, Instagram, Twitter, and Kudata, to reach the target population effectively. The Muslim community in Indonesia is the focus of this study, using a non-probability sampling technique, specifically purposive sampling, with criteria including Indonesian individuals aged 17 years and above, who have either traveled or plan to travel to Muslim-friendly tourist destinations, and possess knowledge of Muslim-friendly tourism aspects. Three hundred valid responses were obtained without duplicate entries or incomplete data. Data screening was conducted by checking the completeness of responses and the consistency of answers, and ensuring each entry met the predefined criteria. Only complete and eligible responses were used in this study.

This research model has six latent and thirty-six manifest variables on a 5-point Likert scale (1 strongly disagree, 5 strongly agree). Destination image and Islamic attributes adopted from (Rostiani et al., 2024), religiosity adopted from (Junaidi, 2021), past behavior adopted from (Raut, 2020), attitude adopted from (Venkatesh et al., 2012), and intention to visit Muslim-friendly adopted from (Gu et al., 2009). Prior research had validated and reliable questionnaire items. PLS-SEM was chosen to analyze this research model since it can identify the primary "driving" factors in complex models with small sample numbers (Hair et al., 2021). The study assessed sample adequacy using G*Power software (Memon et al., 2020). The findings suggest a minimum sample size of 145 respondents, containing six constructs, with 0.05 significance to achieve 80% statistical power. Thus, 300 samples are sufficient for this study.

Figure 1. Research Framework
Source: Author's processing result, 2025

"Linking Religiosity and Experience" A Study of Muslim-Friendly Tourism Intentions…
Ibrahim et al. (2024)

Jki

Characteristics of Respondents

Based on the results of data collection totaling 300 respondents, the results obtained were that they are female (54.7%), aged 26–35 years (59%), and highly educated, with most holding a bachelor's degree (27.7%) or higher. The sample predominantly comprises students (80.3%), primarily from Java (34%), with a significant proportion having a monthly income of Rp. 1,000,000–3,000,000 (68.3%). Other age groups, regions, and occupations are represented in smaller numbers, focusing on a younger, educated population with middle-income levels (see table 1).

Table 1. Respondent's Characteristics

User Characteristics	Description	Frequency	Percentage (%)
Gender	Male	136	45.3
	Female	164	54.7
Age	17 – 25 years	64	21.3
	26 – 35 years	177	59.0
	36 – 45 years	33	11.0
	46 – 55 years	15	5.0
	>55 years	11	3.7
Education	Senior High School	45	15.0
	Diploma	84	28.0
	Bachelor	83	27.7
	Master	74	24.7
	Doctor	14	4.7
Domicile	Sumatra	31	10.3
	Java	162	54.0
	Nusa Tenggara and Bali	22	7.3
	Kalimantan	45	15.0
	Sulawesi	32	10.7
	Papua	8	2.7
Income	>Rp. 1,000,000	28	9.3
	Rp. 1,000,000 – 3,000,000	204	68.0
	Rp. 3,000,001 – 5,000,000	35	11.7
	Rp. 5,000,001 – 10,000,000	11	3.7
	>Rp. 10,000,001	22	7.3
Occupation	Student	241	80.3
	Private employee	18	6.0
	Entrepreneur	8	2.7
	Professional	12	4.0
	Housewife	21	7.0

Source: Processed from primary data, 2024

Data Screening

This research employed Common Method Bias (CMB) and had no missing values or straight-line trends. Common Method Bias (CMB) ensures that study outcomes reflect variable relationships rather than data-collecting techniques. Implementing CMB is crucial since it threatens the construct's validity (Juneman, 2013; Podsakoff et al., 2003). CMB's potential was tested using Harman's single-factor test. Nine construct components had eigenvalues larger than one and contributed less than 50% (46,673%) to variable covariance. The test findings indicate no CMB potential in the research data (Rodríguez-Ardura & Meseguer-Artola, 2020).

FINDINGS AND DISCUSSION

Measurement Model Assessment (Outer Model)

In the first test, Cronbach's alpha (α) was the lower limit, and composite reliability (CR) was the upper limit (Hair et al., 2019). External loadings and mean-variance extracted (AVE) values examined convergent and discriminant validity in the second test. HTMT ratios were below 0.9 for each build, showing that they varied (Henseler et al., 2015) (see Table 2-3).

Table 2. Item Measurement

Variable and Item Measurement		Loadings
Destination Image (Rostiani et al., 2024)		
DI1	I feel safe when I am at this tourist spot	0.752
DI2	This tourist spot has a good level of security	0.794
DI3	Local transportation around this tourist spot is easily accessible and comfortable	0.615
DI4	Transportation costs at this location are reasonable and by the facilities provided	0.603
DI5	This country provides a sense of peace and security for tourists	0.620
DI6	The cleanliness and hygiene at this tourist spot have high standards	0.559
DI7	The journey to this tourist spot is affordable	0.768
DI8	I find it easy to use public transportation to reach this tourist spot	0.674
DI9	Communication facilities at this tourist spot are adequate for my needs	0.781
DI10	The road conditions to this tourist spot are good and comfortable to pass through	0.748
DI11	The environment around this tourist spot is free from pollution and is still natural	0.734
DI12	The entrance fee to this tourist spot is reasonable and comparable to the experience offered	0.761
DI13	The tourism staff at this location are friendly and very helpful	0.689
DI14	Access to this country is quite easy for tourists	0.762
DI15	This tourist spot offers beautiful and enchanting natural scenery	0.791
DI16	The people at this tourist spot are friendly, interesting, and welcome tourists warmly	0.733
Islamic Attributes (Rostiani et al., 2024)		
IA1	I found it easy to find prayer facilities at this tourist location	0.843
IA2	The restaurant at the hotel provides a fairly diverse halal menu	0.781
IA3	The hotel staff is responsive to the specific needs of Muslims, such as providing religious information, the location of the nearest mosque, or halal restaurants	0.802
IA4	The local staff at this tourist location understand the halal products and services needed by Muslim travelers	0.823
IA5	The tourist information center provides information about halal services in the surrounding area	0.800
Religiosity (Junaidi, 2021)		
RE1	I always ensure honesty and transparency in every travel decision, in accordance with my religious teachings.	0.794
RE2	I always consider religious teachings in every decision related to my travel.	0.848
RE3	My decisions in choosing a travel destination are always based on the principles of my religion.	0.834
RE4	My religious values are the main basis in planning daily travel.	0.813
Past Behaviour (Raut, 2020)		
PB1	The past performance of a destination influences my decision to visit it now	0.855
PB2	If a destination has consistently had positive reviews and experiences in the past, I consider this important in choosing a place to visit	0.832
PB3	The information available about the destination is sufficient for me to make a decision to visit now	0.847

"Linking Religiosity and Experience" A Study of Muslim-Friendly Tourism Intentions...
Ibrahim et al. (2024)

Jki

PB4	I tend to avoid destinations that have a bad reputation or negative experiences from previous visitors	0.775
PB5	A good destination is one that has consistently provided positive experiences for visitors in the past	0.721
Attitude (Venkatesh et al., 2012)		
AT1	Visiting Muslim-friendly tourist destinations is a good idea	0.875
AT2	Visiting Muslim-friendly tourist destinations is a wise choice	0.897
AT3	I love the idea of traveling to Muslim-friendly places	0.762
Intention to Visit Muslim-Friendly Travel (Gu et al., 2009)		
IN1	I am interested in visiting a Muslim-friendly travel destination someday	0.878
IN2	I would recommend a Muslim-friendly travel destination to others	0.872
IN3	I plan to visit Muslim-friendly travel destinations frequently in the future	0.798

Source: Processed from primary data, 2025

Data analysis using SMART-PLS 3 software showed that all measuring indicators for destination image, Islamic features, religiosity, previous behavior, attitude, and desire to visit Muslim-friendly travel had loading factor values over 0.708. This shows all indicators have sufficient convergent validity. A loading factor value over 0.708 implies that the indicator can reflect the construct considerably and consistently, allowing it to be employed in a research model with high confidence, according to Hair et al. (2019).

Table 3. Reflective Measurement Model

Construct	α	rho_A	CR	AVE
Attitude	0.799	0.799	0.883	0.717
Destination Image	0.928	0.934	0.938	0.812
Intention to Visit Muslim-Friendly Travel	0.908	0.911	0.942	0.845
Islamic Attributes	0.871	0.879	0.905	0.656
Past Behaviour	0.865	0.866	0.903	0.652
Religiosity	0.841	0.842	0.893	0.676

Source: Processed from primary data, 2025

Data processing in Table 3 shows that all measurement model components meet reliability and convergent validity standards. The constructs' internal reliability was assessed using three indicators: Cronbach's Alpha (α), rho_A, and Composite Reliability (CR). The α and rho_A values of all constructs above the minimum criterion of 0.7 (Hair et al., 2019) demonstrate sufficient internal consistency. Additionally, all structures have a high Composite dependability (CR) rating of 0.883 to 0.942, suggesting strong combined dependability.

Convergent validity was assessed using AVE. From 0.652 to 0.845, all constructions have AVE values over 0.5. Their conceptions explain more than 50% of the indicator variation, indicating strong convergent validity (Fornell & Larcker, 1981). Thus, Attitude, Destination Image, Intention to Visit Muslim-Friendly Travel, Islamic Attributes, Past Behaviour, and Religiosity are reliable, statistically valid, and suitable for structural model testing.

Table 4. Heterotrait-monotrait ration

	ATT	DI	INT	IA	PB	RE
ATT						
DI	0.761					
INT	0.779	0.696				
IA	0.795	0.858	0.672			
PB	0.812	0.806	0.786	0.812		
RE	0.730	0.887	0.605	0.817	0.774	

Source: Processed from primary data, 2025

Heterotrait-Monotrait Ratio (HTMT) assessed discriminant validity. Table 4 shows that all HTMT values are below 0.90 (Henseler et al., 2015), ranging from 0.605 to 0.887. This shows that each model construct has strong discriminant validity and no overlap.

Structural model assessment (inner model)

Model fit was evaluated using SRMR. As predicted, the SRMR findings showed a saturated model value of 0.071 and an estimated model value of 0.078, both meeting the <0.080 criteria (Hair et al., 2014). According to Hair et al. (2014), VIF values varied from 1.340 to 4.226, below 5. Additionally, the VIF varies from 1,902 to 3,961, below 5 (Hair et al., 2019). This demonstrates the model is multicollinearity-free. The research employs bootstrap 5,000 resampling with bias-corrected confidence interval and two-tailed significant p-values for hypothesis testing (*p:0.05, **p:0.01, *** p:0.001).

Robustness Check

The coefficient of determination (R²) is used in this investigation the Muslim-friendly travel intention coefficient of determination. The study measured effect and predictive relevance. Cohen's F² was used to determine the impact of variables in the model, revealing a change in R² when an exogenous construct was eliminated. Hair et al. (2019) use Cohen's f² values of 0.02 (small), 0.15 (medium), and 0.35 (large) to quantify the predictive impact. Overall, the f² output varied from 0.02 to 0.883.

Table 5. Hypothesis Decisions

PLS Path	β	t-value	p-value	95% BCCI	Supported?
H1. Islamic Attributes ⯈ Intention to Visit Muslim-Friendly Travel	0.163	2.767	0.000	(0.032; 0.388)	Supported
H2. Destination Image ⯈ Intention to Visit Muslim-Friendly Travel	0.263	4.782	0.000	(0.100; 0.441)	Supported
H3. Religiosity ⯈ Intention to Visit Muslim-Friendly Travel	0.770	5.095	0.000	(0.641; 0.869)	Supported
H4. Past Behaviour ⯈ Attitude	0.691	19.768	0.000	(0.616; 0.751)	Supported
H5. Past Behaviour ⯈ Intention to Visit Muslim-Friendly Travel	0.282	5.042	0.000	(0.231; 0.538)	Supported
H6. Attitude ⯈ Intention to Visit Muslim-Friendly Travel	0.203	4.782	0.006	(0.177; 0.429)	Supported
H7. Destination Image ⯈ Intention to Visit Muslim-Friendly Travel * Religisoity	0.267	5.902	0.002	(0.100; 0.122)	Supported
H8. Islamic Attributes ⯈ Intention to Visit Muslim-Friendly Travel * Religisoity	0.323	7.765	0.000	(0.198; 0.218)	Supported

Source: Processed from primary data, 2025

Path analysis utilizing Partial Least Squares (PLS) supports all research assumptions. Islamic attributes significantly impact the intention to visit Muslim-friendly travel (β = 0.163; p < 0.01), destination image (β = 0.263; p < 0.001), and religiosity (β = 0.770; p < 0.001). In addition, past behavior strongly impacts attitude (β = 0.691; p < 0.001) and intention to visit (β = 0.282; p < 0.001). Attitude substantially impacts visit intention (β = 0.203; p < 0.01). The interaction between religiosity and destination image (β = 0.267; p < 0.001) and Islamic attributes (β = 0.323; p < 0.001) seemed to moderate the

"Linking Religiosity and Experience" A Study of Muslim-Friendly Tourism Intentions…
Ibrahim et al. (2024)

Jki

impact. The evaluated correlations were statistically significant since all t-values were more than 1.96, p-values were below 0.05, and the confidence interval (95% BCCI) did not cross zero.

Table 6. Coefficient Determination and Predictive Relevance

Latent Variables	Q2	R2	R2 Adjusted
Attitude	0.463	0.469	0.467
Intention to Visit Halal-Friendly Travel	0.504	0.574	0.567

Source: Processed from primary data, 2025

Table 6 analysis reveals an R² value of 0.469 for Attitude and 0.574 for Intention to Visit Halal-Friendly Travel. These figures show that the model's independent variables explain 46.9% of attitudes and 57.4% of visiting intentions. The model's Q² values of 0.463 and 0.504 indicate high predictive significance, above the threshold value of 0 (Hair et al., 2019). Model stability and no overfitting are shown by the modified R² value being close to the R² value. These results show that the model can explain and predict halal-friendly location visit intentions.
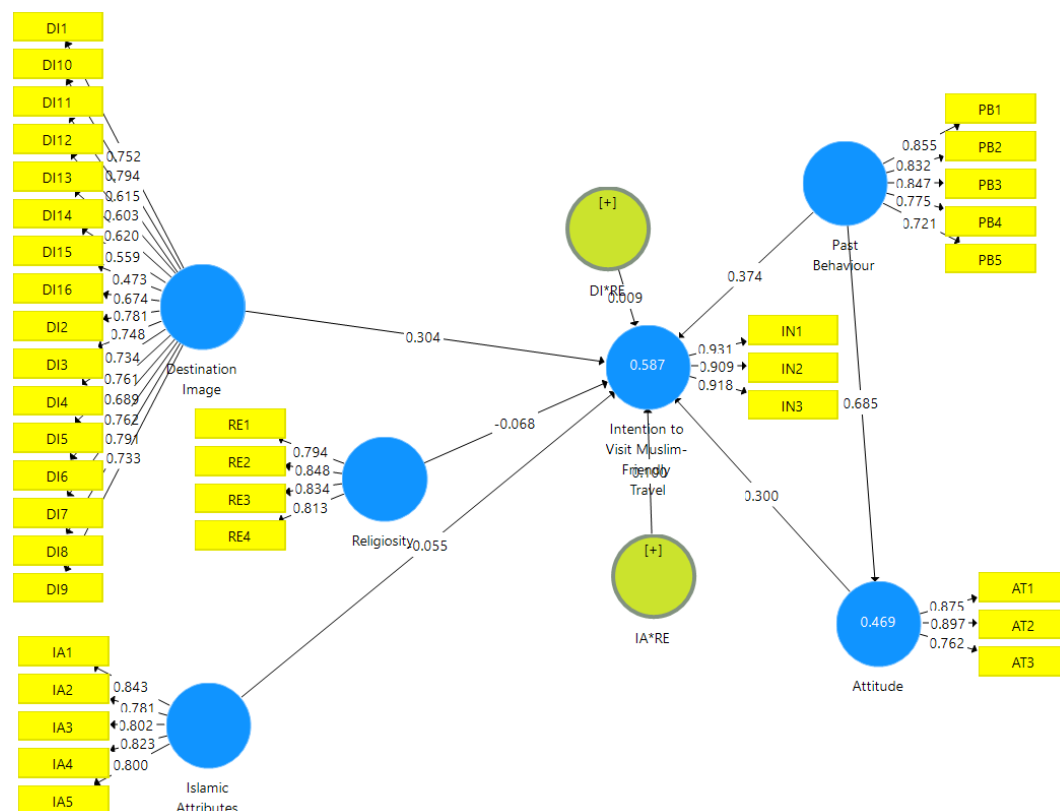
Figure 2. Output Smart-PLS
Source: Author's processing result, 2025

Discussion

Table 5 shows a route analysis (PLS route) of variables affecting Muslim-friendly travel intentions. The significant p-value (less than 0.05) supports all hypotheses in this investigation. The first hypothesis (H1) suggests that Islamic attributes significantly impact the intention to visit Muslim-friendly travel destinations, with a β value of 0.163, t-value

of 2.767, and 95% BCCI confidence interval of (0.032, 0.388). According to these studies, Islamic attributes affect the inclination to visit Muslim-friendly countries. Muslim travelers feel welcome and respected when venues provide religiously compatible amenities. For instance, mosques, prayer rooms, halal cuisine, sanitary standards, and Islamic practices associated with religious values might boost guests' involvement with the place (Rostiani et al., 2024).

Furthermore, a study by Fajriyati et al. (2022) highlighted that public areas separated by gender and adherence to Islamic dress codes significantly contribute to travelers' comfort during their journey. In this context, destinations offering Muslim-friendly attributes fulfill travelers' physical needs and support their spiritual needs (Wibawa et al., 2023). These attributes directly contribute to increasing the overall satisfaction of Muslim travelers, positively impacting their intention to revisit or recommend the destination to others. Thus, Islamic attributes attract interest and foster loyalty among Muslim travelers.

The second hypothesis (H2) is also supported, where destination image significantly influences the intention to visit a destination, with a β value of 0.263, a t-value of 4.782, and a confidence interval of (0.100; 0.441). These findings indicate that destination image influences travelers' intentions to visit Muslim-friendly destinations. Destination image encompasses various aspects, such as natural beauty, cultural attractions, and alignment with traveler preferences (Sriboonlue, 2023). Furthermore, the concept of destination image involves cognitive dimensions, such as evaluations of facilities and services, and affective dimensions, such as the emotions evoked by the destination, which significantly impact travelers' decision-making processes (Han et al., 2022).

When a destination is perceived positively, travelers are likelier to believe it will provide an enjoyable, safe, and fulfilling experience. In Muslim-friendly travel, facilities such as halal food, prayer spaces, and cultural compatibility with Islamic values are key elements that enhance the destination's appeal (Han et al., 2022; Lestari et al., 2023). Therefore, a positive destination image helps attract Muslim travelers and strengthens their intention to visit the destination, as they feel assured of a fulfilling experience aligned with their needs and preferences. This highlights the importance of managing destination images to build long-term relationships with Muslim travelers.

The third hypothesis (H3), which examines the influence of religiosity on intention, shows highly significant results with a β value of 0.770, a t-value of 5.095, and a confidence interval of (0.641; 0.869). These findings confirm that religiosity has the most significant influence among all variables tested, making it the dominant factor in this model. In the context of this study, religiosity affects various aspects of travelers' choices, including destinations, accommodations, and activities they select. As Shakona et al. (2015) noted, religiosity shapes individual preferences and behaviors, particularly in decisions related to religious values.

For individuals with high levels of religiosity, their religious beliefs often guide travel decisions. This includes the need to ensure that the destinations they visit support religious practices and an Islamic lifestyle, such as the availability of halal food, prayer facilities, and an environment aligned with Islamic values. Furthermore, Lee & Iesham (2019), in exploring travel behavior among Muslim tourists from Singapore, highlighted that their food choices and accommodation preferences are strongly influenced by their religious beliefs. Additionally, according to He et al. (2013), religious individuals tend to

"Linking Religiosity and Experience" A Study of Muslim-Friendly Tourism Intentions…
Ibrahim et al. (2024)

Jki

have stronger motivations to choose destinations that offer entertainment and support fulfilling their spiritual needs. Therefore, the higher an individual's level of religiosity, the greater their likelihood of intending to visit a Muslim-friendly destination. Religiosity guides travelers' decision-making, ensuring their journeys align with spiritual values and provide experiences that meet their religious needs. This explains why religiosity is the dominant factor influencing travel intentions in this study's model.

The fourth hypothesis (H4), which links past behaviour to attitude, is strongly supported, as indicated by a β value of 0.691, a t-value of 19.768, and a confidence interval of (0.616; 0.751). This result is based on the theory that past experiences shape individuals' preferences, trust, and expectations regarding an activity or destination. When someone has a positive experience at a Muslim-friendly destination, such as feeling comfortable with the availability of Islamic facilities, halal food, or an environment that supports Islamic values, this experience strengthens their perception that similar destinations will provide the same or even higher levels of satisfaction.

Past behaviour significantly influences the intention to visit Muslim-friendly destinations through the interaction of attitude, perceived value, and emotional experiences (Mursid, 2023). Positive past experiences not only build favourable perceptions of the destination but also reinforce positive attitudes that encourage a preference for similar destinations in the future. This aligns with findings by Soonsan & Jumani (2024), who highlighted that positive attitudes toward a destination, influenced by personal experiences and recommendations from others, significantly enhance the intention to visit Muslim-friendly destinations. Thus, positive past experiences are a key factor in shaping attitudes that support visitation intentions, emphasizing the importance of delivering high-quality experiences to foster traveler loyalty.

The fifth hypothesis (H5) indicates that past behaviour directly influences intention, as shown by a β value of 0.282, a t-value of 5.042, and a confidence interval of (0.231; 0.538). This finding supports the view that previous experiences shape individuals' preferences, trust, and expectations regarding an activity or destination. Suppose someone has visited a Muslim-friendly destination and had a positive experience, such as feeling comfortable with the availability of Islamic facilities, halal food, or an atmosphere that supports Islamic values. That experience strengthens their perception that similar destinations will provide the same or even greater satisfaction levels (Mursid, 2023).

The theory of planned behavior provides a theoretical framework that explains how past behaviors and experiences influence the formation of future intentions. For instance, Adel et al. (2021) found that cognitive and affective images formed through prior travel experiences significantly impact the decision-making processes of Muslim travelers. Notably, this influence persists even when the visited destination lacks halal facilities. Thus, the more positive a person's past experiences with Muslim-friendly destinations, the greater the likelihood of their intention to revisit similar destinations. This underscores the importance of positive experiences in fostering loyalty and shaping traveler preferences toward destinations that meet their specific needs.

The sixth hypothesis (H6), which states that attitude influences intention, is supported based on the analysis results with a β value of 0.203, a t-value of 4.782, and a confidence interval of (0.177; 0.429). Attitude represents an individual's overall evaluation of Muslim-friendly destinations, shaped by their beliefs and experiences regarding the benefits and alignment of the destination with their needs or personal values. When

someone has a positive attitude toward a Muslim-friendly destination, such as believing that the destination offers a comfortable, safe experience that supports Islamic values, they are more likely to have a stronger intention to visit it (Juliana et al., 2022).

Furthermore, the perceived value of a destination, closely related to tourists' attitudes, is a significant predictor of visit intention. Research by Sodawan & Hsu (2022) found that perceived value directly influences tourists' intention to visit a destination. This finding is consistent with Soonsan & Jumani (2024), who noted that tourists' attitudes significantly influence their intention to travel, even to non-Islamic destinations like Phuket. The study highlighted the importance of a halal-friendly social environment and local interactions in fostering positive travel intentions. Thus, a positive attitude reflects tourists' perceptions of a destination and is a key factor driving their intention to visit Muslim-friendly destinations.

The seventh hypothesis (H7) is supported, where religiosity significantly moderates the relationship between destination image and the intention to visit Muslim-friendly destinations, as indicated by a t-value > 1.96 and p-value < 0.05. For individuals with high levels of religiosity, elements of destination image that are relevant to Islamic values, such as the availability of prayer facilities, halal food, and an Islamic atmosphere, carry much greater weight in shaping their perceptions compared to other aspects, such as natural beauty or entertainment attractions (He et al., 2013). These Islamic elements fulfill physical needs and provide spiritual comfort, which is crucial for individuals with firm religious commitments.

In this context, a destination image perceived as supporting Islamic values will significantly increase the intention of religious individuals to visit that destination, as it is seen as capable of meeting their expectations for a travel experience aligned with their religious beliefs. Thus, religiosity is a reinforcing factor that strengthens the relationship between an Islamic destination image and the intention to visit, making Islamic elements within the destination image a key attraction for highly religious Muslim travelers.

Finally, the eighth hypothesis (H8) is supported, where religiosity significantly moderates the relationship between Islamic attributes and the intention to visit Muslim-friendly destinations, as indicated by a t-value > 1.96 and p-value < 0.05. This finding suggests that for individuals with high levels of religiosity, Islamic attributes such as prayer facilities, halal food, and regulations aligned with Islamic values are not merely an added value but a fundamental requirement when choosing a travel destination. The availability of these attributes provides spiritual reassurance and ensures that their journey aligns with their religious beliefs.

In this context, the influence of Islamic attributes on visit intention becomes more significant for religious individuals, as these attributes help fulfill their spiritual needs and support the observance of religious obligations during their travels (Vargas-Sánchez & Moral-Moral, 2019). Islamic attributes offer physical comfort and are essential to an Islamic lifestyle, highly valued by individuals with firm religious commitments. Therefore, religiosity strengthens the relationship between the presence of Islamic attributes and the intention to visit Muslim-friendly destinations, making these attributes key factors in attracting highly religious Muslim travelers.

These findings align with the Tourism Consumption Systems Theory, which posits that travel decisions result from the complex interaction of various factors within the tourism consumption system. The study demonstrates that past experiences, attitudes,

"Linking Religiosity and Experience" A Study of Muslim-Friendly Tourism Intentions…
Ibrahim et al. (2024)

Jki

destination image, and Islamic attributes collectively shape Muslim travelers' intentions to visit Muslim-friendly destinations. Positive past experiences reinforce attitudes that support visitation intentions, while destination image and Islamic attributes fulfill travelers' physical and spiritual needs. Religiosity, as a value framework, moderates these relationships, ensuring that highly religious Muslim travelers are more influenced by elements that support Islamic values. This supports the theory that tourism consumption involves complex interactions between psychological, social, and destination-related factors.

The study also aligns with the Social Exchange Theory, which emphasizes that travelers' decisions are based on perceived value in the exchange between travelers and destinations. Islamic attributes and destination image provide perceived benefits, such as physical comfort and spiritual fulfillment, thereby enhancing the value of the exchange. Travelers with positive past experiences are more likely to revisit destinations offering similar benefits. For highly religious Muslim travelers, the perceived value of the exchange is further strengthened by the fulfillment of spiritual needs, making Muslim-friendly destinations more appealing. Thus, the findings illustrate that Muslim travelers' intentions to visit destinations are influenced by the perceived value derived from their interaction with the destination, affirming the relevance of both theories in explaining Muslim travel behavior.

CONCLUSION

The path analysis (PLS Path) confirms that all proposed hypotheses are supported, indicating that Islamic attributes, destination image, religiosity, past behavior, and attitude significantly influence the intention to visit Muslim-friendly destinations. Islamic attributes, such as prayer facilities and halal food, are essential needs for tourists with high levels of religiosity. Meanwhile, a positive destination image enhances attractiveness through perceptions of a pleasant experience that aligns with Islamic values. Religiosity emerges as a dominant factor directly affecting intention while strengthening the relationship between destination image and Islamic attributes in influencing tourists' intentions.

In addition, past behavior and attitude also play essential roles. Positive experiences in previous visits contribute to forming supportive attitudes, ultimately influencing the intention to revisit or recommend similar destinations. These results emphasize the significance of destination management, which fulfills Muslim visitors' physical and spiritual demands to promote attraction and loyalty.

Integrating the Tourism Consumption Systems (TCS) Theory and Social Exchange Theory (SET) into this study advances Muslim-friendly tourism research. The findings reaffirm that individual attributes and destination-specific features shape travel intentions among Muslim tourists by demonstrating the complex interplay between psychological, cultural, and social factors. The study enriches TCS by illustrating that past behavior, attitude, Islamic attributes, and destination image collectively form a consumption experience. It further emphasizes the importance of aligning tourism services with Muslim tourists' physical and spiritual needs.

Furthermore, the findings extend the application of SET by showing how perceived value, derived from Islamic attributes and positive destination image, serves as a key driver of travel intentions. Religiosity acts as a crucial moderating factor that reinforces the

influence of Islamic attributes and destination image on Muslim tourists' decision-making. This underscores the necessity of incorporating religiosity into theoretical models when studying niche tourism markets strongly influenced by cultural and spiritual values. These findings corroborate the theoretical framework and provide the groundwork for future research on additional moderating factors in varied cultural and tourist settings.

This research has practical significance for destination managers and tourism sector stakeholders seeking Muslim visitors. Destinations should highlight Islamic services like certified halal cuisine, prayer spaces, and gender-separated facilities since Islamic features strongly impact travel intention. To attract extremely religious travelers, location marketing should emphasize these traits.

Additionally, destination image strongly influences travel intentions, emphasizing the necessity of creating a favorable image. The destination's natural beauty, cultural attractions, and Islamic compatibility should be promoted via specific efforts that appeal to Muslim visitors. Religiosity moderates, so marketing should emphasize how the location supports religious traditions and is culturally sensitive. Adding these components to tourism can boost satisfaction and loyalty.

Past conduct and attitude affect travel plans, emphasizing the necessity for high-quality, memorable experiences that suit Muslim travelers' bodily and spiritual demands. Focusing on these characteristics may boost return visits and favorable word-of-mouth, enhancing locations' long-term standing in Muslim-friendly tourism. Overall, these findings call for a strategic approach to destination management and promotion that addresses the unique needs of Muslim tourists to build a strong and loyal customer base.

Beyond implications for destination managers and tourism operators, this study also offers essential guidance for policymakers in the tourism sector. Local and national governments must consider developing regulations and policies that comprehensively support the creation of Muslim-friendly destinations. This includes stricter and more accessible halal certification standards, adequate prayer facilities at tourist sites, and training for tourism actors in culturally and religiously sensitive services. Such policies would enhance destinations' competitiveness in the growing global tourism market and promote inclusivity and sustainability by ensuring a safe and comfortable experience for Muslim travelers.

Public-private partnerships should be improved to create complete trip packages that include religion and local culture. Digital and social media may help governments conduct cooperative promotional initiatives to target Muslim groups locally and worldwide. With targeted policies and institutional assistance, Indonesian tourist sites may become Muslim visitors' top choices and boost the sector's contribution to sustainable national economic growth.

This study sheds light on Muslim-friendly destination intents; however, it has numerous drawbacks that should be addressed in future research. First, the data collection may be confined to specific geographic or cultural settings, limiting its applicability to a more diversified Muslim tourist community. Regional cultural and religious practices may affect the relevance of Islamic traits or religiosity. Future research might include people from other nations to further understand Muslim tourist behavior.

This research uses self-reported data, which may be biased by social desirability or recollection problems, especially when discussing sensitive themes like religion. Future studies might combine survey data with observational or experimental methodologies to

"Linking Religiosity and Experience" A Study of Muslim-Friendly Tourism Intentions…
Ibrahim et al. (2024)

JKi

get further insights. This research emphasizes religion, Islamic traits, and destination image. Additionally, the impact of digital technology, social media, and economic aspects have not been examined. Including such factors in future study models may help us grasp the complexity of Muslim-friendly tourism.

Finally, this study's cross-sectional design restricts causal inference. In light of the worldwide Muslim-friendly tourism trend, longitudinal research may reveal more dynamic attitudes, behaviors, and preferences.

REFERENCES

Abbasian, S., Onn, G., & Nordberg, D. (2024). The perception of halal concept of hoteliers in the light of social exchange theory: a Swedish study. *Journal of Hospitality and Tourism Insights*, *7*(4), 2403–2421. https://doi.org/10.1108/JHTI-01-2023-0038

Adeiza, A., Khalique, M., Yaacob, M. R., & Rahman, M. K. (2021). Analysing tourists intention to revisit Islamic tourism destinations. *Middle East J. of Management*, *1*(1), 1. https://doi.org/10.1504/MEJM.2021.10038360

Adel, A. M., Dai, X., Roshdy, R. S., & Yan, C. (2021). Muslims' travel decision-making to non-Islamic destinations: perspectives from information-seeking models and theory of planned behavior. *Journal of Islamic Marketing*, *12*(4), 918–940. https://doi.org/10.1108/JIMA-04-2020-0095

Ainin, S., Feizollah, A., Anuar, N. B., & Abdullah, N. A. (2020). Sentiment analyses of multilingual tweets on halal tourism. *Tourism Management Perspectives*, *34*, 100658. https://doi.org/10.1016/j.tmp.2020.100658

Aji, H. M., Muslichah, I., & Seftyono, C. (2021). The determinants of Muslim travellers' intention to visit non-Islamic countries: a halal tourism implication. *Journal of Islamic Marketing*, *12*(8), 1553–1576. https://doi.org/10.1108/JIMA-03-2020-0075

Arissaputra, R., Gaffar, V., Sultan, M. A., Andriana, D., Abror, A., Sentika, S., & Christiyanto, W. W. (2025). Muslim tourists as role models for environmental responsibility: key factors in memorable nature-based tourism, place attachment, and environmental concern. *Journal of Islamic Marketing.*

Battour, M., Battor, M., & Bhatti, M. A. (2014). Islamic attributes of destination: Construct development and measurement validation, and their impact on tourist satisfaction. *International Journal of tourism research*, 16(6), 556-564. https://doi.org/10.1002/jtr.1947

Chang, K. C. (2021). The affecting tourism development attitudes based on the social exchange theory and the social network theory. Asia Pacific Journal of Tourism Research, 26(2), 167-182.

Eid, R., & El-Gohary, H. (2015). The role of Islamic religiosity on the relationship between perceived value and tourist satisfaction. *Tourism Management*, *46*, 477–488. https://doi.org/10.1016/j.tourman.2014.08.003

F. Hair Jr, J., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM). *European Business Review*, *26*(2), 106–121. https://doi.org/10.1108/EBR-10-2013-0128

Fajriyati, I., Afiff, A. Z., Gayatri, G., & Hati, S. R. H. (2022). Attributes Influencing Overall Tourist Satisfaction and Its Consequences for Muslim-Majority Destination. *Sage Open*, *12*(1). https://doi.org/10.1177/21582440211068462

Gu, J.-C., Lee, S.-C., & Suh, Y.-H. (2009). Determinants of behavioral intention to mobile banking. *Expert Systems with Applications*, *36*(9), 11605–11616. https://doi.org/10.1016/j.eswa.2009.03.024

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R*. Springer International Publishing. https://doi.org/10.1007/978-3-030-80519-7

Hair, J. F., Hult, G. T., Ringle, C., & Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) - Joseph F. Hair, Jr., G. Tomas M. Hult, Christian Ringle, Marko Sarstedt. *Sage*, 374.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

Han, J., Zhang, G., Xu, S., Law, R., & Zhang, M. (2022). Seeing destinations through short-form videos: Implications for leveraging audience involvement to increase travel intention. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.1024286

Homans, G. C. (1958). Social behavior as exchange. American journal of sociology, 63(6), 597-606.

Hariani, D. and Hanafiah, M. (2023). The competitiveness, challenges and opportunities to accommodate the halal tourism market: a sharia-law tourism destination perspectives. Journal of Islamic Marketing, 15(3), 919-942. https://doi.org/10.1108/jima-05-2023-0147

He, L., Park, K., & Roehl, W. S. (2013). Religion and perceived travel risks. *Journal of Travel & Tourism Marketing*, *30*(8), 839–857. https://doi.org/10.1080/10548408.2013.835674

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Juliana, J., Putri, F. F., Wulandari, N. S., Saripudin, U., & Marlina, R. (2022). Muslim tourist perceived value on revisit intention to Bandung city with customer satisfaction as intervening variables. *Journal of Islamic Marketing*, *13*(1), 161–176. https://doi.org/10.1108/JIMA-08-2020-0245

Junaidi, J. (2021). The awareness and attitude of Muslim consumer preference: the role of religiosity. *Journal of Islamic Accounting and Business Research*, *12*(6), 919–938. https://doi.org/10.1108/JIABR-08-2020-0250

Juneman. (2013). *Jurnal Pengukuran Psikologi dan Pendidikan Indonesia*. *2*(5), 364–381.

Lee, K.-H., & Iesham, A. B. M. (2019). Muslim Travelers' Food Sensitivity, Travel, and Accommodation Choices. *Journal of Gastronomy and Tourism*, *3*(4), 261–270. https://doi.org/10.3727/216929719X15603602842287

Lestari, Y. D., Saidah, F., & Aliya Putri, A. N. (2023). Effect of destination competitiveness attributes on tourists' intention to visit halal tourism destination in Indonesia. *Journal of Islamic Marketing*, *14*(4), 937–965. https://doi.org/10.1108/JIMA-12-2020-0368

Memon, M. A., Ting, H., Cheah, J.-H., Thurasamy, R., Chuah, F., & Cham, T. H. (2020). Sample Size for Survey Research: Review and Recommendations. *Journal of Applied Structural Equation Modeling*, *4*(2), i–xx. https://doi.org/10.47263/JASEM.4(2)01

Mursid, A. (2023). Examining revisit intention from the basic foundation of Islam: the role of halal destination attributes and perceived value. *Journal of Islamic Marketing*, *14*(5), 1325–1345. https://doi.org/10.1108/JIMA-07-2021-0232

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Raut, R. K. (2020). Past behaviour, financial literacy and investment decision-making process of individual investors. *International Journal of Emerging Markets*, *15*(6), 1243–1263. https://doi.org/10.1108/IJOEM-07-2018-0379

Rahman, M., Moghavvemi, S., Thirumoorthi, T., & Rahman, M. K. (2020). The impact of tourists' perceptions on halal tourism destination: a structural model analysis. *Tourism Review*, 75(3), 575-594. https://doi.org/10.1108/TR-05-2019-0182

Rahmawati, Y., Alhassan, U., A'la, A. M. R., & Rosyidi, L. N. (2025). Empirical study on the determinants of Muslim tourists' visit to Japan: do Muslim–friendly facilities and culture matter?. *Journal of Islamic Marketing,* 16(2), 353-372. https://doi.org/10.1108/JIMA-07-2022-0188

Rodríguez-Ardura, I., & Meseguer-Artola, A. (2020). Editorial: How to Prevent, Detect and Control Common Method Variance in Electronic Commerce Research. *Journal of Theoretical and Applied Electronic Commerce Research*, *15*(2), 0–0. https://doi.org/10.4067/S0718-18762020000200101

Rostiani, R., Firdausi, A. S. M., Arini, H. M., Mulyani, Y. P., & Sunarharum, T. M. (2024). The effect of Islamic attributes, destination image, scepticism, perceived value and halal awareness on the intention to engage in Muslim-friendly travel. *Journal of Islamic Marketing*, *15*(2), 613–632. https://doi.org/10.1108/JIMA-12-2022-0322

Sarpini, S., & Aziz, J. A. (2023). Challenges and Opportunities for Halal Tourism in Banyumas. Ijtimā Iyya Journal of Muslim Society Research, 8(2), 177-194.

Shakona, M., Backman, K., Backman, S., Norman, W., Luo, Y., & Duffy, L. (2015). Understanding the traveling behavior of Muslims in the United States. *International Journal of Culture, Tourism and Hospitality Research*, *9*(1), 22–35. https://doi.org/10.1108/IJCTHR-05-2014-

"Linking Religiosity and Experience" A Study of Muslim-Friendly Tourism Intentions…
Ibrahim et al. (2024)

Jki

0036

Shmailan, A. (2023). A perspective study of Islamic tourism for Muslims in Asian and Western countries of halal growth. *International Journal of Professional Business Review:* Int. J. Prof. Bus. Rev., 8(6), 9.

Sodawan, A., & Hsu, R. L.-W. (2022). Halal-Friendly Attributes and Muslims' Visit Intention: Exploring the Roles of Perceived Value and Destination Trust. *Sustainability*, *14*(19), 12002. https://doi.org/10.3390/su141912002

Soonsan, N., & Jumani, Z. A. (2024). Perceptions of Halal-friendly attributes: a quantitative study of tourists' intention to travel non-Islamic destination. *Journal of Islamic Marketing*, *15*(6), 1441–1460. https://doi.org/10.1108/JIMA-07-2022-0204

Sriboonlue, O. (2023). The Effects Of Destination Awareness, Perception Of Destination, And Destination Image On Tourists' Intention To Travel Toward Asean Countries. *Rmutt Global Business Accounting And Finance Review*, *7*(2), 9–22. https://doi.org/10.60101/gbafr.2023.267976

Sujibto, B. J., & M, F. (2023). Non-Muslim Voices on Halal Certification: From Sectoral-Religious Tendencies to State-Mandated Regulations. *Jurnal Ilmu Sosial Dan Ilmu Politik*, *26*(3), 258. https://doi.org/10.22146/jsp.67792

Vargas-Sánchez, A., & Moral-Moral, M. (2019). Halal tourism: state of the art. *Tourism Review*, *74*(3), 385–399. https://doi.org/10.1108/TR-01-2018-0015

Venkatesh, V., Thong, J. y. ., & Xu, X. (2012). Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology by Viswanath Venkatesh, James Y.L. Thong, Xin Xu :: SSRN. *MIS Quarterly*, *36*(1), 157–178. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2002388

Wibawa, B. M., Pranindyasari, C., Bhawika, G. W., & Mardhotillah, R. R. (2023). Discovering the importance of halal tourism for Indonesian Muslim travelers: perceptions and behaviors when traveling to a non-Muslim destination. *Journal of Islamic Marketing*, *14*(1), 61–81. https://doi.org/10.1108/JIMA-07-2020-0210

Woodside, A. G., & Dubelaar, C. (2002). A general theory of tourism consumption systems: A conceptual framework and an empirical exploration. Journal of travel research, 41(2), 120-132.

Xu, H., Cheung, L. T. O., Lovett, J., Duan, X., Pei, Q., & Liang, D. (2021). Understanding the influence of user-generated content on tourist loyalty behavior in a cultural World Heritage Site. *Tourism Recreation Research*, *48*(2), 173–187. https://doi.org/https://doi.org/10.1080/02508281.2021.1913022

AUTHOR PROFILE

Muhammad Hanif Ibrahim, S.E

ORCID ID 0009-0006-2024-5031. Currently student in Management Science at Gadjah Mada University. He has interest in Management and Business

Lukluk Ilmatul Khairi, S.E
ORCID ID 0009-0005-9722-0038 Currently student in Management Science at Gadjah

Akmalia Lutfiaturrosyida Agung Putri, S.E

ORCID ID 0009-0009-4863-513X. Currently student in Management Science at Gadjah Mada University. She has interest in Management and Business

THE IMPACT OF ENGAGEMENT RATE ON THE NUMBER OF DOMESTIC TOURIST TRIPS: A CASE STUDY OF DIGITAL MARKETING THROUGH INSTAGRAM IN SUPER PRIORITY DESTINATION, LIKUPANG

Navika Artiari[1]*, Erna Nurmawati [2], Teguh Sugiyarto [3]

[1] [2]Computational Statistics Study Program, Politeknik Statistika STIS, Indonesia
[3]Directorate of Finance, Information Technology, and Tourism Statistics, BPS, Indonesia

Correspondence: erna.nurmawati@stis.ac.id

Article Info	Abstract
	The tourism industry has an important influence on the economy. Consequently, the government has designated Super Priority Destinations (DSP) as a development priority. Likupang, located in North Sulawesi, is one of the DSP established by the government. The government, together with tourism stakeholders, has promoted Likupang through various digital marketing efforts, including social media campaigns and influencer engagement, to increase tourist interest and visits. The ultimate goal is to achieve equitable economic growth across Indonesian regions through the development of the tourism sector. In general, the number of domestic tourist trips is an indicator of progress and challenges in the tourism sector. Digital marketing, particularly through social media such as Instagram helps attract visitors and achieve the objective of increasing the number of tourists. Therefore, this study aims to examine and discuss the effectiveness of Instagram content from three tourism stakeholders, namely the management of tourist attractions, the government, and the private sector comprising service and accommodation providers. The effectiveness was measured using engagement rate (ER) and topic modeling. The results showed that using topic modeling with the Latent Dirichlet Allocation (LDA) method on uploaded captions, three topic categories were produced with a coherence score of 0.59, while the average ER of all uploads was 92.26. The simultaneous test also showed that the variables of Hotel Occupancy Rate (TPK), Inflation, Google Trend Index (IGT), as well as Covid, Tourist Attraction, Government, and ER of all topics together had a significant influence on the number of domestic tourist trips. Furthermore, the partial test results showed that the TPK, Government ER, and ER of Topic 2 (prohibition of littering and the natural beauty of tourism) variables partially had a significant influence on the number of domestic tourist trips. The multiple linear regression model formed can explain 68% of the variation in the data. This implies that, to some extent, social media such as Instagram is an effective tool to promote tourism sites and influence the number of domestic tourist trips. However, in the case of DSP Likupang, some improvements are needed to achieve the expected objectives.

How to cite:

JKi

INTRODUCTION

Indonesia is a country with diverse natural and cultural wealth. BPS identified 633 tribes living in Indonesia based on the results of the 2010 Population Census (BPS, 2015). Furthermore, based on data from the Ministry of Home Affairs, BPS estimated the number of islands at 16,766 (BPS, 2022). This attractive natural beauty and cultural diversity make the country an appeal to tourists, both from within and abroad. In general, tourism activities in a place will have physical, economic, and social impacts on the people in the area (Nurhajati et al., 2018).

The tourism sector has supported new job creation, increased living standards, and community income, as well as elevated currency exchange rates (Mill, 2010). This shows that tourism has a major impact on economic growth. Tourism also has an influence on the social life of the community. The development can foster the growth of social capital, strengthen community organizations, increase community insight, as well as awareness of preserving and protecting the environment (Rohani & Purwoko, 2020). The positive influence of tourism also includes improving the quality of education (Hamzah & Hermawan, 2018) which is stimulated by economic development.
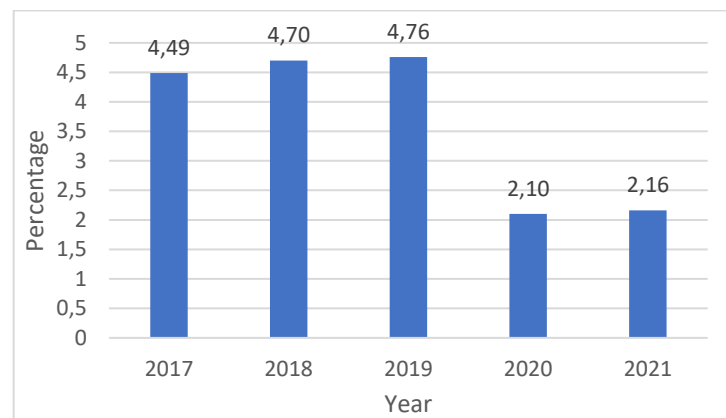
Figure 1: Tourism Sector Contribution to GDP, 2017-2021 (%)
Source: Tourism Satellite Account Indonesia 2016-2019, 2021

The impact of the tourism sector on the economy is reflected through the contribution of the Tourism Industries Direct Gross Value Added (TDGVA) to Gross Domestic Product (GDP). Figure 1 is a graph showing the percentage contribution of TDGVA to GDP from 2017 to 2021. The contribution of TDGVA to GDP in 2017 was 4.49%, then increased in 2018 and 2019 to 4.70% and 4.76% respectively. In the following year, the percentage decreased by 57% to 2.10%. In 2021, the percentage only increased by 2.86%, namely to 2.16%, which is still far from the TDGVA contribution in the previous few years. Therefore, the recovery of the post-pandemic tourism sector needs to be pursued.

One of the government efforts to restore the tourism sector after the pandemic is the development of tourist villages and the development of Super Priority Destinations

The Impact of Engagement Rate on The Number of Domestic Tourist Trips…
Artiari et al. (2024)

JKi

(DSP) (Kemenparekraf, 2023). The 10 Priority Tourism Destinations (DPP) are refocused into five DSP with the hope of increasing the quantity and quality of domestic and international tourist visits. One of the DSP is in North Sulawesi Province, Likupang, which is a beach with white sand. In addition, North Sulawesi has received attention through Bunaken National Park (Waani, 2016) with an underwater beauty attracting tourists both from within the country and abroad.

To support the development of Likupang as a DPP, various promotional strategies have been carried out, particularly through digital platforms. The Ministry of Tourism and Creative Economy has collaborated with local governments and tourism stakeholders to promote Likupang through social media campaigns, influencer engagement, and digital content creation that showcases natural beauty, marine biodiversity, and eco-tourism potential. For instance, Likupang is included in the "Wonderful Indonesia" campaign, which uses Instagram, YouTube, and other digital channels to reach domestic and international audiences. The use of hashtags such as #Likupang and #ExploreLikupang on social media helped build brand awareness and attract user-generated content. Additionally, the government has facilitated the creation of digital content by inviting travel bloggers, photographers, and content creators to visit and share experiences online. These efforts are aimed at increasing public interest and engagement with Likupang as a destination, thereby encouraging more tourist visits and supporting the post-pandemic recovery of the tourism sector (Kemenparekraf, 2022).

The progress of tourist attractions is reflected in the increasing number of tourists (Kemenparekraf, 2022) defined as people who travel outside the usual environment but not more than one year with any main purpose except to be employed by the resident entity being visited (UNWTO, 1994). Based on this definition, there are two types of tourists traveling within the country. Domestic tourists visit other areas within the country, while foreign tourists refer to people from other countries (UNWTO, 1994).

Figure2. Tourism Expenditure Growth by ADHB
Source: Tourism Satellite Account Indonesia 2016-2019, 2021

Figure 2 is a graph showing the development of spending by tourists according to ADHB. The percentage growth of international visitor expenditure has decreased since 2019 due to the COVID-19 pandemic. Although both decreased, the percentage growth in domestic visitor expenditure experienced a decline less than international visitors in 2020. Even in 2021, the growth of domestic visitor expenditure increased quite rapidly independent of international visitor expenditure (BPS, 2023). This proves that domestic

tourists are quite reliable for the recovery of the tourism sector after the COVID-19 pandemic.

The role of domestic tourists in advancing the tourism industry is important. Consequently, increasing the number of domestic tourists is one of the targets of tourism development. In line with this, various efforts have been made to increase tourist attractions and provide convenience for tourists to visit. For the government and owners of the tourism industry, information about the factors that influence the number of domestic tourists is needed. This information can be used as data input for preparing more effective planning.

Several previous studies have identified variables that can be used to explain the trend in the number of tourists. For example, Suwanto et al., (2020) stated that the average Hotel Room Occupancy Rate (TPK) and the number of tourist visits have a strong and positive relationship. In addition, Yakup & Haryanto, (2019) mentioned that changes in the price of goods and services could affect the number of international visitors. This condition allegedly also applies to domestic tourist trips, because purchasing power is determined by inflation. High inflation encourages a decrease in purchasing power thereby reducing the tendency for tourism activities.

In this era of rapid development in technology and information, increased tourist visits can be achieved by promoting tourist attractions through digital media. This is also in line with digital marketing trends that refer to the use of technology and online platforms to promote products or services, interact with target audiences, and build relationships with customers (Erwin et al., 2023). Basically, digital marketing aims to increase brand awareness, increase engagement and interaction with customers, attract new customers, and create loyalty, ultimately enhancing business sustainability.

Tourism businesses are increasingly using social media and influencer marketing to intensify promotional activities (Limbono & Lolita, 2023). This is also supported by the public ability to use various digital media to obtain information about a tourist attraction. In general, searching for tourism-related information on Google often produces an index generated from keywords around tourism, commonly called the Google Trend Index (IGT) (Rödel & Van Der Kaap, 2017). Several previous studies have also examined the role of digital media in promoting a region (Saefullah & Darma, 2014). Numerous social media including Facebook, YouTube, and Instagram simultaneously have a significant effect on tourist interest (Nifita & Arisondha, 2018). However, no study has specifically discussed the content used in promoting tourist attractions quantitatively, especially at Likupang DSP.

Instagram is one of the social media that allows users to share and receive information through the upload feature. Posts on this platform focus on images and videos that usually include other information in the form of hashtags, the image or video source location, and captions explaining the purpose of the post (Fiallos et al., 2018). However, hashtags or captions do not always appropriately describe the uploaded image (Giannoulakis & Tsapatsoulis, 2016). Furthermore, the activities of social media users, including Instagram, are closely related to tourism activities. Social media user posts can serve as a means of documentation to commemorate tourism events to show self-existence (Antopani, 2015). The large percentage of users in Indonesia also allows Instagram to be an effective tourism promotion media for related parties. Therefore, data from this platform has the potential to support studies related to tourism conditions (Li et al., 2018).

The Impact of Engagement Rate on The Number of Domestic Tourist Trips…
Artiari et al. (2024)

JKi

Due to the potential, Instagram is used as a tool for tourism promotion. However, disseminating information through social media is not always effective. One way to assess effectiveness is through engagement rates (ER). Active or passive interactions on social media can identified from the calculation of ER (Priadana et al., 2021). The ER of Instagram can be calculated using several variables such as likes and comments on a post (Arman et al., 2019).

Approximately 80 % of government agencies have Instagram handles, but more than 50 % have not been able to optimize the use as indicated by the resulting ER (Azmi & Budi, 2018). The study also found that the Ministry of Tourism and Creative Economy (Kemenparekraf) has the highest ER, reaching 150,062.3 while the ER of government agencies is estimated at 20.67.

Several factors affect the ER of an Instagram account, including content topic represented by the caption of the posted message, as well as media type, and upload time. By understanding the factors that influence engagement rate, tourism industry stakeholders can enhance the effectiveness of Instagram accounts in disseminating information related to tourist destinations.

Numerous stakeholders play a major role in the development of tourist attractions. Stakeholders are those who have the power and right to participate in decision-making, as well as those who give and/or are affected by the results of the decisions (Murphy & Murphy, 2004). According to Gayatri 2005, stakeholders can be divided into three groups, namely the government, business/private actors, and the community, with different roles and functions. The government is a body with the authority to formulate binding regulations, in this case, the tourism office of North Sulawesi Province. The private sector acts as a business actor who can create jobs including those who offer travel services and tourist accommodation. Meanwhile, the community acts as a host, creating a conducive environment for tourists (Rahim, 2012), including the manager of the tourist attraction.

Based on the above description, this study aims to assess the Instagram content of the three types of tourism stakeholders. The assessment includes topic modeling to understand the content of posted messages and calculate the ER to identify the response of public and the effectiveness of promotion. Several variables were assessed to determine the number of domestic tourist trips. These include hotel room occupancy rate (TPK), Inflation, Google Trend Index (IGT), and dummy Covid variables.

METHODOLOGY

This study applied a qualitative approach to examine the discussion on Instagram upload captions by tourism industry stakeholders while a quantitative approach was used to determine the relationship patterns of tourism-related variables. Secondary data were collected from January 2019 to November 2023.

Data on the number of tourist trips, TPK, and inflation from North Sulawesi province were collected through the Central Statistics Agency (BPS) website. Meanwhile, Instagram data related to posts were collected from three tourism industry stakeholder accounts selected based on the suitability of the period and the highest ER. The three stakeholders were government, tourist attraction managers, private service providers consisting of tourism service providers, and accommodation services. The total number of Instagram accounts studied was four, namely the tourism office of North Sulawesi

province, Likupang tourist attraction manager, the tourism service provider "amazingsulut", and accommodation provider "bluebaydivers1212".

More specifically, data were collected through web scraping using the Python library, Instaloader. In addition, IGT data were collected based on the terms "North Sulawesi", "Likupang", "North Sulawesi hotel", and "North Sulawesi airplane". The terms were collected through the Trends Explore tool by applying a location filter in Indonesia, a category in the form of "Travel", and a search type in the form of "Web Search". To consider the COVID-19 situation, dummy variables were used to represent the presence or absence of a pandemic in the study period.

The initial stage carried out on the scraped Instagram data was preprocessing. This stage aimed to prepare the data collected for easy application in the next stage. Preprocessing on Instagram upload captions was carried out in steps outlined in Table 1.

Table 1. Preprocessing Stage on Caption of the Scraped Instagram

Stage	Description
Case folding	Convert all letters in the text to lowercase.
Cleaning	Removes characters, symbols, punctuation, emojis, usernames, and hashtags
Tokenizing	Separates text into mutually independent chunks of words or phrases referred to as tokens
Stop word elimination	Eliminate words that lack meaning and have a high frequency of occurrence, such as conjunctions and personal pronouns.
Stemming	Change the whole word to its base word by removing all types of affixes to reduce word variation.

Source: Research data, 2025

Table 1 shows the preprocessing stages applied to Instagram caption data. Each step from case folding to stemming was crucial for cleaning and standardizing text data, enabling more accurate analysis in subsequent stages. These steps helped to reduce noise, ensured consistency, and extracted meaningful features from raw social media content.

Caption data that had passed through the preprocessing stage were then analyzed through topic modeling. The method used was Latent Dirichlet Allocation (LDA) through the Gensim library in Python. Topic modeling was carried out with several experiments to achieve appropriate accuracy. This was executed by setting a certain parameter range of the number of topics and the number of passes.

Engagement rate (ER) calculation was performed on all uploads that had been categorized based on the topic of the caption. The calculation was based on the number of likes (L) and comments (C) as in equation (1). The ER values of all uploads from the three accounts in the same month and year were then averaged to derive the average.

$$ER_i = \frac{L_i + 2C_i}{3} \qquad\qquad ...(1)$$

All data prepared were then analyzed followed by classical assumptions and hypothesis testing. Tests on classical assumptions include normality, multicollinearity, heteroscedasticity, and autocorrelation. A good regression model does not have multicollinearity, heteroscedasticity, and autocorrelation (Ghozali, 2016). Hypothesis testing was carried out simultaneously and partially. The simultaneous test was carried out with the F test to determine whether all independent variables had a significant effect on

The Impact of Engagement Rate on The Number of Domestic Tourist Trips…
Artiari et al. (2024)

Jki

the dependent. The partial test was conducted using the T-test, to find out whether each independent variable partially has a significant effect on the dependent. Furthermore, multiple linear regression models were analyzed using the Ordinary Least Square (OLS) method (Iswati et al., 2016).

RESULTS AND DISCUSSION

Instagram accounts of tourism industry stakeholders in North Sulawesi have played an active role in promoting tourist destinations since 2017. The Likupang tourist attraction management account was created in 2020. Therefore, to fulfill the adequacy of time series data, the Bunaken National Park tourist attraction management account was added.

Table 2. Preprocessing Result on Caption

Stage	Sample Results
Before preprocessing	Sudah ke sini? 😍
	Location: Ranowangko Beach, Minahasa, Sulawesi Utara
	Credits to @blackpacker__
	.
	Bantu Kami Dalam Membagikan Keindahan Alam Sulawesi Utara di
	#amazingsulut
	#exploresulut
	.
	Jangan Sambarang Buang Sampah,
	Kurangi Penggunaan Sampah Plastik neh 🤗 🙏
	Bawa Tumbler Dari Rumah
	.
	#amazingsulut #amazingindonesia #indonesiaituindah #exploreindonesia #instagram #Genpi #DiIndonesiaAja #InDOnesiaCARE #WonderfulIndonesia #GenPISulut #PesonaIndonesia #visitnorthsulawesi2022 #disulutjo
	#sulawesiutara #minahasa #beach #ranowangko
Translate	Sudah ke sini? 😍
	Lokasi: Pantai Ranowangko, Minahasa, Sulawesi Utara
	Penghargaan untuk @blackpacker__
	.
	Bantu Kami Dalam Membagikan Keindahan Alam Sulawesi Utara di
	#amazingsulut
	#exploresulut
	.
	Jangan Sambarang Buang Sampah,
	Kurangi Penggunaan Sampah Plastik neh 🤗 🙏
	Bawa Tumbler Dari Rumah

Stage	Sample Results
Case folding	. #amazingsulut #amazingindonesia #indonesiaituindah #exploreindonesia #instagram #Genpi #DiIndonesiaAja #InDOnesiaCARE #WonderfulIndonesia #GenPISulut #PesonaIndonesia #visitnorthsulawesi2022 #disulutjo #sulawesiutara #minahasa #beach #ranowangko sudah ke sini? 😍 lokasi: pantai ranowangko, minahasa, sulawesi utara credits untuk @blackpacker__ . bantu kami dalam membagikan keindahan alam sulawesi utara di #amazingsulut #exploresulut . jangan sambarang buang sampah, kurangi penggunaan sampah plastik neh 🤗 🙏 bawa tumbler dari rumah . #amazingsulut #amazingindonesia #indonesiaituindah #exploreindonesia #instagram #genpi #diindonesiaaja #indonesiacare #wonderfulindonesia #genpisulut #pesonaindonesia #visitnorthsulawesi2022 #disulutjo #sulawesiutara #minahasa #beach #ranowangko
Cleaning	sudah ke sini lokasi pantai ranowangko minahasa sulawesi utara credits untuk bantu kami dalam membagikan keindahan alam sulawesi utara di jangan sambarang buang sampah kurangi penggunaan sampah plastik neh bawa tumbler dari rumah
Tokenizing	['sudah', 'ke', 'sini', 'lokasi', 'pantai', 'ranowangko', 'minahasa', 'sulawesi', 'utara', 'credits, 'untuk, 'bantu', 'kami', 'dalam', 'membagikan', 'keindahan', 'alam', 'sulawesi', 'utara', 'di', 'jangan', 'sambarang', 'buang', 'sampah', 'kurangi', 'penggunaan', 'sampah', 'plastik', 'neh', 'bawa', 'tumbler', 'dari', 'rumah']
Stop word elimination	['lokasi', 'pantai', 'ranowangko', 'bantu', 'keindahan', 'alam', 'sambarang', 'buang', 'sampah', 'sampah', 'plastik', 'bawa', 'tumbler', 'rumah']
Stemming	['lokasi', 'pantai', 'ranowangko', 'bantu', 'indah, 'alam', 'sambarang', 'buang', 'sampah', 'sampah', 'plastik', 'bawa', 'tumbler', 'rumah']

Source: Reasearch data, 2025

Table 2 shows the caption preprocessing results produced at each stage. In the case folding stage, all letters in the text were converted into lowercase letters. The cleaning stage produced text devoid of punctuation, emojis, hashtags, and usernames. In the next stage, namely tokenizing, tokens or pieces of words were formed from the text. Words with less meaning such as 'dan', 'yang', and 'by' were eliminated at the stop word elimination stage. In the last stage of preprocessing, stemming was performed to convert all words into base form. The text only contained the base word which is the core of the caption.

The Impact of Engagement Rate on The Number of Domestic Tourist Trips…
Artiari et al. (2024)

JKi

Table 3. Topic Modeling Results on Caption

Keywords	Topic	Number of Post	ER Average
0.035*"selam" + 0.031*"matahari" + 0.027*"pulau" + 0.026*"sinar" + '0.019*"sahaung" + 0.018*"jalan" + 0.017*"senang" + 0.016*"indah" + '0.011*"bangka" + 0.011*"pantai"	Diving activities and the beauty of marine tourism	958	29,05
0.017*"nasional" + 0.016*"taman" + 0.009*"desa" + 0.009*"giat" + 0.008*"pulau" + 0.008*"masyarakat" + 0.008*"kawasan" + 0.007*"wisata" + 0.007*"pariwisata" + 0.006*"laut"	Village tours and tourism activities	1309	38,06
0.081*"sampah" + 0.070*"indah" + 0.069*"alam" + 0.049*"bantu" + 0.047*"plastik" + 0.042*"location" + 0.034*"kesini" + 0.031*"buang" + 0.030*"sembarang" + 0.030*"bawa"	Prohibition of littering and the natural beauty of tourism	2076	157,49
0.011*"info" + 0.010*"diskon" + 0.008*"september" + 0.008*"layar" + 0.007*"khusus" + 0.006*"email" + 0.006*"mesan" + 0.005*"die"	Information on offering tourism services with special discounts	164	45,26

Source: Research data, 2025

Table 3 shows the modeling results on the topic of stakeholder Instagram uploads in North Sulawesi. By setting the parameters of the number of topics in the range of 3 to 10 and the number of passes 1 to 20, the highest coherence score of 0.59, was produced at the number of topics 4 and passes 10. Based on the keywords, topic 0 discusses diving activities and the beauty of marine tourism in North Sulawesi. Topic 1 discusses village tourism and community activities in tourist areas. Meanwhile, the keywords in topic 2 show revolve around the prohibition of littering and the natural beauty of tourism. Topic 3 contains information on offering tourism services with special discounts.

Topic 2 had with highest average user interaction compared to the other three. This topic has a total number of 2,076 posts and an average ER of 157.49. Meanwhile, topic 3 had the lowest number of posts namely 164 with an average user interaction of 45.26.

Table 3 shows that the prohibition of littering and the natural beauty of tourism are topics that can attract public attention. This data from one side can be used by tourism industry managers to maintain sustainability and improve business performance. Reviewing the concept of sustainable tourism, all topics are important due to the effect on the economic and environmental dimensions. Sustainable tourism pays attention to the overall impact on current and future conditions in the economic, social, and environmental dimensions, including considering the needs of tourists, businesses, environmental sustainability, and local communities (UNWTO, 1994).

The ER calculation on the four accounts showed that the Instagram account had the highest average, namely the private sector service provider account estimated at 148.99, while the government (tourism office) account had the lowest average ER of 15.16. This shows that the Instagram account of tourism and promotion service providers has been quite effective in reaching target users and establishing interactive communication. On the other hand, tourism agency accounts with a low average ER still need improvement. The monthly data series showed that ER was high in certain months such as July, November,

and January. This information is in line with the cycle of tourist activity which is influenced by the holiday season.

Based on the stages that have been carried out, the dataset used in multiple linear regression modeling consisted of 59 rows and 12 columns. The number of tourist trips was the dependent variable, while the independent variables consisted of TPK, Inflation, IGT, Covid, Tourist Attraction ER, Government ER, Service provider ER, Accommodation Provider ER, as well as ER of Topics 0, 1, 2 and 3. The normality test was carried out using the Shapiro-Wilk test with the results shown in Table 4.

Table 4. Normality Test Results

Variable	P-Value	Decision
Number of Domestic Tourist Trips	0.217	Fail to Reject
Hotel Room Occupancy Rate (TPK)	0.132	Fail to Reject
Inflation	0.000	Reject
Google Trend Index (IGT)	0.098	Fail to Reject
Dummy Variable Covid (Covid)	1.360×10^{-11}	Reject
Tourist Attraction ER	0.111	Fail to Reject
Transf. Government ER	6.585×10^{-7}	Reject
Private ER	0.037	Reject
Accommodation ER	0.000	Reject
ER of Topic 0	0.000	Reject
ER of Topic 1	5.030×10^{-9}	Reject
ER of Topic 2	0.230	Fail to Reject
ER of Topic 3	1.000×10^{-9}	Reject

Source: Researvh data, 2025

The p-value of the Shapiro-Wilk test is shown in Table 4. Hypothesis 0, stating that data are normally distributed was rejected because the p-value >0.05. The number of domestic tourists, Hotel Room Occupancy Rate, IGT, Tourist Attraction, and ER of Topic 2 variables were considered normally distributed. Meanwhile, variables of Inflation, Covid, Government, Private, Accommodation, as well as ER of Topics 0, 1, and 3 were not normally distributed. Transformation with the Logarithm and Box-Cox methods was further applied to achieve normal distribution. Inflation, Covid, and ER Topic 1 variables remained not normally distributed while other variables became normally distributed. However, the variables were still included in the model.

Table 5 shows the multicollinearity and homoscedasticity test results. The multicollinearity test was carried out by determining the VIF value of all variables. Hypothesis 0, stating that there was no multicollinearity between the independent variables in the model, was rejected because the value exceeded the set threshold. By setting 5 as the VIF threshold, the assumption of no multicollinearity was violated in the accommodation and private ER variables. Therefore, these two variables were removed from the model.

Table 5. Multicollinearity and Homoscedasticity Test Results

Variable	VIF	Multicollinearity Decision	p-value Breusch-Pagan	Homoscedasticity Decision
Hotel Occupancy Room Rate	2.889	Fail to Reject	0.503	Fail to Reject

The Impact of Engagement Rate on The Number of Domestic Tourist Trips…
Artiari et al. (2024)

Jki

Inflation	1.137	Fail to Reject	0.504	Fail to Reject
Google Trend Index	2.339	Fail to Reject	0.636	Fail to Reject
Dummy Variable Covid	2.531	Fail to Reject	0.259	Fail to Reject
Tourist Attraction ER	1.712	Fail to Reject	0.655	Fail to Reject
Transf. Government ER	3.967	Fail to Reject	0.180	Fail to Reject
Private ER	5.009	Fail to Reject	0.405	Fail to Reject
Accommodation ER	5.216	Fail to Reject	0.562	Fail to Reject
ER of Topic 0	1.961	Fail to Reject	0.684	Fail to Reject
ER of Topic 1	2.273	Fail to Reject	0.584	Fail to Reject
ER of Topic 2	3.391	Fail to Reject	0.076	Fail to Reject
ER of Topic 3	1.425	Fail to Reject	0.326	Fail to Reject

Source: Research data, 2025

The heteroscedasticity test was performed with the Breusch-Pagan test on all variables. Hypothesis 0, stating the absence of heteroscedasticity, was rejected because the p-value was less than the threshold of 0.05. Based on Table 5, all variables have a p-value greater than 0.05. Therefore, the assumption of no heteroscedasticity has been met. The model was built from the independent variables of Hotel Occupancy Room Rate, Inflation, IGT, Covid, Tourism Attraction, Government, and ER of Topics 0, 1, 2, and 3, as shown in Figure 3

```
                         OLS Regression Results
==============================================================================
Dep. Variable:                 wisnus   R-squared:                       0.678
Model:                            OLS   Adj. R-squared:                  0.610
Method:                 Least Squares   F-statistic:                     10.09
Date:                Sun, 16 Jun 2024   Prob (F-statistic):           7.42e-09
Time:                        14:01:53   Log-Likelihood:                -730.72
No. Observations:                  59   AIC:                             1483.
Df Residuals:                      48   BIC:                             1506.
Df Model:                          10
Covariance Type:            nonrobust
==============================================================================
                  coef    std err          t      P>|t|      [0.025      0.975]
------------------------------------------------------------------------------
const         -1.082e+05   1.57e+05     -0.690      0.493   -4.23e+05    2.07e+05
TPK            4865.2148   1180.703      4.121      0.000    2491.252    7239.178
inflasi        1.637e+04   9100.219      1.799      0.078   -1925.326    3.47e+04
igt             973.1053    879.746      1.106      0.274    -795.743    2741.954
covid          3.138e+04    2.8e+04      1.121      0.268   -2.49e+04    8.77e+04
er_obj          568.4306   2287.011      0.249      0.805   -4029.913    5166.774
er_topik0       326.8109    424.608      0.770      0.445    -526.921    1180.542
er_topik2      -496.9718    172.755     -2.877      0.006    -844.320    -149.624
er_topik3       163.1312    191.078      0.854      0.397    -221.056     547.318
er_pem_box     1.301e+05    2.84e+04      4.578      0.000    7.29e+04    1.87e+05
er_topik1_box -1.034e+05   6.53e+04     -1.582      0.120   -2.35e+05     2.8e+04
==============================================================================
Omnibus:                        1.429   Durbin-Watson:                   1.300
Prob(Omnibus):                  0.490   Jarque-Bera (JB):                1.162
Skew:                           0.126   Prob(JB):                        0.559
Kurtosis:                       2.360   Cond. No.                     3.58e+03
==============================================================================
```

Figure 3. Python output of Multiple Linear Regression Model Formation

The autocorrelation test was performed with the Durbin Watson test of the regression model and based on Figure 3, the resulting value was 1.300. For data with 59 rows and 10 independent variables, the threshold value to avoid violation of no autocorrelation assumption ranged between 1.2122 and 2.0111. Therefore, the value indicates that there is no positive and negative autocorrelation in the model.

Simultaneous hypothesis test was performed using the F test. Hypothesis 0, states that the variables of Hotel Occupancy Room Rate (TPK), Inflation, IGT, Covid, Tourist Attraction, Government, Service provider, Accommodation, as well as ER of Topic 0, 1, 2, and 3 together do not have a significant influence on the tourist destination variable. This hypothesis was rejected when the F count was less than the p-value of 0.05. The calculated F value was 7.42×10^{-9}, hence, H0 was rejected. This implies that all variables together have a significant influence on tourist destination.

Hypothesis 0 of the test states that partially, there is no significant influence of each independent variable, namely TPK, Inflation, IGT, Covid, Tourist Attraction, Government, Service provider, Accommodation, as well as ER of Topic 0, 1, 2 and 3 on tourist destination. This hypothesis was rejected because the p-value was less than 0.05. The p-values for the variables of TPK, Government, and ER of Topic 2 were 0.00, 0.00, and 0.006, respectively. Therefore, Hypothesis 0 was rejected, implying that the variables partially have a significant influence on domestic tourist trips. Meanwhile, the p-values of Inflation, IGT, Covid, Tourist Attraction, as well as ER of Topics 0, 1, and 3 variables were 0.087, 0.279, 0.275, 0.800, 0.448, 0.126, and 0.401 respectively, all exceeding 0.05. Therefore, hypothesis 0 was not rejected, implying that the variables partially do not have a significant influence on tourist destination.

Based on Figure 3, the multiple linear regression model formed is written as follows:

y=-108200+ 4865.21 TPK* + 16370 Inflation + 973.11 IGTtrans + 3128 Covid + 568.43 Tourist Attraction ER + 13010 Government ER trans* + 326.81 ER of Topik 0-103400 ER of Topik 1 trans-496.97 ER ofTopik2(trans)* + 163.13 ER of Topic 3

Formula description: *) significance variables

The R squared value is 67,8%, suggesting that 67,8% of the factors affecting the number of domestic tourist trips can be explained by the variables of TPK, Inflation, IGT, Covid, Tourist Attraction, Government, as well as ER of Topics 0, 1, 2, and 3. Meanwhile, the remaining 32,2 % can be explained by other factors not examined in this study.

From the perspective of digital marketing, the statistical inference results show several points of concern. Firstly, the ER of Instagram accounts managed by government has a positive impact on increasing domestic tourist trip to Likupang. This also shows that the provided information may be considered by the public as more reliable. The government is often seen as an entity that does not focus on earning profit. Therefore, the posted information tends to be neutral and expected to capture reality.

Secondly, the ER of Topic 2 which discusses the prohibition of littering has a significant effect in determining the number of domestic visitors to Likupang. The impact is negative indicating that increasing ER will lead to lower domestic tourist trip. This result is quite different from the expected outcome. Some possible explanations include the possibility that the advice to maintain cleanliness and other recommendations to visitors

The Impact of Engagement Rate on The Number of Domestic Tourist Trips…
Artiari et al. (2024)

Jki

may lead to reluctance toward visiting the destination. This may also create a perception that the cleanliness of the destination is worrying. In addition, the calculation of ER does not consider the content of the response provided by the public. The ER only considers the number of likes and comments. In this context, the negative response from the public may lead to a damaging campaign for the service providers and the tourist destination.

Thirdly, the ER of tourist attraction managers does not significantly affect the number of domestic tourist trips. This implies that the Instagram account of tourist attraction manager is not effective in promoting the destination since it cannot affect the number of domestic visitors. The condition can be attributed to the content of uploaded information on Instagram.

CONCLUSION

In conclusion, all variables analyzed together have a significant influence on the number of domestic tourist trips. However, only the variables of TPK, Government ER transformation, ER of Topic 2 on the prohibition of littering, and the natural beauty of tourism, have a significant influence. Accordingly, some results also showed that digital marketing by three stakeholders of the tourism industry must be improved. To some extent, Instagram account owned by the local government was quite effective in promoting and supporting the development of DSP Likupang. On the other hand, accounts owned by service and accommodation providers, as well as the management of tourist site must be enhanced.

In this era of advanced information technology, the strategy of using digital marketing should sufficiently support the sustainability of tourism industry. The strategy may stimulate the demand side by increasing the number of visitors. In the case of DSP Likupang, some improvements are needed to achieve the desired condition. In the context of managing Instagram account as promotion media, the services provider and management of tourist site must develop the content of uploaded messages, underscoring the competitive value of tourist destination. Uploaded contents that provide adequate information in more specific terms can attract the attention of the public and influence viewers or readers decisions. This information should contain specific attractions not available at other destinations.

Finally, the analysis also showed that the ER was not consistently related to the number of visitors. The calculation of ER focuses on the frequency of likes and comments but does not consider the content. Since information is exposed to everyone in this era, the tourism industry stakeholders should be cautious about negative information related to the destination. The content of public comments on the posted information on social media must be addressed wisely. Stakeholders are to provide a solution or logical answer for every comment which has negative information. This action will reduce the negative impact and increase the public interest to attend the destination.

REFERENCES

Antopani, T. (2015). Fotografi, Wisata, dan Media Aktualisasi Diri. *Jurnal Rekam*, *11*, 31–40. https://doi.org/https://doi.org/10.24821/rekam.v11i1.1293

Arman, A. A., Sidik, A. P., Institut Teknologi Bandung. School of Electrical Engineering and Informatics, Institut Teknologi Bandung. Informatics Engineering Group, & Institute of Electrical and Electronics Engineers. (2019). 2019 International Conference on ICT for

Smart Society (ICISS): "Innovation and Transformation Toward Smart Region": proceeding: Bandung, 19-20 November 2019. *International Conference on ICT for Smart Society (ICISS)*, 1–6.

Azmi, A. F., & Budi, I. (2018). *Proceedings of 2018 the 10th International Conference on Information Technology and Electrical Engineering: "Smarter Technology for Better Society": Ramada Bintang Bali Resort, 24th-26th July 2018, Kuta, Bali*. 18–21.

BPS. (2015). *profil-penduduk-indonesia-hasil-supas-2015*.

BPS. (2023). *BADAN PUSAT STATISTIK BPS-Statistics Indonesia Tourism Satellite Account Indonesia Indonesia Tourism Satellite Account*.

Fiallos, A., Jimenes, K., Fiallos, C., & Figueroa, S. (2018). Detecting Topics and Locations on Instagram Photos. *2018 5th International Conference on EDemocracy and EGovernment, ICEDEG 2018*, 246–250. https://doi.org/10.1109/ICEDEG.2018.8372314

Ghozali, I. (2016). *Aplikasi Analisis Multivariete SPSS 23*.

Giannoulakis, S., & Tsapatsoulis, N. (2016). Evaluating the descriptive power of Instagram hashtags. *Journal of Innovation in Digital Ecosystems*, *3*(2), 114–129. https://doi.org/10.1016/j.jides.2016.10.001

Hamzah, F., & Hermawan, H. (2018). Evaluasi Dampak Pariwisata Terhadap Sosial Ekonomi Masyarakat Lokal. *Jurnal Pariwisata*, *5*(3). http://ejournal.bsi.ac.id/ejurnal/index.php/jp

Iswati, H., Syahni, R., & Maiyastri. (2016). 165-328-2-PB. *Jurnal Matematika UNAND*, *3*(4), 168–176. https://doi.org/https://doi.org/10.25077/jmu.3.4.168-176.2014

Kemenparekraf. (2022, June 6). *Siaran Pers: Menparekraf: Kekayaan SDA Modal Pengembangan Pariwisata Berkualitas Berkelanjutan Mendukung Kebangkitan Ekonomi*. https://www.kemenparekraf.go.id/berita/siaran-pers-menparekraf-kekayaan-sda-modal-pengembangan-pariwisata-berkualitas-berkelanjutan-mendukung-kebangkitan-ekonomi

Kemenparekraf. (2022, June 3). *Siaran Pers: Likupang Tourism Festival 2022 Dorong Destinasi Pariwisata Super Prioritas Semakin Dikenal*. https://kemenparekraf.go.id/ragam-pariwisata/likupang-tourism-festival-2022-dorong-destinasi-pariwisata-super-prioritas-semakin-dikenal

Kemenparekraf. (2023, February 2). *Siaran Pers: Kemenparekraf Paparkan Upaya Pemulihan Sektor Parekraf Indonesia Pascapandemi*. https://www.kemenparekraf.go.id/berita/siaran-pers-kemenparekraf-paparkan-upaya-pemulihan-sektor-parekraf-indonesia-pascapandemi

Li, J., Xu, L., Tang, L., Wang, S., & Li, L. (2018). Big data in tourism research: A literature review. *Tourism Management*, *68*, 301–323. https://doi.org/10.1016/j.tourman.2018.03.009

Limbono, P., & Lolita, L. T. V. (2023). Branding and Tourism In Komodo: Raising Resort Awarness Through Instagram Influencer. *Jurnal Kepariwisataan Indonesia*, *17*(2), 222–239.

Mill, R. C. (2010). *Tourism the International Business*.

Murphy, P., & Murphy, A. (2004). Strategic Management for Tourism Communities: Bridging the Gaps. In *Strategic Management for Tourism Communities*. https://doi.org/10.21832/9781873150856

Nifita, A. T., & Arisondha, E. (2018). Pengaruh Medua Sosial terhadap Minat Berkunjung Wisatawan di Taman Geopark Kabupaten Merangin. *Jurnal Manajemen Terapan Dan Keuangan*, *7*(2), 169–180. https://doi.org/https://doi.org/10.22437/jmk.v7i2.5490

Nurhajati, N. (2018). Dampak Pengambangan Desa WisataTerhadap Peningkatan Kesejahteraan Masyarakat. *Publiciana*, *11*, 1–13. https://doi.org/https://doi.org/10.36563/publiciana.v11i1.136

Priadana, A., Saputra, A. B., Cahyo, P. W., & Habibi, M. (2021). *Health in Digital Era 4.0: Analyzing Reader Engagement Rate on Instagram Account of Government Health Agencies*.

Rahim, F. (2012). *Pedoman Kelompok Sadar Wisata | i* (1st ed.). Kemenparekraf.

The Impact of Engagement Rate on The Number of Domestic Tourist Trips…
Artiari et al. (2024)

Jki

Rödel, E., & Van Der Kaap, H. (2017). *Forecasting tourism demand in Amsterdam with Google Trends A research into the forecasting potential of Google Trends for tourism demand in Amsterdam 2*.

Rohani, E. D., & Purwoko, Y. (2020). Dampak Sosial Pariwisata terhadap Masyarakat Desa Ekowisata Pampang Gunung Kidul menuju Desa Ekowisata Berkelanjutan. *Sosiologi Reflektif*, *14*(2), 237–254.

Saefullah, D. A., & Darma, G. S. (2014). Jurnal Manajemen dan Bisnis STRATEGI MARKETING WISATA WEDDING SEBAGAI DESTINASI ALTERNATIF. *Jurnal Manajemen Dan Bisnis*, *11*(1), 17–34. http://journal.undiknas.ac.id/index.php/magister-manajemen/

Suwanto, Sdm, P., Dan, P., Kreatif, E., Pariwisata, K., Pariwisata, B., Haryono, J. M., 47-48, K., & Selatan, J. (2020). *HUBUNGAN JUMLAH KUNJUNGAN WISATAWAN MANCANEGARA DENGAN RATA-RATA TINGKAT PENGHUNIAN KAMAR HOTEL PROVINSI DKI JAKARTA TAHUN 2012-2018 Relationship between the Number of Foreign Tourists Visit and Average Hotel Room Occupancy Rate in DKI Jakarta Province in 2012-2018*.

UNWTO. (1994). *Statistical Papers Series M No. 83 Recommendations on Tourism Statistics*. United Nations.

Waani, H. F. (2016). SOSIAL BUDAYA DALAM PENGEMBANGAN PARIWISATA DI KELURAHAN BUNAKEN KECAMATAN BUNAKEN KOTA MANADO. *Acta Diurna*, *5*(2).

Yakup, A. P., & Haryanto, T. (2019). Pengaruh Pariwisata terhadap Pertumbuhan Ekonomi Di Indonesia. *Bina Ekonomi*, *23*(2), 39–47.

AUTHOR PROFILE

Navika Artiari

https://orcid.org/0009-0006-4739-2672. She is an undergraduate student in statistical computing at Politeknik Statistika STIS. She has an interest in research related to data science and big data.

Erna Nurmawati

https://orcid.org/0009-0002-3385-673X. She is a lecturer at Politeknik Statistika STIS. Her educational background includes a bachelor's degree in the statistical computing study program from Sekolah Tinggi Ilmu Statistik and a master's degree in informatics engineering from the Bandung Institute of Technology. Her current research interests are in machine learning, big data, and data science.

Teguh Sugiyarto

https://orcid.org/0009-0003-5376-651X. He is a statistician at BPS-Statistics Indonesia. He is responsible for providing several indicators in tourism statistics. He completed his Master's and Doctoral degrees in Population Studies at Flinders University, Australia. His research interests include demography, population studies, tourism statistics, and producing official statistics by utilizing big data.

JKi

UNDERSTANDING PASSENGER SATISFACTION: TOPIC MODELING OF ONLINE REVIEWS

Yuliani Dwi Lestari[1], Faridatus Saidah[2]

[12]School of Business and Management, Institut Teknologi Bandung

Correspondence:yuliani.dwi@sbm-itb.ac.id

Article Info	Abstract
	This study examined customer satisfaction with three airlines—Garuda Indonesia, Batik Air, and Citilink by analyzing Skytrax customer reviews. Topic modeling based on latent Dirichlet allocation (LDA) was used to categorize 1174 customer reviews from 2024 as having either positive or negative sentiment. The statistical analysis revealed that Garuda Indonesia received the most recommendations, followed by Citilink and Batik Air. Positive review themes included good service and friendly staff, whereas negative sentiment was frequently attributed to delays and poor seat comfort. By identifying these key satisfaction drivers and pain points, this study offers actionable insights for airline service improvement and customer retention strategies. These findings contribute to the growing application of text mining in consumer behavior research and provide practical guidance for airline managers aiming to optimize competitiveness in the aviation industry.

How to cite:
Lestari, Y. D., Saidah, F. (2025). Understanding Passenger Satisfaction: Topic Modeling of Online Reviews. *Jurnal Kepariwisataan Indonesia: Jurnal Penelitian dan Pengembangan Kepariwisataan Indonesia, 19*(1), 67-80. https://doi.org/10.47608/jki.v19i12025.67-80

INTRODUCTION

Customer satisfaction is an important concept in behavioral research, founded on the assumption that organizations must meet consumer needs to achieve profitability and sustainability (Tahanisaz & Shokuhyar S., 2020). It is a complex construct that encompasses a customer's knowledge and experience. In the airline sector, customer satisfaction is measured according to passengers' assessments of their encounters with a particular airline (Murugesan et al., 2024; Tahanisaz & Shokuhyar, 2020). Consequently, it is critical for airlines to understand passenger expectations, as they are constantly compared to airline performance. When passengers receive valuable service quality attributes, they are more likely to report satisfaction (Park, 2015; Pereira et al., 2023).

The aviation industry has undergone numerous changes in recent years, largely due to the global COVID-19 pandemic, which has altered passenger expectations and service delivery paradigms. Passengers are increasingly concerned about the quality of airplane services, especially cleanliness. The pandemic has significantly emphasized the importance of hygiene, safety, and overall service experience, as passengers prioritize their health and well-being while traveling. This shift in expectations aligns with prior research highlighting the importance of service quality in driving customer satisfaction and loyalty in the airline sector (Sezgen et al., 2019; Yao et al., 2015). In Indonesia, the number of passengers traveling by air has also changed. Domestic departures, at 33.514 million in 2020, saw a slight decrease to 30.698 million in 2021, then surged to 52.784 million in 2022, reflecting a strong post-pandemic recovery in domestic air travel (see Table 1). International departures were severely impacted by the pandemic, declining drastically from 3.613 million in 2020 to just 632,000 in 2021 due to travel restrictions, but then increasing to 7.108 million in 2022 when international borders reopened.

Table 1. Number of Passengers on Departure at Indonesian Airports (in thousands)

Departure	Number of Passengers on Departure at Indonesian Airports (in thousand people)		
	2020	**2021**	**2022**
Domestic Flight	33,514	30,698	52,784
International Flight	3,613	632	7108

Source: *BPS* Indonesia 2020–2022

Customer review analysis is widely used for understanding service quality in the airline industry. Studies show that factors such as punctuality, service quality, and comfort are key to customer satisfaction (Bunchongchit & Wattanacharoensil, 2021; Noviantoro & Huang, 2022; Sezgen et al., 2019). However, there is a lack of research specifically focusing on Indonesian airlines. Despite the increasing emphasis on customer experience in the airline industry, there is limited understanding of how to leverage and systematically analyze unstructured online reviews to reveal key drivers of passenger satisfaction and dissatisfaction, particularly in the Indonesian context. Traditional survey-based approaches may overlook spontaneous customer feedback and emerging service issues. Furthermore, there is a lack of methodological clarity about how to utilize topic modeling techniques, such as latent Dirichlet allocation (LDA), to extract meaningful themes from large volumes of textual data. This study aims to address these gaps by identifying dominant themes in online passenger reviews, evaluating the effectiveness of LDA in uncovering patterns in

Understanding Passenger Satisfaction: Topic Modeling of Online Reviews
Lestari & Saidah. (2025)

Jki

customer sentiment, and exploring how these insights can inform practical service improvements for Indonesian airlines.

The aviation industry is highly competitive, and customer satisfaction is crucial for maintaining a strong reputation. Online review platforms like Skytrax offer valuable insights into passengers' experiences, influencing potential new customers. This study focused on online customer reviews sourced from Skytrax for three leading Indonesian airlines—Garuda Indonesia, Batik Air, and Citilink—to identify key factors driving customer satisfaction by applying LDA to the review data. This study contributes to the limited literature on Indonesian airline customer satisfaction by employing machine learning-based text mining to analyze large-scale customer feedback.

METHODOLOGY

We adopted a descriptive–exploratory research design, leveraging text mining to uncover patterns within customer reviews. This approach is well-suited to the study's aim of exploring thematic and sentiment structures in unstructured textual data. Data were sourced from the Air Travel Review website, operated by Skytrax, a global platform for airline consumer ratings. All customer reviews were publicly available on the Skytrax website at the time of data collection. No personally identifiable information was collected or analyzed, and all data handling adhered to ethical research standards regarding the use of publicly accessible online content. The analysis focused on airline customer review data for three airlines-Garuda Indonesia, Batik Air, and Citilink-up to mid-2024, as reported by Skytrax, providing insights into customer satisfaction with and recommendations for these companies (see Table 2). These three airlines were selected due to their prominence in the Indonesian domestic aviation market, their diverse service models (full-service vs. low-cost), and the availability of sufficient customer review data on Skytrax to ensure robust comparative analysis.

Table 2. Data Profile of Indonesia Airline Passengers' Reviews (Garuda Indonesia, Batik Air, and Citilink)

Airline	Total Reviews	Recommended	Not Recommended
Garuda Indonesia	930	815 (87.7%)	115 (12.3%)
Batik Air	179	67 (37.4%)	112 (62.6%)
Citilink	65	46 (70.8%)	19 (29.2%)
Summary of Recommendations	Total Reviews: 1174	Recommended = "Yes": 928	Recommended = "No": 246

Source: Air Travel Review website, run by Skytrax

Data were processed and analyzed using Python, following the procedure illustrated in Figure 1. The flowchart demonstrates our data analysis process for customer reviews extracted from the Skytrax website, with the goal of conducting topic modeling. The process began with data extraction, scraping customer reviews using the Python library BeautifulSoup. Next, the data were pre-processed in preparation for analysis. This included tokenizing the text with Python's NLTK, cleaning the corpus by removing punctuation, numbers, and common stop words (while retaining specific words like "in" and "on"), processing bigrams using gensim, and applying lemmatization to reduce words to their root forms. Part-of-speech (POS) tagging was then performed to extract nouns. Data were then subjected to Term Frequency-Inverse Document Frequency (TF-IDF) filtering, which retained words with high TF-IDF values, indicating their importance in the dataset. After

filtering, LDA topic modeling was applied to identify topics within the reviews. This step involved tuning the LDA model to determine the optimal number of topics and then generating the corresponding topic results. Finally, the results moved to the Interpretation stage, where the identified topics were interpreted to derive further insights. For validation, the coherence score served as the metric to determine the optimal number of LDA topics. Several model iterations were tested, and the configuration with the highest coherence score was selected to ensure topic interpretability and semantic quality.

LDA is a statistical method used to estimate the mixture of words associated with each topic and to determine the mixture of topics that best describe each document (Blei et al., 2003; Silge & Robinson, 2017). Topic modeling using LDA follows the principle that each document represents a collection of topics, and may contain words drawn from several topics in varying proportions (Guo et al, 2017). As an unsupervised machine learning technique, topic modeling identifies groups of similar words in the body of a text. This approach enables the grouping of word clusters based on the similarity of their content across documents, as demonstrated in research conducted by Park et al. (2023).
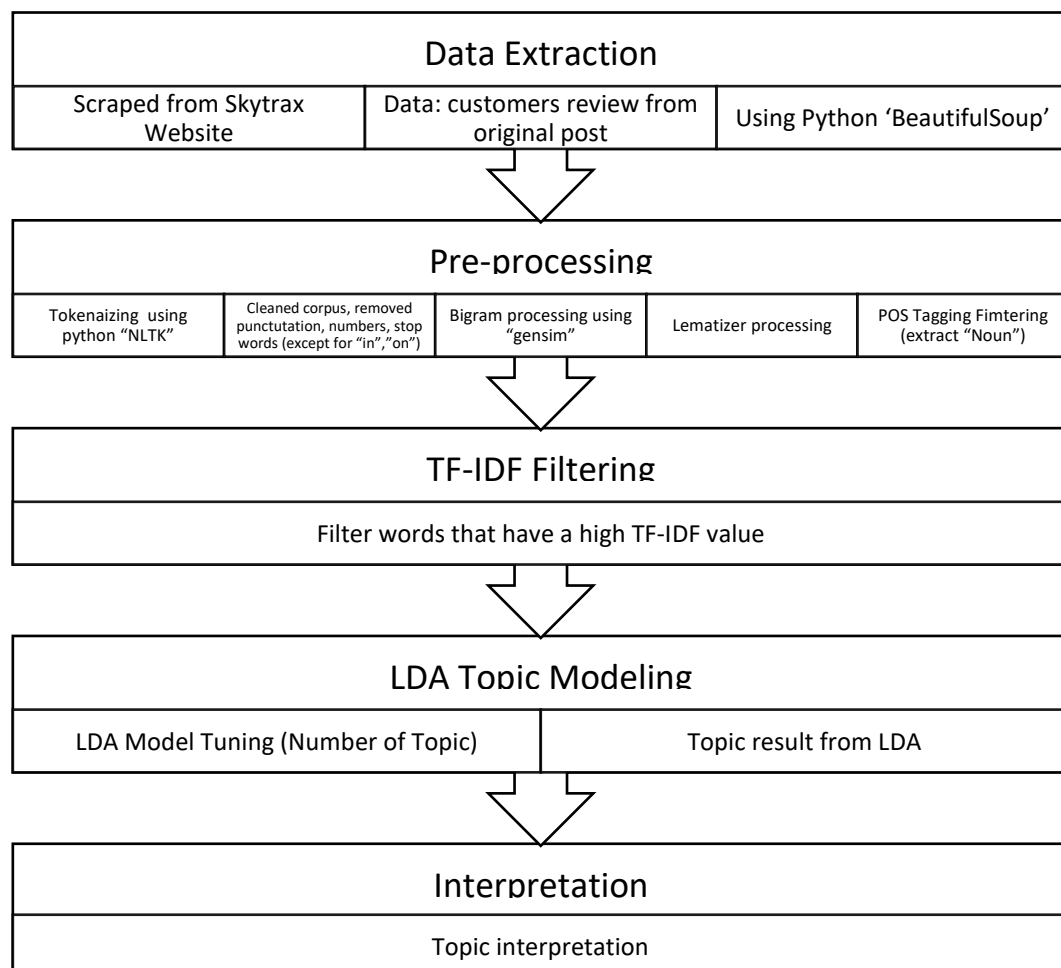
Figure 1. Data Analysis Procedure

Understanding Passenger Satisfaction: Topic Modeling of Online Reviews
Lestari & Saidah. (2025)

Jki

FINDINGS AND DISCUSSION

Descriptive statistics for the 1174 reviews collected from Skytrax revealed the recommendation rates of the three Indonesian airlines (Recommended and Not Recommended, as percentages). Garuda Indonesia has the highest recommendation rate (87.6%), followed by Citilink (70.8%), with Batik Air receiving the lowest recommendation rate (37.4%).

Topic modeling using LDA identified four topics for the "Not Recommended" reviews and six topics for the "Recommended" reviews, with each topic showing at least the top 20 most relevant words. The topic themes were named based on the correlated words.
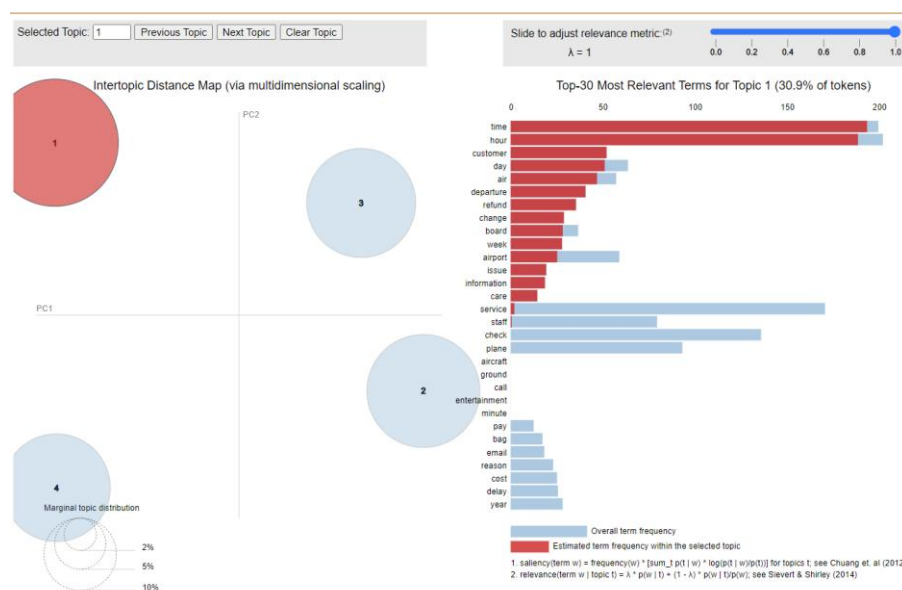
Figure 2. Topic Modeling Visualization based on Latent Dirichlet Allocation (LDA) for Topic 1 of Four Topics

Figure 2 presents a topic modeling visualization based on LDA, a commonly used technique for extracting topics from textual data. The visualization comprises two key parts: an Intertopic Distance Map on the left and the Top 30 Most Relevant Terms for Topic 1 on the right. The Intertopic Distance Map spatially represents topic distinctiveness and indicates the closeness of related themes. The "Top 30 Most Relevant Terms" chart illustrates how the frequency and salience of specific terms reflect dominant themes in customer perceptions. This visualization aims to facilitate understanding of LDA's outputs to support deeper insights into how the technique captures topic relevance and thematic overlaps in airline customer reviews. After topic tuning for nouns, adverbs, and adjectives, four topic lists were identified, with each term categorized according to the words passengers used in their reviews (see Table 2).

Table 2. Topic Themes Identified from Relevant Words in Passengers' "Not Recommended" Reviews. (*n* = 246; four topics)

Topic No	Topic Themes	Word Recommended = "No": 246 data
1	Operational and Service Efficiency	time, hour, customer, day, air, departure, refund, change, board, week, airport, issue, information, care, service, staff, check, plane, baggage, food, email, economy, cabin, seat, ground, delays, customer service, flight changes
2	Passenger Experience and Service Quality	service, passenger, meal, experience, gate, water, baggage, people, crew, year, way, cost, reason, pay, cabin, staff, airport, plane, issue, hour, time, air, delay, food, refund
3	Class of Service and Onboard Experience	class, plane, food, business, economy, passenger, delay, cabin, bag, staff, service, hour, board, experience, check, return, meal, water, call, email, gate, ground, aircraft, entertainment, seat
4	Ticketing, Seating, and Customer Relations	seat, check, staff, ticket, return, airport, email, way, day, air, time, change, refund, baggage, experience, class, ground, entertainment, gate, reason, business, food, information, call, cabin

Source: Research data, 2025

Table 2 presents the topic themes identified from passengers' "Not Recommended" reviews (246 data points). The table is divided into four topics, each representing a different aspect of the passengers' negative experiences, alongside the words most frequently mentioned within each topic. The first theme, Operational and Service Efficiency, focuses on issues such as delays, customer service, refunds, and flight changes, and includes frequent mentions of time management and service quality. The second theme, Passenger Experience and Service Quality, emphasizes concerns about meal service, baggage handling, crew interactions, and costs, reflecting dissatisfaction with the overall quality of the service. The third theme, Class of Service and Onboard Experience, reveals distinctions between business and economy classes, onboard comfort, staff service, and entertainment options, with frequent mentions of delays and baggage problems. The fourth theme, Ticketing, Seating, and Customer Relations, highlights ticket return issues, seating comfort, refunds, and baggage handling problems, along with concerns regarding the management of customer relations. Collectively, these themes suggest that airlines should address operational efficiency, service quality, class-based experiences, and customer relations to improve overall passenger satisfaction.

Understanding Passenger Satisfaction: Topic Modeling of Online Reviews
Lestari & Saidah. (2025)

Jki
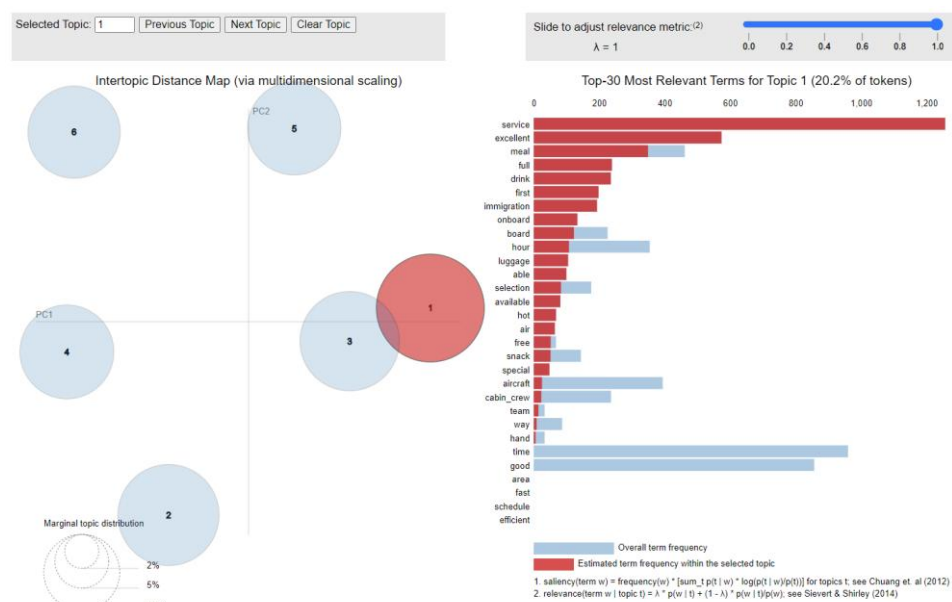
Figure 3. Topic 1 Identified from the "Recommended" Reviews (n = 928; six topics)

Figure 3 depicts a topic modelling visualization for Topic 6 (one of six topics identified within the "Recommended" reviews). The identified topic theme can be seen in Table 3, which presents the six topic themes identified from reviews in which passengers recommended the airline (928 "Recommended" reviews). The first theme, Onboard Service and In-Flight Experience, highlights positive feedback regarding meal quality, service excellence, and the helpfulness of the cabin crew. The second theme, Check-In and Boarding Process, emphasizes smooth, efficient boarding experiences and quick check-ins. The third theme, Ground and Cabin Crew Support, praises the professionalism and helpfulness of staff, particularly during delays. The fourth theme, Cabin Comfort and Quality of Service, reflects satisfaction with the overall comfort of the cabin, food quality, and attentive service. The fifth theme, Seating, Legroom, and Pricing, addresses passengers' positive views on seating arrangements, legroom, and value for money. Finally, the sixth theme, Entertainment, Cleanliness, and Cabin Environment, highlights appreciation for the entertainment options, cleanliness, and general cabin atmosphere. Generally, passengers who recommended the airline expressed overall satisfaction across multiple aspects of their travel experience, particularly with service quality and comfort.

Table 3. Topic Themes Identified from Relevant Words in Passengers' "Recommended" Reviews (n = 928; six topics)

Topic No	Topic Themes	Word Recommended = "Yes" 928 data (6 number of topics)
1	**Onboard Service and In-Flight Experience**	service, excellent, meal, full, drink, first, immigration, onboard, board, hour, luggage, able, selection, available, hot, air, free, snack, special, aircraft, cabin_crew, team, way, hand, time
2	**Check-In and Boarding Process**	time, check_in, aircraft, ok, baggage, minute, quite, domestic, departure, little, process, snack, gate, terminal, good, queue, long, quick, many, boarding, overall, quickly, choice, friendly, trip
3	**Ground and Cabin Crew Support**	staff, great, plane, airport, ground, cabin_crew, hour, late, due, helpful, check_in, board, delay, passenger, year, way, really, time, help, hand, team, minute, quick, sleep, special

4	**Cabin Comfort and Quality of Service**	good, food, new, attentive, cabin, comfortable, overall, selection, pleasant, seat, quality, delicious, friendly, professional, sleep, time, cabin_crew, hour, aircraft, special, system, day, definitely, domestic, hand
5	**Seating, Legroom, and Pricing**	seat, leg, route, crew, economy, definitely, well, trip, passenger, experience, price, meal, better, much, room, back, last, option, ticket, best, late, day, hour, still, long
6	**Entertainment, Cleanliness, and Cabin Environment**	friendly, entertainment, nice, return, clean, movie, attendant, small, choice, system, inflight, bit, short, really, screen, polite, seat, still, smile, helpful, enough, smooth, comfortable, economy, legroom

Source: Research data, 2025

Comparing "Not Recommended" and "Recommended" reviews (Table 4) reveals distinct differences in passenger experiences and priorities. Passengers who did not recommend the airline expressed dissatisfaction with operational efficiency, citing frequent delays, poor customer service, and issues with ticketing, refunds, and seating arrangements. Additionally, they highlighted problems with baggage handling, staff efficiency, and cabin comfort. Conversely, passengers who recommended the airline praised the quality of onboard service, particularly the helpfulness of the cabin crew, meal offerings, and overall in-flight experience. Passengers also appreciated the smooth check-in process, comfortable seating, and cleanliness of the cabin environment. While negative reviews emphasized inefficiencies and service failures, positive reviews focused on attentive service, comfort, and the overall value provided, particularly in terms of crew support and in-flight amenities. This contrast suggests that improving operational efficiency and customer relations could convert dissatisfied customers into airline promoters.

Table 4. Comparison of Passengers' Reviews

Aspect	Passengers' Focus in "Not Recommended" Reviews	Passengers' Focus in "Recommended" Reviews	Common Themes & Network Connections
Focus on Operational Issues	- **Topic 1**: Service, staff, baggage, check, seat, economy, cabin, plane.	- **Topic 2**: Check-in, boarding, gate, terminal, baggage, quick boarding.	- **Common Keywords**: Baggage, check-in, refund, ticket.
	- **Topic 4**: Ticket, refund, baggage, entertainment, ground staff.	- **Topic 3**: Staff, ground crew, boarding, delay, helpful support.	- **Network Cluster**: Central role of staff, check-in processes, and baggage handling.
Focus on In-Flight Service	- **Topic 2**: Service quality, food, delays, crew, meal, experience.	- **Topic 1**: Meals, drinks, cabin crew, snacks, free selection.	- **Common Keywords**: Service, food, cabin, seat.
	- **Topic 3**: Business class, cabin, food, entertainment.	- **Topic 4**: Food, comfort, seat, cabin crew, sleep, selection of services.	- **Network Cluster**: Links between food, comfort, and crew interactions.
Passenger Comfort and Seating	- **Topic 3**: Seat comfort in business vs. economy, legroom, entertainment.	- **Topic 5**: Seat, legroom, economy class, price, comfort, best seat options.	- **Common Keywords**: Seat, cabin, legroom, comfort.
	- **Topic 4**: Seating, ticket changes, refunds, entertainment.	- **Topic 6**: Cleanliness, screen, inflight entertainment, legroom.	- **Network Cluster**: Emphasis on cleanliness, seating arrangements, legroom, and ticket pricing.

Understanding Passenger Satisfaction: Topic Modeling of Online Reviews
Lestari & Saidah. (2025)

Jki

Crew and Customer Support	- **Topic 1**: Staff service, cabin service, operational issues.	- **Topic 3**: Cabin crew support, ground crew handling delays, helpful staff.	- **Common Keywords**: Staff, crew, ground.
	- **Topic 2**: Crew interactions, overall service quality.	- **Topic 6**: Politeness, helpfulness, smooth service, friendliness.	- **Network Cluster**: Strong connections between staff helpfulness, delays, and passenger satisfaction.
Punctuality and Timing Issues	- **Topic 1**: Timing issues (delays, departure, boarding).	- **Topic 2**: Boarding efficiency, quick processes, short delays.	- **Common Keywords**: Time, delay, hour, boarding.
	- **Topic 2**: Delays, hours, time, crew handling delays.	- **Topic 3**: Late flights, delay handling, team support, airport operations.	- **Network Cluster**: Centrality of timeliness, with links to boarding and crew efficiency.

Source: Research data, 2025

Prior studies on airline service quality and customer satisfaction have employed both traditional and computational approaches, offering valuable insights into various satisfaction dimensions. For instance, Hussain et al. (2015), Kos et al (2017), and Farooq et al. (2018) used survey methods to explore service quality and passengers' satisfaction with airlines. Their analysis focused on dimensions such as airline and terminal tangibles, personal services, empathy, and overall airline image, highlighting the importance of both physical and emotional aspects of the travel experience. In contrast, Sezgen et al. (2019) adopted a text-mining approach to analyze global airline reviews collected from TripAdvisor. Their findings underscored the role of soft service attributes such as friendly staff, smooth customer care, seat comfort, and value for money in shaping overall satisfaction. The shift toward computational methods like text mining, as seen in Sezgen et al.'s study, demonstrates the growing importance of analyzing large-scale, unsolicited feedback to complement traditional survey-based research. This methodological evolution not only broadens the scope of measurable service factors but also captures real-time customer sentiment, making it highly relevant for post-pandemic airline service management and digital transformation efforts.

Recent studies have continued to explore customer satisfaction in the airline industry using both traditional surveys and modern data analytics approaches. Lucini et al. (2020) employed a text-mining method to analyze online passenger reviews from Air Travel Review (airlinequality.com), capturing a wide spectrum of satisfaction dimensions These include customer service, flight experience, cabin staff, comfort, delays, luggage handling, and even undefined or emerging topics, highlighting the granularity and richness of unstructured online feedback. Tahanisaz and Shokuhyar (2020) used questionnaire data from the passengers of 13 domestic Iranian airlines to examine flight safety, entertainment quality, crew responsiveness, and access to in-flight amenities such as the internet and electricity. Their study underscores the value of interpersonal service and operational reliability in driving satisfaction. Patel et al. (2022) conducted a sentiment analysis of customer feedback. Noviantoro and Huang (2022) utilized big data analytics, leveraging the U.S. Airline Passenger Satisfaction Dataset to analyze factors such as class of service, check-in efficiency, Wi-Fi, gate location, and delay management, offering insights into how digital services and logistics affect customer experience.

Complementing earlier studies, our comparative review of passenger feedback (presented in Table 4) provides nuanced insights into the divergent themes emphasized in

"Recommended" versus "Not Recommended" reviews. This table categorizes passenger concerns and commendations across five core dimensions: operational issues, in-flight service, comfort and seating, customer support, and timing. Consistent with the research of Pereira et al. (2023) and Lucini et al. (2020), operational elements such as check-in, baggage handling, and staff performance emerge as central concerns, especially in negative reviews. Conversely, positive reviews highlight quick boarding, terminal experience, and helpful ground staff, aligning with the findings of Noviantoro and Huang (2022), which emphasized ease of boarding and gate location as important factors driving customer satisfaction. Furthermore, consistent with Tahanisaz and Shokuhyar (2020), in-flight services like food quality, crew responsiveness, and cabin comfort were critical satisfaction factors, especially when passengers noted meal options and crew attentiveness in their positive reviews. Comfort and seating-related complaints, especially legroom and entertainment, were consistently reported across both text-mining and questionnaire-based studies. Interestingly, the network clusters shown in Table 4 reinforce the relational dynamics between staff helpfulness, service smoothness, and delay management, reinforcing the findings of Syed et al. (2024) and Sun et al. (2024), who emphasize crew willingness to help and attentiveness.

The persistent prominence of timeliness (delays, boarding processes, and scheduling) across all feedback types supports Patel et al.'s (2022) conclusion about the importance of operational efficiency in shaping passenger perceptions. Furthermore, the study by Farzadnia et al. (2024) highlights the use of topic modeling, specifically LDA, as an effective approach to analyzing airline customer reviews and uncovering key satisfaction themes across different flight classes. Their analysis revealed distinct customer priorities: "passenger care" emerged as the dominant concern in economy class, while "time-related issues" were more frequently mentioned in business and first-class reviews. These findings underscore the varying expectations of passengers by service tier and suggest the strategic importance of tailoring service improvements accordingly. This aligns with our results (presented in Table 4) and those of previous studies, reinforcing the critical role of timeliness, customer service, and class-specific preferences in shaping passenger satisfaction. Thus, our findings strengthen the synthesis of previous literature by clearly distinguishing complaint-driven versus commendation-driven satisfaction attributes while also highlighting the networked service components that influence passenger experiences.

This study's findings reflect the evolving trends of the airline industry in the post-pandemic era. Cleanliness is now central to the overall perception of service quality, alongside long-standing concerns about punctuality, seating comfort, and customer service (Bunchongchit & Wattanacharoensil, 2021; Zahraee et al., 2022). The frequent appearance of keywords such as "clean cabin," "clean seat," and "hygienic environments" in broader discussions on comfort and passenger satisfaction indicates that cleanliness has become a critical pillar of the passenger experience (Rita et al., 2022; Kim et al., 2024; Paraschi et al., 2024). Our results align with the findings of Noviantoro and Huang (2022), suggesting the need for airlines to pay increased attention to external factors, such as hygiene protocols, to ensure a positive travel experience in the post-pandemic era. This study further supports the notion that the airline industry must adapt its service delivery model, integrating hygiene and cleanliness alongside traditional factors like punctuality and

Understanding Passenger Satisfaction: Topic Modeling of Online Reviews
Lestari & Saidah. (2025)

JKi

comfort as core components of enhancing customer loyalty and maintaining a competitive advantage.

CONCLUSION

This study revealed common themes influencing customer feedback: excellent service and staff friendliness influenced positive reviews, while delays and poor seat comfort frequently led to negative reviews. The incorporation of cleanliness and hygiene regulations into the larger service framework is clear evidence that airlines must evolve. To satisfy the needs of today's passengers, they must ensure that every facet of service quality—from comfort to cleanliness—is made a top priority. Understanding the key drivers of customer satisfaction helps airlines improve services and maintain a competitive edge. This study offers practical implications for airline management. The insights derived from the topic modeling of customer reviews can equip airlines with a deeper understanding of real-time passenger concerns and expectations, reducing their reliance on structured surveys alone. In particular, issues related to delays and service recovery processes signal the need for operational adjustments and improved staff training in customer engagement. By understanding the key drivers of customer satisfaction, airlines can enhance their services and maintain a competitive edge.

This study is not without its limitations. We focused solely on data from Skytrax reviews, which may not capture all aspects of customer satisfaction, especially those who do not provide online feedback. The focus on a limited number of flight classes and review sources may restrict the generalizability of findings across different airlines or cultural contexts. Future research could integrate more specific methodological enhancements; for example, combining LDA with sentiment analysis or advanced natural language processing techniques could improve the interpretation of passenger emotions and refine thematic precision. Additionally, broadening the sample to include regional or low-cost carriers and conducting comparative studies across Southeast Asian airline markets would enhance the analytical depth and generalizability of the findings.

REFERENCES

Blei, D. M., Ng, A. Y., & Jordan, M. I. (2003). Latent dirichlet allocation. *Journal of machine Learning research*, *3*(Jan), 993-1022.

Bunchongchit, K., & Wattanacharoensil, W. (2021). Data analytics of Skytrax's airport review and ratings: Views of airport quality by passengers types. *Research in Transportation Business and Management*, *41*. https://doi.org/10.1016/j.rtbm.2021.100688

Farzadnia, S., Vanani, I. R., & Hanafizadeh, P. (2024). An experimental study for identifying customer prominent viewpoints on different flight classes by topic modeling methods. *International Journal of Information Management Data Insights*, *4*(1). https://doi.org/10.1016/j.jjimei.2024.100223

Guo, Y., Barnes, S. J., & Jia, Q. (2017). Mining meaning from online ratings and reviews: Tourist satisfaction analysis using latent dirichlet allocation. *Tourism Management*, *59*, 467–483. https://doi.org/10.1016/j.tourman.2016.09.009

Hu, Y. H., Chen, Y. L., & Chou, H. L. (2017). Opinion mining from online hotel reviews – A text summarization approach. *Information Processing and Management*, *53*(2), 436–449. https://doi.org/10.1016/j.ipm.2016.12.002

Hussain, R., al Nasser, A., & Hussain, Y. K. (2015). Service quality and customer satisfaction of a UAE-based airline: An empirical investigation. *Journal of Air Transport Management*, *42*, 167–175. https://doi.org/10.1016/j.jairtraman.2014.10.001

Kim, D., Lim, C., & Ha, H. K. (2024). Comparative analysis of changes in passenger's perception for airline companies' service quality before and during COVID-19 using topic modeling.

Journal of Air Transport Management, *115*. https://doi.org/10.1016/j.jairtraman.2024.102542

Kos Koklic, M., Kukar-Kinney, M., & Vegelj, S. (2017). An investigation of customer satisfaction with low-cost and full-service airline companies. *Journal of Business Research*, *80*, 188–196. https://doi.org/10.1016/j.jbusres.2017.05.015

Lucini, F. R., Tonetto, L. M., Fogliatto, F. S., & Anzanello, M. J. (2020). Text mining approach to explore dimensions of airline customer satisfaction using online customer reviews. *Journal of Air Transport Management*, *83*. https://doi.org/10.1016/j.jairtraman.2019.101760

Murugesan, R., A P, R., N, N., & Balanathan, R. (2024). Forecasting airline passengers' satisfaction based on sentiments and ratings: An application of VADER and machine learning techniques. *Journal of Air Transport Management*, *120*. https://doi.org/10.1016/j.jairtraman.2024.102668

Noviantoro, T., & Huang, J. P. (2022). Investigating airline passenger satisfaction: Data mining method. *Research in Transportation Business and Management*, *43*. https://doi.org/10.1016/j.rtbm.2021.100726

Paraschi, E. P., & Panagopoulos, A. (2024). COVID-19 crisis management in Greek airlines. *Journal of the Air Transport Research Society*, 100032. https://doi.org/10.1016/j.jatrs.2024.100032

Park, S., June, K., & Yu, J. (2023). Analysis of parenting informational needs for mothers with infants and toddlers using text-mining. *Children and Youth Services Review*, *145*. https://doi.org/10.1016/j.childyouth.2022.106768

Park, S., & Nicolau, J. L. (2015). Asymmetric effects of online consumer reviews. *Annals of Tourism Research*, *50*, 67–83. https://doi.org/10.1016/j.annals.2014.10.007

Patel, A., Oza, P., & Agrawal, S. (2022). Sentiment Analysis of Customer Feedback and Reviews for Airline Services using Language Representation Model. *Procedia Computer Science*, *218*, 2459–2467. https://doi.org/10.1016/j.procs.2023.01.221

Pereira, F., Costa, J. M., Ramos, R., & Raimundo, A. (2023). The impact of the COVID-19 pandemic on airlines' passenger satisfaction. *Journal of Air Transport Management*, *112*. https://doi.org/10.1016/j.jairtraman.2023.102441

Rita, P., Moro, S., & Cavalcanti, G. (2022). The impact of COVID-19 on tourism: Analysis of online reviews in the airlines sector. *Journal of Air Transport Management*, *104*. https://doi.org/10.1016/j.jairtraman.2022.102277

Sezgen, E., Mason, K. J., & Mayer, R. (2019). Voice of airline passenger: A text mining approach to understand customer satisfaction. *Journal of Air Transport Management*, *77*, 65–74. https://doi.org/10.1016/j.jairtraman.2019.04.001

Silge, J., Robinson, D., & Robinson, D. (2017). *Text mining with R: A tidy approach* (p. 194). Boston (MA): O'reilly.

Sun, X., Zheng, C., Wandelt, S., & Zhang, A. (2024). Airline competition: A comprehensive review of recent research. *Journal of the Air Transport Research Society*, *2*, 100013. https://doi.org/10.1016/j.jatrs.2024.100013

Syed, A. A., Gaol, F. L., Boediman, A., & Budiharto, W. (2024). Airline reviews processing: Abstractive summarization and rating-based sentiment classification using deep transfer learning. *International Journal of Information Management Data Insights*, *4*(2), 100238. https://doi.org/10.1016/j.jjimei.2024.100238

Tahanisaz, S. & Shokuhyar, S. (2020). Evaluation of passenger satisfaction with service quality: A consecutive method applied to the airline industry. *Journal of Air Transport Management*, *83*, 101764

Xu, X., & Li, Y. (2016). The antecedents of customer satisfaction and dissatisfaction toward various types of hotels: A text mining approach. *International Journal of Hospitality Management*, *55*, 57–69. https://doi.org/10.1016/j.ijhm.2016.03.003

Xu, X., Wang, X., Li, Y., & Haghighi, M. (2017). Business intelligence in online customer textual reviews: Understanding consumer perceptions and influential factors. *International Journal of Information Management*, *37*(6), 673–683. https://doi.org/10.1016/j.ijinfomgt.2017.06.004

Understanding Passenger Satisfaction: Topic Modeling of Online Reviews
Lestari & Saidah. (2025)

Jki

Zahraee, S. M., Shiwakoti, N., Jiang, H., Qi, Z., He, Y., Guo, T., & Li, Y. (2023). A study on airlines' responses and customer satisfaction during the COVID-19 pandemic. *International Journal of Transportation Science and Technology*, *12*(4), 1017–1037. https://doi.org/10.1016/j.ijtst.2022.11.004

AUTHOR PROFILE

Yuliani Dwi Lestari, PhD.

ORCID ID 0000-0002-4446-1293. Associate Professor, Research interest in sustainable operations management, sustainable tourism, sustainable transportation and energy, halal value chain.

Faridatus Saidah, MSM.

ORCID ID 0000-0002-6720-9461. Research Assistant, Research interest in Sustainable tourism, halal industry development.

THE ROLE OF PERCEIVED RISK AND SATISFACTION AS MEDIATORS BETWEEN SERVICE QUALITY AND TOURIST LOYALTY IN SPA TOURISM IN UBUD

Dewa Putu Kiskenda[1], **AA Suryawan Wiranatha**[2]

[1]Tourism Bachelor Majority, Insitut Pariwisata dan Bisnis Internasional, Indonesia
[2]Agritourism Majority of Agricultural Technology Faculty, Udayana University, Indonesia

Correspondence:dewakiskenda@ipb-intl.ac.id

Article Info	Abstract
	The spa tourism industry in Ubud has grown rapidly, with 96 spas operating in both Day Spa and Hotel or Resort Spa categories. The Spa industry as a tourist attraction in Ubud is expected to provide satisfactory quality of services and make tourists as their loyal customers. This study investigates the mediating roles of tourist satisfaction and perceived risk in the relationship between service quality and tourist loyalty. The aim of this research is to ensure that the marketing of Spa tourism as a developed industry in Ubud is always able to provide quality services that satisfy the tourists' expectations by confirming the dimension of Spa services in Ubud. Using a quantitative approach with Structural Equation Model (SEM) among variables of service quality; Tourist loyalty; Perceived risk and satisfaction, data were collected from 213 foreign tourists through purposive sampling . The findings reveal that service quality significantly influences satisfaction, which in turn significantly affects loyalty. Satisfaction fully mediates the effect of service quality on loyalty, whereas perceived risk does not play a significant mediating role. These insights highlight the importance of delivering consistently high-quality spa services to enhance tourist satisfaction and loyalty in wellness tourism

How to cite:

Kiskenda, D. P., Wiranatha, A. A. S. (2025). The Role of Perceived Risk and Satisfaction as Mediators Between Service Quality and Tourist Loyalty in Spa Tourism in Ubud. *Jurnal Kepariwisataan Indonesia: Jurnal Penelitian dan Pengembangan Kepariwisataan Indonesia, 19*(1), 81-94. https://doi.org/10.47608/jki.v19i12025.81-94

© 2025 Author(s)

INTRODUCTION

The Spa tourism industry in Ubud has grown significantly, with 96 spa businesses operating under the categories of Day Spa and Hotel & Resort Spa (Putra et al., 2015; Yilmaz, 2010). In 2016, the 96 Spa businesses were identified to be centered in (a) Ubud district, (b) Kedewatan and (c) Campuhan. Tourist demand for Spa tourism activities has surged with a notable increase of 57.5% for the Day Spa category and 43.5% for the Hotel & Resort Spa category accumulated since 2014 (Kiskenda, 2016). However, the rapid development of spa tourism in Ubud calls for an evaluation of service quality(Widjaya, 2011). This refers to the finding that there are tourists reported the Spa services were not up to their expectations (Putra et al., 2015). Such concerns include (a) the therapists were dominated by women thus it limits the options for customer to choose from, (b) different standard of expertise and friendliness from the therapists, (c) Spa equipment that is still incomplete such as Jacuzzi / sauna, and (d) venue location and ambience (Putra et al., 2015; Trihas & Konstantarou, 2016). These findings confirm that tourists place high importance on service dimension when choosing Spa services (Chang & Chen, 2008; Maciejewski, 2011). Some tourists assume that Spa services in Ubud are not in accordance with tourist expectations. The findings are accumulated from several guest reviews obtained through interviews and experiences told on Tripadvisor.

The experience told by Edmund, a tourist from Australia who was interviewed at one of the Day Spas in Ubud is described as follows.

> "..................This is my 4th times visited Ubud just to enjoy the Spa. I had well arranged to come here eventhough not always stay here. I always get new energy with a good masseur. I'm very enjoy the ambience which side of river, and enjoyable sounds. But this most expensive for a Day Spa, but for me this accorrdingly to.................."

The experience told on Tripadvisor by Kate, a tourist from Australia (2020) at one of the Day Spas in Ubud is as follows:

> "............Staffs are all very nice but I'm a little mystified as to why this place get quite such good reviews. As for being "peaceful", "calm", or "quite" it is none of these things particullarly mainly because of the set-up. The treatment areas are raised platforms whichare separated only by curtains, so it doesn't feel particulary peacefull or private, and it's certainly very busy. There is only one shower and toilet, which is alittle inconvenient to say the least for such a busy place! I prefer a private4 room with shower and there are many other places in Ubud which offer this..............."

This research aims to ensure that the marketing of Spa tourism as a developed industry in Ubud always able to provide quality services that satisfy the tourists' expectations by complying to all dimensions of Spa services in Ubud. This study takes a hedonistic perspective, assuming that people are driven by looking for something that can give the impression of prestige (Boohene & Agyapong, 2011). The attention was also focused on tourists' perceptions of the risk for the Spa services (Maciejewski, 2011; Tho et al., 2017). The perceived risk regarding the price of Spa products, physical injuries and allergies caused by therapists or technology that tend to interfere during the Spa consumption process. When tourists' perceptions of risk are confirmed and transformed into trust, they tend to overlook potential risks and feel more confident in purchasing spa services (Chang & Chen, 2008; Maciejewski, 2011). Previous research found that spa

purchases in Ubud are often made impulsively, without much consideration or comparison of alternative options (Putra et al., 2015). This behavior may influence tourists' attitudes and intentions after the purchase. It is therefore important to prevent negative impressions that can lead to disappointment and a lack of trust in the product or service during future visits (Armstrong et al., 2014). By exploring the mediating roles of satisfaction and perceived risk, this research contributes to a better understanding of tourist behavior in spa tourism, particularly in developing destinations like Ubud.

METHODOLOGY

The current research applied the associative-causal method, in order to discover the causal effect of service quality, satisfaction, perceived risk and customer loyalty. The research was conducted in several places around Ubud mainly centered in (a) Ubud district, (b) Kedewatan and Campuhan. The data collected in this study consisted of quantitative data with causality research design. Samples in this study were collected through purposive sampling with total 213 foreign tourists who have bought Spa products in Ubud area specified. The data were then analysed using multivariate analysis techniques with structural equations or SEM (Structural Equation Modeling). Data were collected using a questionnaire measured on a five-point Likert scale. The indicator items were adapted from previous studies relevant to each research variable (Miremadi et al., 2012; Lo et al., 2015; Yang & Nair, 2014; Tho et al., 2017). **Conceptual Model and Research Hypotheses**

a. Service Quality and Customer satisfaction

Service quality is service that consistently meets or exceeds consumer expectations (Wahyuningsih, 2011). The service quality is popular by the concept of Parasuraman, Zeithaml, and Berry in (Mohajerani & Miremadi, 2012), that service quality has five dimensions which are presented according to their importance, including (a) reliability, (b) responsiveness, (c) assurance, (d) empathy and (e) tangible (Astina, I Gede, 2017).

The predictors of customer satisfaction can be evaluated by products or services and be the significant variables that become a reference for the intention for next tourist behavior. Disconfirmation expectation theory explains the customer's perception of differences in product expectations and performance (Oliver, 1980). During the post-consumption of Spa services in the Ubud, tourists will evaluate the performance during the service process. When the performance of Spa services exceeds the expectations of foreign tourists on Spa tourism products, then tourists tend to be satisfied. Likewise, when the performance of Spa tourism services was below than tourist expectations, there will be discontent of foreign tourists on Spa services.

H_1: Service Quality positively influences Satisfaction.

b. Satisfaction and Customer Loyalty

Customer Satisfaction is the concept of post-consumption behavior. Tourist satisfaction is closely related to being a predictor of satisfaction and customer loyalty relationship. Customer satisfaction is defined as a post-consumption evaluative assessment of a particular product or service. Customer satisfaction has a positive effect on increasing customer loyalty, influencing repurchase intentions and leading to positive words or Word of Mouth (WOM) (Mohajerani & Miremadi, 2012).

The hierarchy of consumer behavior proposed by Mowen and Minor (2002), the model of expectation disconfirmation, that consumer behavior will be formed through a process of cognition - affection - conation - behavior. That means when tourists have met their expectations / cognition and feel the pleasure after consuming, it will have a positive effect on the intention of positive behavior also on subsequent purchases (MacKinnon et al., 2007).

H₂: Satisfaction positively influences Customer Loyalty.

c. Service Quality and Customer Loyalty

Tourist loyalty, influenced by service quality through satisfaction, can be explained using the Theory of Reasoned Action (Astina, 2017). This theory suggests that loyal behavior reflects a tourist's conscious intention to remain committed to spa services. Wan-Jin, 2009 (Boohene & Agyapong, 2011) concluded that service quality has a direct and positive influence on loyalty. The quality of a product or service that is able to meet expectations and / or be able to exceed consumer expectations when post-consumption is a long term benefit for a company. The loyal behavior is predicted by the attitude of tourists towards a service quality. The attitude of the tourist will contain a cognitive component in which there is a tourist's perception about the quality of service that they will buy. In other words, service will always be the main consideration for consumers when determining certain attitudes and behaviors on subsequent purchases and leads to positive words or Word of Mouth (WOM). The service quality will affect the intention to behave loyal (Lo et al., 2015). If the quality of Spa tourism services is perceived positively, then the intention of tourists to behave loyal to Spa tourism products will be high. Otherwise if the quality of tourism services perceived negative / bad, then the intention of tourists to behave loyal Spa products will be low (Tho et al., 2017). Research conducted by Marinkovic et al (2014); Wahyuningsih (2011) stated the mediating role of customer satisfaction on the service quality and customer loyalty relationship. Tourist satisfaction is closely related to being a predictor of satisfaction and customer loyalty relationship. The indirect effect of service quality on customer loyalty through customer satisfaction found stronger than the direct effect of service quality on customer loyalty.

H₃: Service Quality positively influences Customer Loyalty.
H₄: Satisfaction positively mediating on Service Quality and Customer loyalty

d. Perceived Risk and Spa Consumption

Jacoby and Kaplan, 1972 (Maciejewski, 2011) classify the typology of consumer on perceived risk into (1) functional risk, (2) physical risk, (3) financial risk, (4) social risk, and (5) time risk. The concept of perceived risk includes at least two aspects, adverse consequences and uncertainty (Suardana, 2017). Risks can be encountered during the consumer buying process, or when they face potential uncertainties and unintended consequences (Tho et al., 2017).

In consuming Spa as a tourism product with high prestige and high prices, there will be a perception of risks that tend to interfere during the Spa consumption process. There is a perception that the money (financial) that has been spent does not match the tourist expectations or worries about the high price of the Spa products. Then the process of consuming Spa services tends to arise concerns about the risks such as physical injury

and allergies caused by therapists, the technology used or Spa processed ingredients. Likewise, the perception of social status and the effect that will appear after consumption of the Spa. Therefore, if the purchase is not profitable, then the customer will lose their budget, waste their time, damage their social position and so on.

Perceived risk has an important role as a control for consumers to determine their choice of purchase in the theory of planned behavior by Ajzen (2005).The consumers with less perceived risk, tend to repurchase the products or services (Jarvenpaa et al., 1999). Otherwise, when the consumer felt more perceived risk, they will not make any purchase or have the intention to repurchace for a product or service. When perceived risk to services increases, customers tend to close their positive Word of Mouth intention, or opposite to spread negative Word of Mouth (Tho & Tuu, 2012). Thus the role of perceived risk as a mediator in relation to the influence of service quality and tourist loyalty to Spa tourism products in the Ubud tourism area, as stated by (Bitner, 1992).

H_5: Perceived risk positively mediating on Service Quality and Customer loyalty

Based on the literature review and relevan empirical evidences conceptual model of present study is shown on Figure.1
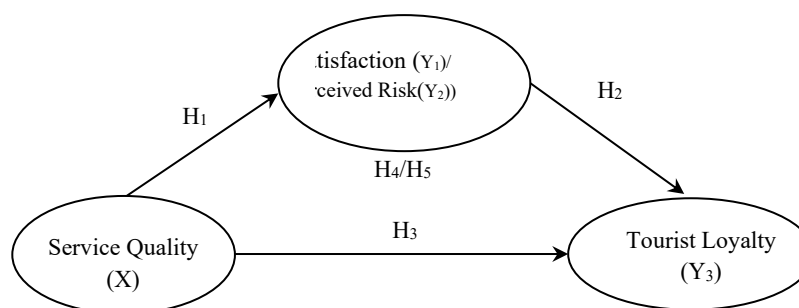
Figure 1. Conseptual Hypothesis Framework
Source: *Research result, 2024*

FINDINGS AND DISCUSSION

Result

Spa businesses being identified were centered in the Ubud district, Kedewatan and Campuhan. In this study the location was determined at 20 Spa businesses that are visited by many foreign tourists by referring to the 10 best spas on Tripadvisor (Anonim, 2018) consisting of 10 spas with the category of Hotels and Resorts namely (1) Ibah Luxury villas & Spa, (2) Komaneka Spa, (3) Kori Ubud Resort and Spa (4) Kajane Mua Spa, (5) Hotel Tjampuhan Spa, (6) Ubud Inn & Spa, (7) Pertiwi Resort & Spa, (8) Cendana Resort & Spa, (9) Plataran Ubud Hotel & Resort Spa, and (10) Sahadewa Resort & Spa. Then 10 spas with the category of Day Spa such as Day Spa yaitu (1) Jaens Spa, (2) Putri Bali Spa, (3) Sang Spa, (4) Taksu Spa, (5) Bali Botanica Day Spa, (6) Bali Ethnic Spa, (7) Verona Spa, (8), Modena Day Spa (9) Ubud Wellness Spa, and (10) Shangrila Spa.

Table 1. Tourist Characteristics consumed Spa in Ubud

No	Tourist Characteristics	Numbers	
		Person	Percentage (%)
	Tourist Country		
1	Amerika	39	18,3%
2	Eropa	133	62,5%

3	Australia	16		7,5%
4	Asia	25		11,7%
	Tourist Sex			
1	Male	71		33,3%
2	Female	142		66,7%
	Tourist Age			
1	11-20	9		4,2%
2	21-30	76		35,7%
3	31-40	81		38,0%
4	41-50	39		18,3%
5	>51	8		3,8%
	Tourist Education			
1	< High School	1		0,5%
2	High School	78		36,6%
3	Bachelor	121		56,8%
4	> Bachelor	13		6,1%
	Tourist Motivation			
1	Holiday	146		68,5%
2	Wellness tourism	10		4,7%
3	Business	40		18,8%
4	Other	17		8,0%
	Frequency of Purchase			
1	Two times	119		55,9%
2	Three times	59		27,7%
3	More than three times	35		16,4%
	Total	**213**		**100%**

Source: Primary data, 2024

Table 1 showed that respondents in this study were predominantly tourists coming from the European with numbers of 133 tourists or 62.5 percent. There are Russia, Italy, Sweden, Denmark, Norwegian, the Netherlands, Belgian, England, German, French, Switzerland, Spain and Hungary. In terms of gender, it was dominated by female with a percentage of 66.7 percent and 33.3 percent of male respondents, The women tourists are more involved in wellness activities, since women concerned more on physical appearance, weight problems, beauty and hair treatment than men. In terms of age, the majority of respondents were within the age of 31 to 40 years with a percentage of 38.0 percent, and respondents within the age of 21 to 30 years with a percentage of 35.7 percent. That showed tourists who buy Spa products in Ubud are dominated by tourists in the age category of baby boomers (born after the second world war around the 1970s), namely the age of 30-49 years (Yilmaz, 2010). Most of the respondents in this study hold Bachelor degree (S1) with a percentage of 56,8 percent. The second is the respondent with last education at High school level with a percentage of 36.6 percent. In term of tourist motivation who came to Bali were dominated by holiday motives, with a percentage 68.5 percent, when the tourists with the motive of wellness tourism with a percentage of 4.7 percent only. (Trihas & Konstantarou, 2016) who identified there are two types of wellness travelers based on their motivation, (1) primary wellness travelers and (2) secondary wellness travelers, which is wellness activities as part of the trip. Secondary wellness traveler is the largest segment, which is 87% compared to the motivation of primary visits for wellness only.

Table.2. Validity Reliability Test

No	Variable	Indicator	KMO	Total Varians Kumulatif	Loading Faktor	Sig.	Vailidity	Cronbach's Alpha	Reliability
1.	Service Quality (X)	X_1-X_{21}	,565	78,373	> ,50	,000	Valid	0,951	Reliabel

2.	Satisfaction (Y₁)	Y₁.₁-X₁.₂₅	,586	82,412	>,50	,000	Valid	0,943	Reliabel
3.	Perceived Risk (Y₂)	Y₂.₁-Y₂.₁₁	,715	73,086	>,50	,000	Valid	0,889	Reliabel
4.	Loyality (Y₃)	Y₃.₁-Y₃.₄	,730	75,463	>,50	,000	Valid	0,870	Reliabel

Source : Primary Data, 2024

The results of the validity test in table 2, all variables have a value of Kaiser-Meyer-Olkin (KMO) ≥ 0.05, significant at ≤ 0.05, total cumulative variance ≥ 50% and factor loading value ≥ 0.50. Thus all data from the research variables were valid. In reliability showed these variables reliable due all the coefficient Cronbach Alpha were more than the standard of 0.60.

The latent variables of service quality, also known as exogenous constructs, consist of 21 indicators which are observed as their constituents. The results of data processing are shown in Figure 2.
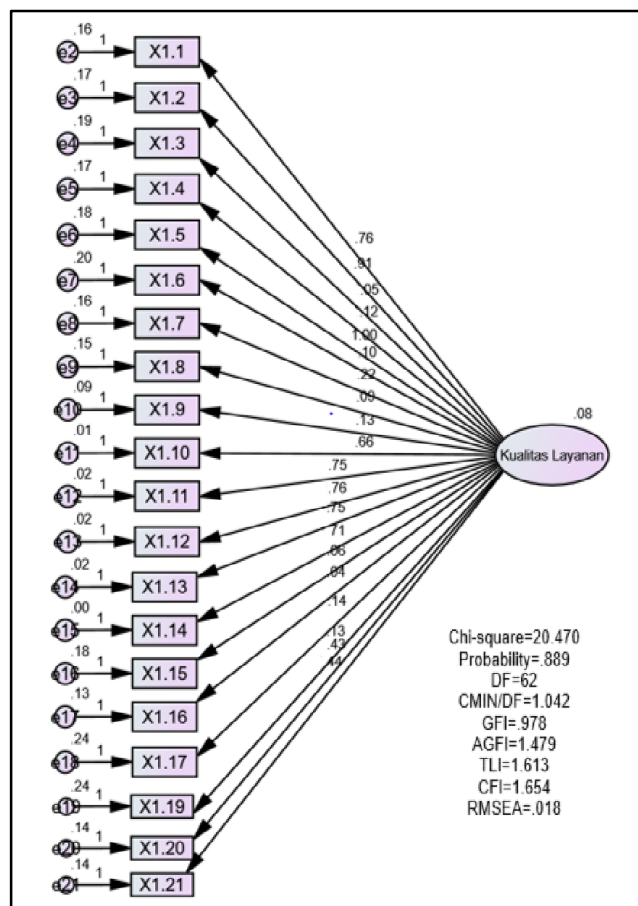
Figure 2. The structure of CFA model of service quality (exogenous constructs)
Source: *Research result, 2024*

These latent variables also represent endogenous variables consisting of 2 variables with 29 observed constructs as their constituents. The results of the measurement model test of the satisfaction variable towards the loyalty variable are then shown in Figure 3.

The results of testing the measurement model on the variable of risk perception towards loyalty consist of 2 endogenous variables with 15 observed constructs as its constituents, shown in Figure 5.5.
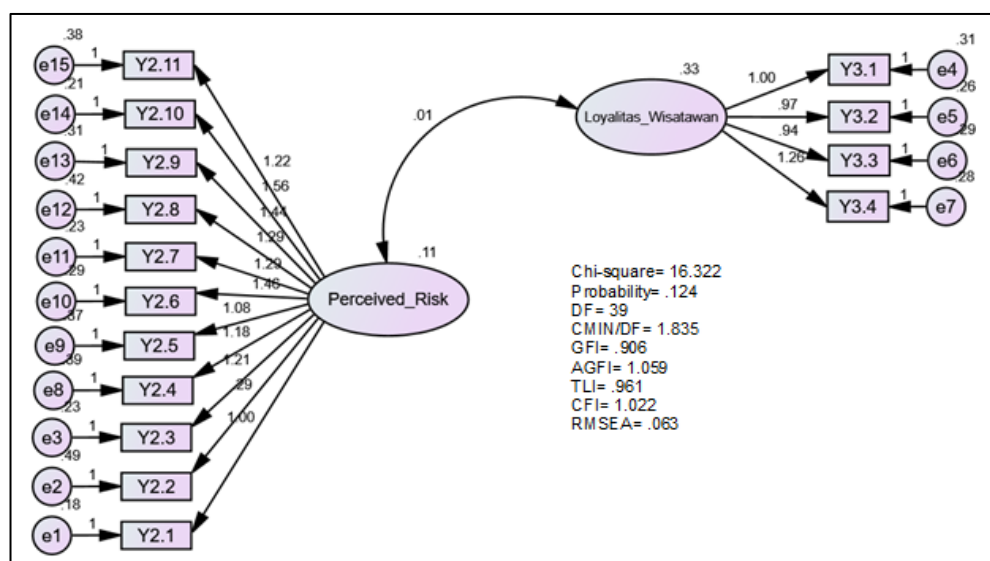
Figure 4. The structure of CFA model relations for risk perception towards loyalty (standardised coefficients)
Source: *Research result, 2024*
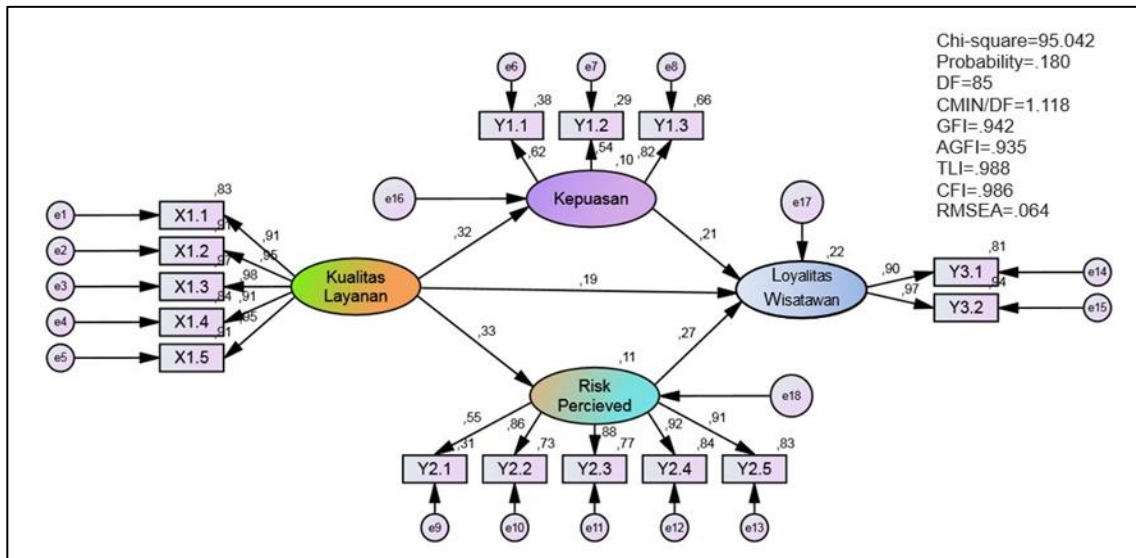
Figure 5
Model Effect of Service Quality Variable (X) on Satisfaction (Y_1), Perceived risk (Y_2) and Tourist Loyalty (Y_3)
Source: *Research result, 2024*

The results of the AMOS program analysis on structural tests to measure the mediating role of satisfaction and perceived risk variables on the influence of service quality to the customer loyalty which is described as follows.

Tabel.3 Full Model Test for the Goodness of Fit Index

Goodness of Fit Index	Cut off Value	Value	Remark
Chi Square (λ^2)	X^2 with df : 85; p: 5% = 107,521	95,042	√
Significance Probability (p)	≥ 0,05	,180	√
RMSEA	≤ 0,08	,064	√
GFI	≥ 0,90	,942	√
AGFI	≥ 0,90	,935	√
CMIN/DF	≤ 2,00	1,118	√
TLI	≥ 0,95	,988	√
CFI	≥ 0,95	,986	√

Source: Primary data, 2024

Tabel.4 Full Model Test for the Structural Equation Model

Regresion Weight	Standardized Regression Weight	S.E.	C.R.	P	Remark
Satisfaction < Service_Quality	,517	,049	3,667	***	Significant
Tourist_Loyalty < Satisfaction	,487	,135	2,175	,030	Significant
Tourist_Loyalty < Service_Quality	,328	,256	2,243	,025	Unsignificant

Source: Primary data, 2024

Table.5 Mediation Test through the Indirect effect

Regresion Weight	Mediator Variabel	Standardized indirect effect	Total Effect
Tourist_Loyalty <--- Service_Quality	Satisfaction	,429	,757
Tourist_Loyalty <--- Service_Quality	Perceived Risk	,000	,328

Source: Primary data, 2024

(1) The effect of service quality (X) on satisfaction (Y_1) has C.R. 3,667> 1,666 (the value of t table at the 0.05 level with df 85 is 1.666) and P *** indicates a value smaller than 0.05. This indicates there is an influence of service quality variables on tourist satisfaction. Standardized regression weight (λ) 0.517> 0.40 indicates a strong influence (significant) and a positive direction. (2) The effect of satisfaction (Y_1) on tourist loyalty (Y_3) has C.R. 2,175> 1,666 (the value of t table at the 0.05 level with df 85 is 1.666) and a P value of .030, which indicates that the probability value is smaller than 0.05. These results indicated if the satisfaction variable (Y_1) has a positive and significant direct effect on tourist loyalty (Y_3). (3) The effect of service quality (X) on loyalty (Y_3) with C.R. of 2,243> 1,666 and a P value of 0,025 <from 0,05. Standardized regression weight or regression coefficient (λ) 0.328 <0.40 indicates a positive and weak effect (not significant) thus indicating that the service quality (X) have not a significant direct effect on the tourist loyalty (Y_3).

The SEM test showed the indirect effect (standardized indirect effect) that service quality (X) on tourist loyalty (Y_3) through (4) satisfaction has increased from 0.328 to be 0.429 with a total effect of 0.757, whereas through (5) the perceived risk has not any increase of 0,000 with the total effect still being 0.328. These results indicated that tourist satisfaction played the role of mediation in full (complete mediation) in the relationship of service quality (X) to tourist loyalty (Y_3). However, the perceived risk does not have a mediating role in the relationship of service quality (X) to tourist loyalty (Y_3).

Discussion

The service quality of Spa has a significant effect on the satisfaction of foreign tourists on Spa tourism products in Ubud. These results mean the better the quality of the service the higher consumer satisfaction. On the post-consumption of Spa services in Ubud, tourists will conduct an evaluation of the performance during the Spa service process. When the Spa performance exceeded the foreign tourist expectations , they tend to be satisfied, as mentioned in the Disconfirmation Expectation Theory (Oliver, 1980). This result was also supported by Mohajerani & Miremadi (2012), who found that service quality has a positive and significant effect on customer satisfaction in the hospitality industry on Kish Island. Similarly another research conducted by (Han & Ryu, 2009) stated the quality services of wellness tourism in building loyalty to destinations in Thailand, and (Snoj & Mumel, 2002) state the quality of Spa services to consumer satisfaction in Slovenia.

Satisfaction has a positive and significant effect on the loyalty of foreign tourists to Spa tourism products in the tourist area of Ubud. Consumer behavior will be formed through a process of cognition - affection - conation – behaviour, as a hierarchy of customer expectation (Mowen, J; Minor, 2002), that meaning when tourists have met their expectations / cognition and feel pleasure after consuming a product or service, it will have a positive effect on the intention of positive behavior also on subsequent purchases. Research by (Mohajerani & Miremadi, 2012) stated the customer satisfaction has a positive effect on increasing customer loyalty, influencing repurchase intentions and leading to positive words or Word of Mouth.

Interestingly, service quality alone did not influence the loyalty of foreign tourists. This contradicts the previous research findings (Astina, 2017; Lo et al, 2015). That the intention of loyal tourist behavior tends to be predicted as conscious intention and attitude

of tourists towards service quality as cognitive components. It may be caused by the intention of tourist behavior that will appear as a consequence when evaluating Spa services and predicting the tourists behavior in future. Tourists find it difficult to behave when faced with products or services that they have not tried. However, this study is in line with empirical studies which showed a service quality has no significant effect on customer loyalty (Hoare and Butcher,2008; Polyrat & Sophonsiri, 2010; Sandy Ny et al, 2011).

The indirect effect analysis showed a change in the effect of the quality of tourist services on the loyalty of foreign tourists by involving the satisfaction variable as a mediator. The mediating role of the satisfaction showed an increase to be 0.429. There is a positive and significant influenced of tourist satisfaction as a mediator on the effect of service quality on tourist loyalty of Spa tourism products in Ubud. The role of satisfaction (Y1) is proven to play a role as a mediator in the relationship of service quality (X) to tourist loyalty (Y3) expressed as a complete mediation variable according to Mackinnon et al., 2007). The analysis of this study is consistent with the results of empirical studies that showed if the satisfaction is a mediating variable in the relationship of service quality with customer loyalty. Astina (2017) has found that customer satisfaction can mediate the influence of the quality of services of employees on the intention of loyal behavior of foreign tourists in non-star hotels in Bali.

There is no change in the indirect effect of the service quality on the loyalty of foreign tourists by involving the perceived risk as a mediator. The perceived risk did not increase, remaining at 0,000 with the total effect still being 0.328. This indicates that perceived risk does not significantly mediate the relationship between service quality and tourist loyalty in the context of spa tourism in Ubud. This study contradicts with research conducted by (Chang & Chen, 2008) which stated that perceived risk acts as a mediator that determines the intention to repurchase (repurchase intention) for a service. One possible explanation is that tourists who have prior experience or sufficient knowledge of spa services are less likely to perceive risk. As a result, they tend to feel more confident and are less likely to worry about potential negative outcomes from spa service consumption in Ubud.. The perceived risk by the customer depends on the knowledge, previous experience and the level of risk perceived or suffered by the customer by (Bobâlcă, 2014). In case of Ubud's area, the purchase of spa services is often impulsive, driven by situational factors such as the need for relaxation after a full day of activities. Spa providers actively promote their services through direct sales and attractive brochures. This environment limits the extent of information search, leading to spontaneous (impulsive) decisions in which potential risks are often overlooked.

CONCLUSION

Based on the results of the research analysis and the results of the discussion, several conclusions can be drawn, namely: (1) service quality of Spa has a positive and significant impact on the satisfaction of foreign tourists on Spa tourism products in Ubud, (2) Satisfaction of foreign tourists has a positive and significant effect on the loyalty of foreign tourists on Spa tourism products in the tourist area of Ubud. (3) The service quality of Spa insignificantly influence the loyalty of foreign tourists to Spa tourism products in Ubud, (4) satisfaction is significantly considered as a full mediator on the influence of the service quality on the loyalty of foreign tourists on Spa tourism products in Ubud. (5)

Perceived risk did not have a significant effect as a mediator on the effect of service quality on the loyalty of foreign tourists on Spa tourism products in Ubud.

Suggestions: perceived risk was found to trigger tourist satisfaction and behavioral intentions in travel decisions. The role of perceived risk reinforces the intrinsic need of individuals in travel decisions. When tourists have a low perceived risk of Spa services, it will affect the satisfaction and intention to tourist behavior. The justification for the perceived risk is considered to be played as a moderator on the variable of tourist satisfaction on tourist loyalty in further research.

ACKNOWLEDGEMENT

REFERENCES

Anonim. (2018). *Spa & Pusat Kebugaran di Ubud*. Tripadvisor. https://www.tripadvisor.co.id/Attractions-g297701-Activities-c40-Ubud_Bali.html

Armstrong, G., Adam, S., Denize, S., & Kotler, P. (2014). *Principles of marketing*. Pearson Australia.

Astina, I Gede, N. (2017). Pengaruh Kualitas Layanan Karyawan Berbasis Kearifan Lokal Bali Terhadap Kepuasan dan Niat Perilaku Loyal Wisatawan Mancanegara Pada Hotel Non Bintang Di Bali. *Disertasi. Denpasar: Fakultas Pariwisata Universitas Udayana*.

Augusty, F. (2002). Structural equation modeling dalam penelitian manajemen. *Semarang: Fakultas Ekonomi Universitas Diponegoro*, *7*(2), 143–155.

Bitner, M. J. (1992). Servicescapes: The impact of physical surroundings on customers and employees. *Journal of Marketing*, *56*(2), 57–71. https://doi.org/https://doi.org/10.2307/1252042

Bobâlcă, C. (2014). Determinants of customer loyalty. A theoretical approach. *Journal of International Scientific Publications*, *8*(33), 995–1005. https://www.scientific-publications.net/en/article/1000454/

Boohene, R., & Agyapong, G. K. Q. (2011). Analysis of the antecedents of customer loyalty of telecommunication industry in Ghana: The case of Vodafone (Ghana). *International Business Research*, *4*(1), 229–240. https://doi.org/0.5539/ibr.v4n1p229

Chang, H. H., & Chen, S. W. (2008). The impact of online store environment cues on purchase intention: Trust and perceived risk as a mediator. *Online Information Review*, *32*(6), 818–841. https://doi.org/https://doi.org/10.1108/14684520810923953

Han, H., & Ryu, K. (2009). The roles of the physical environment, price perception, and customer satisfaction in determining customer loyalty in the restaurant industry. *Journal of Hospitality & Tourism Research*, *33*(4), 487–510. https://doi.org/10.1177/109634800934421

Jarvenpaa, S. L., Tractinsky, N., & Saarinen, L. (1999). Consumer trust in an Internet store: A cross-cultural validation. *Journal of Computer-Mediated Communication*, *5*(2), 24–32. https://doi.org/https://doi.org/10.1111/j.1083-6101.1999.tb00337.x

Lo, A., Wu, C., & Tsai, H. (2015). The impact of service quality on positive consumption emotions in resort and hotel spa experiences. *Journal of Hospitality Marketing & Management*, *24*(2), 155–179. https://doi.org/https://doi.org/10.1080/19368623.2014.885872

Maciejewski, G. (2011). The meaning of perceived risk in purchasing decisions of the Polish customers. Jurnal Ilmiah Ekonomi Alexandru Loan Cuza. *58*(1), 281–304.

MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annu. Rev. Psychol.*, *58*(1), 593–614. https://doi.org/https://doi.org/10.1146/annurev.psych.58.110405.085542

Marinkovic, V., Senic, V., Ivkov, D., Dimitrovski, D., & Bjelic, M. (2014). The antecedents of satisfaction and revisit intentions for full-service restaurants. *Marketing Intelligence & Planning*, *32*(3), 311–327. https://doi.org/https://doi.org/10.1108/MIP-01-2013-0017

Mohajerani, P., & Miremadi, A. (2012). Customer satisfaction modeling in hotel industry: A case study of Kish Island in Iran. *International Journal of Marketing Studies*, *4*(3), 134. https://doi.org/10.5539/ijms.v4n3p134

Mowen, J; Minor, M. (2002). *Prilaku Konsumen* (Jilid 1 Ed). Erlangga.

Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, *17*(4), 460–469. https://doi.org/https://doi.org/10.1177/002224378001700405

Putra, D. P. K. E., Suardana, I. W., & Dewi, L. G. L. K. (2015). Peran pengalaman Sebagai Pemoderasi Pada Pengaruh Pengetahuan Dan Sikap Wisatawan Mancanegara Terhadap Keputusan Pembelian produk wellness tourism di Kawasan Wisata Ubud, Kabupaten Gianyar. *Jurnal IPTA ISSN*, *3*(1), 61–67. https://doi.org/https://doi.org/10.24843/IPTA.2015.v03.i02

Snoj, B., & Mumel, D. (2002). The measurement of perceived differences in service quality—The case of health spas in Slovenia. *Journal of Vacation Marketing*, *8*(4), 362–379. https://doi.org/https://doi.org/10.1177/13567667020080040

Suardana, I. W. (2017). Peran Perceived Risk Sebagai Pemoderasi Hubungan Kepuasan Dan Trust Dengan Niat Berprilaku Wisatawan. *Seminar Nasional Sains Dan Teknologi (Senastek) IV*, *14*, 15.

Sugiyono, D. (2013). *Metode penelitian pendidikan pendekatan kuantitatif, kualitatif dan R&D*. Alfabeta.

Tho, N. X., Lai, M.-T., & Yan, H. (2017). The effect of perceived risk on repurchase intention and word–of–mouth in the mobile telecommunication market: A case study from Vietnam. *International Business Research*, *10*(3), 8–19. https://doi.org/10.5539/ibr.v10n3p8

Tho, N. X., & Tuu, H. H. (2012). The effect of destination image and perceived risk on intention of returning and positive WOM: A case study about visitors who visited the beach of Cua Lo, Vietnam. *Economics and Administration Review*, *4*, 54–59. doi:10.1016/j.appet.2008.04.007

Trihas, N., & Konstantarou, A. (2016). Spa-goers' characteristics, motivations, preferences and perceptions: Evidence from Elounda, Crete. *Almatourism-Journal of Tourism, Culture and Territorial Development*, *7*(14), 106–127. https://doi.org/https://doi.org/10.6092/issn.2036-5195/6300

Wahyuningsih, W. (2011). Customer value, satisfaction and behavioral intentions: The effects of consumer search behavior. *ASEAN Marketing Journal*, *3*(1), 1. https://doi.org/10.21002/amj.v3i1.2011

Widjaya, L. (2011). Spa Industry in Bali. *Guest Lecturer in Tourism Doctoral Program at Udayana University*.

Yilmaz, Y. (2010). SPA INDUSTRY IN TOURISM STRUCTURE. *Valéria Talarovičová Julia Holzner Yildirim Yilmaz Daniela Matušíková*.

AUTHOR PROFILE

Dewa Putu Kiskenda

Dewa Putu Kiskenda Erwanda Putra S.Par., M.Par. ORCHID ID 0009-0002-5544-9502. Currently as Lecturer in Tourism Bachelor Majority at Institut Pariwisata dan Bisnis Internasional. Reseacrh interest in Developing and planning in Tourism destination and Wellness Tourism.

AA Suryawan Wiranatha

Dr. Ir. AA Suryawan Wiranatha, M.Sc., Ph.D. ORCID ID 0000-0001-7349-8151. Currently as head of Research Centre for Culture and Tourism. Udayana University. The research interests in The sustainable Tourism development, tourism planning and policy; green tourism and the implementation of system approach in tourism research.

93

JKi

ECOSYSTEM MODEL OF TOURISM VILLAGE IN URBAN AREA: CASE STUDY OF DENPASAR CITY, BALI

Ni Ketut Arismayanti[1]*, I Gde Pitana[2]

[1]Faculty of Tourism, Udayana University, Indonesia
[2]Faculty of Agriculture, Udayana University, Indonesia

*Correspondence: arismayanti_pariwisata@unud.ac.id

Article Info	Abstract
	Tourism villages in urban areas are a one-of-a-kind and rare product in the midst of the city's hustle and bustle and high mobility. Denpasar City has six tourism villages: Serangan, Sanur Kauh, Kertalangu, Sanur Kaja, Penatih, and Sanur; however, the development of tourism villages has fallen far short of expectations and failed to serve as a model for other tourism villages. The primary barrier to inclusive and sustainable development is a lack of stakeholder participation and collaboration. Creating a sustainable tourism village ecosystem model is critical for managing resources, empowering communities, and increasing regional appeal and income through collaboration and innovation. The purpose of this study is to create a tourism village ecosystem model and clarify the roles of the actors involved. Based on the existing model, obstacles to tourism village development can be identified, with the goal of designing an ideal model that can be used as a reference for other tourism villages. The tourism village ecosystem model in Denpasar City emphasizes collaboration among various actors to create mutually beneficial synergies, focusing on improving tourist experience quality, preserving culture and the environment, and improving local community welfare. Tourism villages in urban areas provide uniqueness by integrating local cultural elements and city dynamics, allowing them to serve as alternative tourist destinations. These tourism villages have the potential to serve as role models for the development of tourism in other urban areas by focusing on sustainability and community empowerment.

How to cite:

INTRODUCTION

Given the growing urban population, urban transformation toward global sustainable development is imperative (Kennedy et al., 2015; Ernst et al., 2016; Ma et al., 2018). This is following the Sustainable Development Goals (SDGs) established by the United Nations, which are designed to develop sustainable, resilient, inclusive, and safe urban settlements (https://sdgs.un.org/goals). The success of tourism development in a tourist destination is determined by the role and participation of tourism stakeholders in the area (Amerta, 2017).

A tourism village is defined as a rural area that provides a whole atmosphere that reflects the authenticity of the countryside, such as the layout, architecture of the buildings, the pattern of social and cultural life of society, and everyday customs (Amerta, 2017). Tourism villages are rural areas designed as tourist destinations, emphasizing cultural and natural attractions and providing unique experiences that allow tourists to participate in the daily lives of local communities. A tourism village is a village with a distinct identity that can be used as a tourist travel destination, i.e., a journey for knowledge and pleasure (Nurvianti & Hastuti, 2021; Wijaya, 2021; Salouw & Pramono, 2022). Rural tourism is a profitable development strategy for many destinations because of the economic and social benefits it can generate, not only for rural areas but also for the entire tourism destination (Farmaki, 2016).

Improving the performance of socioeconomic indicators can help reduce income disparities and improve community welfare, thereby supporting long-term development. People from villages typically migrate to cities in search of higher income opportunities. Meanwhile, in cities, the income disparity between residents is expected to grow (Sertyesilisik, 2023). Push factors include limited economic opportunities, low wages, poverty, and inadequate access to essential services like healthcare and education. Environmental issues and resource scarcity also compel individuals to seek better prospects in cities. Conversely, pull factors consist of greater job availability, higher wages, and improved access to education and healthcare, as well as enhanced social benefits.

The proximity to major tourist attractions is a significant advantage for the village's development into a tourism village (Arintoko et al., 2020). Tourism villages located in urban areas offer both opportunities and challenges. Tourism villages are areas associated with the region and various local wisdoms (customs, culture, and resources) managed as tourist attractions supporting the village community's social and economic goals. Local wisdom is a characteristic of a specific community or culture that has evolved over time, has been passed down from generation to generation, and is owned and operated as a result of the reciprocal relationship between the population and their environment.

Regulation of the Minister of Culture and Tourism Number 26 of 2010 outlines the definition of a tourism village as a form of integration between attractions, accommodations, and supporting facilities presented in a community life structure integrated with applicable procedures and traditions. The success of a tourism village is greatly influenced by the tourist attractions it has, the activities it designs, the location and ease of accessibility, governance and management of the tourism village, support from village officials, figures, tourism actors and the local community, as well as the ecosystem of the tourism village that allows economic activities to run well. Currently, the number and quality of tourism villages in Indonesia are skyrocketing. Various appreciations are held and given to spur creativity in developing tourism villages. The number of tourism

Ecosystem Model of Tourism Village in Urban Area: Case Study of Denpasar City, Bali
Arismayanti & Pitana. (2025)

Jki

villages in Bali continues to increase year by year. In 2018, there were 154 tourism villages recorded (Arismayanti et al., 2019), 179 in 2021, and has now reached 246 tourism villages (Bali Tourism Office, 2024); (https://disparda.baliprov.go.id/) spread across the regencies/cities in Bali. By virtue of the Decree of the Mayor of Denpasar Number 188.45/472/HK/2015, the number of tourism villages in Denpasar City is six tourism villages (2.44%) with a developing category (Bali Tourism Office, 2024); (https://disparda.baliprov.go.id/).

Denpasar Municipality has a total area of 125.97 km² and consists of 4 sub-districts, with the largest sub-district being South Denpasar (49.89 km²). The presence of tourism villages in urban areas such as Denpasar is unusual and intriguing. Given the numerous problems associated with tourism villages in Bali's regencies, such as difficult accessibility, limited infrastructure and marketing, human resource capabilities, and a variety of other issues. It appears that problems are also encountered in cities that should not be constrained by these problems. Furthermore, tourism villages in urban areas must be able to integrate traditional and modern elements in an urban setting. This concept enables visitors to experience authentic local culture without traveling far from the city center.

Denpasar is Bali Province's capital city, with a population of 673,270 people in 2024, divided into four sub-districts: West Denpasar (28.42%), South Denpasar (27.74%), North Denpasar (25.57%), and East Denpasar (18.22%) (Indonesia Statistics Denpasar City, 2025). Denpasar City has only six tourism villages, which are spread across two of its four subdistricts. South Denpasar District has four tourism villages (Serangan, Sanur Kauh, Sanur, and Sanur Kaja), while East Denpasar District has two (Kertalangu and Penatih). Figure 1 shows the location of each tourist village.
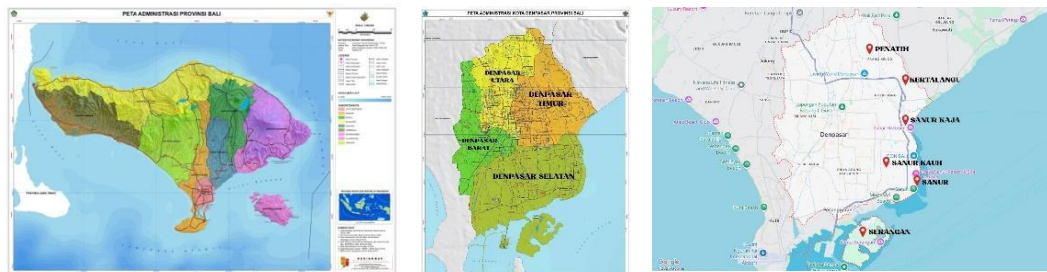
Figure 1. The Location of Tourism Villages in Denpasar City
Sources https://petatematikindo.wordpress.com/wp-content/uploads/2013/03/administrasi-bali-a1-1.jpg;
https://images.app.goo.gl/pGxUjNgfBcCE7Tc57;
https://maps.app.goo.gl/bPTEko3ymJcZi4ky6?g_st=com.google.maps.preview.copy

However, the development of tourism villages in Denpasar City has fallen significantly short of expectations, and it has failed to serve as a model for the development of tourism villages in other parts of Bali. Tourism development provides a new impetus for revitalizing traditional villages and can help guide the harmonious integration of modernity and tradition in rural areas (Wu & Xu, 2017). When developing a tourism village, the ecosystem is required as a product based on local potential. The tourism business ecosystem framework includes connections and collaborations among the various entities involved in the business. In the twenty-first century, collaborative business ecosystems have grown and expanded (Graça & Camarinha-Matos, 2017); (Tsou et al., 2019). The tourism village ecosystem is critical for the development of tourism villages because it has a significant impact on activity efficiency and effectiveness, convenience, competitive pricing, and

healthy business competition. Building a tourism village ecosystem is critical to achieving the goals of developing tourism villages because it promotes local economic empowerment, increases community income through tourism services, and preserves the environment, culture, and existing traditions. The tourism village ecosystem comprises interconnected businesses working together to create a system that provides value to customers. Understanding the dynamics of this ecosystem can provide essential insights for the organizations involved.

Stakeholder theory emphasizes the link between stakeholders' interests and business success. In this context, stakeholders are defined as individuals or groups influencing or impacting an organization's goals and activities (Freeman, 1984). This theory contends that the success of sustainable development necessitates considering the interests and perceptions of all stakeholders (Byrd, 2007). As a result, understanding these dynamics is critical to achieving the best outcomes for all parties involved. Control and coordination, collaboration and integration, clarity of roles and responsibilities, communication, and a focus on access and inclusion are all necessary for effective stakeholder collaboration to enable accessible tourism (Nyanjom et al., 2018). Roles are shared conceptions within a community, and changes in role understanding may indicate changes in the interactions and relationships between community members (Wittmayer et al., 2017). The concept of roles creates a shared reality to which actors can refer and provides a link to 'regularities in the cultural environment' (Lynch, 2007; Wittmayer et al., 2017). According to this viewpoint, a role is a collection of recognizable activities and attitudes used by an actor to deal with recurring situations. This implies that roles can be defined as ideal types, but they are socially constructed and thus subject to negotiation and change.

The problems in this study are as follows: 1) What is the model of the tourism village ecosystem in Denpasar City? 2) Who are the actors involved, and what roles do they play in Denpasar City's tourism village ecosystem? This study aims to create a model of a tourism village ecosystem and emphasize the role of the actors involved in overcoming the challenges that tourism villages face. This study adds to the ecosystem literature by developing a model of a tourism village ecosystem that can be applied to tourism villages. Based on the existing model, obstacles to tourism village development can be identified, with the goal of designing an ideal tourism village model that can be used as a reference for stakeholders and tourism villages. Because conceptual and empirical research on tourism village ecosystems is still limited, this study is expected to provide new insights into collaboration management as well as significant theoretical and managerial implications from the standpoint of a tourism village ecosystem.

Locally located stakeholders, such as farmers, suppliers, marketers, artists, and craftsmen, can play an active role with local governments to create value for consumers and thereby make the initiative innovative and sustainable (Billore, 2018). Ecosystems have different governance systems and coordination mechanisms, which are considered as cooperation (Rong et al., 2015). Tourism needs to respond appropriately to two main things: the tourism ecosystem that is not yet integrated, and the use of technology in tourism that is not yet optimal. In order to ensure integration in the tourism ecosystem, it is done through synergy efforts between stakeholders and by combining the diversity of types of tourism and policies, so as to produce an integrated tourism ecosystem (Yudhoyono et al., 2021).

Ecosystem Model of Tourism Village in Urban Area: Case Study of Denpasar City, Bali
Arismayanti & Pitana. (2025)

Jki

There are four levels of tourism villages, as indicated by Aliyah et al. (2020), when mapped: 1) Pioneering, which still has potential but has received no tourist visits. Furthermore, the facilities and infrastructure are still significantly limited, with the level of public awareness not yet increasing; 2) Developing, which means that, while it is still a potential, it has begun to be considered for future development. 3) Advanced, which means that the community is already aware of tourism and has demonstrated that they can manage tourism businesses, including the use of village funds to develop tourism potential. Many tourists, including those from abroad, have visited the area. 4) Independent, which means that there is already tourism innovation in the community, and tourist destinations have been recognized globally with standardized facilities and infrastructure. In addition, the management is a collaborative pentahelix. Denpasar City's tourism villages are currently in the developing category, which means they attract tourists from outside the region and have a high level of appeal. Good facilities and infrastructure, such as housing, transportation, and support services, have created job opportunities for residents. The public is becoming more aware of tourism's potential and actively participates in management and skill-building programs. Sustainable practices are used to protect the local environment and culture, as well as effective marketing to attract more visitors.

Although numerous studies have been conducted on tourist villages, there are several significant gaps that must be addressed. First, research tends to focus on rural areas, whereas the challenges and opportunities of tourism villages in urban areas, such as Denpasar City, have received insufficient attention. Second, the understanding of stakeholder collaboration in developing tourism villages remains limited. Third, no comprehensive and well-measured ecosystem models are designed specifically for urban contexts. Limitations in the application of innovation highlight the need for additional research to develop a more comprehensive and practical approach to developing tourism villages in urban environments.

METHODOLOGY

This study was conducted in 2024 in all tourism villages in Denpasar City, including Serangan, Sanur Kauh, Kertalangu, Sanur Kaja, Penatih, and Sanur Village. Data were collected through observation, interviews, Focus Group Discussion (FGD), and ISM questionnaire distribution. The study began with interviews and FGDs to explore the elements of each factor, followed by the next FGD by filling out the questionnaire elements in each factor using the respondent determination technique with purposive sampling of 17 respondents, namely stakeholders in six tourism villages in Denpasar City (each tourism village groups/village officials/community leaders/community business managers).

In addition, the FGD and questionnaire were also filled out by representatives of the Bali Provincial Tourism Office, Denpasar City Tourism Office, Chairperson of the Bali Provincial Communication Forum, Academics, Media, WWF Representatives, Chairperson of the Bali Tour Guide Association, and Chairperson of the Bali Travel Agency Association. The types of data used in this study are qualitative and quantitative data. The data sources are primary and secondary data. This study uses Interpretive Structural Modelling (ISM) data analysis techniques and qualitative descriptive methods.

This study examines the tourism village ecosystem model through a systematic application of elementary graph theory. It uses its theoretical, conceptual, and computational advantages to explain the conceptual relationships between elements (Attri

et al., 2013; Darmawan, 2017). There are six steps to developing the ISM model: 1) Structural Self-Interaction Matrix (SSIM), 2) Reachability Matrix, 3) Level partitions, 4) Conical Matrix, 5) Digraph, and 6) ISM Model.

This study employs seven factors: the community sector affected by the program, the needs of the program implementation, the main obstacles to the program, the program's objectives, the changes enabled by the program, the institutions involved in the program implementation, and the program's success benchmarks. All factors are examined to identify the key components, which are then used to build a structural model.

FINDINGS AND DISCUSSION

1. Tourism Village in Denpasar City

Denpasar City is the capital of Bali Province and serves as the center of government, economy, and culture. Although often considered a gateway to other tourist destinations in Bali. Denpasar has several interesting tourist attractions for visitors. The tourism village of Sanur, located on the east coast of Bali, is known as one of the most popular tourist destinations in Bali, offering beautiful white sandy beaches and a peaceful atmosphere. Sanur Beach is famous for its long bicycle and pedestrian paths, which are ideal for leisurely activities such as walking, jogging, or cycling. In addition, the Sanur art market provides handicrafts, artwork, and typical Balinese food, while cultural performances and water sports activities, such as snorkeling and surfing, further enrich the tourist experience.

The tourism village of Sanur Kauh, which is a part of Sanur, provides a tranquil village atmosphere, a rich cultural heritage, and stunning natural beauty. In the context of agrotourism, Sanur Kauh offers visitors the opportunity to engage in educational workshops on sustainable farming practices and learn about organic farming at local gardens. Visitors can observe and experience local culture firsthand, as the local community is actively involved in preserving traditions and culture through various traditional ceremonies. Handicrafts, including traditional textiles and bamboo weaving, are also tourist attractions that facilitate interaction between craftsmen and tourists.

Sanur Kaja, situated in the northern region of Sanur, is distinguished by its rural atmosphere. The local community in this area continues to uphold the traditions and customs of Bali. The cultural park in Sanur Kaja is frequently utilized for community activities, festivals, and art performances, serving as a focal point for individuals to convene to commemorate traditional events. Furthermore, there are numerous temples in this region that serve as spiritual hubs, providing tourists with the opportunity to observe religious ceremonies that are frequently conducted. The community and tourists are also involved in environmental conservation activities, such as beach cleaning and tree planting, which raise awareness of the significance of sustainability.

Kertalangu is an example of a cultural village that combines agriculture and tourism, with a focus on preserving Balinese culture and providing educational opportunities for visitors. Kertalangu Agrotourism allows visitors to participate in agricultural activities such as planting rice and harvesting garden produce while learning about traditional farming techniques. In addition, the village frequently hosts arts and crafts workshops where visitors can learn how to make traditional products. Culinary tourism in Kertalangu also provides tourists with a rich gastronomic experience by serving local cuisine made from fresh ingredients.

Ecosystem Model of Tourism Village in Urban Area: Case Study of Denpasar City, Bali
Arismayanti & Pitana. (2025)

Jki

In Penatih, the community is deeply dedicated to the preservation of Balinese cultural heritage, and the town is replete with tradition and culture. There are several historic temples in Penatih where religious ceremonies are frequently held, allowing visitors to learn about the temples' meaning and function in the lives of the locals. Quality handicrafts, such as weaving, carving, and jewelry, are among the attractions, with visitors able to purchase products directly from the artisans. Furthermore, various festivals and cultural events held throughout the year allow visitors to interact with the local community and experience daily life.

Serangan, a fishing village with strong cultural traditions, is situated on a small island near Denpasar. Visitors to Serangan may engage in marine tourism activities, including snorkeling, diving, and fishing, in the crystal-clear waters surrounding the area. Traditional dance and music are frequently featured in cultural events organized by the Serangan community, which offer a glimpse into the local culture. The village also offers visitors the opportunity to participate in environmental conservation activities, such as programs that protect coral reefs and turtles. The culinary traditions of the local fishermen community are reflected in the authentic local flavors offered by culinary tourism in Serangan.

In general, each of the six tourism villages in Denpasar City provides a distinctive and culturally significant tourism experience. Visitors can directly experience the cultural richness and natural beauty of Bali through a variety of activities and attractions that involve local communities. In addition to contributing to the preservation of culture and the environment, these villages also empower local communities, thereby establishing a sustainable tourism ecosystem. Additionally, they serve as tourist destinations. All tourism villages in Denpasar City are classified as "developing" by the Bali Provincial Tourism Office, indicating that they still have potential but are being considered for further development.

2. Tourism Village Ecosystem Model

The ecosystem model includes multiple factors in each element that interact with one another. These elements were explored through focus group discussions with related stakeholders who participated in this study. Table 1 shows the factors used in this study.

Table 1. Factors and Program Elements

Factors	Elements
Affected community sectors	Local communities, tourism village managers, government, local community institutions/organizations, community leaders, Micro, Small and Medium Enterprises (MSMEs), academics, media, travel agencies, Non-Governmental Organizations (NGOs), suppliers, security officers, and tourism organizations.
Needs for program implementation	Stakeholder commitment and support, tourism village governance and management, stakeholder roles and active participation, training and education, competent human resources, business capital, cleanliness, waste management, accessibility, supporting infrastructure and facilities, marketing, coaching, and mentoring.
Main program constraints	Lack of stakeholder commitment, lack of proper governance, lack of participation, need for training, incompetent human resources, need for capital, lack of cleanliness, less than optimal waste management, lack of accessibility, limited infrastructure and facilities, lack of coaching.

Program objectives	Increased income and welfare, village economic growth, additional employment opportunities, community empowerment, preservation of culture and environment, increased tourist visits, good governance, improved quality of human resources, availability of infrastructure and facilities, accessibility, cleanliness.
Possible changes	Stakeholder synergy, product innovation, increasing community participation, increasing employment opportunities, increasing visits, increasing income, competent human resources, better management, increasing access, infrastructure and facilities, cleanliness, and tourism villages are increasingly well-known.
Institutions involved	Central government (Ministry of Tourism); local government; traditional institutions; tourism village managers; suppliers; travel agencies; tourism industry; MSMEs; *BUMDes* (Village-owned Enterprises)/village cooperatives; universities; media.
Measures of success	Sustainability of culture, nature, and the environment; comfortable and clean tourism villages; increasing employment opportunities; increasing income; increasing the number of MSMEs; increasing industry profits; community welfare; repeat visits; professional services; good waste management; sustainable development.

Source: Research data, 2025

Based on data analysis with ISM (attached), key elements are generated in each factor, which serve as the primary drivers in identifying complex relationships and hierarchies between elements in a system. The main components of each factor are:

Table 2. Factors and Key Elements

Factors	Key Elements
Affected community sectors	E4: local community institutions/organizations (traditional villages, traditional hamlets, *subak*, fishermen groups, youth groups, and others).
Needs for program implementation	E1: commitment and support of stakeholders in advancing the village.
Main program constraints	E2: governance and management of tourism villages.
Program objectives	E3: role and active participation of stakeholders in developing tourism villages.
Possible changes	E1: lack of commitment and support of stakeholders in advancing the village.
Institutions involved	E5: preservation of culture, nature, and the environment.
Measures of success	E6: increasing tourist visits.

Source: Research data, 2025

Based on the ISM analysis stages, a concept was produced that describes the collaboration between twelve stakeholders (Dedoca Helix) in the tourism village ecosystem, emphasizing that local community institutions/organizations (traditional villages, traditional *banjar, subak*, fishermen groups, youth groups, and others) are key elements of the affected community sector, namely the involvement of these institutions/organizations is crucial to ensure that the development. Success in developing tourism villages necessitates commitment and support, improved governance and management of tourism villages, and the active participation of stakeholders in the development process. The development of tourism villages is expected to protect culture, nature, and the environment, which are tourism villages' main assets. Furthermore, the

Ecosystem Model of Tourism Village in Urban Area: Case Study of Denpasar City, Bali
Arismayanti & Pitana. (2025)

Jki

development of tourism activities to create tourist experiences and the innovation of tourism products are essential for attracting tourists to tourism villages and distinguishing one from another.
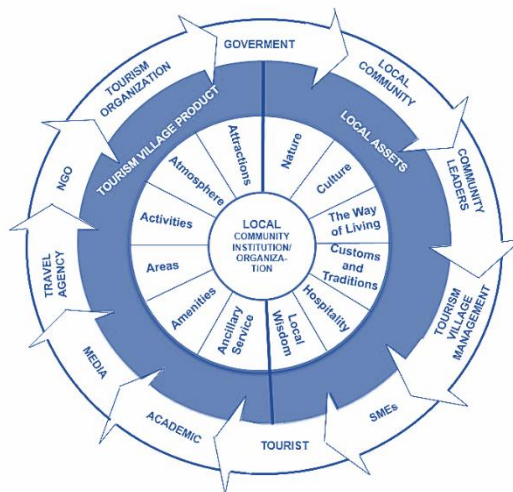
Figure 2. Dedoca Helix Tourism Village Ecosystem Model

The center and driving elements of local assets and products in tourism villages are traditional villages, traditional hamlets, *subak*, fishermen groups, youth groups, and other local community institutions/organizations, which are determined by the potential and needs of the community. In order to ensure sustainability, it is imperative to preserve the village's assets, including nature, culture, way of life, customs and traditions, hospitality, and existing local wisdom. In the interim, the development of tourism villages can be further facilitated by developing tourism village products (6A: Attractions, Atmosphere, Activities, Areas, Amenities, and Ancillary services), as they offer direct benefits and empower local communities. Tourism village products necessitate the support of ecosystem components, including the government, local communities, community leaders, tourism village managers, MSMEs, tourists, academics, media, travel agencies, NGOs, and tourism organizations. Each of these entities must possess, comprehend, and execute their respective responsibilities to facilitate tourism villages' sustainability.

The Dodeca Helix ecosystem model presents an innovative strategic approach to tourism village development, emphasizing synergies between stakeholders, including government, communities, and the private sector. Within this framework, government control serves as an essential mechanism to ensure regulatory compliance and promote the long-term sustainability of tourism initiatives. Analysis shows that the synergies created can expand the variety of products offered by MSMEs. This product diversification not only increases the attractiveness of tourism villages but also has the potential to increase local income significantly. Improving the quality of tourist experiences is a key indicator; positive experiences not only encourage repeat visits but also generate word-of-mouth promotion, which is highly valuable in the tourism industry.

The aspect of preserving culture and the environment is a central element in this model. The success of sustainable tourism lies in the ability to maintain and respect cultural heritage and local ecosystems. By involving communities in decision-making, the Dodeca Helix model ensures that local values are integrated into every development aspect. Strong

stakeholder collaboration creates a support network essential in overcoming development challenges, such as conflicts of interest and unsustainable resource management. Research shows that collective commitment can optimize resources and strengthen the competitiveness of tourism villages. The Dodeca Helix model can ensure the sustainability of the tourism village ecosystem while contributing significantly to improving the welfare of local communities. With an integrated approach and a focus on collaboration, tourism villages can develop into attractive and sustainable destinations for future generations, providing substantial economic benefits and preserving valuable culture.

3. Actors Involved and Their Roles in the Tourism Village Ecosystem

Many parties must collaborate to implement and revitalize tourism villages that are part of a broader system in developing tourism villages. To date, the inadequacy of the governance and management of tourism villages in Denpasar City, the lack of involvement in the development of tourism villages, the ignorance of the roles and positions that should be performed in formal and informal organizational structures, the commitment to the development and management of tourism villages, the availability of time for actors who should be involved, and the limited budget available have prevented all parts/subsystems of tourism villages from fulfilling their full potential. The following individuals are engaged as agents of change and progress in the tourism villages of Denpasar City: local communities, tourism village managers, government, local community organizations, community leaders, MSMEs, tourists, academics, media, travel agencies, NGOs, and tourism organizations.

1) The Role of Local Community Institutions/Organizations

Local Community Institutions/Organizations play an important role in developing tourism villages, particularly in terms of cultural preservation, resource management, community empowerment, and decision-making. Cultural and traditional preservation is done by preserving the culture, customs, and traditions of tourist attractions. This organization educates and trains the younger generation about local culture while organizing festivals, ceremonies, and cultural events for tourists. Art and craft performances are also held to introduce local traditions. They can also manage natural resources because they have extensive local knowledge of sustainable natural resource management. They can promote environmentally friendly agricultural practices and advocacy for environmental protection and biodiversity, both of which are integral to indigenous peoples' cultural identity. Furthermore, economic empowerment is done by encouraging indigenous peoples to start small businesses, such as homestays and restaurants, which can provide alternative income. They can help market local products to tourists and form partnerships with the government and NGOs to increase market access for local businesses. Local community institutions/organizations can be decision makers, advocates, and protectors of indigenous peoples' rights to land, resources, and culture. They can ensure community participation in decisions that affect their lives and educate community members on their legal rights. Lastly, collaboration and networking are conducted by collaborating with local, national, and international organizations to strengthen indigenous communities' positions in tourism village development. They can attend forums and conferences to share their experiences and best practices, as well as

Ecosystem Model of Tourism Village in Urban Area: Case Study of Denpasar City, Bali
Arismayanti & Pitana. (2025)

Jki

conduct research and advocacy with NGOs and academics. These organizations can help indigenous communities maintain their uniqueness and cultural richness.

2) The Role of Local Communities

The success and sustainability of the initiative are based on the participation of local communities in the development of tourism villages, highlighting their crucial role. One of them is economic empowerment, which enables communities to capitalize on opportunities to establish local businesses, including homestays, restaurants, and handicraft stalls, as well as to generate new employment opportunities in the tourism sector, including local tour guides, service businesses, and MSMEs. Next, preservation of culture and tradition through organizing festivals, art performances, and traditional events, as well as participating in preserving traditions and the arts. Local communities can also provide visitors with information about the culture and history of their area by serving as tour guides. Furthermore, they can manage sustainable practices in natural resource management, such as water conservation and waste management, implemented by communities. Communities can actively participate in the planning and decision-making process to express their needs. Local needs must be considered through active participation in all stages of development, from planning to evaluation. The next is capacity building - communities can participate in skills training in tourism management and customer service. Regarding product and service innovation, the community can innovate in the development of tourism products and services that reflect local culture. The community can promote the village through social media as tourism ambassadors, and the community can provide feedback on the impact of tourism village development and monitor projects to ensure sustainability by conducting monitoring and evaluation. It is essential to involve the local community to guarantee that tourism initiatives yield tangible advantages for the community. The development of sustainable tourism villages is contingent upon the active participation and support of local communities, which is a source of pride for the local community.

3) The Role of Community Leaders

Community leaders contribute significantly to the development of tourism villages through their influence, leadership, and reputation within the community. They serve as leaders and motivators who inspire residents to actively participate in tourism development. By organizing meetings and events to discuss development plans, they help mobilize the community and also represent its interests in discussions with the government and other stakeholders involved in tourism projects. In addition, community leaders act as mediators and communicators, serving as liaisons between the community and entities such as the government, NGOs, and the private sector. They convey the community's needs and aspirations, while also educating residents about the benefits and challenges of tourism, as well as the importance of cultural and environmental preservation. They also play a vital role in preserving culture and tradition by encouraging the community to maintain local customs and wisdom that hold tourism potential. These leaders often organize cultural events and festivals that showcase local arts and crafts, while also teaching younger generations about the value of cultural heritage. Moreover, they support economic empowerment by motivating the community to develop small tourism-related businesses,

such as homestays and restaurants. They assist in creating local products and help secure funding or capital needed to launch these ventures. Finally, community leaders are involved in monitoring and evaluating tourism village development projects to ensure they align with community goals and do not cause harm. They collect feedback on tourism's impact and compile reports that can inform future improvements. Overall, community leaders play an essential role in the growth of tourism villages by providing leadership, encouraging participation, fostering communication, preserving culture, supporting economic initiatives, and overseeing progress.

4) The Role of Tourism Village Managers

Tourism village managers play a vital role in the development and management of local tourist destinations, significantly influencing their growth and sustainability. Their responsibilities span various key aspects, starting with the collection and management of data on tourist visits and local attractions. It is essential for tourism village managers to keep records of all visits, including those previously unrecorded, especially since several tourism villages in Denpasar City are already tourist destinations with often unclear boundaries. In addition, accurate data on village potential is crucial for evaluation purposes and serves as the foundation for developing tourism village products. Another critical role involves strategic planning, where managers are expected to formulate visions, missions, and long-term goals. They identify tourism potential within the village, oversee infrastructure development, and ensure that available facilities meet established quality standards for tourists. Promotion and marketing are also central to their duties. Managers strive to attract visitors by utilizing social media and digital platforms, participating in tourism exhibitions, crafting a unique village identity, and providing comprehensive tourist information. Furthermore, tourism village managers oversee sustainable resource management. This includes promoting environmentally responsible practices, preserving local culture and traditions, and supporting MSMEs in developing tourism products. Through these efforts, they can also contribute to local job creation. Education and training are equally important, as managers help build the community's capacity in tourism management and customer service. They also raise awareness about the importance of preserving cultural heritage and help ensure tourists are well-informed about local traditions. Lastly, managers are responsible for monitoring and evaluating service quality to enhance the overall tourist experience. They gather feedback to support continuous improvement and prepare reports detailing the economic, social, and environmental impacts of tourism in the village. In summary, tourism village managers play a central role in driving long-term development and improving the well-being of local communities. Their active engagement in planning, promotion, resource stewardship, education, and evaluation is essential to achieving sustainable tourism objectives.

5) The Role of Micro, Small and Medium Enterprises (MSMEs)

MSMEs significantly contribute to improving the local economy, creating jobs, and preserving cultural heritage within tourism villages. One of their primary roles is economic empowerment, as they provide products and services needed by tourists, thereby increasing the local community's income. Through tourism-related businesses, residents—such as farmers and fishermen—can diversify their income sources beyond their primary professions. MSMEs also create employment opportunities for local residents, empower

Ecosystem Model of Tourism Village in Urban Area: Case Study of Denpasar City, Bali
Arismayanti & Pitana. (2025)

Jki

local workers, and enhance their skills. In terms of product and service development, MSMEs produce local handicrafts and culinary specialties that reflect the region's cultural identity. They also offer accommodation services such as homestays and curate tour packages that facilitate meaningful interaction between tourists and the local community, offering authentic and memorable experiences. MSMEs further play a key role in cultural preservation by embedding local traditions and customs into their offerings. They often take part in organizing festivals and cultural events, share insights with tourists about local heritage, and help educate the community on the value of safeguarding their culture. Moreover, innovation and creativity are central to the growth of MSMEs in the tourism sector. They contribute by developing unique tourism services—such as ecotourism and adventure tourism—and by offering products that are both competitive and aligned with market trends and tourist preferences. This adaptability increases the overall appeal of tourism villages. Collaboration and networking are also crucial aspects of their contribution. MSMEs often work with government bodies and NGOs to receive support in business development. By building partnerships with other MSMEs, they foster mutual support, promote their products collectively, and take part in exhibitions or bazaars to boost visibility and attract more visitors. With the right support and ecosystem, MSMEs can serve as the main driver of sustainable tourism development. Their involvement enhances economic welfare while also strengthening the community's cultural and social identity, ultimately benefiting both local residents and tourists alike.

6) The Role of Tourists

The development of tourism villages is strongly influenced by tourists, who play a significant role across economic, social, and environmental dimensions. Economically, tourists contribute by purchasing local products and services, which stimulates the village economy. This not only generates income for small businesses and the community but also creates jobs and supports the growth of local enterprises. Tourism can also play a pivotal role in preserving local traditions and culture. Environmentally conscious tourists may actively participate in conservation efforts and support initiatives aimed at preserving both cultural heritage and the natural environment. Another important contribution lies in education and awareness. Tourists who practice responsible behavior help raise awareness about the importance of preserving culture and the environment. Their actions—such as maintaining cleanliness and respecting local customs—can set positive examples and inspire both visitors and locals alike. Moreover, tourists act as promoters and marketers by becoming informal ambassadors of the destination. Through positive reviews on social media, travel platforms, blogs, and vlogs, they can share their experiences and attract more visitors. Some even engage in local marketing campaigns, boosting the visibility of tourism villages. Their feedback is also valuable, providing communities and entrepreneurs with insights that help improve services and tailor offerings to meet visitor expectations more effectively. Beyond that, tourism fosters meaningful social interaction between visitors and local communities. These interactions create opportunities for cultural exchange that enrich the experiences of both parties. Tourist visits can promote intercultural understanding and tolerance, and even extend to participation in volunteer programs that benefit the community. In essence, tourists play a multifaceted role in the development of tourism villages. When they act as responsible and engaged visitors, they contribute to sustainability and bring positive impacts to local communities. Their active participation is

crucial in ensuring that tourism village development results in mutual benefits for everyone involved.

7) The Role of Academics

Academics play a vital role in the development of tourism villages through a range of activities, including research, education, and community service. Their involvement begins with research and the advancement of knowledge related to tourism trends and challenges. By offering data-driven recommendations, academics help design successful and sustainable tourism village development models and assess the social and economic impacts of tourism on local communities. In the field of education and training, academics contribute by enhancing the skills of both local communities and tourism managers. This includes integrating sustainable tourism topics into higher education curricula and conducting outreach on best practices in tourism development and cultural preservation. Their role also extends to consultation and community service. Academics often serve as consultants for government agencies or organizations involved in planning tourism village projects. In addition, they participate in community service programs aimed at empowering communities through tourism-based initiatives. Another key contribution is the evaluation of tourism's impact on both communities and the environment. Academics develop methodologies to measure outcomes and educate stakeholders about sustainable tourism management, offering data-informed policy recommendations to guide responsible development. In terms of promotion and marketing, they conduct market analyses that help tourism villages design effective marketing strategies. Academics also foster collaboration by building networks between universities, government institutions, and tourism industry players to facilitate the exchange of information and best practices. Lastly, they engage in continuous monitoring and evaluation of tourism village development to ensure its sustainability. Their assessments provide valuable recommendations for improvement and help track progress over time. Through their expertise and active involvement, academics serve as key partners in the advancement of tourism villages, ensuring that development is thoughtful, sustainable, and beneficial to all stakeholders.

8) The Role of Media

The media plays a crucial role in the development of tourism villages by disseminating information, promoting destinations, and raising awareness about the importance of sustainable tourism. One of its key contributions is in promotion and marketing, where tourism villages are showcased through articles, vlogs, and social media content. This exposure boosts visibility and helps attract the interest of potential tourists by highlighting unique attractions, engaging activities, and available facilities. Beyond promotion, the media also contributes to education and awareness by informing both communities and tourists about tourism-related issues. These include the importance of adopting sustainable practices and understanding the environmental and cultural impact of tourism. Campaigns aimed at environmental preservation and promoting social responsibility among tourists can be effectively delivered through various media platforms. Positive coverage of tourism villages further helps shape a favorable public image. By emphasizing natural beauty, cultural richness, and local values, the media plays a part in crafting compelling narratives that pique the curiosity and interest of travelers. In addition,

Ecosystem Model of Tourism Village in Urban Area: Case Study of Denpasar City, Bali
Arismayanti & Pitana. (2025)

JKi

the media facilitates networking and collaboration among local communities, government bodies, NGOs, and tourism industry players. Through partnerships, it can support the promotion of policies and programs that contribute to the growth and sustainability of tourism villages. The role of the media also includes monitoring and evaluation by collecting feedback from tourists through surveys, reviews, and digital engagement. This information can be analyzed to identify trends, strengths, and areas for improvement, helping villages enhance their services and offerings. Lastly, through consistent and positive coverage, the media aids in shaping a strong identity and brand for tourism villages. By telling unique stories and celebrating local traditions, the media entices tourists through storytelling, giving each village a distinct voice and appeal. Overall, the media plays an indispensable role in attracting visitors, promoting sustainable tourism, and empowering local communities—making it a powerful ally in the development of tourism villages.

9) The Role of Travel Agencies

Travel agencies are instrumental in the growth of tourism villages, particularly through their role in promoting destinations, organizing excursions, and creating memorable tourist experiences. One of their key contributions is in marketing and promotion, where they develop attractive tour packages that include local activities, homestays, and village attractions. Through promotional materials, websites, and social media campaigns, travel agencies can effectively target potential tourists. They also help build a positive identity for tourism villages by emphasizing the uniqueness of local culture and the surrounding environment. Beyond promotion, travel agencies are essential in organizing trips by designing itineraries that offer a diverse range of activities and points of interest. These itineraries ensure that tourists enjoy a well-rounded experience while also providing them with valuable information about the village's culture, traditions, and attractions. Another important role involves arranging homestay accommodations, giving tourists the opportunity to immerse themselves in authentic village life. Travel agencies also offer flexibility by allowing tourists to customize their itineraries based on personal interests, making their visits more meaningful and tailored. In addition, travel agencies facilitate social interaction between tourists and local communities by organizing hands-on experiences such as cooking classes and craft workshops. They often provide brochures and educational materials that highlight the importance of preserving culture and the environment. By doing so, they foster stronger relationships between visitors and residents, encourage participation in volunteer programs, and communicate community expectations to tourists. Furthermore, travel agencies contribute to ongoing development by monitoring tourism trends, collecting feedback, and using this information to enhance services and support future planning efforts. Overall, travel agencies play a vital role in the development of tourism villages by promoting destinations, curating travel experiences, educating tourists, and fostering meaningful connections between visitors and local communities.

10) The Role of Non-Governmental Organizations (NGOs)

NGOs serve as key liaisons between the government, local communities, and the private sector. Their involvement in tourism village development spans a wide range of important roles. One of their primary contributions is empowering local communities through training, capacity building, and providing access to the resources needed to manage

tourism effectively. NGOs also play an advocacy role by influencing public policies that support the development of sustainable and environmentally friendly tourism villages. They work to protect the interests of local communities by offering recommendations to the government on best practices and ensuring that community rights—such as land ownership and access to natural resources—are safeguarded. In addition, NGOs develop conservation projects that actively involve communities in preserving the environment and cultural heritage. They provide education and training in areas such as tourism management, customer service, and other essential technical skills, while also raising awareness about sustainable tourism practices and the importance of preserving local culture and ecosystems. Their role extends to infrastructure development as well. NGOs often provide financial support for tourism-related infrastructure projects, such as roads, public facilities, and waste management systems. They may collaborate with the government on project planning and implementation to ensure long-term sustainability. Promotion and marketing are also within the scope of NGO involvement. They help market tourism villages through promotional campaigns, social media engagement, and participation in tourism exhibitions. Additionally, NGOs often produce compelling marketing materials to attract potential tourists. To support cultural and environmental preservation, NGOs develop programs aimed at protecting local culture, biodiversity, and natural resources. They encourage sustainable practices and promote community participation in preservation initiatives. Finally, NGOs conduct monitoring and evaluation by researching the impacts of tourism village development on both communities and the environment. They ensure that projects align with sustainability goals and collect feedback from local stakeholders to support continuous improvement.

The active involvement of NGOs in tourism village development strengthens advocacy, education, infrastructure development, promotion, cultural and environmental preservation, and impact evaluation. Through close collaboration between NGOs, government bodies, and local communities, inclusive and sustainable development goals can be realized—creating long-term benefits for both visitors and residents.

11) The Role of Tourism Organizations

The development of tourism villages in Bali is significantly influenced by various tourism organizations in Indonesia and Bali, including the Indonesian Tourism Industry Association (GIPI), the Association of Indonesian Tours and Travel Agencies (ASITA), the Indonesian Tour Guide Association (HPI), the Tourism Village Communication Forum (*Forkom Dewi*), and others. These organizations support the government in formulating policies that promote sustainable tourism and assist in the planning and development of tourism villages. One of their key contributions is in promotion and marketing. They organize campaigns at the local, national, and international levels to raise awareness of tourism villages and attract visitors. In addition, these organizations help develop regulations and standards to ensure tourism quality, and they prepare master plans that outline long-term development strategies. Education and training are also central to their role. They conduct workshops and training sessions for local communities on tourism management, customer service, and marketing. Alongside this, they produce promotional materials—such as brochures and videos—to showcase the unique culture and attractions of tourism villages, thereby shaping a positive image and boosting appeal. In terms of management and supervision, these organizations carry out regular evaluations to assess

Ecosystem Model of Tourism Village in Urban Area: Case Study of Denpasar City, Bali
Arismayanti & Pitana. (2025)

Jki

the quality of services and facilities in tourism villages. They also work to educate communities on the importance of sustainable tourism practices and support MSMEs in developing tourism products and services. Furthermore, they foster cooperation and networking by establishing partnerships among the government, private sector, communities, and NGOs. These collaborations support tourism development, help monitor project implementation, and address emerging issues. Acting as mediators between communities, the government, and industry stakeholders, they help resolve conflicts and ensure inclusive participation. Tourism organizations also have the capacity to organize forums that encourage knowledge exchange between tourism villages and other tourism-related entities, strengthening networks and uniting stakeholders in shared goals. Overall, tourism organizations play a crucial role in the development of tourism villages by supporting planning, promotion, education, management, and collaboration. Their involvement enhances the sustainability and attractiveness of destinations while also improving the capacity of local communities to manage tourism effectively.

12) The Role of Government

The government plays a crucial role in the development of tourism villages, which require consistent guidance, attention, and support across various aspects. One of the government's key responsibilities lies in planning and policy formulation—developing regulations that support tourism development, including land management and environmental conservation. These policies must promote sustainable tourism practices without harming local ecosystems. Spatial planning and zoning are also essential. The government must integrate tourism village development into regional spatial plans to ensure that tourism infrastructure does not interfere with residential areas or agricultural land. This includes determining appropriate zones for tourism, conservation, and settlements. Financial support is another vital area, with the government providing grants for infrastructure projects and assisting communities in launching tourism-related businesses. Collaborating with the private sector is also important to boost investment in the tourism sector. In terms of infrastructure development, the government is responsible for improving transportation access, building visitor facilities, and ensuring access to clean water and proper sanitation. These improvements not only enhance the tourist experience but also elevate the quality of life for local residents. Promotion and marketing efforts are supported through digital platforms, including the development of official websites, social media campaigns, and participation in tourism exhibitions to raise awareness of tourism villages among broader audiences. The government also plays a role in the preservation of culture and the environment by educating both the community and visitors on the importance of cultural heritage. Supporting local cultural festivals is another way to attract tourists while fostering pride and continuity in local traditions. Effective management of natural resources is encouraged through conservation programs and sustainable practices to protect biodiversity and maintain ecological balance. Additionally, the government facilitates access to resources by offering funding, training, and technical assistance necessary for the development of tourism villages. Coordination among stakeholders is key, with the government serving as a bridge to promote cooperation between communities, businesses, and other organizations for integrated tourism development. Education and training initiatives are provided to enhance the capacity of tourism village managers and community members in areas such as tourism management, marketing, and local product

development. Lastly, monitoring and evaluation are carried out through regular studies that assess the impact of tourism development. The government collects feedback to support continuous improvement and adapts policies based on evaluation findings. In conclusion, the government's role encompasses policy development, financial and technical support, infrastructure enhancement, community empowerment, cultural and environmental preservation, promotion, and evaluation. With the right support and collaboration, tourism villages can grow into sustainable destinations that benefit local communities while safeguarding cultural identity and natural resources.

When it comes to developing tourist villages, particularly in urban areas, all stakeholders play a significant role based on their skills and capacities. In order to enhance and harmonize current roles and obligations, coordination, communication, and collaboration are essential. Changing roles can be a sign of changes in the broader social order and can create new opportunities for multi-actor collaboration to address community challenges, making it a critical component of the transition (Wittmayer et al., 2017). Expert tourism knowledge can be enhanced by the valuable tacit knowledge and unique skills of marginalized individuals, which can contribute to developing more sustainable places and inclusive communities. Bellato and Cheer (2021) emphasize the importance of local governments, NGOs, and community groups in ensuring that marginalized populations and individuals are incorporated into sustainable tourism development. The sustainability of tourism development is significantly impacted by the level of support provided by local communities, which is contingent upon their perspectives on tourism and its effects on the community. Local communities are essential for preserving rural cultural heritage and attracting tourists, and they serve as the primary stakeholders and owners of tourism villages (Guo, 2019; Madanaguli et al., 2022). In the development of tourism villages, local communities do not independently make decisions. Traditional institutions and organizations convene meetings and gatherings to make critical decisions regarding the management of tourism villages, which serve as a refuge for local communities. The tourism villages' ecosystem facilitates collaboration and synergy, thereby resolving a variety of communication, coordination, and participation challenges that have previously impeded progress. The role elements (12 elements) are the primary focus of the ecosystem model of tourism villages in Denpasar City, as illustrated in Table 3.

Table 3. The Role of Elements and Actors

No.	Elements	Actors	Roles
1	Leadership	Leaders of local institutions/ organizations	Responsible for decision-making and determining the direction of tourism village development.
2	Welfare	Local communities	Aims to improve the quality of life for local communities through job creation and increased income.
3	Involvement	Community leaders	Encourage active community participation in the decision-making and management of tourism villages, fostering a sense of ownership and responsibility for sustainability.
4	Coordination	Tourism village managers	Organize cooperation among various parties to ensure that activities are carried out efficiently and in an integrated manner.
5	Creativity	MSMEs	Innovate in creating variations of tourism products, which is key to measuring success.

Ecosystem Model of Tourism Village in Urban Area: Case Study of Denpasar City, Bali
Arismayanti & Pitana. (2025)

Jki

6	Satisfaction	Tourists	Receive tourism experiences that meet expectations, leading to positive reviews and loyalty, which impacts future visits.
7	Skills	Academics	Develop community capabilities through training and education, enhancing the competitiveness of tourism villages.
8	Communication	Media	Plays a vital role in conveying information among stakeholders, increasing transparency, building trust, and enhancing the positive image of tourism villages.
9	Quality	Travel agencies	Ensure that tourism products meet established standards and attract tourists to the village, helping increase visits and local community income.
10	Sustainability	NGOs	Advocate for sustainable and environmentally friendly tourism practices, preserving resources for future generations.
11	Collaboration	Tourism organizations	Coordinate cooperation between communities, government, and businesses to strengthen inclusive and sustainable tourism development.
12	Control	Government	Supervise tourism activities to ensure compliance with established standards, maintaining service quality, and the sustainability of tourism village development.

Source: Research data, 2025

This study supports previous findings on the significance of empowering local communities in the development of tourism villages. Such empowerment should be implemented innovatively, allowing community members to engage in all phases of planning, development, and management of tourism businesses (Nair et al., 2015). Additionally, forming effective partnerships among all tourism stakeholders acts as a vital mechanism for promoting rural tourism. Emphasizing strong partnerships and networks is essential for the effective management, marketing, and promotion of tourism enterprises, thus enhancing the sustainability of these villages (Arintoko et al., 2020).

Moreover, tourism development has the capacity to revitalize traditional villages by merging modernity with tradition (Wu & Xu, 2017). In this regard, a strong tourism village ecosystem, grounded in local potential and collaboration among various entities, is crucial for improving efficiency and encouraging healthy competition (Graça & Camarinha-Matos, 2017; Tsou et al., 2019). Achieving accessible tourism requires effective collaboration, which involves elements such as control, clarity of roles, communication, and a commitment to inclusion (Nyanjom et al., 2018). The roles within a community represent shared understandings, and alterations in these roles can signify changes in the interactions among actors (Wittmayer et al., 2017). These socially constructed and negotiable roles play a vital role in assisting actors in managing recurring situations (Lynch, 2007; Wittmayer et al., 2017).

CONCLUSION

The tourism village ecosystem model in Denpasar City highlights the establishment of mutually advantageous synergies through the collaboration of various actors. This model also emphasizes the significance of local assets as local values and primary potentials that must be owned by tourism villages, supported by the potential of tourism village products and the actors involved in the tourism village ecosystem. To date, the governance and management of tourism villages, the role and active participation of stakeholders in the construction of tourism villages, and the lack of commitment and support from stakeholders in advancing villages have prevented all parts/subsystems of tourism villages in Denpasar City from contributing and playing a maximum role. This

study underscores the importance of synergy and the role of actors in a tourism system that has not been documented and is poorly understood. Local communities, tourism village managers, government, local community organizations, community leaders, and MSMEs are among the stakeholders involved in developing and managing tourism villages in Denpasar City. Tourists, academics, media, travel agencies, NGOs, and tourism organizations that have not been involved in the advancement of tourism villages are required to make optimal contributions and play their respective roles. Tourism villages in urban areas should offer numerous advantages regarding tourism product components (6A). However, a system must be developed to fuel the existing ecosystem, which is capable of integrating traditional elements with modernity in an urban context. This will enable consumers, specifically tourists, to experience authentic local culture and convenience compared to tourism villages in other districts of Bali. The ecosystem of tourism villages is essential for the development of tourism villages, as it significantly influences the efficiency and effectiveness of activities, as well as the creation of convenience, competitive prices, and healthy business competition. The critical factor in the successful development of tourism villages is the ecosystem, which is a network system of value creation and co-evolution that is achieved by stakeholders in the independent organizing mode of tourism villages.

ACKNOWLEDGEMENT

REFERENCES

Aliyah, I., Yudana, G., & Sugiarti, R. (2020). *Desa Wisata Berwawasan Ekobudaya: Kawasan Wisata Industri Lurik* [*Eco-Cultural Tourism Village: Lurik Industrial Tourism Area*]. Surakarta: Yayasan Kita Menulis.

Amerta, I Made Suniastha. (2017). The Role of Tourism Stakeholders at Jasri Tourism Village Development, Karangasem Regency. *International Journal of Social Sciences and Humanities*, 1 (2), 20-28, https://doi.org/10.29332/ijssh.v1n2.32.

Arintoko, A., Ahmad, A.A., Gunawan, D.S. & Supadi, S. (2020). Community Based Tourism Village Development Strategies: A Case of Borobudur Tourism Village Area, Indonesia. *Geojournal of Tourism and Geosites*, 29 (2), 398-413. https://doi.org/10.30892/Gtg.29202-477.

Arismayanti, N. K., Sendra, I. M., Suwena, I. K., Budiarsa, M., Bakta, I. M., & Pitana, I. G. (2019). Tourism Villages' Development in Bali, Mass or Alternative Tourism? *Journal of Tourism and Hospitality Management*, 7 (2), 117-139. https://doi.org/10.15640/jthm.v7n2a11.

Attri, R., Dev, N., & Sharma, V. (2013). Interpretive Structural Modeling (ISM) Approach: an Overview. *Research Journal of Management Sciences*, 2 (2), 3-8.

Bali Tourism Office. (2024). *Bali Tourism Statistic 2024 [Statistik Pariwisata Bali 2024]*. Denpasar: Bali Government Tourism Office.

Ecosystem Model of Tourism Village in Urban Area: Case Study of Denpasar City, Bali
Arismayanti & Pitana. (2025)

Jki

Bellato, L. & Cheer, J.M. (2021). Inclusive and Regenerative Urban Tourism: Capacity Development Prespectives. *International Journal of Tourism Cities*, 7 (4), 943-961. https://doi.org/10.1108/Ijtc-08-2020-0167.

Billore, S. (2018). Enriching Cultural Experiences From Rural Tourism: Case Studies From Japan In *Tourism Planning and Destination Marketing*, 141-159. https://doi.org/10.1108/978-1-78756-291-220181007.

Byrd, E.T. (2007). Stakeholders in Sustainable Tourism Development and Their Roles: Applying Stakeholder Theory to Sustainable Tourism Development. *Tourism Review*, 62 (2), 6-13. https://doi.org/10.1108/16605370780000309.

Central Bureau of Statistics of Denpasar City. (2025). *Kota Denpasar dalam Angka [Denpasar Municipality in Figures]* 2025, 33, 2025. Denpasar: BPS Kota Denpasar.

Darmawan, Dwi Putra. (2017). *Pengambilan Keputusan Terstruktur dengan Interpretive Structural Modeling.* [*Structured Decision Making with Interpretive Structural Modeling*] Yogyakarta: Elmatera.

Ernst, L., De Graaf-Van Dinther, R.E., Peek, G.J. & Loorbach, D.A. (2016). Sustainable Urban Transformation and Sustainability Transitions; Conceptual Framework and Case Study. *Journal of Cleaner Production*, 112 (4), 2988-2999. https://doi.org/10.1016/j.jclepro.2015.10.136.

Farmaki, A. (2016). "Managing Rural Tourist Experiences: Lessons From Cyprus" In *The Handbook Of Managing and Marketing Tourism Experiences*, 281-298. https://doi.org/10.1108/978-1-78635-290-320161011.

Freeman, R. E. (1984). *Strategic Management: A Stakeholder Approach*. Boston: Pitman.

Graça, P. & Camarinha-Matos, L.M. (2017). Performance Indicators for Collaborative Business Ecosystems – Literature Review and Trends. *Technological Forecasting and Social Change*, 116 (March), 237-255. https://doi.org/10.1016/j.techfore.2016.10.012.

Guo, J. (2019). The Research on Driving Mechanism of Tourism Development in Shanxi Traditional Villages: Based on Folklore Perspective. *Journal of Technical Economics and Management*, 2, 122-128.

https://disparda.baliprov.go.id/.

https://images.app.goo.gl/pgxujngfbcce7tc57.

https://maps.app.goo.gl/bpteko3ymjczi4ky6?g_st=com.google.maps.preview.copy.

https://petatematikindo.wordpress.com/wp-content/uploads/2013/03/administrasi-bali-a1-1.jpg.

https://sdgs.un.org/goals.

Kennedy, C.A., Stewart, I., Facchini, A., Cersosimo, I., Mele, R., Chen, B., Uda, M., Kansal, A., Chiu, A., Kim, K., Dubeux, C., Lebre La Rovere, E., Cunha, B., Pincetl, S., Keirstead, J., Barles, S., Pusaka, S., Gunawan, J., Adegbile, M., Nazariha, M., Hoque, S., Marcotullio, P.J., González Otharán, F., Genena, T., Ibrahim, N., Farooqui, R., Cervantes, G. & Sahin, A.D. (2015). Energy and Material Flows of Megacities. *Proceedings of the National Academy of Sciences,* 112(19), 5985- 5990.

Lynch, K. D. (2007). Modeling Role Enactment: Linking Role Theory and Social Cognition. *Journal for the Theory of Social Behaviour*, 37 (4), 379-399. https://psycnet.apa.org/doi/10.1111/j.1468-5914.2007.00349.x.

Ma, Y., Rong, K., Mangalagiu, D., Thornton, T. F. & Zhu, D. (2018). Co-Evolution between Urban Sustainability and Business Ecosystem Innovation: Evidence from the Sharing Mobility Sector in Shanghai. *Journal of Cleaner Production*, 188 (2018), 942-953. https://doi.org/10.1016/j.jclepro.2018.03.323.

Madanaguli, A., Kaur, P., Mazzoleni, A. & Dhir, A. (2022). The Innovation Ecosystem in Rural Tourism and Hospitality – A Systematic Review of Innovation in Rural Tourism. *Journal Of Knowledge Management*, 26 (7), 1732-1762. https://doi.org/10.1108/jkm-01-2021-0050.

Nair, V., Hussain, K., Lo, M.C., & Ragavan, N.A. (2015). Benchmarking Innovations and New Practices in Rural Tourism Development. *Worldwide Hospitality and Tourism Themes*, 7 (5), 530-534. http://dx.doi.org/10.1108/Whatt-06-2015-0030.

Nurvianti & Hastuti. (2021). Community Participation in the Development of Taman Sari Tourism Village, Yogyakarta, Indonesia. *Journal of Sustainability Science and Management*, 16 (5), 263– 287. https://doi.org/10.46754/jssm.2021.07.017.

Wijaya, I.K.M. (2021). Local and Sustainable Potential Approaches in the Design of a Master Plan Architecture: Case Study of Paksebali Tourism Village Development, Indonesia. Geojournal of Tourism and Geosites, 36 (2spl), 571–579. https://doi.org/10.30892/gtg.362spl03-685.

Nyanjom, J., Boxall, K. & Slaven, J. (2018). Towards Inclusive Tourism? Stakeholder Collaboration in the Development of Accessible Tourism. *Tourism Geographies*, 20 (4), 675-697. https://doi.org/10.1080/14616688.2018.1477828.

Peraturan Menteri Kebudayaan dan Pariwisata Nomor 26 Tahun 2010 tentang Desa Wisata [Regulation of the Minister of Culture and Tourism Number 26 of 2010 concerning Tourism Villages]. Republik Indonesia.

Rong, K., Hu, G., Lin, Y., Shi, Y., & Guo, L. (2015). Understanding Business Ecosystem Using A 6C Framework in Internet of Things Based Sectors. *International Journal of Production Economics,* 159 (2015), 41-55. https://doi.org/10.1016/j.ijpe.2014.09.003.

Salouw, E. & Pramono, R.W.D. (2022). Typology of Tourism Village Settlement in Indonesia. *Sodality: Jurnal Sosiologi Pedesaan*, 10 (3), 295-304. https://doi.org/10.22500/10202241282.

Sertyesilisik, B. (2023). Sustainable and Smart Villages' Roles in Reducing the Income Gap and Supporting Socio-Economic Indicators. Das, R.C. (Ed.) *Inclusive Developments through Socio-Economic Indicators: New Theoretical and Empirical Insights*, Emerald Publishing Limited, Leeds, 193-202. https://doi.org/10.1108/978-1-80455-554-520231015.

Surat Keputusan Walikota Denpasar Nomor: 188.45/472/HK/2015 tentang Penetapan Desa Wisata di Kota Denpasar. [Decree of the Mayor of Denpasar Number: 188.45/472/HK/2015 concerning the Establishment of Tourism Villages in the City of Denpasar].

Tsou, H.T., Chen, J. S., & Yu, Y.W. (2019). Antecedents of Co-Development and Its Effect on Innovation Performance: A Business Ecosystem Perspective. *Management Decision,* 7 (57), 1609-1637. https://doi.org/10.1108/Md-04-2018-0421.

Wittmayer, J.M., Avelino, F., Van Steenbergen, F. & Loorbach, D. (2017). Actor Roles in Transition: Insights from Sociological Perspectives. *Environmental Innovation and Societal Transitions*, 24 (C), 45-56. https://doi.org/10.1016/J.Eist.2016.10.003.

Wu, B. & Xu, X. (2017). Tourism-Oriented Rejuvenation of Chinese Traditional Villages: an Explorative Research. *Journal of Yangzhou University (Humanities and Social Sciences Edition),* 21 (1): 5-21.

Yudhoyono, E. B., Siregar, H., Achsani, N. A., & Irawan, T. (2021). Pengembangan Ekosistem Bisnis Pariwisata Terpadu Berbasiskan Strategi 5 Jalur [Development of Integrated Tourism Business Ecosystem Based on 5 Path Strategy]. *Inovasi,* 18 (1), 47-61. https://doi.org/10.33626/inovasi.v18i1.309.

AUTHOR PROFILE

Dr. Ni Ketut Arismayanti, S.ST.Par., M.Par.

ORCID ID 0000-0003-3916-9084. She has been a Lecturer at the Faculty of Tourism, Udayana University since 2003 until now. She is focus of studies on tourism with her books entitled Tourism System (2020), Quality Bali Tourism Development Model, Destination Studies and

Prof. Dr. Ir. I Gde Pitana, M.Sc.

He is a professor of Tourism Science with a home base in the Agribusiness Study Program, Faculty of Agriculture, Udayana University. He has written several books that are widely used as references by students, including: Subak: Traditional Irrigation System in Bali

Ecosystem Model of Tourism Village in Urban Area: Case Study of Denpasar City, Bali
Arismayanti & Pitana. (2025)

JKi
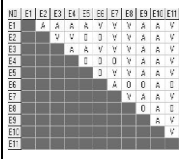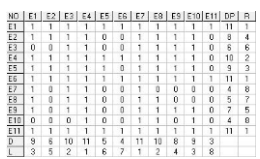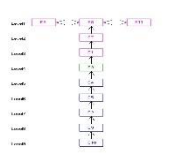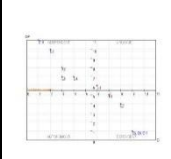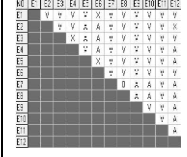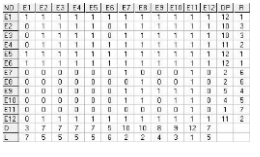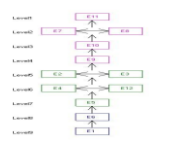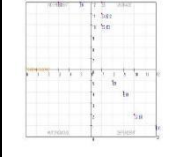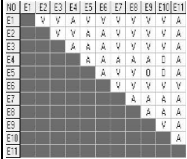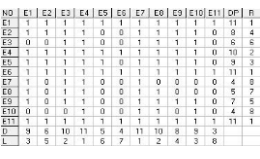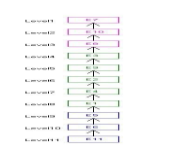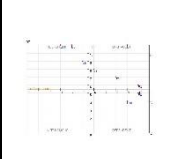
Tourist Experience (2021), Digital Marketing: Theory, Concept and Implementation in Tourism (2022), Human Resource Management of Tourism in Indonesia (2023), Tourism Science in Indonesia Footsteps and Future (2024) and others. Until now she is active in preparing tourism studies and master plans; developing tourist villages; responsible marine tourism assessor; Association of the Indonesia Tours and Travel Agencies chapter Bali expert council; and as reviewer and management of scientific journals.

(Editor, 1996), Dynamics of Balinese Society and Culture (1996), Sociology of Tourism (2005), Introduction to Tourism Science (2012), Agrotourism: Agriculture-Based Tourism (2020), Rural Tourism Marketing (2021), Digital Marketing: Theory, Concept and Implementation in Tourism (2022), Domestic Tourists and Rural Tourism (2023), Human Resource Management of Tourism in Indonesia (2023), Tourism Science in Indonesia Footsteps and Future (2024) and others

.

Attachment (ISM data analysis):

Factors	Agregat VAXO	Agregate_Reachibility Matrix	Agregate_ Structure	Agregate_ Graph
Affected community sectors				
Needs for program implementation				
Main program constraints				

Program objectives			
Possible changes			
Institutions involved			
Measures of success			

INFLUENCES OF MOTIVATIONS, SPATIAL CHARACTERISTICS, AND ACTIVITIES ON SENSE OF PLACE IN BANDUNG TOURIST DESTINATIONS

Qonitah Khoirunnisa Effendi[1]*, Novia Ruslan Subur[2], Hanson E. Kusuma[3], Agung Cahyo Nugroho[1]

[1]Department of Architecture Faculty of Engineering, Universitas Lampung, Indonesia
[2]Master of Tourism Program, Institut Pariwisata Trisakti, Indonesia
[3]Architectural Design Research Group, School of Architecture, Planning and Policy Development, Institut Teknologi Bandung, Indonesia
[4]Departmen of Architecture Faculty of Engineering, Universitas Lampung, Indonesia

Correspondence: qonitah.effendi@eng.unila.ac.id

Article Info	Abstract
	Visitor interest in tourist destinations can change, leading to decreased visitation rates. The existence and sustainability of tourist destinations depend on the sense of place. Therefore, this research aims to determine the dimensions of motivations, spatial, physical characteristics, and activities influencing the sense of place in tourist destinations within the Bandung area. The first stage was carried out through exploratory qualitative research using content analysis while the second stage adopted explanatory quantitative research using principal component analysis (PCA) and factor analysis (FA) methods. The first and second stages included 134 and 150 respondents, consisting of both local and interlocal tourists. The analysis showed two dimensions of the sense of place, namely attachment and compatibility. The social activities dimension directly influences attachment. The dimensions of social activities, adventure, photography, and the spatial physical characteristics of beauty directly influence compatibility. The results show that the importance of managing the spatial physical characteristics of tourist destinations can attract individuals' travel motivations and create activities shaping the sense of place. Strategies implemented include developing tourist destinations that support social activities, creating visually appealing environments to promote photography, and balancing the quality of nature. Effective management of these characteristics can increase visitor numbers and encourage repeat visits, ensuring the existence and sustainability of the tourist destination.

How to cite:
Effendi, Q. K., Subur, N. R., Kusuma, H. E., Nugroho, A. C. (2024). Influences of Motivations, Spatial Characteristics, and Activities on Sense of Place in Bandung Tourist Destinations. *Jurnal Kepariwisataan Indonesia: Jurnal Penelitian dan Pengembangan Kepariwisataan Indonesia, 19*(1), 119-138. https://doi.org/10.47608/jki.v19i12025.119-138

INTRODUCTION

Tourism is among the largest and most dynamic sectors supporting the economy (OECD, 2020). Visitors' feelings about tourist attractions and the desire to return are crucial aspects of this field. The relationship between tourists' emotions and intention to return significantly impacts tourism sustainability and growth. As the industry continues to expand (Khanna & Sharma, 2023), understanding the interaction of factors is essential. This interaction presents a multifaceted challenge in the tourism sector that requires further exploration. Tourism includes trips taken by individuals or groups to fulfill various needs (Prasetia, 2022). The development of a tourist destination must be balanced with tourists' decisions to visit. These decisions are driven by stimuli or motives that generate interest and satisfy needs, reflecting tourist behavior. The decision-making process undertaken by potential visitors directly influences the propensity to travel as tourists (Bulan et al., 2021). Higher visitor motivation correlates with a higher likelihood of deciding to visit (Setyaningsih & Murwatiningsih, 2017).

Bandung is a city rich in potential and tourist attractions (Indira et al., 2013). Geographically, the city is situated on a highland and surrounded by mountains. The unique topography offers a combination of natural beauty and urban charm (Rahmafitria & Nurazizah, 2022), earning the nickname "Kota Kembang" or "Flower City." This topography provides Bandung with various attractive tourism potentials, including historical and cultural tourism at historical sites in the city center, such as Gedung Sate, Braga Area, and Asia Africa Road, where visitors can explore and learn about the past. Natural tourism is also prominent in the highlands of Lembang, the hills of Dago, and surrounding areas such as Punclut and Pangalengan. Bandung is a hub for culinary tourism, shopping, fashion, as well as educational and creative tourism.

The tourism sector of the city features various artificial innovations, such as Farm House, Great Asia Africa, Floating Market, cafes and restaurants leveraging natural settings. Bandung has become a popular tourist destination considering the variety of tourism options available. The extensive array of attractions significantly influences tourists' decisions to visit. However, tourism is also vulnerable to fluctuating conditions, including downturns. Wiradipoetra & Brahmanto (2016) found a correlation between the declining quality of tourist attractions and decreased interest. The relationship between destination image, tourist motivation, and overall satisfaction shapes the intention to revisit (Pratminingsih, 2014). This decline in tourism is evident in Bandung, as shown in Table 1.

Table 1. Number of Tourist Visits to Tourism Objects (People) in West Java Province

Districts/Cities	Number of Tourist Visits to Tourism Objects (People)					
	Foreign Tourists			Local tourists		
	2021	2022	2023	2021	2022	2023
Bogor	2609	86361	138731	1762279	3292268	6180677
Sukabumi	277	536	3988	565545	5542305	2763179
Cianjur	44	17850	81407	1046751	1487594	1907178
Bandung	100	1746	15833	1836575	3782823	1014251
Garut	0	31	182	357324	4406053	3874395

Source: Adapted from West Java Central Statistics Agency, 2023

Influences of Motivations, Spatial Characteristics, and Activities on Sense of Place…
Effendi et al. (2025)

JkÍ

The data in Table 1 indicates a significant decline in domestic tourists visiting Bandung in 2023. This decline shows that tourists' perceptions and interactions with attractions affect the experiences and impact the economic, environmental, and socio-cultural aspects of tourism destinations (Jebbouri et al., 2022). The components of tourism are interrelated and support the development of an area. These components are divided into two factors, namely tourism supply and demand. Tourism supply includes activities offered to tourists, such as attractions, accommodations, transportation, infrastructure, and supporting facilities. Tourism demand relates to the needs of tourists and the community (Zakaria & Suprihardjo, 2014).

The motivation to travel is an internal emotional drive to fulfill various needs, such as prestige, relationship enhancement, relaxation, social interaction, experiencing new and diverse things, spiritual needs, escaping daily routines, and gaining knowledge (Haryanto, 2019). Specific motivations arise when tourists are driven to visit particular destinations, regions, or countries or to choose specific travel packages or events. These motivations vary for each individual, depending on the drive to visit a destination (Setyaningsih & Murwatiningsih, 2017). Understanding tourist motivation can help tourism managers to meet tourists' desires and needs during the stay.

According to the theory of Gan et al. (2023), motivation is divided into push and pull. Push motivation is an internal motivation drive to travel, while pull motivation is an external factor influencing destination choice. Internal motivation is from within, driving the desire to travel. External motivation relates to the physical characteristics of the destination, such as natural or heritage attractions. The physical characteristics of tourism can be divided into human-made and natural resources. These push and pull factors are essentially internal and external factors motivating tourists in making travel decisions (Jayadi et al., 2017).

The spatial physical characteristics of a destination can positively and negatively impact tourism. Furthermore, tourism development must be carefully managed to minimize negative environmental impacts and ensure positive tourist experiences. Physical characteristics can influence tourist satisfaction. For example, beautiful natural scenery tends to attract more tourists (Rxuiz et al., 2021). These characteristics also affect visitor perceptions, environmental impact, and the local economy. Therefore, a destination's spatial physical characteristics significantly impact tourism. Tourists' attitudes toward the places visited or the sense of place are crucial.

Sense of place is a unidimensional concept consisting of emotional, functional, and cognitive responses to a place (Žlender & Gemin, 2020). This variable is defined as understanding important or memorable places through sensing, experiencing, and remembering geographical locations and the characteristics. Sense of place combines interaction with the physical environment and the assigned meanings (Jarratt et al., 2019). This variable captures impressions and feelings about a place and examines the effect of a place on the community. Developing a place's psychological dimensions and quality while considering human needs is essential (Pratiwi et al., 2023). Masterson et al., (2017) reported the importance of place as a critical component of a sense of place, complementing place attachment in predicting behavioral intentions. Focusing on place-related meanings goes beyond the normative understanding of place as positively connected to sustainable development outcomes.

Support for tourism development is indirectly influenced by local wisdom mediated by perceived impacts. Therefore, community members who are more loyal to the community and have a strong sense of belonging believe that tourism will bring more benefits and support more tourism development (Zhu et al., 2017). Mirsa et al. (2022) stated that common variables such as visual character, function, and image influencing tourism could be considered strengths of a destination's sense of place.

Diverse cities such as Bandung are vulnerable to fluctuations and must actively maintain stable tourism conditions. To ensure the vitality of tourism, stakeholders must understand the factors influencing a destination's appeal, including motivation, spatial physical characteristics, activities, and sense of place. Even though Pratminingsih (2014) and Rani et al., (2020) have explored aspects such as motivation, characteristics, and activities as predictors of revisit intention, no comprehensive research has simultaneously examined the factors with a sense of place to determine the dominant influences. Based on the description, this research aims to address the gap by (1) exploring the dimensions in Bandung, (2) identifying which dimensions significantly impact visitors' sense of place in tourist attractions, and (3) demonstrating the effect of regression analysis on the complex relationships between motivation, spatial physical characteristics, activities, and the formation of a sense of place in tourism destinations. This third objective represents knowledge that has not been previously uncovered by previous research.

METHODOLOGY

Research Focus, Paradigm, and Approach

This research focused on tourist attractions in the Bandung area, specifically Bandung City, Bandung Regency, and West Bandung Regency. This was based on responses to an open-ended questionnaire in which respondents mentioned various areas outside Bandung. Respondents' definition of 'tourism in Bandung' included areas near Bandung city, such as Lembang, Punclut, and Padalarang in West Bandung Regency. Respondents also mentioned destinations in the Ciwidey and Pangalengan areas, which were actually in Bandung Regency. Therefore, this research was conducted to determine the scope of Bandung City, Bandung Regency, and West Bandung Regency.

Qualitative, quantitative, or mixed methods were used (Creswell & Creswell, 2023), as reported in Table 2. The qualitative research conducted was exploratory in nature (Groat et al., 2013) to collect information related to tourist destinations, motivations for visiting, spatial physical characteristics of tourist attractions, tourist activities, and criticism. Subsequently, the quantitative research conducted was exploratory and explanatory (Creswell & Creswell, 2023; Groat & Wang, 2013) to show the dimensions of visiting motivations, spatial physical characteristics of tourist attractions, tourist activities, and sense of place.

Table 2. Methodological Flow

Stages	Data Collection Method	Data Analysis Method
First Stage Qualitative Research	• Survey (Online questionnaire) • Open-ended questions • Convenient sampling • 134 people respondents	Conventional content analysis (inductive coding)

Influences of Motivations, Spatial Characteristics, and Activities on Sense of Place…
Effendi et al. (2025)

Jki

Second Stage Quantitative Research	• Survey (Online questionnaire) • Closed-ended questions • Convenient sampling • 150 people respondents	Principle Component Analysis (PCA) Factor Analysis (FA) Regression analysis

Source: Researcher data, 2023.

First Stage Qualitative Research

Data Collection Method

Data collection at the qualitative stage was carried out using a survey method in the form of a questionnaire. Questions on the questionnaire were open-ended and related to tourist destinations, reasons/motivations for visiting, tourist activities, criticism, and the desire to return to the tourist attractions. Examples of open-ended questions can be seen in Table 3. The questionnaire was created using the Google Form and was distributed online from February 6, 2023, to February 15, 2023, using a non-random sample or convenient sampling (Kumar, 2012). The stage of convenient sampling was when the questionnaire was distributed to acquaintances (Andrade, 2021).

Data were collected from 134 respondents, with 98 (73.1%) and 36 (26.9%) identified as local and interlocal tourists residing in the Bandung area and various cities across Indonesia. Respondents were between 18 and 64 years old, with an average age of 20 and 30. Most of the respondents were 79 (49.9%) S1/S2/S3 students, followed by 35 (26.1%) employees/interns, followed by 17 (12.6%) self-employed/freelancers, and 3 (2.2%) homemakers/not working.

Table 3. Sample of Open-ended Questions for Qualitative Questionnaires

Question	Question-wording
Object of Visit	Name one tourist spot in Bandung and the surroundings that you like the most!
Reason	Explain why you like the place!
Activities	Name three or more activities that you did in that place.

Source: Researcher data, 2023.

Data Analysis Methods

Various exploratory answers were obtained for each group of qualitative research questions. The answers were categorized through content analysis and inductive coding. The meaning contained in the text of the respondents' answers was identified. Each meaning segment was assigned a code. Sub-categories and categories represented similar codes and sub-categories with identical meanings, respectively. In inductive coding, the naming of codes and categories was based on data and research reasoning. Furthermore, the categories obtained are a framework for the following research stage.

Analysis Result

The content analysis results and open coding on qualitative questions about the reasons for choosing tourist attractions obtained 21 categories for visiting. The reasons related to the physical attributes of the destination are classified as external motivations, while those from an individual's emotional drive to satisfy various needs are considered internal motivations (Gehl, 2011); Haryanto, 2019). These two motivation variables can be used to identify the spatial physical characteristics of tourist destinations.

Fourteen categories of external motivation (spatial physical characteristics) are *various shopping areas, various cafes/ co-working, various culinary, various communal spaces, various recreational tours, various adventure tours, natural beauty and coolness, various attractive tours, the hospitality of residents, aesthetic/ instagram-able places, clean and maintained places, safe places for children, cheap tickets,* and *heritage areas*. These fourteen external motivations were used to develop a framework of closed questions about the external motivations of traveling (spatial physical characteristics).

Seven internal motivation variables are *looking for a calm atmosphere, an atmosphere of fewer visitors, a comfortable atmosphere, a cultural experience, a crowded place, a newly visited place, and an atmosphere like the visitor's home area*. These seven internal motivations were used to develop a framework of closed questions about the internal motivations for traveling.

In qualitative questions about activities carried out while in tourist attractions, 59 activity variables were obtained, namely *chatting, discussing / brainstorming, accompanying children to play, meeting, hanging out, reunion, strolling around / taking a leisurely walk, sightseeing, vacationing, sightseeing / picnicking, playing, watching shows, spending time, seeing animals, playing with animals / feeding, fishing, picking fruit, buying fruit, enjoying natural scenery, enjoying the natural atmosphere, enjoying fresh / cool air, shopping, culinary tourism, cooking / barbecueing, hanging out at the cafe, relaxing/ sitting around, refreshing, resting, healing, meditating, pensive, crying, smiling, taking pictures, looking for inspiration, reading, painting, enjoying traditional music, seeing traditional architecture, enjoying traditional food, contemplating nature, studying, working, playing laptop/tab, praying, sitting, eating, drinking, waiting, nostalgic, swimming, running, jogging, leisurely strolling, hiking, camping, and rafting*. These variables were used to develop a framework of closed-ended questions about traveling activities.

Second Stage Quantitative Research

Data Collection Method

Data collection in the quantitative stage was carried out using a survey method in the form of a questionnaire created using the Google Forms platform, and the questions were closed-ended. Quantitative data collection was conducted online from April 15, 2023, to May 6, 2023, using a non-random sample or convenient sampling (Kumar, 2012).

The question framework was developed based on the variables results of the first research stage. Each variable was used as a factor in the quantitative research. Factors related to the dimension were grouped to make the quantitative research questions more transparent and to avoid response bias. The questionnaire answer pattern used a Likert scale of 1 to 4 between two opposite poles. Table 4 shows examples of closed-ended questions and the response scales used in the quantitative research.

A total of 150 respondents were surveyed and the largest group comprised 74 (49.3%) residing in West Java province. This was followed by 48 (32%) respondents from Lampung province, with the remaining 28 (18.7%) distributed across various regions between 19 and 64 years old, with an average age of 20 and 30. The respondents were divided into five occupational groups, namely 58 students (38.7%), 56 employees (37.3%),

Influences of Motivations, Spatial Characteristics, and Activities on Sense of Place…
Effendi et al. (2025)

Jki

19 professional workers (12.7%), traders/entrepreneurs/self-employed (6.7%), and 7 homemakers/not working (4.7%).

Table 4. Example of Closed Questions and Quantitative Questionnaire Response Scale

Question Category	Question Group (factors)	Question Item (measured variables)	Response scale
What is the reason you chose to travel to that place?	External motivations (spatial physical characteristics)	Heritage area	1 – 2 – 3 – 4 Strongly disagree - Disagree - Agree - Strongly agree
		Natural beauty	
	Internal motivations (motivation)	Seeking a calm atmosphere	
		Seeking a new atmosphere	
What activities did you do when you visited the place? (activities)	Social activities	Chat	1 – 2 – 3 – 4 Strongly disagree - Disagree - Agree - Strongly agree
		Discuss	
	Ecotourism	Picking fruit	
		Feeding the animals	
What are your overall intentions and perceptions of the place?	Overall intentions and perceptions (sense of place)	I feel that the tourist attraction is in line with my preferences	1 – 2 – 3 – 4 Strongly disagree - Disagree - Agree - Strongly agree
		I am comfortable going alone to the attraction.	

Source: Researcher data, 2023.

Data Analysis Methods

Answers to each questions of quantitative research were obtained in numerical data and analyzed using principal component analysis (PCA) and factor analysis (FA) methods. PCA was used to identify the principle components of measured variables in the form of latent variables/dimensions. The method reduced and simplified a large number of measured variables into fewer latent dimensions that collectively explained a phenomenon.

The PCA analysis process determined the number of latent variables/dimensions based on the number of principal components with an eigenvalue >1.00. The number of dimensions was analyzed using FA with the varimax-rotation method. The dimensions resulting from the FA represented the measurable variables from motivations, spatial physical characteristics, activities, and sense of place. Each variable group was represented by several dimensions used for the subsequent analysis as presented in Tables 5, 6, 7, and 8.

The mean of every dimension was calculated after the PCA and FA methods produced dimensions. The value of dimensions was used to analyze the relationship between cause (motivations, spatial physical characteristics, and activities) and effect (sense of place) in regression analysis. The mean values in regression analysis consisted of variables with a dominant contribution to the dimension. Therefore, the regression process for each dimension was very accurate.

The subsequent step conducted an exploratory regression analysis to show the dimensions of motivations, spatial physical characteristics, and activities influencing the sense of place after obtaining the dimensions and mean values. The regression analysis in this research was conducted in three stages, as reported in Figure 1. In the first regression, the mean value of the motivations, spatial physical characteristics, and activities dimensions were considered the independent variables, while the mean of the sense of place dimensions was the dependent variable. In the second regression, the mean of the

motivation and spatial physical characteristics dimensions were the independent variables. Meanwhile, the mean of the activity dimensions served as the dependent variables. The third regression was conducted between two variables, considering the mean of the motivation and spatial physical characteristics dimensions as the independent and dependent variables, respectively.
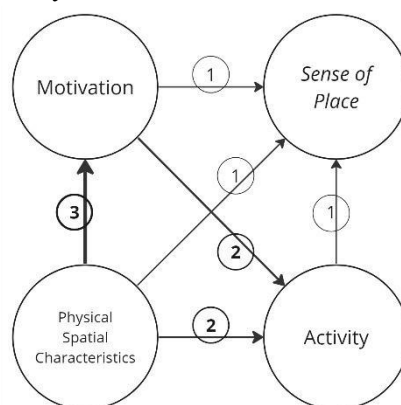
Figure 1. Regression Analysis Pattern.
Source: Analysis Results, 2023

RESULTS AND DISCUSSION

Dimensions of Motivation

The group of internal motivation questions (quantitative stage) consisted of seven measurable variables. Respondents were asked to rate these variables according to visitor preferences using a Likert scale of 1-4 or close-ended questions. These variables were simplified using PCA, which comprised eigenvalues and FA. A total of two motivation dimensions with eigenvalues greater than one were considered sufficient to represent the phenomena of the seven measured variables. These dimensions were obtained based on PCA and FA, as reported in Table 5. The two dimensions representing visitors' motivations for engaging in tourism activities in Bandung and the surroundings were *seeking solitude* and *seeking crowds*.

Table 5. Latent Dimensions of Motivation

Latent Dimensions	Mean	Eigenvalue	% Of Variance	Cum %	Cronbach's α	Std Dev
Motivation						
Seeking solitude	**3.084**	2.380	34.002	34.002	0.800	0.699
Seeking crowds	2.675	1.729	24.700	58.702	0.528	0.576

Source: Researcher data, 2023.

Considering the mean value, the motivation to *seek solitude* is the most dominant motivation category compared to *seeking crowds*. This motivation represents measurable variables such as *seeking a quiet atmosphere, an atmosphere of no visitors,* and *a comfortable atmosphere.* Meanwhile*,* the motivation to *seek crowds* represents measurable variables such as *seeking cultural experiences, looking for crowded places, newly visited places,* and *an atmosphere similar to the visitor's home region*.

Dimensions of Spatial Physical Characteristics

Influences of Motivations, Spatial Characteristics, and Activities on Sense of Place…
Effendi et al. (2025)

Jki

The results of PCA and FA on the fourteen measured variables of spatial physical characteristics were obtained from four dimensions. Table 6 shows that *the beauty* dimension is the primary spatial physical characteristic of tourist attractions in Bandung.

Table 6. Latent Dimension of Spatial Physical Characteristics

Dimensi Laten	Mean	Eigenvalue	% Of Variance	Cum %	Cronbach's α	Std Dev
Spatial Physical Characteristics						
Commercial	2.703	3.369	24.061	24.061	0.864	0.735
Nature	**3.021**	2.498	17.842	41.903	0.772	0.638
Beauty	**3.178**	2.041	14.576	56.479	0.622	0.570
Affordability	2.893	1.383	9.879	66.358	0.486	0.745

Source: Researcher data, 2023.

Based on the results of PCA and FA, *the beauty* dimension is a category of spatial physical characteristics of tourist destinations in Bandung with measurable variables such as *aesthetic / Instagram-able places, clean and well-maintained places,* and *safe places for children*. Furthermore, tourist destinations in Bandung are aesthetic, clean, and safe places to visit.

The nature dimension represents measurable variables such as *various adventure tours, natural beauty and coolness, various attractive tours,* and *the hospitality of residents*. The next dimension is *affordability*, which includes measurable variables such as *cheap tickets* and *heritage areas*. *The commercial* dimension represents quantifiable variables namely *a variety of shopping areas, cafes / co-working, culinary options, communal spaces,* and *recreational tours*.

Dimensions of Activity

From the results of PCA and FA on 59 measured variables of activities, 13 dimensions of activities when traveling in Bandung and the surroundings were obtained (Table 7). These variables were considered sufficient to represent several measured dimensions with an eigenvalue of more than one. Based on the mean value, the activities carried out at tourist destinations in Bandung were *relaxation, photography, recreation, physical needs, enjoying nature, social activities, consumptive activities, enjoying culture, leisurely walks, productive activities, ecotourism, meditation,* and *adventure*. In tourist destinations, visitors will tend to do relaxation, recreation, and *photography activities*, followed by 10 other activities. The grouping of activities carried out by visitors was quite diverse based on the theory of Jan Gehl (2011), which categorized the concept into public spaces, namely main, optional, and social activities.

Table 7. Latent Dimension of Activity

Dimensi Laten	Mean	Eigenvalue	% Of Variance	Cum %	Cronbach's α	Std Dev
Activity						
Enjoying nature	3.232	4.461	7.561	7.561	0.887	0.779
Productive activities	2.360	4.252	7.207	14.767	0.838	0.749
Ecotourism	2.159	4.226	7.163	21.930	0.875	0.777

Physical needs	3.240	3.973	6.734	28.664	0.856	0.707
Recreation	**3.381**	3.741	6.341	35.005	0.828	0.634
Adventure	1.940	3.239	5.489	40.494	0.875	0.954
Social activities	3.058	3.036	5.146	45.641	0.801	0.714
Relaxation	**3.423**	2.880	4.881	50.522	0.856	0.627
Consumptive activities	2.617	2.855	4.838	55.360	0.786	0.823
Meditation	2.122	2.730	4.627	59.987	0.766	0.859
Enjoying culture	2.615	2.692	4.563	64.550	0.800	0.842
Leisurely walks	2.598	2.618	4.437	68.988	0.802	0.894
Photography	**3.405**	2.479	4.202	73.190	0.769	0.591

Source: Researcher data, 2023.

Dimension of Sense of Place

Based on the quantitative questionnaire, respondents were asked six measurable variables to understand the preferences for a tourist destination. The responses were analyzed using PCA and FA. The results identified two principal components with eigenvalues greater than one, which were considered sufficient to describe and represent the phenomena of the six measurable variables. These latent variables/dimensions showed that the sense of place in Bandung's tourist attractions was divided into *compatibility* and *attachment* (Table 8).

Table 8. Latent Dimension of *Sense of Place*

Dimensi Laten	Mean	Eigenvalue	% Of Variance	Cum %	Cronbach's α	Std Dev
Sense of Place						
Attachment	**3.405**	2.951	49.189	49.189	0.859	0.561
Compatibility	2.940	1.337	22.279	71.467	0.513	1.380

Source: Researcher data, 2023.

Compatibility represents measurable variables such as "*I am comfortable going alone to the attraction*" and "*I feel that the tourist attraction aligns with my preferences*." This dimension shows that visitors feel comfortable visiting tourist attractions alone when preferences are matched. These two measurable variables represent the perception of individuals concerning the characteristics of a place (Dwiputra et al., 2019). Therefore, the dimension representing these two measurable variables is termed *Compatibility*, signifying the harmony or balance between the quality of a place and an individual's preferences. The naming of this dimension followed the terminology used by Dwiputra et al. (2019), which referenced the criteria in Attention Restorative Theory (ART) formulated by Kaplan (1995). In ART, Kaplan identifies criteria for compatibility, including the balance between a place and a person, where the place can have a restorative effect on the individual. These two measurable variables fall under the dimension of *Identity* as a cognitive component when the sense of place is explored through attitude theory (Jorgensen & Stedman, 2001). In this context, individuals hold beliefs, perceptions, and thoughts about attachment to a particular spatial environment, forming part of social identity. *Compatibility* is considered *Place Dependence*, which describes the extent to which an individual relies on a place to meet specific needs or desires. This can include dependence on facilities, services, or unique experiences. In tourism design, *Place Dependence* is crucial because good design should ensure that the place can meet tourists' expectations and needs (Efstathiou, 2020 in Kavoura et al., 2020).

Attachment represents measurable variables such as "*I will invite others to visit the tourist attractions*," "*I will recommend others to visit the tourist attractions*," "*I will return*

Influences of Motivations, Spatial Characteristics, and Activities on Sense of Place…
Effendi et al. (2025)

JKi

to this place," and "*I will give an overall positive assessment of the tourist attractions.*" The dimension shows that these tourist attractions hold exceptional value, compelling visitors to revisit and recommend to others. These four measurable variables represent the strong emotional bond of individuals to a place. As outlined in attitude theory, these variables reflect an affective domain, stating individuals' emotional connections to the environment (Jorgensen & Stedman, 2001). In the context of tourism, *Place Attachment* can encourage tourists to feel more engaged and connected with the destination visited, enriching the experience and increasing the desire to return (Efstathiou, 2020, in Kavoura et al., 2020). *Place Attachment* also includes feelings of ownership or a strong bond with a particular place to motivate pro-environmental behavior and protective actions (Masterson et al., 2017). These four measurable variables showed that visitors may return to the place and encourage others to visit, contributing to sustainability. Therefore, these four measurable variables are grouped under one dimension named *Compatibility*.

The naming of sense of place dimensions was guided by previous research to ensure balance with existing theories. These methods are referred to as direct content analysis. The results were compared with prior research that explored, defined, and named concepts within the framework of sense of place, as exemplified by the works of Shamai (1991), Jorgensen & Stedman (2001) in attitude theory, Dwiputra et al. (2019) in restorative theory, and (Efstathiou, 2020 in Kavoura et al., 2020) in the context of tourism design.

Table 9. Comparison of Sense of Place dimensions with attitude theory Jorgensen and Stedman (2001)

The Placement of Sense of Place Dimensions within the Components of Attitude	Sense of place measurement items, Jorgensen and Stedman (2001)	Measurable variables of Sense of place dimensions, Author (2023)
Place Identity is positioned within the cognitive domain, where individuals hold beliefs, perceptions, and thoughts about their attachment to a particular spatial environment, which forms part of their social identity.	The **Place Identity** dimension is measured using items such as: ● Everything about my lake property is a reflection of me. ● My lake property says very little about who I am. ● I feel that I can be myself at my lake property. ● My lake property reflects the type of person I am."	**Compatibility** dimension ● I am comfortable going alone to the attraction ● I feel that the tourist attraction is in line with my preferences
Place Attachment is within the affective domain, reflecting individuals' emotional connections to the environment.	The **Place Attachment** dimension is measured using items such as: ● I feel relaxed when I am at my lake property. ● I feel happiest when I am at my lake property. ● My lake property is my favorite place to be. ● I miss my lake property when I am away for too long.	**Attachment** dimension ● I will invite others to come to the tourist attractions ● I will recommend others to come to tourist attractions ● I will come back to the place ● I will give an overall assessment of the tourist attractions
Place Dependence falls within the conative domain, capturing the desires and behavioral intentions influenced by the spatial environment.	The **Place Dependence** dimension is measured using items such as: ● My lake property is the best place to do the things I enjoy most. ● For doing the things I enjoy most, no place can compare to my lake property. ● My lake property is not a good place to do the things I most like to do.	

● As far as I am concerned, there are better places to be than at my lake property.		

The following sense of place is formed in tourist attractions in Bandung as reported by Shamai (1991), Jorgensen & Stedman (2001), and Dwiputra et al., (2019).

Table 10. Comparison of Sense of Place of Previous Research with Sense of Place Dimensions of Factor Analysis Results

Level of sense of place Shamai (1991)	Sense of place Dimensions Dwiputra (2019)	Sense of place dimensions Jorgensen dan Stedman (2001)	Bandung Tourism sense of place dimensions Author (2023)
Not having any sense of place.		-	-
Knowledge of being located in a place	*Compatibility with a place*	-	-
Belonging to a place		-	*Compatibility*
Attachment to a place		*Place Attachment*	*Attachment*
Identifying with the place goals		*Place Identity*	*Compatibility*
Involvement in a place	*Dedication to a place*	*Place Dependence*	-
Sacrifice for a place		-	-

Source: Researcher data, 2023.

Effect of Independent Dimension on Dependent Dimension

Based on the principle of cause-and-effect relationships, the independent variable must precede the dependent variable (Dwiputra et al., 2019). As a multifaceted and layered process characterizing the strong bonds between individuals and significant places, a sense of place and place identity are crucial components in the discourse surrounding identity, attachment, and dependence (Marques et al., 2020). This is also related to the initial motivation for visiting the place. Therefore, sense of place was determined as the dependent variable in the first regression stage, with motivations, spatial physical characteristics, and activities as independent variables. The regression analysis showed several significant independent variables to the dependent variable.

Influence of Motivations, Spatial Physical Characteristics, and Activities on Sense of Place

The results of the first regression analysis show that sense of place *attachment* is only influenced by *social activities* ($\beta=0.207$, $p=0.016$). Meanwhile, sense of place *compatibility* is significantly influenced by *adventure activities* ($\beta=0.240$, $p=0.001$), *social activities* ($\beta=0.298$, $p=0.003$), *photography* ($\beta=0.209$, $p=0.094$), and *physical beauty characteristics* ($\beta=0.269$, $p=0.029$).

Adventure, social activities, and *photography* are the activity dimensions influencing *compatibility* with tourist attractions. *The adventure* dimension represents *rafting, camping,* and *hiking. The social activities* dimension includes *talking, chatting, discussing,* and *hanging o*ut. *The photography* dimension represents *photographing, taking pictures, smiling,* and *seeking inspiration. The social status tourism* dimension comprises the *aesthetic/Instagram-able character of the place, a clean and well-maintained place,* and *a safe place for children*.

Table 11. Regression Analysis of Mean Dimensions of Motivations, Spatial Physical Characteristics, Activities, and Sense of Place

Influences of Motivations, Spatial Characteristics, and Activities on Sense of Place…
Effendi et al. (2025)

Jki

Independent \ Dependent	Attachment Rsq=0.29 Pvalue=0.0024		Compatibility Rsq=0.36 Pvalue<.0001	
	Estimate	Prob>|T|	Estimate	Prob>|T|
Mean Seeking Solitude	0.065	0.513	0.183	0.113
Mean Seeking Crowd	0.159	0.201	0.060	0.678
Mean Commercial	-0.064	0.508	0.177	0.112
Mean Nature	0.152	0.228	0.070	0.630
Mean Beauty	0.109	0.300	0.269*	0.029
Mean Affordability	-0.016	0.839	-0.057	0.530
Mean Enjoying Nature	-0.042	0.702	-0.351	0.007
Mean Productive Activities	-0.097	0.340	-0.095	0.423
Mean Ecotourism	0.015	0.884	-0.129	0.292
Mean Physical Needs	0.040	0.666	-0.072	0.500
Mean Recreation	0.015	0.877	-0.124	0.279
Mean Adventure	0.074	0.230	0.240***	0.001
Mean Social Activities	0.207*	0.016	0.298**	0.003
Mean Relaxation	0.024	0.831	0.148	0.266
Mean Consumptive Activities	-0.001	0.994	-0.075	0.470
Mean Meditation	-0.075	0.301	0.005	0.955
Mean Enjoying Culture	0.121	0.141	0.055	0.558
Mean Leisure Walk	-0.039	0.542	-0.059	0.432
Mean Photography	0.015	0.890	0.209	0.094

Note: p<0.1. *p < 0.05. **p < 0.01. ***p < 0.001
Source: Researcher data, 2023

Influence of Motivations and Spatial Physical Characteristics on Activities

The dependent variables in the second regression analysis are the dimensions of activities influencing the sense of place, namely *social activities, enjoying nature, adventure,* and *photography.* The independent variables are all dimensions of motivation and spatial physical characteristics.

The results show that *social activities* are influenced by *seeking a crowd* (β=0.306, p=0.044), *enjoying nature* is influenced by the spatial physical characteristics of *nature* (β=0.665, p<.0001), and *seeking solitude* motivation (β=0.253, p=0.007), *photography* is influenced by the physical attributes of *beauty* (β=0.304, p=0002) and no dimension influences *adventure activities*. The results show that *seeking a crowd* motivation (β=0.306, p=0.044) influences *social activities*. *Seeking solitude* motivation (β=0.253, p=0.007) and spatial physical characteristics of *nature* (β=0.665, p<.0001) influence *enjoying nature* activity. The *crowd-seeking* dimension represents travel motivations such as *seeking cultural experiences*, *crowded places, newly visited places, or even an atmosphere like in the visitor's home area. The solitude-seeking* dimension represents travel motivations including *seeking a calm, quiet,* and *comfortable atmosphere*.

The *nature* dimension is the spatial physical characteristics of tourist attractions in the Bandung area that most significantly affect visitor activities to *enjoy nature*. This dimension consists of several measurable variables, such as places *with various adventure tours such as hiking and rafting, places with natural beauty and coolness, and places with various attractive tours such as games, camping areas, tour packages, and photo spots.* Galindo & Rodríguez (2000) stated that the enjoyment of nature increased pleasure and positively influenced a person's psychological well-being.

The *beauty* dimension most significantly affects *photography* activities. This dimension is a place with *aesthetic / Instagram-able* characteristics, *clean and well-maintained,* and *a safe place for children*. Dwiputra et al., (2019) also reported that the

dimension with significant influence was *design quality*, representing the visual aspects of a place, similar to *beauty*. Efstathiou, 2020 (in Kavoura et al., 2020) emphasized the importance of visual quality in tourist destinations, where good visual quality enhanced a place's aesthetics and created meaningful experiences.

Table 12. Regression Analysis of Mean Dimensions of Motivations, Spatial Physical Characteristics, and Activities

Dependent / Independent	Social Activities RSq=0.08 P=0.1222		Enjoying Nature RSq=0.36 P<.0001		Adventure RSq=0.11 P=0.0224		Photography RSq=0.23 P<.0001	
	Estimate	Prob>|t|	Estimate	Prob>|t|	Estimate	Prob>|t|	Estimate	Prob>|t|
Mean Seeking Solitude	0.052	0.665	0.253**	0.007	0.296	0.062	0.086	0.338
Mean Seeking Crowd	0.306*	0.044	-0.003	0.980	-0.051	0.795	0.022	0.846
Mean Commercial	0.036	0.745	-0.075	0.372	0.014	0.920	-0.014	0.865
Mean Nature	0.015	0.909	0.665***	<.0001	0.325	0.067	0.160	0.113
Mean Beauty	0.045	0.735	0.047	0.637	-0.302	0.079	0.304**	0.002
Mean Affordability	-0.065	0.519	-0.116	0.132	-0.017	0.897	0.022	0.770

Note: p<0.1. *p < 0.05. **p < 0.01. ***p < 0.001
Source: Researcher data, 2023

Effect of Motivations on Spatial Physical Characteristics

Based on the previous analysis, the spatial physical characteristics of tourist attractions influencing tourism activities are *nature* and *beauty*. The last or third regression analysis is the effect of visiting motivation on the choice of a place with these characteristics.

This regression analysis shows that the motivation to *seek solitude* (β=0.478, p<.0001) and *seek crowds* (β=0.304, p=.0002) significantly influence *nature* characteristics. Similarly, the motivation to *seek solitude* (β=0.261, p<.0001) and *seek crowds* (β=0.305, p<.0001) significantly influence *beauty* characteristics.

Individuals with very different motivations have similar tastes in tourist attractions. However, there is a slight difference between individuals with *solitude-seeking* motivations and those who prefer *nature* attractions over *beauty*. The difference can be observed from the estimate and probability values. Individuals with a *crowd-seeking* motivation slightly prefer places with *beauty* characteristics.

Table 13. Regression Analysis of Mean Dimensions of Motivations and Spatial Physical Characteristics.

Dependent / Independent	Nature RSq=0.42 P<.0001		Beauty RSq=0.24 P<.0001	
	Estimate	Prob>|t|	Estimate	Prob>|t|
Mean Seeking Solitude	0.478***	<.0001	0.261***	<.0001
Mean Seeking Crowd	0.304**	0.0002	0.304***	<.0001

Note: p<0.1. *p < 0.05. **p < 0.01. ***p < 0.001
Source: Researcher data, 2023

Hypothesis Model

After completing a series of regression analyses, a hypothesis model was created to facilitate and simplify the interpretation of the phenomena. The pattern of influence of activity dimensions, spatial physical characteristics, and motivation on the sense of place can be seen in Figure 4.

The activities dimension of *social activities* (0.207*) and *seeking crowds* (0.306*) directly and indirectly influence the sense of place of *attachment* dimension. This analysis

Influences of Motivations, Spatial Characteristics, and Activities on Sense of Place…
Effendi et al. (2025)

Jki

result was consistent with Azizi & shekari (2018) and Putra et al. (2023) where sense of place and social capital had a positive and significant correlation.

The spatial physical characteristic dimension of *beauty* (0.269*), as well as *social activities* (0.298**), *adventure* (0.240***), and *photography* (0.209) directly influence the sense of place of *compatibility*. Additionally, *the beauty* dimension (0.304**) with motivations for traveling in Bandung, specifically *seeking crowds* (0.304***) and *seeking solitude* (0.261***) indirectly influence *compatibility*.

Tourism stakeholders in Bandung and the surroundings can consider the relationship model when creating policies and managing tourist attractions. Moreover, visitors motivated to *seek crowds* will indirectly visit tourist attractions.

Spaces should be created to accommodate *social activities, adventure*, as well as *photography* and represent the spatial physical characteristics of *beauty* to encourage repeat visits. Indirectly, visitors motivated to *seek crowds* and *solitude* will come back to the tourist attractions.

Cross (2001) suggested that a more meaningful understanding of attachments to places can be developed by considering relationships of the interconnected aspects. Manzo and Perkins, as cited in Tan et al. (2018) reported the importance of place attachment for community participation and development. The results showed that research on place attachment emphasized individual feelings and experiences but neglected to consider the relationships within a broader sociopolitical context. Dwiputra et al. (2019) found that individuals whose activity needs balance with available facilities had a more positive experience in tourism development. This occurs when visitor engagement with tourist attractions' spatial, physical characteristics or attributes forms an interaction phenomenon. Visitors become more active due to the compatibility between the spatial physical characteristics of the attractions and the desired activities. This intensive interaction enhances a sense of place in tourist attractions.
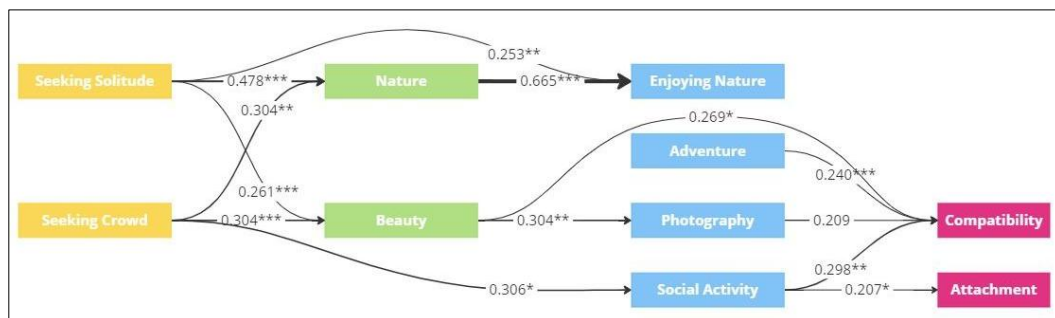
Note: p<0.1. *p < 0.05. **p < 0.01. ***p < 0.001
Figure 2. Model of the Relationship between Motivation, Spatial Physical Characteristics, Activities, and Sense of Place.
Source: Analysis results, 2023

Suggestions and Policy Implications

Based on the research findings, several key regulations and standards can be implemented to enhance the quality and sustainability of tourist destinations, particularly in Bandung. A primary recommendation is the balance of zoning regulations with the spatial characteristics of each area to strengthen the sense of place. This method was supported by Peraturan Menteri Pariwisata dan Ekonomi Kreatif Nomor 9 Tahun 2021, Pasal 7 and 8, which regulated tourism zoning to preserve the aesthetic, natural, and cultural

values of tourism areas. By protecting significant visual appeal, cultural value, and natural beauty, the area can attract tourists *seeking solitude* and *crowds*. Moreover, balancing tourism activities with the spatial characteristics of each destination can enhance visitor satisfaction and repeat visits.

Maintaining quality standards for tourism spaces is essential. Ensuring clean, safe, and well-managed environments should be a priority to support various activities, such as social interaction, photography, and adventure. These standards are consistent with Article 10 and 12 of the regulations, which emphasize the importance of maintaining high-quality spaces for tourism. By addressing the diverse needs of different tourist segments, quality standards can promote a stronger emotional attachment to the destinations, enhancing the visitor experience.

Tourism policies should promote the development of activities that cater to tourists' varied motivations. For instance, the provision of spaces and opportunities for social interaction, adventure activities, and photography must enhance the dimensions of attachment and compatibility within the sense of place. This method is consistent with Pasal 15 on Tourism Activity Development. Destinations build stronger emotional connections by creating environments resonating with visitors' motivations and desired activities.

The integration of standards and regulations into regional tourism strategies is crucial to ensuring that the development in Bandung remains sustainable and attractive. According to Article 18, integrating sustainable tourism principles into regional strategies is critical to long-term success. The research results suggest that stakeholders can improve tourism conditions and enhance the sense of place by following the strategies, contributing to sustainable tourism development.

The policy strategies for each tourism industry stakeholder are provided in Table 14. The results offer a clear framework for balancing local tourism policies with national regulations, ensuring that tourism development in Bandung is sustainable and capable of promoting a strong sense of place. Stakeholders can also significantly enhance the visitor experience and contribute to the long-term sustainability of tourist destinations by addressing motivations, spatial characteristics, and activities.

Table 14. Policy strategy can be taken for each tourism industry player

Tourism Industry Player	Objective	Policy Strategy	Implementation Steps	Targeted Sense of Place Dimension
Local Government	Ensure sustainable tourism development	Implement zoning regulations and environmental protection standards	Implement zoning that preserves aesthetic, natural, and cultural values	Compatibility
Tourism Developers	Create a balanced tourism policy	Standardize tourism infrastructure	Develop clean, safe, and well-maintained spaces	Attachment & Compatibility
Tourism Operators	Enhance visitor experience	Standardize activity spaces and visitor experience programs	Create diverse activity offerings, including social, adventure, and photography activities	Attachment & Compatibility
Local Communities/ Community Organizations	Benefit from and contribute to tourism	Encourage community involvement and benefit-sharing	Involve local communities in tourism development and promote cultural activities	Attachment

Influences of Motivations, Spatial Characteristics, and Activities on Sense of Place…
Effendi et al. (2025)

JKi

Marketing Agencies	Managing public perception	Destination branding and promotion	Highlight the unique spatial characteristics and activities of destinations.	Compatibility

Source: Researcher analysis, 2024

CONCLUSION

In conclusion, the two categories of motivation for visitors to travel in the Bandung area include seeking solitude and crowds. The four categories of physical spatial characteristics of tourist attractions attracting visitors to travel in the Bandung area are commercial, nature, beauty, and affordability. Visitors at tourist attractions are included in 12 activities, namely *enjoying nature, productive activities, ecotourism, physical needs, recreation, adventure, social activities, relaxation, consumptive activities, meditation, enjoying culture, leisurely walks,* and *photography*. Furthermore, two categories of sense of place are created from a series of aspects of Bandung tourism, namely attachment and compatibility.

This research reports the causal relationship between motivations, spatial physical characteristics, activities, and the sense of place of tourist attractions. Motivations to travel influence a person to choose the characteristics of tourist attractions and activities. In addition, place characteristics can also encourage individuals to conduct a particular activity, such as natural characteristics enabling visitors to enjoy nature.

The results and the policy articulation support Peraturan Menteri Pariwisata dan Ekonomi Kreatif Nomor 9 Tahun 2021, emphasizing the importance of zoning regulations in line with spatial characteristics, quality standards for tourist spaces and the development of tourism activities. Therefore, the research strengthens policies concerning the management of sustainable tourist destinations, particularly in preserving aesthetic, cultural, and natural values while enhancing visitor satisfaction and loyalty.

The primary limitation of this research was the use of convenient sampling methods, which led to an uneven or unfocused distribution of respondents. Even though the concept could be generalized to the largest age group of respondents, namely 20-30 years, variables such as domicile, gender, employment background, and income might influence motivations, place characteristics, and activities. Random sampling methods were necessary to enhance reliability in future research. Another limitation was using conventional content analysis during the open coding phase. Conventional content analysis comprised exploratory naming/coding textual data in qualitative research based on reasoning rather than existing theory. This method allowed for broader categorization and the discovery of new categories based on regional context, leading to less precise categorizations.

ACKNOWLEDGEMENT

REFERENCES

Andrade, C. (2021). The Inconvenient Truth About Convenience and Purposive Samples. *Indian Journal of Psychological Medicine*, *43*(1), 86–88. https://doi.org/10.1177/0253717620977000

Azizi, F., & shekari, F. (2018). Modeling the relationship between sense of place, social capital, and tourism support. *Iranian Journal of Management Studies*, *Online First*. https://doi.org/10.22059/ijms.2018.252073.673018

Bulan, T. P. L., Junaida, E., & Maitama, M. H. (2021). Daya Tarik Wisata, Motivasi dan Keputusan Berkunjung di Objek Wisata Pantai Berawe. *Jurnal Akuntansi Audit Dan Perpajakan Indonesia (Jaapi)*, *2*(1), 115–123.

Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (Sixth edition). SAGE.

Cross, J. (2001). What is Sense of Place. *Headwaters Conference*.

Dwiputra, I. D., Tampubolon, A. C., & Kusuma, H. E. (2019). The Influence of User Activity and Environmental Characteristics Dimensions on Sense of Place in City Parks. *DIMENSI (Journal of Architecture and Built Environment)*, *45*(2), 165. https://doi.org/10.9744/dimensi.45.2.165-172

Galindo, M. P. G., & Rodríguez, J. A. C. (2000). Environmental Aesthetics and Psychological Wellbeing: Relationships Between Preference Judgements for Urban Landscapes and other Relevant Affective Responses. *Psychology in Spain*, *4*(1), 13–27.

Gan, T., Zheng, J., Li, W., Li, J., & Shen, J. (2023). Health and Wellness Tourists' Motivation and Behavior Intention: The Role of Perceived Value. *International Journal of Environmental Research and Public Health*, *20*(5), 4339. https://doi.org/10.3390/ijerph20054339

Gehl, J. (2011). *Life between buildings: Using public space*. Island Press.

Groat, L., Wang, D., & Groat, L. N. (2013). *Architectural research methods* (2. ed. [updated and expanded]). Wiley.

Haryanto, E. (2019). Analisis Motivasi Pendorong Wisatawan Mancanegara Berkunjung ke Yogyakarta. *Kepariwisataan Jurnal Ilmiah*, *13*(1).

Jarratt, D., Phelan, C., Wain, J., & Dale, S. (2019). Developing a sense of place toolkit: Identifying destination uniqueness. *Tourism and Hospitality Research*, *19*(4), 408–421. https://doi.org/10.1177/1467358418768678

Jayadi, E. K., Mahadewi, N. P. E., & Mananda, I. G. S. (2017). *KARAKTERISTIK DAN MOTIVASI WISATAWAN BERKUNJUNG KE PANTAI GREEN BOWL, UNGASAN, KUTA SELATAN, BALI. 17*(2).

Jebbouri, A., Zhang, H., Imran, Z., Iqbal, J., & Bouchiba, N. (2022). Impact of Destination Image Formation on Tourist Trust: Mediating Role of Tourist Satisfaction. *Frontiers in Psychology*, p. *13*, 845538. https://doi.org/10.3389/fpsyg.2022.845538

Jorgensen, B. S., & Stedman, R. C. (2001). Sense of Place as an Attitude: Lakeshore Owners Attitudes Toward Their Properties. *Journal of Environmental Psychology*, *21*(3), 233–248. https://doi.org/10.1006/jevp.2001.0226

Kavoura, A., Kefallonitis, E., & Theodoridis, P. (Eds.). (2020). *Strategic Innovative Marketing and Tourism: 8th ICSIMAT, Northern Aegean, Greece, 2019*. Springer International Publishing. https://doi.org/10.1007/978-3-030-36126-6

Khanna, R., & Sharma, C. (2023). Does Financial Development Raise Tourism Demand? A Cross-Country Panel Evidence. *Journal of Hospitality & Tourism Research*, *47*(6), 1040–1070. https://doi.org/10.1177/10963480211060789

Kumar, R. (2012). *Research methodology: A step-by-step guide for beginners* (3. ed., reprinted). Sage Publ.

Marques, B., Freeman, C., Carter, L., & Pedersen Zari, M. (2020). Sense of Place and Belonging in Developing Culturally Appropriate Therapeutic Environments: A Review. *Societies*, *10*(4), 83. https://doi.org/10.3390/soc10040083

Masterson, V. A., Stedman, R. C., Enqvist, J., Tengö, M., Giusti, M., Wahl, D., & Svedin, U. (2017). The contribution of sense of place to social-ecological systems research: A review and research agenda. *Ecology and Society*, *22*(1), art49. https://doi.org/10.5751/ES-08872-220149

Influences of Motivations, Spatial Characteristics, and Activities on Sense of Place…
Effendi et al. (2025)

Jki

Mirsa, R., Saputra, E., Kusprasetya, A., & Alamsyah, R. (2022). Sense of Place on Tourist Attractions in Central Aceh Regency (Case Study: Pantan Terong, Batu Susun, Bebalen Cafe). *International Journal of Engineering*.

OECD. (2020). *OECD Tourism Trends and Policies 2020*. OECD. https://doi.org/10.1787/6b47b985-en

Peraturan Menteri Pariwisata dan Ekonomi Kreatif Nomor 9 Tahun 2021 tentang Pedoman Destinasi Pariwisata Berkelanjutan. (2021). Kementerian Pariwisata dan Ekonomi Kreatif.

Prasetia, G. B. (2022). Pengaruh Motivasi Eksternal Wisatawan terhadap Tingkat Kunjungan Wisatawan di Pantai Happy Desa Tukadmungga. *SISTA Jurnal Akademisi Dan Praktisi Pariwisata*, *1*(2), 162–171.

Pratiwi, M. A., Ernawati, J., & Yusran, Y. A. (2023). Sense of Place Dimensions of Historic Streets as Urban Heritage Tourism Sites: Streets in Kayutangan, Malang, Indonesia. *ISVS E-Journal*, *10*(7), 300–317.

Pratminingsih, S. (2014). Roles of Motivation and Destination Image in Predicting Tourist Revisit Intention: A Case of Bandung – Indonesia. *International Journal of Innovation, Management and Technology*, *5*(1). https://doi.org/10.7763/IJIMT.2014.V5.479

Putra, H. O. A., Taifur, W. D., Games, D., & Handra, H. (2023). The Effect of Sense of Place Towards Social Capital on Millennials in A Semi-Urban City (A Case Study in Padang, West Sumatera—Indonesia). *Ilomata International Journal of Social Science*, *4*(2), 211–220. https://doi.org/10.52728/ijss.v4i2.724

Rahmafitria, F., & Nurazizah, G. R. (2022). The Management Concept of Mountain-Based Destination through Carrying Capacity Analysis. *IOP Conference Series: Earth and Environmental Science*, *1111*(1), 012028. https://doi.org/10.1088/1755-1315/1111/1/012028

Rani, F. P., Kusuma, H. E., & Tampubolon, A. C. (2020). Hubungan Motivasi, Kegiatan dan Karakter Tempat Wisata Pada Pusaka Saujana Imogiri Yogyakarta. *Jurnal Master Pariwisata (JUMPA)*, 470. https://doi.org/10.24843/JUMPA.2020.v06.i02.p11

Ruiz, C., Delgado, N., García-Bello, M. Á., & Hernández-Fernaud, E. (2021). Exploring crowding in tourist settings: The importance of physical characteristics in visitor satisfaction. *Journal of Destination Marketing & Management*, *20*, 100619. https://doi.org/10.1016/j.jdmm.2021.100619

Setyaningsih, S., & Murwatiningsih, M. (2017). Pengaruh Motivasi, Promosi dan Citra Destinasi pada Kepuasan Pengunjung melalui Keputusan Pengunjung. . . *Management Analysis Journal*, *6*(2), 23-133.

Shamai, S. (1991). Sense of place: An empirical measurement. *Geoforum*, *22*(3), 347–358. https://doi.org/10.1016/0016-7185(91)90017-K

Tan, S.-K., Tan, S.-H., Kok, Y.-S., & Choon, S.-W. (2018). Sense of place and sustainability of intangible cultural heritage – The case of George Town and Melaka. *Tourism Management*, *67*, 376–387. https://doi.org/10.1016/j.tourman.2018.02.012

Wiradipoetra, F. A., & Brahmanto, E. (2016). Analisis Persepsi Wisatawan Mengenai Penurunan Kualitas Daya Tarik Wisata Terhadap Minat Berkunjung. *Jurnal Pariwisata*, *3*(2), 129–137.

Zakaria, F., & Suprihardjo, R. D. (2014). Konsep Pengembangan Kawasan Desa Wisata di Desa Bandungan Kecamatan Pakong Kabupaten Pamekasan. *Jurnal Teknik ITS*, *3*(2), C245–C249.

Zhu, H., Liu, J., Wei, Z., Li, W., & Wang, L. (2017). Residents' Attitudes towards Sustainable Tourism Development in a Historical-Cultural Village: Influence of Perceived Impacts, Sense of Place and Tourism Development Potential. *Sustainability*, *9*(1), 61. https://doi.org/10.3390/su9010061

Žlender, V., & Gemin, S. (2020). Testing urban dwellers' sense of place towards leisure and recreational peri-urban green open spaces in two European cities. *Cities*, *98*, 102579. https://doi.org/10.1016/j.cities.2019.102579

AUTHOR PROFILE

Qonitah Khoirunnisa Effendi

Lecturer at the Department of Architecture, Faculty of Engineering, University of Lampung. Expert in the field of architecture research.

Novia Ruslan Subur

Magister Student of Tourism at Trisakti Institute of Tourism. Expertise in the fields of tourism research.

Hanson E. Kusuma

Lecturer at the School of Architecture, Planning, and Policy Development, Bandung Institute of Technology. Expert in environmental behavior and data analysis.

Agung Cahyo Nugroho

Lecturer at the Department of Architecture, Faculty of Engineering, University of Lampung. Expert in architecture and urban design.

THE ROLE OF DIGITAL TOURISM MARKETING: THE RELATIONSHIP BETWEEN IMMERSIVE TOURISM AND METAVERSE ON BLEISURE TRAVELERS AT MALANG HOTELS

Estikowati[1]*, Utik Kuntariati[2], Stella Alvianna[3], Syarif Hidayatullah[4]

[1]Diploma of Tourism, University of Merdeka Malang, Indonesia
[2]Diploma of Tourism Management, The International Institute of Tourism and Business, Indonesia
[3]Diploma of Tourism, University of Merdeka Malang, Indonesia
[4]Faculty of Economics and Business, University of Merdeka Malang, Indonesia

Correspondence: estikowati@unmer.ac.id

Article Info	Abstract
	This study explores the relationship between digital tourism marketing, immersive tourism, and the metaverse in the context of bleisure travelers visiting Batu Tourism City. By understanding how digital marketing can facilitate immersive tourism experiences, this study is expected to offer assistance to stakeholders in the tourism industry in designing more effective marketing strategies. The rapid development of technology and the increasing dependence of consumers on technology when selecting tourist destinations heighten this relevance. This research is an exploratory study that uses a quantitative approach to explore the relationship between several variables in the context of tourism. The two independent variables analyzed are immersive tourism and metaverse experience. In addition, there is one mediating variable, namely tourism digital marketing, and one dependent variable, namely bleisure. Results from the study showed that immersive tourism and metaverse experiences have a strong effect on digital tourism marketing, and that metaverse experiences directly improve bleisure behavior. Additionally, digital tourism marketing serves as a vital mediator between metaverse experiences and bleisure behavior. Therefore tourism in Batu needs to integrate digital technologies such as the metaverse and AR/VR to enhance global competitiveness and tourist attraction.

INTRODUCTION

The background of this research focuses on the role of digital tourism marketing in the context of immersive and metaverse tourism, especially for bleisure travelers visiting Batu Tourism City. Batu City, located in East Java, Indonesia, is known for its natural beauty, cool air, and various intriguing tourist attractions, such as Jatim Park, Batu Night Spectacular, and Museum Angkut. With these characteristics, Batu City is one of the favorite destinations for domestic and foreign tourists. Data from the Batu City Tourism Office shows that the level of tourist visits to Batu City has fluctuated recently. The following table presents data on tourist visits to Batu City from 2018 to 2022:

Year	Number of Tourist Visits (People)	Growth (%)
2018	1.500.000	-
2019	1.800.000	20%
2020	600.000	-67%
2021	900.000	50%
2022	1.200.000	33%

The table above shows that the number of tourist visits to Batu City experienced a drastic decline in 2020 due to the COVID-19 pandemic, but began to show recovery in 2021 and 2022. This recovery shows that tourist interest in visiting Batu City remains high, especially after the implementation of better health protocols and the launch of mass vaccinations. Promotional activities carried out by the Tourism Office also contributed to the increase in the number of visits, where various digital marketing strategies began to be implemented. Digital tourism marketing is very important in this context. With the increasing use of digital technology, tourism industry players in Batu City need to utilize various digital platforms to attract tourists. Digital marketing includes not only social media and websites but also immersive technologies such as virtual reality (VR) and augmented reality (AR). This technology can provide a more engaging and interactive experience for visitors, creating unforgettable moments. According to research by Tussyadiah (2020), the use of immersive technology in tourism marketing can increase visitor engagement and satisfaction. By providing an immersive experience, tourists can feel the appeal of Batu City before they make a physical visit.

Furthermore, the concept of bleisure, which combines business and leisure travel, is also increasingly popular among travelers. Many business travelers use their free time to explore tourist destinations, including Batu City. Research by Bălăcescu and Bălăcescu (2021) shows that bleisure travelers tend to seek unique and different experiences, which can be fulfilled through effective digital marketing. Batu City, with its various attractions and natural beauty, can be an ideal choice for bleisure travelers who want to make their business trips more memorable.

This study explores the relationship between digital tourism marketing, immersive tourism, and the metaverse in the context of bleisure travelers visiting Batu Tourism City. By understanding how digital marketing can facilitate immersive tourism experiences, this study is expected to provide useful insights for stakeholders in the tourism industry in designing more effective marketing strategies. This is becoming increasingly relevant considering the development of rapid technology and changes in consumer behavior that progressively rely on technology in choosing tourist destinations. Previous research shows

The Role of Digital Tourism Marketing: The Relationship Between Immersive Tourism…
Estikowati et al. (2025)

Jki

that digital marketing can improve customer engagement and experience. The table below presents some relevant research to support this background:

Researcher	Year	Key Findings
Tussyadiah	2020	The use of immersive technology in tourism marketing increases visitor engagement and satisfaction.
Bălăcescu & Bălăcescu	2021	Bleisure travelers seek unique and differentiated experiences through effective digital marketing.
Sigala & Wilson	2021	Good digital marketing can increase brand awareness and attract more tourists.
Li et al.	2022	The integration of AR and VR technology in tourism marketing provides a more immersive experience for visitors.

In addition, this study also seeks to identify the challenges and opportunities faced by tourism industry players in Batu City in implementing digital marketing and immersive technology. These challenges may include a lack of understanding of technology, a limited budget for digital marketing, and increasingly fierce competition in the tourism industry. On the other hand, the opportunities include the increasing public interest in technology, as well as the willingness to try new experiences in tourism. With increasing competition in the tourism industry, it is important for Batu City to remain relevant and attractive to tourists, especially in the post-pandemic era. This study is expected to provide a significant contribution to the development of innovative and effective marketing strategies, which can increase tourist visits to Batu City, as well as provide a better experience for bleisure travelers. This study will also contribute to the literature on digital tourism marketing and immersive tourism, as well as provide recommendations for the development of tourism policies in Batu City.

Through this research, it is expected to find new ways to utilize digital and immersive technology to increase the attractiveness of Batu City as a tourist destination. With the right approach, Batu City can be an example for other regions in utilizing digital marketing for sustainable and innovative tourism. This research will not only benefit tourism industry players in Batu City, but also provide benefits for visitors who are looking for a unique and memorable tourism experience. Thus, this research is expected to provide a meaningful contribution to the development of tourism in Batu City and a better understanding of the interaction between digital marketing, immersive tourism, and bleisure travelers.

METHOD

This research is an exploratory study that uses a quantitative approach to explore the relationship between several variables in the context of tourism. The two independent variables analyzed are immersive tourism (X_1) and metaverse experience (X_2). In addition, there is one mediating variable, namely tourism digital marketing (Z), and one dependent variable, namely bleisure (Y). The main focus of this study is visitors in Batu City, including locations such as hotels, tourist destinations, entertainment venues, and malls. The researcher used the Hair Jr. method to calculate the sample size, as the number of user populations remains undetermined. This method involves multiplying the number of indicators, which is 26, by a number between 5 and 10. The calculation results show that the set sample size reached 230 respondents. To analyze the data, researchers used multiple regression tests with two models that aim to explore the relationship between variables in

the context of tourism and tourist experiences in Batu City. In addition, researchers have used validity and reliability tests as measures for data instruments. The indicators used in this study will be presented in detail so as to provide a deeper understanding of the dynamics that occur. With this approach, it is hoped that this study can reveal previously unknown facts about the influence of immersive tourism and metaverse experiences on tourist behavior, as well as their interest in bleisure activities in the tourist city of Batu.

Table 1. Research Instruments

Indicator	Statement 1	Statement 2
Bleusure (Y)		
Travel Duration	I tend to extend my stay to explore Batu Tourist City.	I prefer to visit Batu City longer than a regular business trip.
Expenditure	I usually spend more on recreation when I'm on bleisure in Batu Tourism City.	I am more comfortable spending money on culinary and tourism.
Activities Carried Out	I enjoy joining local tours and cultural events in my free time.	This activity provides an opportunity to experience local culture.
Availability of Facilities	I prefer hotels with facilities for working and relaxing.	I was looking for accommodation with a gym and spa for work-leisure balance.
Customer satisfaction	I feel more satisfied when my trips are balanced between business and leisure.	I believe this balanced experience improved my mental well-being.
Immersive Tourism (X$_1$)		
Emotional Engagement	I felt an emotional connection to the local culture through the immersive experience.	I feel more connected to the local community in Batu city.
Practical Experience	I love getting involved in activities to learn new skills.	This practical experience made my trip more meaningful.
Social Interaction	I look for opportunities to interact with local people.	This interaction enriched my travel experience.
Depth of Knowledge	I want to understand more about the history and culture of the places I visit.	I felt satisfied when I dug up in-depth information during the trip.
Diversity of Experience	I love a variety of experiences, such as local cuisine and art.	The diversity of experiences made my trip more interesting and memorable.
Metaverce Experience (X$_2$)		
Experience	I felt involved in virtually exploring the hotel facilities before visiting.	I enjoy immersive experiences that help plan travel activities.
Virtual Facilities	I appreciate the virtual conference room for business meetings in Batu city.	I like to relax in the social area after work.
Social Interaction	I felt connected when interacting with other guests in Batu city.	Social interaction made my experience more valuable.
Customize Experience	I enjoy setting up rooms to reflect personal style in Batu city.	Customizing the experience makes me more satisfied.
Accessibility of Information	I appreciate having access to information about local activities after work.	I feel more prepared to plan my free time thanks to the information available.
Promotions and Offers	I am interested in special offers that combine business and leisure services.	Attractive promotions make the hotel experience more valuable.
Tourism Digital Marketing (M)		
Online Visibility	I find it easier to find tourist information in Batu Tourism City with a strong online presence.	I believe good online visibility increases my trust in a tourist destination.

The Role of Digital Tourism Marketing: The Relationship Between Immersive Tourism…
Estikowati et al. (2025)

Jki

Indicator	Statement 1	Statement 2
Use of Social Media	I often look for tourist recommendations on social media before visiting Batu Tourist City.	I feel more connected to a tourist spot when I see interesting content on social media.
Interesting Content	I was more interested in visiting after seeing interesting photos and videos of the facilities in Batu Tourism City.	Interesting stories of visitors' experiences influenced my decision to visit.
Reviews and Testimonials	Visitor experience stories influence my decision.	Positive reviews from other visitors made me more confident in choosing a tourist spot.
SEO (Search Engine Optimization)	Search engine optimization makes it easier for me to find information about tourist attractions in Batu Tourism City.	Good SEO helps me find the best deals for visiting Batu Tourism City.
Email Marketing	I often open emails with attractive offers about tourist attractions in Batu Tourism City.	I feel appreciated when I receive personalized emails with special offers from attractions.
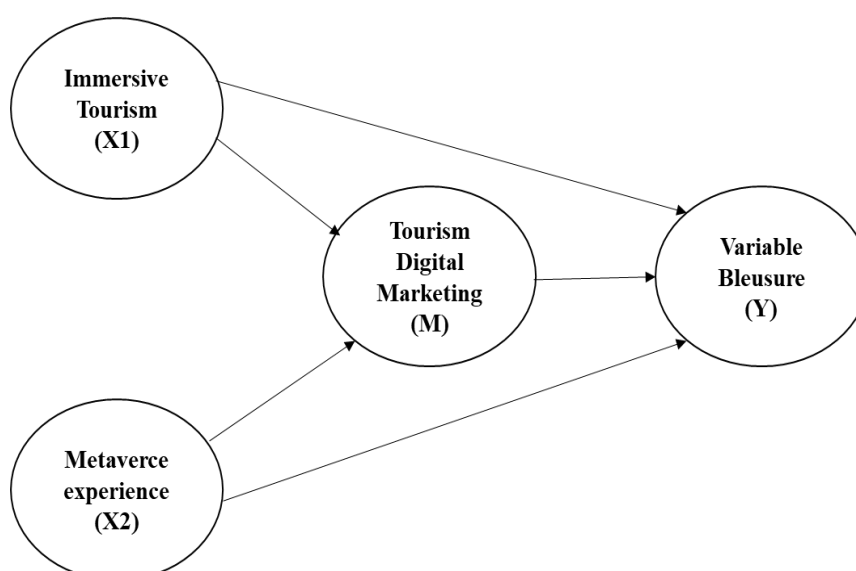
Figure 1. Conceptual Framework

RESULTS AND DISCUSSION

Respondent Description

The following is a description of respondents in tabular form based on gender, occupation, status, and region of origin for a sample size of 230 people.

Table 2. Recapitulation of Respondent Characteristics

Category	Information	Amount	Percentage (%)
Gender			
	Male	120	52.2
	Female	110	47.8
Profession			
	Student	60	26.1
	Private Employee	90	39.1
	Entrepreneur	50	21.7
	Freelancer	30	13.0

Status			
	Single	120	52.2
	Ever Married	70	30.4
	Already Married	40	17.4
Region of Origin			
	Batu City	150	65.2
	Malang	50	21.7
	Outside Malang	30	13.0

Source: Processed primary data, 2024

In the gender category, respondents consisted of 120 males, which covered 52.2% of the total sample, and 110 females, which amounted to 47.8%. This finding indicates that there are slightly more males than females among the respondents. In the occupation category, the majority of respondents were private employees, with a total of 90 people, or 39.1%. These were followed by 60 students, who made up 26.1% of the total, 50 entrepreneurs, who made up 21.7%, and 30 freelancers, who made up 13.0%. This distribution indicates that respondents have diverse occupational backgrounds. Based on the status category, 120 respondents or 52.2%, were unmarried. Respondents who had been married numbered 70 people, equivalent to 30.4%, and 40 people, or 17.4%, were married. This composition indicates that the majority of respondents were individuals who were not yet married. Finally, in the category of regional origin, 150 respondents came from Batu City, which constituted 65.2% of the total sample. There were 50 respondents from Malang, amounting to 21.7%, and 30 respondents came from outside Malang, which covered 13.0%. This finding shows that most of the respondents came from Batu City.

Instrument Testing

We conduct a validity test to assess the validity of the data obtained from the questionnaire. Based on the results of SPSS processing of the frequency distribution of each variable, the results of the validity test show that all questions for each variable are valid. This conclusion is drawn from the rule that the rcount value must be greater than the rtable value and that the significance value is less than the alpha level of 5%. After declaring all question items valid, we conduct data reliability testing to assess the consistency of the compiled questionnaire. The analyzed reliability test results follow. Based on the results of the reliability test in the table above, it can be concluded that all variables have a reliability coefficient value greater than the Cronbach's alpha value (0.600).

Multiple Regression Test 2 Models

This study uses path analysis with a two-model regression method. In the first model, the influence of independent variables on intermediate variables will be analyzed. Furthermore, in the second model, the influence of independent variables and intermediate variables on dependent variables will be analyzed.

1. First Model Regression Results

The following table presents the results of the regression equation test for model 1:

Table 3. Multiple Regression Results of the First Model

The Role of Digital Tourism Marketing: The Relationship Between Immersive Tourism...
Estikowati et al. (2025)

Jkí

Description	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Immersive Tourism	0.652	0.056	0.575	11.561	0,000
Metaverce experience	0.303	0.045	0.333	6.685	0,000
Dependent Variabel	Tourism Digital Marketing				
R	0.842				
R^2	0.711				
$R^2_{Adjusted}$	0.701				
F_{Count}	273.144				
Probability	0,000				
Line Equation I	$Z = \beta_1 X1 + \beta_2 X2$				
Result	$Z = 0.575 X1 + 0.333 X2$				

Source: Processed primary data, 2024

The results of the model 1 path coefficient and significance test show the significance value of immersive tourism (X_1) = 0.000 and metaverse experience (X_2) = 0.000. It can be concluded that immersive tourism and metaverse experiences have a significant effect on tourism digital marketing. The value of R^2 or RSquare is 0.842, which means that the contribution given by each variable analyzed to tourism digital marketing is 84.2%, and the remaining 15.8% is the contribution of other variables not analyzed in this study. The results of the regression output of model 1 obtained a calculated F value of 185.268 and a significance value of 0.000, meaning that immersive tourism and metaverse experience together have an effect on tourism digital marketing.

2. Results of the Second Model Regression

The following table presents the results of the regression equation test for model 2:

Table 4. Multiple Regression Results of the Second Model

Description	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Immersive Tourism	-0,036	0.101	-0,032	-0, 361	0,719
Metaverce experience	0,263	0.070	0,291	3,753	0,000
Tourism Digital Marketing	0,418	0,094	0,421	4,455	0,000
Dependent Variabel	Bleusure				
R	0,638				
R^2	0,407				
$R^2_{Adjusted}$	0,399				
F_{Count}	51,764				
Probability	0,000				
Line Equation I	$Y = \beta_4 X1 + \beta_5 X2 + \beta_6 X + \beta_7 Z$				
Result	$Y = 0.345 X1 - 0.025 X2 - 0.087 X3 + 0.717 Z$				

Source: Processed primary data, 2024

The results of the test model 2 path coefficients and significance show the significance value of immersive tourism (X_1) = 0.719, metaverse experience (X_2) = 0.000,

Jki

and tourism digital marketing (Z) = 0.000. It can be concluded that immersive tourism, metaverse experiences, and tourism digital marketing have a significant effect on bleisure. The value of R² or RSquare is 0.407, which means that the contribution given by each variable analyzed to the net interest is 40.7%, and the remaining 59.3% is the contribution of other variables not analyzed in this study.

3.   Hypothesis Testing Analysis

Table 5. Recapitulation of Path Analysis Results

Description	Direct Effect	Sig.	Indirect Effect	Total Effect	Information
Immersive Tourism Tourism Digital Marketing	0.575	0,000			Significant
Metaverce Experience Tourism Digital Marketing	0.333	0,000			Significant
Immersive Tourism Bleusure	-0,032	0,719			No Significant
Metaverce Experience Bleusure	0,291	0,000			Significant
Tourism Digital Marketing Bleusure	0,421	0,000			Significant
Immersive Tourism Bleusure Tourism Digital Marketing			-0,032 x 0,421 = -0,0135		Significant
Metaverce Experience Bleusure Tourism Digital Marketing			0,291 x 0,421 = 0,123		No Significant

Source: Processed primary data, 2024

The direct effect of immersive tourism on tourism digital marketing shows a coefficient value of 0.575 with a significance level of 0.000, which means this effect is significant. This study shows that an increase in immersive tourism can increase the effectiveness of digital marketing in the tourism sector. Similarly, metaverse experience also shows a significant direct effect on tourism digital marketing with a coefficient of 0.333 and a significance of 0.000, indicating that the experience in the metaverse contributes positively to digital marketing strategies.

However, the effect of immersive tourism on bleisure is not significant, with a coefficient value of -0.032 and a significance of 0.719. This result indicates that immersive tourism does not have a reliable direct impact on the level of satisfaction or use of leisure services. In contrast, metaverse experience has a significant positive effect on bleisure, with a coefficient of 0.291 and a significance of 0.000, indicating that experiences in the metaverse can increase satisfaction in leisure activities.

Tourism digital marketing also contributes significantly to bleisure, with a coefficient of 0.421 and a significance of 0.000. This shows that an effective digital marketing strategy can enhance the leisure experience. When looking at the influence of immersive tourism on bleisure through tourism digital marketing, although the direct influence is not significant, the indirect analysis shows a value of -0.0135, which is considered significant, indicating an interaction between the two variables in the marketing context. On the other hand, the indirect influence of metaverse experience on bleisure through tourism digital marketing produces a value of 0.123, which is not significant, indicating that although there is an interaction, the influence is not strong enough to be accepted as significant.

Immersive Tourism has an Impact on Tourism Digital Marketing

The Role of Digital Tourism Marketing: The Relationship Between Immersive Tourism…
Estikowati et al. (2025)

JkΊ

This study shows a significant direct influence between immersive tourism and tourism digital marketing, with an influence value of 0.575 and a significance level of 0.000. This shows that an increase in the immersive tourism experience contributes positively to the effectiveness of digital marketing strategies in the tourism sector. The higher the level of immersive tourism, the greater the impact on the success of digital marketing, which can be used to attract consumer interest and engagement. The results of this study are in line with previous findings, which suggest that immersive experiences can increase consumer engagement in marketing. Pine and Gilmore (1999) state that experience can be a strategic tool to differentiate brands and create added value for customers. However, the main difference between this study and previous studies lies in the context and focus. Previous studies tend to be more general in discussing customer experience, while this study specifically explores how immersive tourism can be integrated into modern digital marketing. Thus, the results of this study confirm the importance of immersive tourism as a key element in designing effective marketing strategies in the digital era. This provides insights for stakeholders in the tourism industry to design more immersive and interactive experiences in order to increase customer attraction and engagement.

Metaverse Experience Influences Tourism Digital Marketing

This study found a significant direct effect between Metaverse Experience and Tourism Digital Marketing, with an effect value of 0.333 and a significance level of 0.000. This finding suggests that the experience provided in the metaverse can effectively enhance digital marketing strategies in the tourism industry. The interactive and immersive experiences offered by the metaverse create new opportunities for marketers to engage consumers, allowing them to engage with the destination in more depth before traveling. The results of this study are in line with previous studies showing that new technologies, such as the metaverse, can change the way marketing is done in the tourism sector (Tussyadiah, 2020). Previous studies have emphasized the potential of virtual experiences in increasing customer engagement. However, the main difference lies in the more specific focus on the metaverse in this study, while previous studies have been more general in discussing digital technologies in general. The results of this study emphasize the importance of utilizing metaverse experiences as an integral part of digital marketing strategies in tourism. This provides insights for stakeholders to integrate interactive elements in their marketing campaigns to increase customer attraction and engagement. The success of utilizing metaverse experiences can be a determining factor in attracting the attention of consumers who are increasingly accustomed to digital technology.

Immersive Tourism Influences Bleusure

This study shows that the direct effect of immersive tourism on bleisure is negative, with an influence value of -0.032 and a significance level of 0.719. This result indicates that there is no significant relationship between the two variables. The high significance value indicates that immersive tourism does not contribute to improving the bleisure experience, which includes a combination of recreation and quality travel experiences. This finding differs from previous studies that show that immersive experiences in tourism can generally improve customer satisfaction and experience. (Tung & Ritchie, 2011). The study emphasizes that rich and interactive experiences can add value to tourists. However, in the context of this study, the negative effect suggests that while immersive tourism may be

theoretically appealing, its application in enhancing bleisure may not be as effective as expected. This difference may be due to contextual factors, such as the type of experience offered or how tourists respond to the experience. Thus, the results of this study provide important insights for stakeholders in the tourism industry to better understand the factors that influence bleisure. This suggests the need for a deeper evaluation of specific elements of immersive tourism that can be optimized to enhance the tourist experience.

Metaverce Experience Influences Bleisure

This study revealed a positive and significant influence between Metaverse Experience and Bleisure, with an influence value of 0.291 and a significance level of 0.000. This finding indicates that the experience gained in the metaverse can effectively enhance Bleisure, which includes the integration of recreation and quality travel experiences. The immersive experience offered by the metaverse allows tourists to explore tourist destinations virtually, thus creating a greater sense of interest before they physically travel. The results of this study are in line with previous studies showing that digital experiences can add value to travel and increase tourist satisfaction. (Li et al., 2020). The study emphasizes that fun and interactive experiences can enrich travel, and these results support the idea that metaverse experiences can contribute to more satisfying travel experiences. However, the difference lies in the focus on the metaverse as a specific platform. While previous studies often discuss digital technologies in general, this study explores the specific impact of metaverse experiences in the context of bleisure. As such, the results of this study provide important insights for stakeholders in the tourism industry to design experiences that are integrated with metaverse technologies to increase tourist attraction and engagement.

Tourism Digital Marketing Influences Bleisure

This study found a significant relationship between tourism digital marketing and bleisure, with an influence value of 0.421 and a significance level of 0.000. This finding suggests that an effective digital marketing strategy can significantly enhance bleisure, which includes a combination of recreation and quality travel experiences. The better the digital marketing strategy implemented, the more likely it is to enhance the tourist experience, attract attention, and encourage them to explore the destinations offered. The results of this study are in line with previous studies showing that digital marketing can increase tourist interest and satisfaction. (Chaffey, 2019). The study emphasizes that innovative and targeted marketing approaches are essential to enhance consumer engagement in the tourism sector. However, the key difference lies in the specific focus on bleisure in the context of this study, which provides deeper insight into how digital marketing can collaborate with quality tourism experiences. The findings of this study provide important implications for stakeholders in the tourism industry to develop and implement more effective digital marketing strategies. This can include the use of social media, interactive content, and other technologies to create engaging and satisfying experiences for tourists. Optimizing digital marketing becomes a crucial aspect in enhancing bleisure, thereby creating added value for customers and supporting the growth of the tourism industry as a whole.

Immersive Tourism Influences Bleusure through Tourism Digital Marketing

The Role of Digital Tourism Marketing: The Relationship Between Immersive Tourism…
Estikowati et al. (2025)

JKi

This study reveals that the total influence of tourism digital marketing on the relationship between immersive tourism and bleisure is -0.0135. Although there is a negative direct influence of immersive tourism on bleisure, the analysis through the tourism digital marketing channel shows that this influence becomes more significant. However, the negative total value indicates that the impact of immersive tourism becomes smaller and not positive when through this channel. This shows that although digital marketing plays a role in promoting immersive experiences, its contribution to increasing bleisure remains limited. This finding differs from previous studies that noted that immersive experiences can increase satisfaction and added value in travel. (Pine & Gilmore, 1999). The study suggests that immersive tourism should be able to enhance the tourist experience. However, in this context, the results of the study indicate that although digital marketing can increase awareness of immersive tourism, its influence on bleisure is not as strong as expected. The results of this study imply the importance of a deeper understanding of the factors that influence the tourist experience. Stakeholders in the tourism industry need to evaluate the specific elements of immersive tourism and the digital marketing strategies used. This will help in optimizing the tourist experience and simultaneously enhancing bleisure.

Metaverce Experience Influences Bleisure through Tourism Digital Marketing

This study shows that the total effect of Metaverse Experience on Bleisure through Tourism Digital Marketing is 0.123. Although there is a positive effect, this value is not significant, which means that this path does not make a significant contribution to increasing bleisure. This finding highlights that, although metaverse experiences can attract tourists, their impact on quality travel experiences remains limited when promoted through digital marketing strategies. The results of this study differ from previous studies that have shown that virtual experiences can enrich tourist interactions, increase satisfaction, and drive better travel decisions. (Buhalis & Leung, 2018). The study notes that digital technologies, including metaverses, can be an effective tool to enhance the travel experience. However, in the context of this study, the potential of the Metaverse Experience was not matched by its impact on bleisure, which was weaker than expected. The results of this study provide important insights for stakeholders in the tourism industry. They need to consider that while the use of metaverses in digital marketing is interesting, a more holistic and integrated strategy may be needed to enhance the overall traveler experience. A deeper evaluation of the specific elements of the Metaverse Experience and how they relate to bleisure is an important step towards achieving more positive outcomes in the future.

CONCLUSION

This study investigated the role of digital tourism marketing in the relationship between immersive tourism, metaverse experiences, and bleisure behavior in the context of Batu Tourism City. Using quantitative methods and multiple regression analysis, we found that immersive tourism and metaverse experiences both significantly influence digital tourism marketing, and metaverse experiences also have a direct positive effect on bleisure behavior, while immersive tourism does not show a direct significant effect on bleisure. Last but not least, digital tourism marketing plays a crucial role in enhancing the

bleisure experience, acting as a mediator between metaverse experience and bleisure behavior.

We propose the following policy recommendations, based on the findings. Develop digital infrastructure for immersive tourism with local and national tourism authorities should promote digital infrastructure to support the integration of immersive tourism experiences, such as augmented reality (AR) and virtual reality (VR). This can enhance the promotional efforts of destinations like Batu, drawing more tech-savvy tourists for The first step is to establish incentives for technology companies to collaborate with tourism service providers in developing and implementing immersive tourism solutions. Second is incorporate metaverse experiences into marketing strategies, given the direct influence of metaverse experiences on bleisure travelers, tourism marketing strategies should focus on creating virtual tourism experiences. This could include virtual city tours, hotel previews, or digital exploration of local culture, accessible to potential travelers before visiting Batu. For follow-up, organize training programs for local tourism businesses to understand and leverage metaverse marketing, potentially through partnerships with tech companies and universities. Third is strengthen digital tourism marketing. It is meant that the significant impact of digital tourism marketing on bleisure suggests that there should be increased focus on personalized and interactive marketing campaigns. This could include targeted social media campaigns, influencer partnerships, and the use of immersive content (such as 360-degree videos or virtual experiences). For follow-up, we can establish a digital marketing task force within local tourism organizations to foster collaboration between businesses in Batu, ensuring a unified and effective online presence. Fourth is enhanced bleisure packages. Based on the study, metaverse experiences and digital marketing can lead to higher engagement from bleisure travelers. Therefore, tourism policymakers should create customized tourism packages that blend business and leisure experiences, showcasing Batu as a bleisure destination. For Follow-up Develop a promotional campaign that highlights Batu as an ideal bleisure destination, incorporating both the physical and virtual experiences of the area. The fifth point is to increase digital literacy in tourism. As digital marketing and immersive experiences become more integral to tourism, it is essential to invest in digital literacy programs for tourism providers in Batu, ensuring that they can fully utilize these technologies to attract visitors. For follow-up, an Organize workshops and seminars for local tourism operators, hotels, and other stakeholders to learn about the latest trends in digital tourism marketing and technology integration.

The findings suggest that there are several key implications for tourism policy. Integration of technology in tourism development policymakers should formally integrate digital technologies like immersive tourism and metaverse experiences into the tourism development plan. This would not only enhance the attractiveness of the destination but also support the global competitiveness of Batu as a tourism hub. Encouraging public-private collaboration means public and private sectors must collaborate to develop and implement the necessary digital infrastructure that supports immersive and metaverse experiences. This can include investments in 5G networks, AR/VR hubs, and specialized tourism platforms. Leveraging digital marketing for post-COVID recovery as tourism recovers post-pandemic, digital tourism marketing offers a cost-effective solution for reaching a global audience. Tourism authorities should prioritize online promotion of Batu's attractions through engaging digital formats that cater to both leisure and business travelers. Also need a balancing traditional and digital tourism models while embracing

The Role of Digital Tourism Marketing: The Relationship Between Immersive Tourism…
Estikowati et al. (2025)

Jki

digital innovations, it is crucial that tourism policies also retain the essence of traditional tourism in Batu. The combination of digital and physical tourism experiences should be seen as complementary rather than replacing one another, ensuring the area retains its authentic charm while leveraging new technology. The last is sustainability and digital tourism, as digital experiences grow in importance, tourism policies should also address the sustainability of digital tourism initiatives. This includes managing data privacy, reducing digital waste, and ensuring that virtual experiences do not overshadow environmental sustainability goals. These insights and recommendations aim to guide Batu's tourism stakeholders in developing strategies that effectively integrate digital technologies, creating a sustainable and competitive tourism destination for both business and leisure travelers.

REFERENCES

Buhalis, D., & Leung, D. (2018). Technological disruption of tourism: The role of digital platforms. *Journal of Travel Research, 57*(8), 1009-1016.

Pine, B. J., & Gilmore, J. H. (1999). *The Experience Economy: Work Is Theatre & Every Business a Stage.* Harvard Business Press.

Tussyadiah, I. P. (2020). Virtual Reality and the Future of Tourism. *Journal of Travel Research, 59*(4), 697-706.

Tung, V. W. S., & Ritchie, J. R. B. (2011). Exploring the essence of memorable tourism experiences. *Annals of Tourism Research*, *38*(4), 1367-1386.

Li, X., Li, X., & Huang, Y. (2020). The impact of virtual reality on tourism experiences: A review. *Journal of Travel Research, 59*(7), 1245-1258.

Chaffey, D. (2019). *Digital Marketing: Strategy, Implementation, and Practice*. Pearson.

Neuhofer, B., Buhalis, D., & Ladkin, A. (2014). Smart technologies for personalized experiences: The case of tourism. *Journal of Tourism Management*, 42, 1-10.

Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015). Smart tourism: Foundations and developments. *Electronic Markets, 25*(3), 177-187.

Femenia-Serra, F., Neuhofer, B., & Ivars-Baidal, J. A. (2018). The role of technology in the tourist experience: A systematic review. *Tourism Management Perspectives, 26*, 1-12.

Sigala, M. (2018). Social media and customer engagement in the tourism industry: A systematic review. *Journal of Travel Research, 57*(8), 1009-1016.

Koo, C., & Park, J. (2017). The impact of augmented reality on tourism experiences. *Tourism Management, 60*, 1-10.

Wang, D., & Fesenmaier, D. R. (2004). Towards understanding the role of technology in the tourism experience. *Journal of Travel Research, 43*(2), 145-154.

Buhalis, D., & Amaranggana, A. (2014). *Smart tourism destinations. In Information and Communication Technologies in Tourism 2014* (pp. 553-564). Springer.

Tussyadiah, I. P., & Fesenmaier, D. R. (2009). Mediated experiences: The role of technology in the tourism experience. *Journal of Travel Research, 47*(4), 1-12.

Cohen, E., & Cohen, S. A. (2012). Current sociological theories and issues in tourism. *Tourism Management, 33*(5), 1015-1025.

Kim, J. H., & Fesenmaier, D. R. (2015). Designing a smart tourism experience. *Journal of Travel Research, 54*(4), 1-12.

Marasco, A., & Pencarelli, T. (2018). The role of digital marketing in tourism: A systematic review. *Tourism Management Perspectives, 26*, 1-12.

Xiang, Z., & Fesenmaier, D. R. (2007). Modeling the role of social media in the tourism experience. *Journal of Travel Research, 46*(1), 1-12.

Neuhofer, B., & Buhalis, D. (2013). The role of technology in the tourism experience: A systematic review. *Tourism Management, 36*, 1-12.

Li, X., & Wang, Y. (2018). The impact of social media on tourism experiences: A systematic review. *Tourism Management Perspectives, 26*, 1-12.

Fesenmaier, D. R., & Fesenmaier, J. (2003). The role of technology in the tourism experience. *Journal of Travel Research, 42*(3), 1-12.

Gretzel, U., & Yoo, K. H. (2008). The role of social media in the tourism experience. *Journal of Travel Research, 47*(4), 1-12.

Kwortnik, R. J., & Thompson, G. M. (2009). Unifying service marketing and operations with service experience management. *Journal of Service Research, 11*(4), 389-406.

Wang, Y., & Fesenmaier, D. R. (2004). The role of technology in the tourism experience. *Journal of Travel Research, 43*(2), 145-154.

Buhalis, D. (2003). *eTourism: Information technology for strategic tourism management*. Pearson Education.

Tussyadiah, I. P. (2013). The influence of virtual reality on the tourism experience. *Journal of Travel Research, 52*(5), 1-12.

Sigala, M. (2015). Social media in the tourism industry: A systematic review. *Tourism Management, 46*, 1-12.

Kim, J. H., & Fesenmaier, D. R. (2015). The role of technology in the tourism experience. *Journal of Travel Research, 54*(4), 1-12.

Gretzel, U., & Yoo, K. H. (2008). The role of social media in the tourism experience. *Journal of Travel Research, 47*(4), 1-12.

Tussyadiah, I. P., & Fesenmaier, D. R. (2009). Mediated experiences: The role of technology in the tourism experience. *Journal of Travel Research, 47*(4), 1-12.

AUTHOR PROFILES

Dr. Estikowati, SST.Par., MM

https://orcid.org/0009-0003-1199-2172.
Tourism Lecture in Tourism Diploma Program University of Merdeka Malang, background education is hospitality and interest in tourism management

Utik Kuntariati, S.S., M.Pd

https://orcid.org/0000-0003-4937-3337.
English Lecture in Tourism management diploma in The International Institute of Tourism and Business, interest in Education and tourism

Stella Alvianna, S.Par., MM

https://orcid.org/0000-0001-6571-5267.
Tourism Lecture in tourism diploma program University of Merdeka Malang, background education is tourism and interest in sustainable tourism

Dr. Syarif Hidayatullah, SE., MM

https://orcid.org/0000-0002-6085-0993.
Management Lecture in faculty of economic and business University of Merdeka Malang, background education is management and interest in management information system

JKi

INSTITUTIONAL INNOVATION PERFORMANCE OF TOURISM VILLAGES: WHAT FACTORS ARE NEEDED?

Hamdan Hamdan[1]*, Tama Krisnahadi[2], Nur Komaria[3], Ridho Rafqi Ilhamalimy[2], Indra Raharja[1]

[1]Faculty of Economics and Business, Mercu Buana University, Indonesia
[2]Mandalika University of Education, Indonesia
[3]Center of Digital Economy and SMEs, Institute for Development of Economics and Finance, Indonesia

Correspondence:hamdan@mercubuana.ac.id

Article Info	Abstract
	The Province of West Nusa Tenggara (NTB), Indonesia, has significant potential for developing tourism village. However, improving the institutional performance of tourism village requires greater attention, particularly in driving innovation. This research focuses on the influence of digital leadership, collaboration strategy, and market orientation on innovation performance, with government support as a moderating variable through a community-based tourism approach known as *Pokdarwis*. A quantitative method using SEM analysis was applied, with a specific sample of the developing and advanced tourism villages to effectively assess institutional performance. The results of the study found that digital leadership, collaboration strategy, and market orientation positively and significantly influenced innovation performance. However, the relationship between digital leadership, government support, and innovation performance, as well as the moderation effect, was not significant. This research offers strategic policy recommendations to support effective decision-making in rural tourism development. The inconsistency of digital leadership highlights the need for further research, considering the growing trend of digital transformation. Further details are discussed in this study.

How to cite:
Hamdan., Krisnahadi, T., Komaria, Nur., Ilhamalimy, R,R., Raharja,I (2025). Institutional Innovation Performance of Tourism Villages: What Factors Are Needed? *Jurnal Kepariwisataan Indonesia: Jurnal Penelitian dan Pengembangan Kepariwisataan Indonesia, 19*(1), 153-176. https://doi.org/10.47608/jki.v19i12025.153-176

INTRODUCTION

Indonesia's natural beauty possesses remarkable potential to be further developed in support of sustainable tourism village development. The tourism sector is recognized as the fastest-growing and highly promising market (Leopizzi et al., 2021; Băbăț et al., 2023), as it serves as a key driver of investment (Oumlil & Ouhamane, 2016), job creation, income generation, and the socio-economic advancement of local communities (Zadeh Bazargani & Kiliç, 2021). Nevertheless, tourism development may also lead to negative consequences, such as increased population density and traffic congestion (Manrai et al., 2020), as well as the degradation of local culture and natural resources (Baloch et al., 2023). Despite these challenges, tourism remains one of the most effective pathways for promoting sustainable development in this sector (Farinha et al., 2021; Hall, 2019; Rasoolimanesh et al., 2023). In this regard, the tourism sector in West Nusa Tenggara (NTB) Province has been designated as part of a National Strategic Priority Project for the period 2020–2024, which includes the development of ten priority tourism destinations, one of which is Lombok-Mandalika (RPJMD-NTB, 2023).

The latest news from Tropik Resort Lombok will bring in investors from Dubai City, United Arab Emirates to plan Lombok as the largest tourist destination in the world (Jejakfaktanews.com, 2024; NTBSATU.com, 2024; TribunLombok.com, 2024; VOI, 2024). Apart from that, leading tourist destinations such as Gili Trawangan, Gili Meno, and Gili Air continue to experience an increase in tourist visits (Nasir, 2023). The tourism sector is expected to become the economic driving sector for the people of West Nusa Tenggara. This sector has great potential to continue to grow in the future in ensuring social economic prosperity (RPJMD-NTB, 2023). However, several pressing issues need to be addressed, namely: (a) the tourism village potential has not been optimally managed, (b) tourism villages remain underdeveloped, (c) the average length of tourist stays tends to be low, and (d) there has been a decline in tourist visits (RPJMD-NTB, 2023). The distribution map of tourism villages in West Nusa Tenggara Province serves as the research area for this study (see Figure 1).

Figure 1. Map of the Distribution of Tourism villages in West Nusa Tenggara Province
Source: Prepared by researchers (2024)

Institutional Innovation Performance of Tourism Villages: What Factors Are Needed?
Hamdan et al. (2025)

Jki

The management and development of tourism villages are carried out by an organization known as the Tourism Awareness Group (Pokdarwis). This group was established based on a community consensus, acknowledged by the Village Head, and formally approved by the Head of the local Tourism Office as the entity responsible for promoting tourism awareness initiatives. Within Pokdarwis, several tourism activity working groups have been established by tourism practitioners in accordance with the autonomous authority of regional governments (Pedoman-Desa-Wisata, 2021). The involvement of regional governments, which possess autonomy, provides various policies aimed at supporting community performance in managing sustainable tourism villages (Andrea & Santoso, 2020). Table 1 presents the current status of tourism villages in NTB.

Table 1. Data and Number of Tourism Village Categories in West Nusa Tenggara Province

District Name	Tourism Village Status				Number of Tourism Villages
	Startup	Developed	Advanced	Independent	
Mataram City	2	0	1	0	3
West Lombok Regency	19	4	2	0	25
Central Lombok Regency	20	13	1	0	34
East Lombok Regency	64	10	2	0	76
North Lombok Regency	8	1	1	0	10
Sumbawa Regency	14	2	0	0	16
West Sumbawa Regency	7	2	0	0	9
Bima City	6	0	0	0	6
Bima Regency	17	12	1	0	30
Dompu Regency	13	1	0	0	14
Total Number of Tourism villages	170	45	8	0	223

Source: Jadesta, 2024 accessed 23rd March 2024

The distribution of tourism villages presented in Table 1 is undoubtedly influenced by various problems, which explains the relatively small number of tourism villages with advanced status and the absence of tourism villages that have achieved independent status. For instance, several Pokdarwis (Tourism Awareness Group) assets were reclaimed by the local government due to their inactivity (SuaraNTB, 2023b), and disputes over tourism areas have, in some cases, led to acts of violence committed by Pokdarwis members (JurnalNTB, 2023). In fact, NTB has achieved the status of a National strategic tourism area (Lombok-Mandalika). Therefore, it is essential that every policy undergoes a thorough assessment process to minimize the risk of failure in the development of tourism villages (Manrai et al., 2020). In this regard, the government's role is crucial in providing an institutional model for Pokdarwis, which in turn contributes to enhancing rural tourism innovation performance (Seow et al., 2021).

In efforts to develop the tourism sector, three key strategies have been identified as primary areas of focus: innovation, collaboration, and adaptation (Audretsch et al., 2023; Kemenparekraf, 2024). However, digital adaptation in West Nusa Tenggara Province remains unevenly distributed (RPJMD-NTB, 2023). Digital transformation, particularly among leaders and community figures, plays a crucial role as these actors shape social structures and drive collaboration (Dewi & Ginting, 2022; Meiyanti et al., 2022). Furthermore, implementing tourism practices requires a strong market orientation, which serves as a foundation for introducing innovations and enhancing business performance (D'souza et al., 2022; Dabić et al., 2023).

The development of sustainable tourism villages requires the active involvement of local communities, government institutions, and the private sector to collectively enhance innovation performance. This objective can be achieved if leaders possess

adequate information and communication technology (ICT) capabilities to influence and engage local communities (Erhan et al., 2022). In addition, leaders must adopt a market-oriented approach (Awwad & Mohammad Lafi, 2023), as the adaptation and integration of digital marketing aimed at fulfilling customer needs and satisfaction fundamentally depend on market orientation (Elgarhy & Abou-Shouk, 2023). Nevertheless, achieving innovation performance will be difficult without effective collaboration supported by the government (Audretsch et al., 2023). The integration of various components within the tourism ecosystem is essential to facilitate business innovation and performance improvement (D'souza et al., 2022).

The performance of tourism villages is a key priority, particularly through the implementation of collaboration, digitalization, and innovation to achieve future prosperity (Kominfo, 2022). Furthermore, as highlighted by Tang et al. (2020), the achievement of innovation performance is driven by the exploration of rural tourism resources, which, according to Aboushouk and Tamamm (2021), are developed through community and institutional capital. Recognizing the growing importance of the digital world for all institutions, it is essential for leaders to possess a strong understanding of digitalization (Dörner & Edelman, 2015). Institutional adoption of digitalization reflects an innovation in the form of new digital routines (Masood & Afsar, 2017). However, without collaboration with local stakeholders, identifying the potential for developing tourism destinations remains a challenge (Ciro et al., 2019). Therefore, collaboration plays a critical role in enhancing innovation performance (Audretsch et al., 2023).

Digital leadership is expected to equip organizations with the ability to identify and respond to the needs and preferences of target consumers. Achieving this requires the implementation of effective collaboration strategies across institutions and the private sector, including businesses in the tourism industry, which must be carried out intensively to ensure organizational success. For organizations, it is essential to have leaders whose digital competencies significantly contribute to innovation performance (Erhan et al., 2022). Furthermore, innovation driven by cross-functional collaboration enhances organizational competitiveness (Oygür & Thompson, 2020). Collaboration strategies that integrate organizational resources also guide the development of unique products and services (Stojčić, 2021), thus facilitating access to market opportunities (Dabić et al., 2023). Nevertheless, identifying the most effective and adaptable approach to collaboration, particularly within the context of rural tourism, remains an area that requires further in-depth investigation.

Recent studies have highlighted that digital leadership has become an important topic of discussion (Erhan et al., 2022). Digital leadership plays a crucial role in ensuring that customer satisfaction and experience remain a top priority (Mihardjo et al., 2019), as customer orientation is recognized as a key element in determining company performance (Frambach et al., 2016). Consequently, collaborative innovation has been shown to positively influence company performance (Rajabion et al., 2019), while market orientation is considered a fundamental factor in enhancing a company's innovation capabilities (Racela & Thoumrungroje, 2019). However, when external support fails to meet expectations in the context of tourism leadership, achieving business sustainability becomes a significant challenge (Dewi & Ginting, 2022). Moreover, although innovation practices are proven to improve business performance with the support of government

Institutional Innovation Performance of Tourism Villages: What Factors Are Needed?
Hamdan et al. (2025)

Jki

policies (Seow et al., 2021), it is important to note that innovation can also fail, though recovery and eventual success remain possible (Wirth et al., 2023).

Interestingly, research that specifically discusses **Pokdarwis** (Tourism Awareness Groups) within the framework of Community-Based Tourism (CBT) remains very limited. Furthermore, to date, there has been no academic or scientific research exploring **Pokdarwis** on a regional scale within West Nusa Tenggara Province. Most studies (Nematpour et al., 2024) continue to focus on identifying key success factors for ensuring sustainable tourism development. For instance, previous research conducted by Agustin et al. (2022), Amrullah et al. (2023), Anggraini et al. (2023), Ariyani & Fauzi (2023), and Mastika et al. (2023) primarily examines individual **Pokdarwis** at the local level within Indonesia. In contrast, the present study analyzes multiple **Pokdarwis** as managers of tourism villages. Ultimately, the concept of village tourism institution also influences the future direction of Pokdarwis. However, alignment with local values is essential, as the community possesses binding social structures, including cultural norms, customs, and traditions, which play a crucial role in the collaborative management of rural tourism resources.

Based on the discussion presented, this study seeks to answer the research question of whether digital leadership, collaboration strategy, and market orientation can enhance the innovation performance of Pokdarwis. Furthermore, this relationship is examined by considering the role of organizational support as a moderating variable in the study. This research formulation serves as the primary direction and focus of the study, with the objective of testing and analyzing the influence of digital leadership, collaboration strategy, and market orientation on innovation performance, as well as examining the moderating role of government support. The limited availability of previous studies on Pokdarwis within the framework of Community-Based Tourism (CBT) theory presents a research gap that this study aims to address. The findings are expected to contribute to the development of future knowledge, particularly in supporting management decisions and formulating strategic institutional policies for tourism villages.

The gap identified in previous studies presents both a challenge and an opportunity for this research to develop a new model. For instance, studies by Awwad & Mohammad Lafi (2023) and Erhan et al. (2022) highlight that leaders must possess digital capabilities to be market-oriented and to drive innovation performance (Racela & Thoumrungroje, 2019). However, in practice, without collaboration and support from local actors, identifying potential tourism resources becomes difficult, and achieving sustainability is equally challenging (Ciro et al., 2019; Dewi & Ginting, 2022). Furthermore, Seow et al. (2021) emphasize that innovation and performance are often the result of government support, yet innovation efforts may still fail (Wirth et al., 2023). Therefore, these gaps serve as a foundation for developing a new model, which is further explored through a comprehensive literature review to establish the current state of this research.

Market Orientation and Innovation Performance

Innovation has become key in achieving organizational competitive advantage (Wheelen et al., 2017). Each organization creates a superior vision of the innovation resulting from their routines (Bolland, 2017). The success of an organization is reflected in increasingly better innovation performance behavior (Jirakraisiri et al., 2021). Innovation reflects a company's ability to foster creative ideas that lead to the development

of new technological products and processes introduced to the market (Gupta & Dixit, 2022). Meanwhile, innovation performance is characterized by substantial innovative products, new processes and unique marketing applications (Wendra et al., 2019). This is achieved when market turbulence and organizations have high readiness in implementing technology and innovation (Alerasoul et al., 2022).

Innovative performance is related to technical aspects and the introduction of new products to the market (Zizlavsky, 2016). In addition, innovation is strongly supported by market orientation (Didonet et al., 2016), which will improve organizational performance (Herhausen, 2016). Market orientation is defined as the foundation and core concept of the marketing discipline that produces performance and a competitive environment involving competitor orientation, customer orientation and internal coordination (Fikri et al., 2022). Market orientation can influence the way an organization innovates its business model (Saebi et al., 2017), because it plays an important role in generating value for customers and driving company performance (Herhausen, 2016). It has been proven that market orientation and dynamic capabilities influence business model innovation (Randhawa et al., 2021). This has been confirmed that market orientation has a positive and significant effect on company innovation performance (D'souza et al., 2022; Fikri et al., 2022). It is hypothesized that Market orientation (H1) has a positive and significant effect on innovation performance.

Digital Leadership and Innovation Performance

All conventional leadership styles have demonstrated a growing tendency towards the adoption of digital leadership, which is realized through physical, cultural, and digital transformations aimed at streamlining organizational activities to become more structured (Dery et al., 2017). In leadership theory, digital leadership is described as a leadership style, representing a combination of transformational leadership style and the use of digital technology (De Waal et al., 2016). Additionally, digital leadership is defined as individuals who add value to an organization by combining the capabilities of leaders with digital technology (Tajasom et al., 2015). The digital transformation process, combined with the adoption of various leadership approaches (such as transformational and transactional leadership), can generate a strategic competitive advantage (Kokot et al., 2021).

Digital leadership is the best approach to ensure the strategic success of digitalization for companies and their organizational ecosystems (Tagscherer & Carbon, 2023). Therefore, digital leadership has developed an entrepreneurial mindset as part of innovation (Tanniru, 2018). It has been previously discussed that digital leadership influences business model innovation as part of digital transformation (Mihardjo et al., 2019). It is confirmed that digital leadership has a significant influence on innovative work behavior (Erhan et al., 2022; Sheninger, 2019). It is hypothesized that Digital leadership (H2) has a positive and significant effect on innovation performance.

Collaboration Strategy and Innovation Performance

Collaboration is the most important part of Supply Chain Management which has experienced a shift towards strategic tourism information technology (Soratana et al., 2021). Collaboration strategy refers to the approach taken to establish partnerships aimed at achieving competitive supply chains (Javed & Awan, 2023), as the success of business activities depends on effective collaboration in developing a strategic tourism value chain

Institutional Innovation Performance of Tourism Villages: What Factors Are Needed?
Hamdan et al. (2025)

Jki

(Huang Yin et al., 2019). The primary objective of tourism organizations in leveraging information technology is to serve as a supply chain link (Soratana et al., 2021). By adopting an innovative collaborative approach, synergy can be more effectively achieved to attain superior alliance performance (Toylan et al., 2020).

Flexible and efficient collaboration is a key objective for companies in managing supply chains to achieve optimal performance (Wu & Chiu, 2018). In the tourism sector, companies are recognized for their ability to establish strategic collaborations with various similar business partners, which is considered an appropriate approach to enhance innovation performance (Ariya & Chakpitak, 2016; Chiambaretto et al., 2020). Furthermore, public-private partnerships have been widely acknowledged as an effective instrument for strategic management in the public sector and serve as a strategic orientation for achieving sustainable development programs (Tahili et al., 2022). In addition, strategic alliances between partners and customers play an essential role in enhancing innovation capabilities and gaining a competitive advantage (Musa, 2022). These findings indicate that collaboration strategies exert a positive and significant influence on innovation performance (Audretsch et al., 2023; Hamdan et al., 2023). Based on this, the following hypothesis is proposed that Collaboration strategy (H3) has a positive and significant effect on innovation performance.

Digital Leadership and Market Orientation

Market orientation serves as a fundamental basis for marketing theory (Jogaratnam, 2017). The concept of market orientation refers to a set of processes and routines that enable organizations to generate, disseminate, and respond to information concerning customers, competitors, and the external environment (Rua & Santos, 2022). Furthermore, market orientation requires a deep understanding of customer needs, which necessitates the acquisition of relevant information to enhance competitive advantage (Osorio Tinoco et al., 2019). In this regard, market orientation ultimately contributes to fostering technological innovation within companies (Hwangbo et al., 2022). Leadership involvement is crucial, as leaders' competencies enable them to drive the transformation of digital business strategies and foster agile organizational cultures through the development of digital talent (Carcary et al., 2016). This, in turn, promotes the advancement of digital leadership capabilities within organizations (Oberer & Erkollar, 2018). Consequently, the market orientation process significantly contributes to strengthening competitive advantage (Osorio Tinoco et al., 2019). Previous studies have highlighted that digital leadership exerts a positive and significant influence on market orientation (Fikri et al., 2022; Herhausen, 2016). Based on these findings, the following hypothesis is proposed that Digital leadership (H4) has a positive and significant effect on market orientation.

Collaboration Strategy and Market Orientation

The tourism industry has utilized information and communication technology as a tool to forge partnerships between tourism businesses and end consumers, as well as re-engineering the industry towards increasing customer satisfaction (Soratana et al., 2021). Cross-functional collaboration will result in well-integrated organizational resources and result in the creation of new products and services (Stojčić, 2021), generating organizational flexibility in entering new markets. Cross-departmental collaboration enables organizations to meet product development challenges and align organizational

resources with user desires, creating value and improving market performance (Dabić et al., 2023). External collaboration and co-creation enable organizations to gain a deeper understanding of the opportunities inherent in specific technologies and markets in anticipation of future activities (Magistretti et al., 2020). This discussion offers the hypothesis that Collaboration strategy (H5) has a positive and significant effect on market orientation.

Digital Leadership and Collaboration Strategy

Some literature defines digital leadership as the main skill that managers must have to carry out digital transformation. Through digital leadership, business leaders develop a clear and meaningful vision and actualize strategies related to the digitalization process (Zeike et al., 2019). Self-leadership plays an important role in influencing job potential in using digital technology (Kim et al., 2021). Digital potential and skills will be formed when organizations use a collaborative learning approach (Yooyativong, 2018). Several previous studies reveal that leadership plays a role in developing skills, competencies or expertise and influences the development of collaboration (Saputra et al., 2021). Other studies have also identified a positive influence of distributive leadership on collaboration ability (Amels et al., 2020). Building upon the discussion in the previous literature, it has been clarified that digital leadership exerts a positive and significant effect on digital collaboration (Saputra et al., 2021). Based on these findings, it can be hypothesized that Digital leadership (H6) has a positive and significant effect on collaboration strategies.

Moderation of Government Support

The inclusion of government support as a moderating variable is based on several relevant studies that have previously employed it in this role. Although those studies were conducted in different research contexts, the use of government support as a moderator remains theoretically justifiable. Previous studies have confirmed that government support strengthens the relationship between innovation practices and business performance (Seow et al., 2021). In addition, tourism leadership has been shown to further enhance business continuity outcomes through the moderating role of support from relevant stakeholders (Dewi & Ginting, 2022). Consistent with this, it has also been found that the development and growth of the tourism industry, while minimizing the depletion of natural resources, can be effectively managed through government support and legal intervention (Moslehpour et al., 2023). Based on these findings, it is hypothesized that Government support (H7abc) significantly moderates the relationship between (a) market orientation, (b) digital leadership, and (c) collaboration strategy with innovation performance.

METHODOLOGY

This study employs a quantitative research approach. The rationale for this choice is the causal nature of the research model, which focuses on examining cause-and-effect relationships, as indicated by the formulation of hypotheses. The constructs in this study are measured using reflective indicators, with a 5-point Likert scale selected as the measurement tool. All measurement items are adapted from previous studies that demonstrate satisfactory levels of validity and reliability based on established criteria. Specifically, the digital leadership construct consists of 5 items (Erhan et al., 2022); the

Institutional Innovation Performance of Tourism Villages: What Factors Are Needed?
Hamdan et al. (2025)

JkI

collaboration strategy construct includes 5 items (Abou-Shouk, 2018; Chen & Ye, 2022); market orientation is measured using 5 items (Fikri et al., 2022); government support comprises 5 items; and innovation performance is also measured with 5 items (Erhan et al., 2022). All items have been carefully developed, modified, and translated using the back-translation technique proposed by Brislin (1970). This process ensures that the questionnaire is accessible to respondents by translating the original English version into the respondents' national language, allowing them to clearly understand and answer the questions.

The rationale for selecting developing, advanced, and independent tourism villages as the research population lies in the study's focus on evaluating the innovation performance of *Pokdarwis* (Tourism Awareness Groups). *Pokdarwis* are institutions established to manage the development of tourism villages, formed through local community consensus and officially endorsed by the Village Government. The classification of tourism villages into developing, advanced, and independent categories is determined by local government decrees and assessment criteria, including:

a. Developing tourism villages indicate that these villages are well-established and possess clear governance structures.
b. Advanced tourism villages have had an active role in the economic development of village residents and their surroundings.
c. Independent tourism villages have had visitors from a wider scope.

Based on the distribution of tourism villages (Table 1), namely developing (45 tourism villages), advanced (8 tourism villages) and independent (0 tourism villages), the total population is 53 tourism villages. Given the relatively small population of this study, the resulting sample size is also expected to be limited. Therefore, the use of the Partial Least Squares (PLS) approach is considered appropriate, as PLS is capable of producing reliable significance levels even with small sample sizes (Hair et al., as cited in Leguina, 2015). Furthermore, this study focuses on tourism practices, making the use of PLS a suitable analytical method, as it has been proven effective in advancing tourism research through its practical application via the SmartPLS software (Fong & Law, 2014).

To determine and ensure the accuracy of the sample criteria, a probability sampling method was employed. The sampling process involved accessing the Tourism Village Network platform (JADESTA, https://jadesta.kemenparekraf.go.id/). This platform provided relevant information, such as the status and identity of tourism villages across West Nusa Tenggara (NTB), including contact details (e.g., telephone or WhatsApp), which were then used to distribute the questionnaires. The collected data were analyzed using Partial Least Squares (PLS), with evaluations conducted on both the outer and inner models. The outer model evaluation was conducted to assess the validity and reliability of the measurement instruments, using indicators such as outer loadings, composite reliability, and Cronbach's Alpha. In contrast, the inner model evaluation was carried out using R^2, Q^2, and path coefficients (Hair et al., 2022).

FINDINGS AND DISCUSSION

Respondent Profile

During the data collection process, the level of respondent participation in completing the questionnaire was relatively low, which may be attributed to certain

situational factors and conditions. Additionally, based on the identity information of the tourist villages obtained from the Jadesta website, the researcher was only able to access one active contact from the Tourism Awareness Group (Pokdarwis) for questionnaire distribution, as several other contacts were no longer active. Despite the relatively small number of returned and valid questionnaires (42 samples), the sample size is considered adequate to represent the population, given that small samples can still provide an acceptable level of statistical power. Prior to conducting the PLS analysis, the demographic characteristics of the respondents will be presented based on their respective profiles..

Table 2. Respondent Characteristics

Respondent Profile	Amount	Percentage
Tourism Village Category:		
Developed	35	83%
Advanced	7	17%
Total	42	
Job Title:		
Vice Chairman	30	72%
Secretary	7	16%
Tourist destination developer	2	5%
Treasurer	2	5%
Member	1	2%
Total	42	100%
Gender:		
Man	38	90%
Woman	4	10%
Total	42	100%
Age:		
23 - 30 years	9	22%
31 - 35 years	17	40%
36 - 40 years	6	14%
> 41 years	10	24%
Total	42	100%
Education:		
High school/equivalent	12	29%
D3	4	9%
S1	24	57%
S2	2	5%
Total	42	100%
Length of service:		
1 year	0	0
2 years	2	5%
3 years	4	9%
4 years	5	12%
5 years	19	45%
> 6 years	12	29%
Total	42	100%

Source: Data Processing Results, 2024

Based on the respondent characteristics presented in Table 2, the majority of participants are from developing tourism villages. This is consistent with the distribution data, which indicates that developing tourism villages outnumber other categories. Consequently, the empirical model proposed in this study is particularly relevant for application in developing tourism villages, especially those in the early stages of development. Most of the Pokdarwis (Tourism Awareness Group) administrators surveyed are male, aged between 31 and 35 years, hold a Bachelor's degree, and have served in their

Institutional Innovation Performance of Tourism Villages: What Factors Are Needed?
Hamdan et al. (2025)

Jki

roles for approximately five years. These characteristics suggest that the responses provided are credible, as the respondents possess the necessary knowledge, understanding, and practical experience in tourism village management. The contribution of this model, given such respondent characteristics, offers reliable insights that can support the sustainable development of tourism villages.

Outer Model

In the PLS data analysis, the initial stage involves evaluating the outer model. The outer model is considered to meet the criteria for a good measurement model if it satisfies both validity and reliability assessments. Measurement validity is determined through outer loadings (OL > 0.70). Indicators that fail to meet this threshold should be removed from the model, followed by necessary model modifications. Reliability is assessed using Composite Reliability (CR > 0.70) and Cronbach's Alpha (CA > 0.70), which indicate satisfactory measurement reliability (Hair et al., 2022). The outer model assessment results for this study are presented in Table 3.

Table 3. Outer Model Results

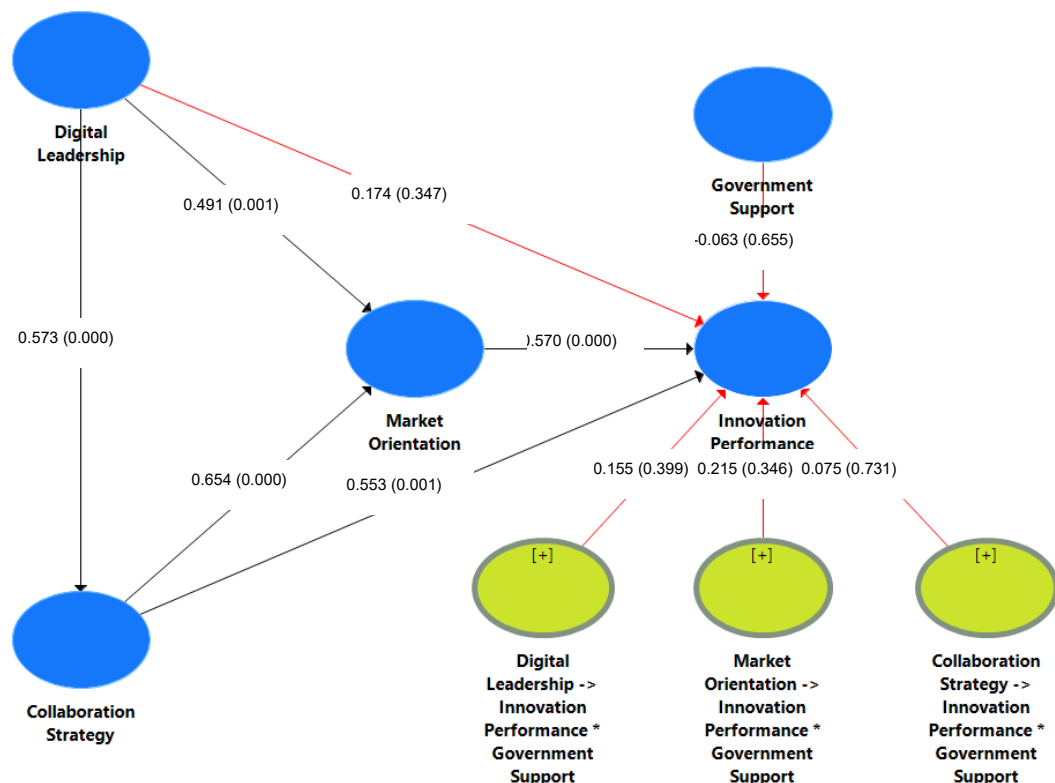| Manifest Variables		OL1	OL2	OL3
Digital Leadership: CR = 0.870, CA = 0.706				
Dled1	Digital leaders make their members aware of the benefits and risks of ICT	0.702	0.639	-
Dled2	Digital leaders utilize ICT to improve management	0.700	0.796	0.845
Dled3	Digital leaders define ethical behavior	0.725	0.798	0.909
Dled4	Digital leaders play an informative role	0.699	-	-
Dled5	Digital leaders share experiences	0.737	0.698	-
Collaboration Strategy: CR = 0.904, CA = 0.858				
Cstr1	Pokdarwis and Partners help each other in preparing communication plans	0.791	0.763	0.746
Cstr2	Pokdarwis and Mitra collaborate in developing new markets	0.822	0.842	0.842
Cstr3	Pokdarwis and Partners collaborate in designing products and services	0.875	0.902	0.907
Cstr4	Pokdarwis and Partners collaborate in carrying out operational activities	0.825	0.842	0.850
Cstr5	Pokdarwis and Partners often interact when problems arise	0.667	-	-
Market Orientation: CR = 0.895, CA = 0.853				
Mori1	We actively assess other tourism villages as indicators of achievement	0.705	0.711	0.711
Mori2	We actively assess customer satisfaction	0.823	0.823	0.820
Mori3	We are oriented towards creating customer satisfaction	0.797	0.791	0.792
Mori4	Maximize all member functions for customer satisfaction	0.806	0.803	0.805
Mori5	Listen to customer input to improve quality	0.833	0.835	0.836
Innovation Performance: CR = 0.906, CA = 0.843				
Iprf1	How often do you notice problems to fix them.	0.398	-	-
Iprf2	How often do you come up with an original solution to a problem.	0.693	-	-
Iprf3	How often do you discover new approaches to carrying out tasks.	0.816	0.852	0.852
Iprf4	How often do you try to convince members to support innovative ideas.	0.899	0.922	0.922
Iprf5	How often do you contribute to the implementation of new ideas.	0.812	0.843	0.844
Government Support: CR = 0.947, CA = 0.930				
Gsup1	How often does the government provide seminars, courses and workshops regarding e-commerce to Pokdarwis?	0.916	0.917	0.917
Gsup2	How often does the government provide training programs that are beneficial for Pokdarwis business growth?	0.910	0.905	0.905
Gsup3	How often does the government provide business consulting programs to help Pokdarwis operations?	0.904	0.899	0.899
Gsup4	How often do financial and development institutions provide special support to Pokdarwis?	0.872	0.874	0.874
Gsup5	How often does the government help Pokdarwis in marketing its products and services?	0.808	0.817	0.817

Source: Data Processing Results SmartPLS, 2024

Based on the results presented in Table 3, two model modifications were carried out. The initial model (OL1) included all indicators within the model. As shown in column

OL1, the Dled4 indicator was deemed invalid due to its outer loading value being below the acceptable threshold (0.699 < 0.70), necessitating its removal from the model. Subsequently, the first model modification, shown in column OL2, was performed; however, the results still indicated the presence of invalid indicators, specifically Dled1 and Dled5. Therefore, a second modification was conducted following the same procedure as the first. After these modifications, a measurement model that fulfilled the validity criteria (outer loading > 0.70) was obtained, as presented in column OL3. This final model is considered valid, as it demonstrates reliability and consistency in measuring each construct, allowing the analysis to proceed to the subsequent testing phase.

Inner Model

The inner model is evaluated using R^2 values (0.75 = substantial, 0.50 = moderate, and 0.25 = weak), the Q^2 predictive relevance criterion ($Q^2 > 0$), and path coefficients ranging from -1 to +1 with a significance level of $p < 0.05$ at a 5% error margin (Hair et al., 2022; Ringle et al., 2023). The R^2 results show that the explanatory power of digital leadership on collaboration strategy is weak ($R^2 = 0.328$), while the combined effect of digital leadership and collaboration strategy on market orientation is moderate ($R^2 = 0.528$). Similarly, the combined effect of digital leadership, collaboration strategy, and market orientation on innovation performance is also moderate ($R^2 = 0.546$). Furthermore, the Q^2 values for digital leadership (0.454), collaboration strategy (0.596), market orientation (0.525), and innovation performance (0.452) indicate good predictive relevance, suggesting that the model is considered adequate and acceptable for further adaptation and development. Lastly, the assessment of path coefficients and significance levels is illustrated in the following figure.

Figure 2. Structural Model Results
Sourece: Data Processing Results SmartPLS, 2024

Institutional Innovation Performance of Tourism Villages: What Factors Are Needed?
Hamdan et al. (2025)

Jki

The results of the structural model analysis in this study indicate that H1 is accepted, as market orientation has a positive and significant effect on innovation performance ($\beta = 0.570$, $p = 0.000 < 0.05$) (D'souza et al., 2022; Fikri et al., 2022). In contrast, H2 is not accepted, as digital leadership shows a positive but not significant effect on innovation performance ($\beta = 0.174$, $p = 0.347 > 0.05$). Furthermore, H3 is accepted, as the market orientation and collaboration strategy have a positive and significant effect on innovation performance ($\beta = 0.553$, $p = 0.001 < 0.05$) (Audretsch et al., 2023; Hamdan et al., 2023). Hypotheses H4 and H5 are also accepted, where digital leadership ($\beta = 0.491$, $p = 0.001 < 0.05$) (Fikri et al., 2022; Herhausen, 2016) and collaboration strategy ($\beta = 0.654$, $p = 0.000 < 0.05$) positively and significantly affect market orientation (Dabić et al., 2023). In addition, digital leadership also has a positive and significant effect on collaboration strategy ($\beta = 0.573$, $p = 0.000 < 0.05$), indicating that H6 is accepted (Saputra et al., 2021). However, the moderating effect of government support on the relationships between digital leadership (H7a, $p = 0.399 > 0.05$), collaboration strategy (H7b, $p = 0.347 > 0.05$), market orientation (H7c, $p = 0.731 > 0.05$), and innovation performance is not significant, indicating that these hypotheses are not accepted.
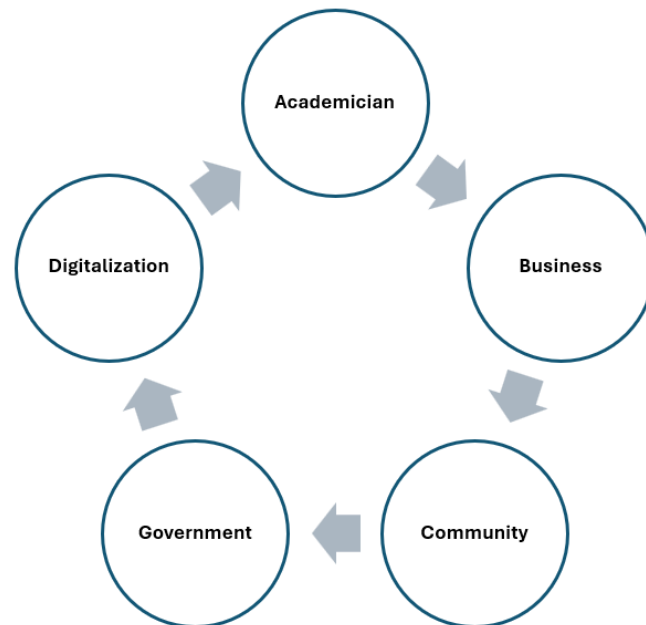
Discussion

The relationships between collaboration strategy, market orientation, and innovation performance (Audretsch et al., 2023; D'souza et al., 2022; Fu et al., 2022), digital leadership and market orientation (Fikri et al., 2022; Herhausen, 2016), collaboration strategy and market orientation (Dabić et al., 2023), as well as digital leadership and collaboration strategy (Saputra et al., 2021), have been found to be positive and significant. However, this is not the case for the relationship between digital leadership and innovation performance within Pokdarwis (Benitez et al., 2022). The inability of digital leadership to enhance innovation performance in Pokdarwis is attributed to several factors, including the limited digital capabilities of Pokdarwis leaders, which hinders their ability to raise awareness regarding the benefits of technology and digital media for improving tourism village management. Moreover, Pokdarwis leaders have yet to demonstrate the ability to establish ethical guidelines for the responsible use of digitalization, which is essential for both tourism awareness groups and other stakeholders. In addition, the role of government as a moderating factor has also not shown a positive and significant impact on the innovation performance of Pokdarwis in West Nusa Tenggara (NTB). This limitation is linked to several issues, such as insufficient access to seminars, training programs, and workshops on e-commerce, inadequate development training for Pokdarwis, limited availability of business consulting programs, insufficient financial and developmental support, and a lack of effective assistance in marketing the products and services offered by Pokdarwis.

In practice, collaboration strategies play a crucial role in enhancing the innovation performance of Pokdarwis. Collaboration between Pokdarwis and various stakeholders—such as local governments, NGOs, academics, business actors, and community leaders (including religious, traditional, or youth leaders)—forms an essential part of tourism village development initiatives. In this context, collaboration serves as a social structure aimed at addressing social challenges through the innovation of new programs, commonly referred to as social innovation. The active involvement and participation of these

stakeholders enable effective and efficient responses to communication challenges and the development of new markets. Most importantly, collaboration between Pokdarwis and its partners focuses on designing processes, products, and/or services that provide greater value to tourists. This approach is expected to enhance the market orientation of Pokdarwis in West Nusa Tenggara (NTB), including the ability to assess tourism market development, improve visitor satisfaction, optimize the function of all members, evaluate visitor experiences, and continuously incorporate visitor feedback to improve the quality of tourism products and services.

By ensuring that the key aspects mentioned above are effectively implemented, they can serve as a foundation for enhancing the innovation performance of Pokdarwis. These aspects include the development of new approaches to task execution and completion, the generation of innovative ideas to address social issues, and the achievement of tangible outcomes in the implementation of new programs. Furthermore, maintaining collaboration among all stakeholders involved is crucial as a form of cooperation with tourist village managers (Pokdarwis). The utilization of media also plays a vital role in facilitating communication networks. In addition, the support provided by the NTB government — through the provision of seminars, training programs, workshops on e-commerce, business consultation services, financial assistance, and marketing facilitation for Pokdarwis products and services — contributes significantly to this effort. However, despite these efforts, such support has not yet demonstrated a significant impact on improving Pokdarwis' innovation performance.

The tourism practices implemented by the NTB government, particularly through various forms of support aimed at facilitating and enhancing the innovation performance of Pokdarwis, still require further improvement. Such support, including the development of accessibility, amenities, and other forms of assistance, needs to be optimized to generate greater benefits for local communities. Another crucial aspect of tourism practice is fostering collaboration among all tourism village stakeholders. This collaboration is expected to establish strong, market-oriented partnerships that contribute to enhancing the innovation performance of Pokdarwis. In this study, the proposed collaboration strategy serves as a fundamental pillar for sustainable tourism village development, known as the Pentahelix Model. The first element, academia, plays a critical role in sharing knowledge with Pokdarwis and local communities, particularly in standardizing business processes and developing managerial skills among Pokdarwis members. The second element, business actors, is essential as Pokdarwis aims to improve the socio-economic conditions of communities by fostering collaboration with social entrepreneurs. This collaboration is expected to create robust social networks and strengthen the competitiveness and productivity of village tourism products and services.

Institutional Innovation Performance of Tourism Villages: What Factors Are Needed?
Hamdan et al. (2025)

JKÍ

Figure 3. Adaptation of the Pentahelix Model for Tourism Villages

The third element communities and Pokdarwis, collaboration between Pokdarwis and local communities, such as Karang Taruna community and other communities, getting involved and participating in the development of tourism villages is the best way to create social innovation and produce new programs to accelerate adaptation to tourism market trends. The fourth element government is the most important actor that offers an institutional model as a regulator and controller in every Pokdarwis activity. The involvement of local governments in supporting accessibility and amenities is very important in achieving sustainable tourism village development. The fifth element digitalization, adapting to digitalization trends is also very important for every actor in Pokdarwis. Utilizing digitalization as a media marketing mix strategy can increase the superiority of the identity of tourism villages and the attractiveness of tourist destinations which leads to the image of tourism villages in increasing tourist visits and satisfaction.

CONCLUSION

Theoretical Implications

This study employs a variant-based Partial Least Squares (PLS) approach, utilizing SmartPLS as the data analysis tool. Although this method has been widely applied, it remains highly effective for research in the field of tourism (Fong & Law, 2014). The results of this study offer theoretical contributions by serving as a reference to enrich existing knowledge. Specifically, we identify five key findings related to the innovation performance of *Pokdarwis*, derived from the responses of various *Pokdarwis* management representatives, including chairpersons, secretaries, tourist destination developers, treasurers, and members responsible for managing tourism villages. The *Pokdarwis* management is considered a reliable source of information due to their knowledge and practical experience in tourism village operations.

The findings of this study reveal several key relationships. First, digital leadership has a positive and significant effect on collaboration strategy. This implies that when Pokdarwis is led by individuals with digital capabilities, it fosters strong social interactions

that enhance collaboration and encourage active participation in implementing village tourism initiatives. Second, digital leadership has a positive and significant effect on market orientation. This suggests that customer value, as the core of market orientation, can be effectively fulfilled when the leader of Pokdarwis possesses digital capabilities that drive the development of village tourism. Third, market orientation has a positive and significant effect on innovation performance, indicating that a strong focus on market orientation is crucial for improving the innovation performance of Pokdarwis. Fourth, collaboration strategy has a positive and significant effect on market orientation. This means that implementing a planned collaboration strategy involving multiple stakeholders in village tourism practices contributes to achieving market orientation that aligns with the collective goals and benefits. Finally, collaboration strategy has a positive and significant effect on innovation performance, suggesting that the social structure within the context of village tourism requires a collaborative approach and multi-stakeholder participation to enhance the innovation performance of Pokdarwis.

Practical implications

The main contribution of this research is directed towards **Pokdarwis**, as the managers of tourism villages, given their direct role in facilitating social interactions within tourism village practices. The first implication for enhancing Pokdarwis performance lies in implementing a collaboration strategy, which includes mutual support in preparing communication action plans, collaborating in the development of new markets, jointly designing products and services, and cooperating in operational activities. The second implication is the adoption of market orientation, which involves actively assessing behaviors within tourism village practices, continuously evaluating customer satisfaction, focusing on creating customer satisfaction, optimizing all organizational functions, and considering customer feedback. These efforts enable Pokdarwis to discover new approaches for addressing social issues, enhance the confidence of Pokdarwis administrators in supporting innovative ideas, and foster active participation in the implementation of those new ideas.

The implementation and adaptation of digitalization technology by the head of Pokdarwis in carrying out social interaction or multi-party collaboration is the right action. This step is a form of the results of multi-party collaboration aimed at promoting the attractiveness of tourist village destinations in NTB as an e-marketing suggestion, by utilizing potential opportunities from the attractiveness of the Lombok-Mandalika Circuit MotoGP event. This will have a positive impact on market orientation in tourism village practices, which ultimately the performance of Pokdarwis innovation is in accordance with the benefits received collectively. In addition, the contribution of this research is also useful as a reference in making policies for local governments, tourism business actors, communities, and academics that how important the collaboration of all parties involved and participating in every tourism village practice is to obtain market orientation which ultimately the performance of Pokdarwis innovation as a tourism village manager can develop and be sustainable.

Limitations and Future Research Directions

Of course, this study still has several limitations that warrant improvement and offer avenues for future research. First, the limited characteristics of the studied population

Institutional Innovation Performance of Tourism Villages: What Factors Are Needed?
Hamdan et al. (2025)

Jki

restrict the generalizability of the findings. Therefore, future studies should consider broader population characteristics to obtain samples that better reflect the required criteria. Second, although the use of SmartPLS minimizes concerns regarding small sample sizes, the potential for biased data remains. Thus, future research should adopt a longitudinal approach to develop a more robust and reliable model. Third, the management of tourism villages varies considerably based on the potential for artificial and natural tourism, which adds complexity to the role of digital leadership. Consequently, future studies should focus on advanced and independent tourism villages to provide more comprehensive insights. Fourth, this study does not examine indirect effects (mediation) involving collaboration strategies and market orientation. Future research is encouraged to incorporate these variables as mediators, as the current study suggests indirect mediation in the relationships between digital leadership, collaboration strategies, and innovation performance, as well as between digital leadership, collaboration strategies, and market orientation. Furthermore, the findings indicate that collaboration strategies, market orientation, and innovation performance, along with digital leadership, collaboration strategies, and market orientation, produce complementary mediation effects. Finally, the moderating role of government support requires further investigation, particularly regarding the measurement instruments used, to enhance the validity and applicability of future research.

ACKNOWLEDGEMENT

REFERENCES

Abou-Shouk, M. A. (2018). Destination management organizations and destination marketing: adopting the business model of e-portals in engaging travel agents. *Journal of Travel & Tourism Marketing*, *35*(2), 178–188. https://doi.org/10.1080/10548408.2017.1350254

Aboushouk, M., & Tamamm, M. (2021). Measuring The Impact of Intellectual Capital on Travel Agencies' Innovation Performance: Evidence from Egypt. *Journal of Association of Arab Universities for Tourism and Hospitality*, *21*(2), 0–0. https://doi.org/10.21608/jaauth.2021.87234.1211

Agustin, E. S. A. S., Martini, R., & Setiyono, B. (2022). Evaluating rural tourism competitiveness: Application of PROMETHEE-GAIA method. *Cogent Economics & Finance*, *10*(1), 2054526. https://doi.org/10.1080/23322039.2022.2054526

Alerasoul, S. A., Afeltra, G., Bouncken, R. B., & Hakala, H. (2022). The synergistic impact of market and technology orientations on sustainable innovation performance: evidence from manufacturing firms. *International Journal of Entrepreneurial Behavior & Research*, *28*(6), 1556–1580. https://doi.org/10.1108/IJEBR-10-2021-0799

Amels, J., Krüger, M. L., Suhre, C. J. M., & van Veen, K. (2020). The effects of distributed leadership and inquiry-based work on primary teachers' capacity to change: testing a model. *School Effectiveness and School Improvement*, *31*(3), 468–485. https://doi.org/10.1080/09243453.2020.1746363

Amrullah, Kaltum, U., Sondari, M. C., & Pranita, D. (2023). The Influence of Capability, Business

Innovation, and Competitive Advantage on a Smart Sustainable Tourism Village and Its Impact on the Management Performance of Tourism Villages on Java Island. *Sustainability*, *15*(19), 14149.

Andrea, G., & Santoso, S. (2020). Improving economy of the community based on sustainable tourism and creative economy through Business Process Re-Engineering (BPR) with geopark development in Lebak Regency Banten Province. *International Journal of Innovative Science and Research Technology*, *5*(1), 472–482. https://bit.ly/2UbouKl

Anggraini, R., Siagian, Y. M., & Yusran, H. L. (2023). Influencing Factors Enhancement Innovation Performance of Rural Tourism in Indonesia. *European Journal of Business and Management Research*, *8*(3), 11–15. https://doi.org/10.24018/ejbmr.2023.8.3.1939

Ariya, P., & Chakpitak, N. (2016). Systems thinking in online travel agency of supplier relationship management. *International Journal of Innovation and Learning*, *19*(1), 63. https://doi.org/10.1504/IJIL.2016.073290

Ariyani, N., & Fauzi, A. (2023). Pathways toward the Transformation of Sustainable Rural Tourism Management in Central Java, Indonesia. *Sustainability*, *15*(3). https://doi.org/10.3390/su15032592

Audretsch, D. B., Belitski, M., Caiazza, R., & Phan, P. (2023). Collaboration strategies and SME innovation performance. *Journal of Business Research*, *164*, 114018. https://doi.org/10.1016/j.jbusres.2023.114018

Awwad, M. S., & Mohammad Lafi, F. (2023). Leadership Style and Market Orientation: The Mediating Role of Internal Marketing. *Journal of Relationship Marketing*, *22*(4), 299–329. https://doi.org/10.1080/15332667.2023.2205279

Băbăț, A.-F., Mazilu, M., Niță, A., Drăguleasa, I.-A., & Grigore, M. (2023). Tourism and Travel Competitiveness Index: From Theoretical Definition to Practical Analysis in Romania. *Sustainability*, *15*(13), 10157. https://doi.org/10.3390/su151310157

Baloch, Q. B., Shah, S. N., Iqbal, N., Sheeraz, M., Asadullah, M., Mahar, S., & Khan, A. U. (2023). Impact of tourism development upon environmental sustainability: A suggested framework for sustainable ecotourism. *Environmental Science and Pollution Research*, *30*(3), 5917–5930.

Benitez, J., Arenas, A., Castillo, A., & Esteves, J. (2022). Impact of digital leadership capability on innovation performance: The role of platform digitization capability. *Information & Management*, *59*(2), 103590. https://doi.org/https://doi.org/10.1016/j.im.2022.103590

Bolland, E. J. (2017). Internal and External Analysis. In *Comprehensive Strategic Management* (pp. 87–126). Emerald Publishing Limited. https://doi.org/10.1108/978-1-78714-225-120171004

Brislin, R. W. (1970). Back-Translation for Cross-Cultural Research. *Journal of Cross-Cultural Psychology*, *1*(3), 185–216. https://doi.org/10.1177/135910457000100301

Carcary, M., Doherty, E., & Conway, G. (2016). A dynamic capability approach to digital transformation: a focus on key foundational themes. *The European Conference on Information Systems Management*, 20. https://www.researchgate.net/publication/358425961

Chen, P.-K., & Ye, Y. (2022). Influence of creating an oligopoly through government intervention to improve partner collaboration intentions in the context of green supply chains. *Environmental Science and Pollution Research*, *29*(5), 6433–6448. https://doi.org/10.1007/s11356-021-16064-x

Chiambaretto, P., Bengtsson, M., Fernandez, A.-S., & Näsholm, M. H. (2020). Small and large firms' trade-off between benefits and risks when choosing a coopetitor for innovation. *Long Range Planning*, *53*(1), 101876. https://doi.org/10.1016/j.lrp.2019.03.002

Ciro, A., Toska, M., & Nientied, P. (2019). Social innovation and sustainable economic development: participatory tourism destination management. *The Role of Public Sector in Local Economic and Territorial Development: Innovation in Central, Eastern and South Eastern Europe*, 173–192.

D'souza, C., Nanere, M., Marimuthu, M., Arwani, M., & Nguyen, N. (2022). Market orientation, performance and the mediating role of innovation in Indonesian SMEs. *Asia Pacific Journal of Marketing and Logistics*, *34*(10), 2314–2330. https://doi.org/10.1108/APJML-08-2021-0624

Dabić, M., Stojčić, N., Afawubo, K., Chouki, M., & Huck, N. (2023). Market orientation, restructuring and collaboration: The impact of digital design on organizational competitiveness. *Creativity and Innovation Management*, *32*(3), 425–441. https://doi.org/10.1111/caim.12567

Institutional Innovation Performance of Tourism Villages: What Factors Are Needed?
Hamdan et al. (2025)

JKí

De Waal, B., Outvorst, F., Pascal, R., van Outvorst, F., & Ravesteyn, P. (2016). Digital Leadership: The Objective-Subjective Dichotomy of Technology Revisited. *12 Th European Conference on Management, Leadership and Governance ECMLG 2016*, 52. http://ec.europa.eu/growth/sectors/digital-economy/e-skills/index en.htm

Dery, K., Sebastian, I. M., & van der Meulen, N. (2017). The digital workplace is key to digital innovation. *MIS Quarterly Executive*, *16*(2). https://aisel.aisnet.org/misqe/vol16/iss2/4

Dewi, I. J., & Ginting, G. (2022). Leadership and Entrepreneurship for Creativity and Survival of Tourism Villages in the Covid-19 Times: the Moderating Role of External Support. *International Journal of Professional Business Review*, *7*(5), e0940. https://doi.org/10.26668/businessreview/2022.v7i5.e940

Didonet, S. R., Simmons, G., Díaz-Villavicencio, G., & Palmer, M. (2016). Market Orientation's Boundary-Spanning Role to Support Innovation in SMEs. *Journal of Small Business Management*, *54*(sup1), 216–233. https://doi.org/10.1111/jsbm.12288

Dörner, K., & Edelman, D. (2015). What 'digital' really means. *McKinsey and Company*. https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/what-digital-really-means#/

Elgarhy, S. D., & Abou-Shouk, M. (2023). Effects of entrepreneurial orientation, marketing, and innovation capabilities, on market performance: the mediating effect of sustainable competitive advantage. *International Journal of Contemporary Hospitality Management*, *35*(6), 1986–2004. https://doi.org/10.1108/IJCHM-04-2022-0508

Erhan, T., Uzunbacak, H. H., & Aydin, E. (2022). From conventional to digital leadership: exploring digitalization of leadership and innovative work behavior. *Management Research Review*, *45*(11), 1524–1543. https://doi.org/10.1108/MRR-05-2021-0338

Farinha, F., Bienvenido-Huertas, D., Duarte Pinheiro, M., Silva, E. M. J., Lança, R., José Oliveira, M., & Batista, R. (2021). Sustainable Competitiveness of Tourism in the Algarve Region. Critical Stakeholders' Perception of the Supply Sector. *Sustainability*, *13*(11). https://doi.org/10.3390/su13116072

Fikri, A. R., Ratnasari, R. T., Ahmi, A., & Kirana, K. C. (2022). Market orientation and business performance: the mediating role of total quality management and service innovation among Moslem fashion macro, small and medium enterprises in Indonesia. *Journal of Islamic Accounting and Business Research*, *13*(8), 1234–1252. https://doi.org/10.1108/JIABR-12-2021-0321

Fong, L., & Law, R. (2014). Hair, J. F. Jr., Hult, G. T. M., Ringle, C. M., Sarstedt, M. (2014). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Sage Publications. ISBN: 978-1-4522-1744-4. 307 pp. *European Journal of Tourism Research*, *6*(2), 211–213. https://doi.org/10.54055/ejtr.v6i2.134

Frambach, R. T., Fiss, P. C., & Ingenbleek, P. T. M. (2016). How important is customer orientation for firm performance? A fuzzy set analysis of orientations, strategies, and environments. *Journal of Business Research*, *69*(4), 1428–1436. https://doi.org/10.1016/j.jbusres.2015.10.120

Fu, X., Fu, X. M., Ghauri, P., & Hou, J. (2022). International collaboration and innovation: Evidence from a leading Chinese multinational enterprise. *Journal of World Business*, *57*(4), 101329. https://doi.org/10.1016/j.jwb.2022.101329

Gupta, V., & Dixit, S. K. (2022). Influence of Branded Luxury Guestroom Amenities on Guests' Hotel Buying Decisions: A Case of Five-star Hotels in Delhi. In *The Emerald Handbook of Luxury Management for Hospitality and Tourism* (pp. 305–319). Emerald Publishing Limited. https://doi.org/10.1108/978-1-83982-900-020211015

Hair, J., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*.

Hall, C. M. (2019). *Constructing sustainable tourism development: The 2030 agenda and the managerial ecology of sustainable tourism. 27 (7), 1044--1060.*

Hamdan, H., Yuliantini, T., Raharja, I., Samudro, A., & Ali, H. (2023). Establishing collaborate and share knowledge as a fear of missing out (FOMO) response in improving tourist travel agency innovation performance. *BISMA (Bisnis Dan Manajemen)*, 115–143. https://doi.org/10.26740/bisma.v16n1.p115-143

Herhausen, D. (2016). Unfolding the ambidextrous effects of proactive and responsive market orientation. *Journal of Business Research*, *69*(7), 2585–2593. https://doi.org/10.1016/j.jbusres.2015.10.139

Huang Yin, C., Goh, E., & Law, R. (2019). Developing inter-organizational relationships with online travel agencies (OTAs) and the hotel industry. *Journal of Travel & Tourism Marketing*, *36*(4), 428–442. https://doi.org/10.1080/10548408.2019.1568951

Hwangbo, Y., Shin, W.-J., & Kim, Y. (2022). Moderating Effects of Leadership and Innovation Activities on the Technological Innovation, Market Orientation and Corporate Performance Model. *Sustainability*, *14*(11), 6470. https://doi.org/10.3390/su14116470

Javed, M., & Awan, T. M. (2023). The young tourist's co-creation nexus: market mavens and existential authenticity as driving forces of intentions to revisit and recommend. *Journal of Hospitality and Tourism Insights*, *6*(2), 716–734. https://doi.org/10.1108/JHTI-12-2020-0240

Jejakfaktanews.com. (2024). Tropik Resort Lombok Datangkan Investor Asal Dubai. *Jejakfaktanews.Com*. https://www.jejakfaktanews.com/2024/01/tropik-resort-lombok-datangkan-investor.html

Jirakraisiri, J., Badir, Y. F., & Frank, B. (2021). Translating green strategic intent into green process innovation performance: the role of green intellectual capital. *Journal of Intellectual Capital*, *22*(7), 43–67. https://doi.org/10.1108/JIC-08-2020-0277

Jogaratnam, G. (2017). The effect of market orientation, entrepreneurial orientation and human capital on positional advantage: Evidence from the restaurant industry. *International Journal of Hospitality Management*, *60*, 104–113. https://doi.org/10.1016/j.ijhm.2016.10.002

Kemenparekraf. (2024). Jumpa Pers Akhir Tahun 2020. *Kemenparekraf.Go.Id*. https://sejarah.kemenparekraf.go.id/

Kim, S., Choi, B., & Lew, Y. K. (2021). Where Is the Age of Digitalization Heading? The Meaning, Characteristics, and Implications of Contemporary Digital Transformation. *Sustainability*, *13*(16), 8909. https://doi.org/10.3390/su13168909

Kokot, K., Kokotec, I. D., & Calopa, M. K. (2021). Impact of Leadership on Digital Transformation. *2021 IEEE Technology & Engineering Management Conference - Europe (TEMSCON-EUR)*, *8*(3), 1–6. https://doi.org/10.1109/TEMSCON-EUR52034.2021.9488620

Kominfo. (2022). WTD 2022 Peluang Indonesia Jadi Lokomotif Pemulihan Pariwisata Global. *Kominfo.Co.Id*. https://www.kominfo.go.id/content/detail/44511/wtd-2022-peluang-indonesia-jadi-lokomotif-pemulihan-pariwisata-global/0/berita

Leopizzi, R., Pizzi, S., & D'Addario, F. (2021). The Relationship among family business, corporate governance, and firm performance: an empirical assessment in the tourism sector. *Administrative Sciences*, *11*(1), 8.

Magistretti, S., Dell'Era, C., & Doppio, N. (2020). Design sprint for SMEs: an organizational taxonomy based on configuration theory. *Management Decision*, *58*(9), 1803–1817. https://doi.org/10.1108/MD-10-2019-1501

Manrai, L. A., Manrai, A. K., & Friedeborn, S. (2020). Environmental determinants of destination competitiveness and its Tourism Attractions-Basics-Context, A-B-C, indicators. *Journal of Economics, Finance and Administrative Science*, *25*(50), 425–449. https://doi.org/10.1108/JEFAS-01-2018-0010

Masood, M., & Afsar, B. (2017). Transformational leadership and innovative work behavior among nursing staff. *Nursing Inquiry*, *24*(4), e12188. https://doi.org/10.1111/nin.12188

Mastika, I. K., Harsono, S. S., Khristianto, W., Oktawirani, P., & Hutama, P. S. (2023). Creative strategies of local resources in managing geotourism in the Ijen Geopark Bondowoso, East Java, Indonesia. *International Journal of Geoheritage and Parks*, *11*(1), 149–168. https://doi.org/https://doi.org/10.1016/j.ijgeop.2023.01.002

Meiyanti, R., Rasyiidin, M. Y. B., Murad, F. A., & Fajriah, R. (2022). Smart Wifi Design for Integrated Tourist Destinations in Smart Tourism. *Tech-E*, *5*(2), 103–114. https://doi.org/10.31253/te.v5i1.766

Mihardjo, L. W. W., Sasmoko, S., Alamsjah, F., & Elidjen, E. (2019). Digital Leadership Impacts on Developing Dynamic Capability and Strategic Alliance Based on Market Orientation. *Polish Journal of Management Studies*, *19*(2), 285–297. https://doi.org/10.17512/pjms.2019.19.2.24

Moslehpour, M., Firman, A., Lin, C.-H., Bilgiçli, İ., Tran, T. K., & Nguyen, T. T. H. (2023). The moderating impact of government support on the relationship between tourism development and growth, natural resources depletion, sociocultural degradation, economic environment, and pollution reduction: case of Indonesian economy. *Environmental Science and Pollution Research*, *30*(19), 56863–56878. https://doi.org/10.1007/s11356-023-26231-x

Musa, S. (2022). Strategic Alliances, Innovation Capability, Cost Reduction, Customer Loyalty and

Institutional Innovation Performance of Tourism Villages: What Factors Are Needed?
Hamdan et al. (2025)

Jki

Competitive Advantage in B2B Alliances. *European Conference on Innovation and Entrepreneurship*, *17*(1), 361–369. books.google.com

Nasir, M. (2023). Gili Trawangan Diserbu Wisatawan, 3.500 Turis Berkunjung Setiap Hari. *IDN TIMES NTB*. https://ntb.idntimes.com/news/ntb/muhammad-nasir-18/gili-trawangan-diserbu-wisatawan-3-500-turis-berkunjung-setiap-hari

Nematpour, M., Khodadadi, M., Makian, S., & Ghaffari, M. (2024). Developing a Competitive and Sustainable Model for the Future of a Destination: Iran's Tourism Competitiveness. *International Journal of Hospitality & Tourism Administration*, *25*(1), 92–124. https://doi.org/10.1080/15256480.2022.2081279

NTBSATU.com. (2024). Lombok akan Dijadikan Wisata Terbesar Dunia, Tropik Resorts Lombok Datangkan Investor Dubai. *NTBSATU.Com*. https://ntbsatu.com/2024/01/29/lombok-akan-dijadikan-wisata-terbesar-dunia-tropik-resorts-lombok-datangkan-investor-dubai.html

Oberer, B., & Erkollar, A. (2018). Leadership 4.0: Digital leaders in the age of industry 4.0. *International Journal of Organizational Leadership*. https://ssrn.com/abstract=3337644

Osorio Tinoco, F. F., Hernández-Espallardo, M., & Rodriguez-Orejuela, A. (2019). Nonlinear and complementary effects of responsive and proactive market orientation on firms' competitive advantage. *Asia Pacific Journal of Marketing and Logistics*, *32*(4), 841–859. https://doi.org/10.1108/APJML-01-2019-0058

Oumlil, R., & Ouhamane, Y. (2016). Do TAM constructs predict e-tourism adoption by hotels in Agadir City South of Morocco? In *Tourism and Culture in the Age of Innovation* (pp. 603–616). Springer.

Oygür, I., & Thompson, J. A. A. (2020). Intra-organizational user-centred design practices: The impact of design research departments at design consultancies. *Creativity and Innovation Management*, *29*(1), 112–127. https://doi.org/10.1111/caim.12347

Pedoman-Desa-Wisata. (2021). *Pedoman Desa Wisata* (Edisi II). Kementerian Koordinator Bidang Kemaritiman dan Investasi Republik: Jakarta, Indonesia. https://drive.google.com/file/d/1zRik19ujsX4BVR6ID5MQm_whhD9zrKBK/view

Racela, O. C., & Thoumrungroje, A. (2019). When do customer orientation and innovation capabilities matter? An investigation of contextual impacts. *Asia Pacific Journal of Marketing and Logistics*, *32*(2), 445–472. https://doi.org/10.1108/APJML-03-2019-0143

Rajabion, L., Sataei Mokhtari, A., Khordehbinan, M. W., Zare, M., & Hassani, A. (2019). The role of knowledge sharing in supply chain success. *Journal of Engineering, Design and Technology*, *17*(6), 1222–1249. https://doi.org/10.1108/JEDT-03-2019-0052

Randhawa, K., Wilden, R., & Gudergan, S. (2021). How to innovate toward an ambidextrous business model? The role of dynamic capabilities and market orientation. *Journal of Business Research*, *130*, 618–634. https://doi.org/10.1016/j.jbusres.2020.05.046

Rasoolimanesh, S. M., Ramakrishna, S., Hall, C. M., Esfandiar, K., & Seyfi, S. (2023). A systematic scoping review of sustainable tourism indicators in relation to the sustainable development goals. *Journal of Sustainable Tourism*, *31*(7), 1497–1517.

Ringle, C. M., Sarstedt, M., Sinkovics, N., & Sinkovics, R. R. (2023). A perspective on using partial least squares structural equation modelling in data articles. *Data in Brief*, *48*, 109074. https://doi.org/https://doi.org/10.1016/j.dib.2023.109074

RPJMD-NTB. (2023). *RPJMD 2019-2023 "Perubahan Rencana Pembangunan Jangka Menegah Provinsi Nusa Tenggara Barat". Kota Mataram Provinsi NTB.*

Rua, O. L., & Santos, C. (2022). Linking brand and competitive advantage: The mediating effect of positioning and market orientation. *European Research on Management and Business Economics*, *28*(2), 100194. https://doi.org/10.1016/j.iedeen.2021.100194

Saebi, T., Lien, L., & Foss, N. J. (2017). What Drives Business Model Adaptation? The Impact of Opportunities, Threats and Strategic Orientation. *Long Range Planning*, *50*(5), 567–581. https://doi.org/10.1016/j.lrp.2016.06.006

Saputra, N., Nugroho, R., Aisyah, H., & Karneli, O. (2021). Digital skill during covid-19: effects of digital leadership and digital collaboration. *Jurnal Aplikasi Manajemen*, *19*(2), 272–281. https://doi.org/10.21776/ub.jam.2021.019.02.04

Seow, A. N., Choong, Y. O., & Ramayah, T. (2021). Small and medium-size enterprises' business performance in tourism industry: the mediating role of innovative practice and moderating role of government support. *Asian Journal of Technology Innovation*, *29*(2), 283–303. https://doi.org/10.1080/19761597.2020.1798796

Sheninger, E. (2019). *Digital leadership: Changing paradigms for changing times*. Corwin Press.

books.google.com

Soratana, K., Landis, A. E., Jing, F., & Suto, H. (2021). *Supply Chain Management of Tourism Towards Sustainability*. Springer International Publishing. https://doi.org/10.1007/978-3-030-58225-8

Stojčić, N. (2021). Collaborative innovation in emerging innovation systems: Evidence from Central and Eastern Europe. *The Journal of Technology Transfer*, *46*(2), 531–562. https://doi.org/10.1007/s10961-020-09792-8

Tagscherer, F., & Carbon, C.-C. (2023). Leadership for successful digitalization: A literature review on companies' internal and external aspects of digitalization. *Sustainable Technology and Entrepreneurship*, *2*(2), 100039. https://doi.org/10.1016/j.stae.2023.100039

Tahili, M. H., Halim, R., Djawa, S. K., Haluti, F., Layoo, N., & Asriadi, A. R. (2022). The Effect of Public-Private Partnerships on Trust in Tourism Networks Management and Tourism Service Innovation during Covid-19 Pandemic in Indonesia. *Academy of Strategic Management Journal*, *21*(1), 1–11. https://www.researchgate.net

Tajasom, A., Hung, D. K. M., Nikbin, D., & Hyun, S. S. (2015). The role of transformational leadership in innovation performance of Malaysian SMEs. *Asian Journal of Technology Innovation*, *23*(2), 172–188. https://doi.org/10.1080/19761597.2015.1074513

Tang, T.-W., Zhang, P., Lu, Y. (Tracy), Wang, T.-C., & Tsai, C.-L. (2020). The effect of tourism core competence on entrepreneurial orientation and service innovation performance in tourism small and medium enterprises. *Asia Pacific Journal of Tourism Research*, *25*(2), 89–100. https://doi.org/10.1080/10941665.2019.1674346

Tanniru, M. R. (2018). Digital Leadership. In *Management of Information Systems*. InTech. https://doi.org/10.5772/intechopen.76045

Toylan, N., Semerciöz, F., & Hassan, M. (2020). Knowledge Sharing in Strategic Alliance Relationships: An Empirical Research on Hotels in Turkey. *European Journal of Tourism Research*, *24*, 2403. https://doi.org/10.54055/ejtr.v24i.405

TribunLombok.com. (2024). Tropik Resort Lombok Datangkan Investor Dubai, Bakal Jadikan Lombok Tujuan Wisata Terbesar Dunia. *TribunLombok.Com*. https://lombok.tribunnews.com/2024/01/27/tropik-resort-lombok-datangkan-investor-dubai-bakal-jadikan-lombok-tujuan-wisata-terbesar-dunia

VOI. (2024). Investor Properti Asal Dubai Bakal Investasi di Lombok Tengah. *VOI.Id*. https://voi.id/ekonomi/351920/investor-properti-asal-dubai-bakal-investasi-di-lombok-tengah

Wendra, W., Sule, E. T., Joeliaty, J., & Azis, Y. (2019). Exploring dynamic capabilities, intellectual capital and innovation performance relationship: evidence from the garment manufacturing. *Business: Theory and Practice*, *20*, 123–136. https://www.ceeol.com/search/article-detail?id=772737

Wheelen, T. L., Hunger, J. D., Hoffman, A. N., & Bamford, C. E. (2017). *Strategic management and business policy* (Vol. 55). pearson Boston. https://thuvienso.hoasen.edu.vn/handle/123456789/11688

Wirth, S., Bandi Tanner, M., & Mayer, H. (2023). Social innovations in tourism: Analysing processes, actors, and tipping points. *Tourism Geographies*, *25*(5), 1322–1340.

Wu, I.-L., & Chiu, M.-L. (2018). Examining supply chain collaboration with determinants and performance impact: Social capital, justice, and technology use perspectives. *International Journal of Information Management*, *39*, 5–19. https://doi.org/10.1016/j.ijinfomgt.2017.11.004

Yooyativong, T. (2018). Developing Teacher's Digital Skills Based on Collaborative Approach in Using Appropriate Digital Tools to Enhance Teaching Activities. *2018 Global Wireless Summit (GWS)*, 156–160. https://doi.org/10.1109/GWS.2018.8686614

Zadeh Bazargani, R. H., & Kiliç, H. (2021). Tourism competitiveness and tourism sector performance: Empirical insights from new data. *Journal of Hospitality and Tourism Management*, *46*, 73–82. https://doi.org/10.1016/j.jhtm.2020.11.011

Zeike, S., Bradbury, K., Lindert, L., & Pfaff, H. (2019). Digital Leadership Skills and Associations with Psychological Well-Being. *International Journal of Environmental Research and Public Health*, *16*(14), 2628. https://doi.org/10.3390/ijerph16142628

Zizlavsky, O. (2016). Innovation performance measurement: research into Czech business practice. *Economic Research-Ekonomska Istraživanja*, *29*(1), 816–838. https://doi.org/10.1080/1331677X.2016.1235983

Institutional Innovation Performance of Tourism Villages: What Factors Are Needed?
Hamdan et al. (2025)

Jki

AUTHOR PROFILE

Hamdan SE, MM.

ORCID ID: https://orcid.org/0000-0002-8399-6805. Currently completing the Doctoral Program in Strategic Management Science at Brawijaya University Malang and actively teaching at Mercu Buana University Jakarta from 2017 until now. Bachelor and Master of Marketing Management education completed at Mercu Buana University, Jakarta. The focus of his research is strategic tourism

Tama Krisnahadi SP, MM.

ORCID ID: https://orcid.org/0009-0002-6163-3074. Currently active as Chair of the Faculty of Culture, Management and Business Study Program, Mandalika Education University, Mataram. The education he has completed is a Bachelor of Agriculture and a Master of Management at Mataram University. The research focus is marketing management and entrepreneurship.

Nur Komaria

ORCID ID: 0009-0009-1824-7742. She currently works at the Center of Digital Economy and SMEs, which is affiliated with the Institute for Development of Economics and Finance (INDEF) Indonesia.

Ridho Rafqi Ilhamalimy SE, MM.

ORCID ID: https://orcid.org/0009-0000-6831-0724. As a lecturer who actively teaches at the Mandalika University of Education, Mataram. Bachelor's degree completed at the Indonesian College of Economics, and Masters in Marketing Management at Mercu Buana University. My research interest is Marketing Management.

Indra Raharja ST, MBA.

ORCID ID: https://orcid.org/0009-0002-4637-7969. Currently actively teaching at the Faculty of Economics and Business, Mercu Buana University, Jakarta and currently pursuing the Doctoral Program in Strategic Management Science at Brawijaya University Malang. The education he has completed is a Bachelor of Industrial Engineering and a Master of Business Administration at Bandung University of Technology. My research interests are strategic management and entrepreneurship.

EDITORIAL BOARD PROFILE

Dr. Faurani Santi Singagerda, S.E, M.Sc, CIQnR.

She is the dean of the Faculty of Economics and Business, Darmajaya Information and Business Institute. She has expertise in tourism economics.

Email: faurani@darmajaya.ac.id

Noviendi Makalam, MA.

He is the principal tourism and creative economy expert at the Ministry of Tourism and Creative Economy. He has expertise in tourism marketing and public policy.

Email: novmak@gmail.com

Drs. Roby Ardiwidjaja, M.BIT.

He is a principal expert researcher in tourism regulation and R&D and an assistant deputy for research and development of tourism policy at the National Research and Innovation Agency (BRIN). He has expertise in tourism management, focusing on sustainable destination development.

Email: roby.ardiwidjaja@gmail.com

PEER REVIEWER PROFILE

Prof. Dr.-Phil. Janianton Damanik, M.Si.

He is currently serves as Professor in Social Development Sciences, FISIPOL, Gadjah Mada University, and Lecturer in the Master's and Doctoral Study Program in Tourism Studies, Postgraduate School at UGM. Has expertise in the fields of community-based development and destination management.

Email: antondmk@ugm.ac.id

Prof. Dr. M. Baiquni, MA.

He is currently working as Professor in Faculty of Geography and Head of Department of Development Geography, Universitas Gadjah Mada. His research interest covers several areas in tourism. He also has expertise in the field of tourism and geography.

Email: mbaiquni@ugm.ac.id

Prof. Azril Azahari, Ph.D.

He is currently served as the chairman of Ikatan Cendekiawan Pariwisata Indonesia (ICPI). He has expertise in the field of tourism and creative economy human resources.

Email: azazahari@gmail.com

Prof. Dr. Aan Komariah, M.Pd

She is a Professor of Educational Administration at the Graduate School of Universitas Pendidikan Indonesia (UPI), Bandung. Her areas of expertise include leadership, quality management, and professional development

Email: aan_komariah@upi.edu

Prof. Ilham Junaid, Ph.D

He is a Professor at Politeknik Pariwisata Makassar, has expertise in Tourism Operational Management.

Dr. Herlan Suherlan, MM., CIQaR., CIQnR.

He is a lecturer at the NHI Bandung Tourism Polytechnic. Has expertise in the fields of tourism development, and strategic management.

Email: hel@stp-bandung.ac.id

Dr. Marceilla Suryana, BA (Hons), MM.Par.

She is a lecturer at Bandung State Polytechnic. Has expertise in the tourism sector related to marketing and MSMEs.

Email: suryanamarceilla@gmail.com

Dr. Rahmi Setiawati, S.Sos., M.Si.

She is a lecturer in University of Indonesia. She has expertise in the tourism communication.

Email: rahmisetyawati@yahoo.com

Dr. Astrid Kusumowidagdo, S.T., M.M.

She is a lecturer in Ciputra University. Sha has expertise in design, tourism with related creative industries.

Email: astrid@ciputra.ac.id

Dwiesty Dyah Utami, S.ST.Par., MM.Par., M.Sc.

She is a lecturer in the Travel Industry Study Program, NHI Bandung Tourism Polytechnic. She has expertise in the fields of tour and travel and village tourism.

Email: dwiesty.dyah@gmail.com

ASSISTANT DEPUTY OF STRATEGIC MANAGEMENT
DEPUTY OF RESOURCES AND INSTITUTIONS
MINISTRY OF TOURISM
REPUBLIC OF INDONESIA