

# An Integrated Governance-Digital-Community Model for Sustainable Heritage Tourism: The Mediating Role of Visitor Performance in Community-Based Destinations in Bali

Rosdiana<sup>1</sup>, Maryam<sup>2</sup>, Kresna<sup>3</sup>.

<sup>1</sup>UIT, <sup>2</sup>UIT, <sup>2</sup>Udayana

e-mail: <sup>1</sup>1rda.tang219@gmail.com, <sup>2</sup>maryam.mary7741@gmail.com, <sup>3</sup>kresna.wirawan45@gmail.com

\*Rosdiana

## ABSTRACT

Heritage tourism destinations face a paradox in which international recognition does not necessarily ensure sustainable visitor performance. This study develops and empirically tests the *Integrated Governance-Digital-Community (IGD-C) Model* to explain destination sustainability in community-based heritage tourism settings. Drawing on adaptive governance theory, Community-Based Tourism (CBT) frameworks, and socio-technical systems perspectives, the model positions governance capacity, community participation, and digital integration as key drivers of visitor performance, which in turn mediates sustainability outcomes. A cross-sectional survey of 340 visitors was conducted in two UNESCO-recognized heritage destinations in Bali: Penglipuran Village and Jatiluwih Subak Landscape. Structural Equation Modeling with Partial Least Squares (SEM-PLS) was employed to test the hypotheses. Results reveal that governance capacity exerts the strongest influence on visitor performance, followed by community participation and digital integration. Visitor performance fully mediates the relationship between these three factors and destination sustainability. Comparative analysis shows Penglipuran excels in governance and community dimensions, while Jatiluwih demonstrates stronger digital integration. The IGD-C model contributes to tourism governance theory by identifying visitor performance as the critical transmission mechanism linking institutional capacity, social capital, and technological innovation to long-term sustainability.

**Keywords:** *heritage tourism; governance capacity; community-based tourism; digital integration; destination sustainability.*

**Article submission:** 27 Feb 2026

**Article revision:** 05 Mar 2026

**Article acceptance:** 15 Mar 2026

## I. INTRODUCTION

Heritage tourism has become one of the fastest-growing segments of the global tourism industry, contributing significantly to economic development and cultural exchange (WTTC, 2020). However, heritage destinations face unique challenges due to the non-renewable nature of cultural and natural assets. International recognition, such as UNESCO designation, does not automatically guarantee sustainability, as many sites struggle with governance limitations, community involvement, and the pressures of digital transformation (UNESCO, 2022; UNWTO, 2021).

Community-Based Tourism (CBT) has been widely promoted as a participatory model that empowers local communities in managing and benefiting from tourism (Scheyvens, 1999; Chambers, 1997). Yet, existing studies often examine governance, community participation, and digital integration separately, without integrating them into a unified framework (Bramwell & Lane, 2011; Gretzel, Sigala, Xiang, & Koo, 2015). Moreover, the role of visitor performance as a mediating mechanism between governance inputs and sustainability outcomes remains underexplored (Parasuraman, Zeithaml, & Berry, 1988; Pine & Gilmore, 1999).

This study addresses these gaps by developing and testing the *Integrated Governance-Digital-Community (IGD-C) Model* in two heritage destinations in Bali: Penglipuran Village and Jatiluwih Subak Landscape. The research aims to explain how governance capacity, community participation, and digital integration influence destination sustainability through visitor performance, thereby offering both theoretical contributions and practical recommendations for heritage tourism management in the digital era.

## II. LITERATURE REVIEW

Tourism studies have shifted from growth-oriented perspectives to sustainability-centered frameworks. Adaptive governance theory views destinations as complex socio-ecological systems where sustainability depends on institutional learning, stakeholder coordination, and responsiveness to external shocks (Folke, Hahn,

Olsson, & Norberg, 2005; North, 1990). This perspective emphasizes governance capacity as a foundation for effective heritage tourism management.

Community-Based Tourism (CBT) highlights the empowerment of local communities in planning and benefit distribution (Scheyvens, 1999; Chambers, 1997). While CBT can generate positive outcomes, critical studies reveal risks of tokenism and elite capture (Dangi & Petrick, 2021). Bibliometric reviews further note that CBT research remains dominated by qualitative approaches, with limited quantitative models to explain performance variation (Krittayaruangroja, Suriyankietkaew, & Hallinger, 2023).

Digital integration has reshaped tourism through smart technologies, online promotion, and interactive visitor engagement. Smart tourism ecosystems enhance visibility and efficiency but require governance safeguards to ensure equitable benefits and protect cultural authenticity (Gretzel, Sigala, Xiang, & Koo, 2015; Abdelmalak, 2025).

Visitor performance, encompassing satisfaction, loyalty, revisit intention, and willingness to pay, is increasingly recognized as a mediating construct. High-quality visitor experiences translate governance and community inputs into sustainable demand, reinforcing economic, socio-cultural, and environmental outcomes (Parasuraman, Zeithaml, & Berry, 1988; Pine & Gilmore, 1999; Oliver, 1999).

Based on these insights, this study proposes the *Integrated Governance-Digital-Community (IGD-C) Model*, positioning governance capacity, community participation, and digital integration as predictors of visitor performance, which in turn drives destination sustainability.

### III. METHODS

This study employed a quantitative, cross-sectional design with an explanatory orientation to test the hypotheses embedded in the IGD-C model. The research was conducted in two community-based heritage tourism destinations in Bali: Penglipuran Village, recognized for its traditional spatial layout and community governance, and Jatiluwih Subak Landscape, a UNESCO World Cultural Heritage site known for its irrigation system and cultural landscape.

The population consisted of visitors to both destinations, and a purposive sampling technique was applied. A total of 340 valid responses were collected through structured questionnaires. The operational variables included governance capacity, community participation, and digital integration as exogenous constructs; visitor performance as a mediating construct; and destination sustainability as the endogenous construct.

Data analysis was conducted using *Structural Equation Modeling–Partial Least Squares (SEM-PLS)*, which is suitable for predictive modeling and mediation testing in complex frameworks. Measurement validity and reliability were assessed prior to hypothesis testing, ensuring robustness of the model.

#### IV. RESULTS

The analysis confirmed that governance capacity, community participation, and digital integration each have a positive influence on visitor performance. Among these, governance capacity emerged as the strongest driver, followed by community participation and digital integration. Visitor performance was found to fully mediate the relationship between these three factors and destination sustainability, highlighting its critical role as a transmission mechanism.

Comparative analysis between the two study sites revealed distinct strengths. Penglipuran Village demonstrated superior governance structures and stronger community participation, which translated into higher visitor satisfaction and loyalty. In contrast, Jatiluwih Subak Landscape showed greater progress in digital integration, particularly in online promotion and visitor engagement, which enhanced its visibility and accessibility.

Overall, the findings support the proposed IGD-C model, showing that sustainability in heritage tourism is achieved not directly through governance or technology alone, but through the quality of visitor experiences shaped by these inputs.

## V. CONCLUSION AND SUGGESTION

### Conclusion

This study developed and tested the *Integrated Governance-Digital-Community (IGD-C) Model* in community-based heritage tourism destinations in Bali. The findings demonstrate that governance capacity, community participation, and digital integration contribute to destination sustainability through the mediating role of visitor performance. The model highlights that long-term sustainability is not achieved solely through institutional policies or technological adoption, but through the quality of visitor experiences shaped by governance and community engagement.

### Suggestion

Destination managers and policymakers should strengthen governance capacity, ensure meaningful community participation, and embed digital technologies within equitable governance frameworks. Future research is recommended to adopt longitudinal approaches or expand the model to other heritage destinations, thereby enhancing the generalizability and practical utility of the IGD-C framework.

## VI. DISCUSSION

The findings of this study confirm the importance of governance capacity, community participation, and digital integration in shaping visitor performance, which in turn drives destination sustainability. Governance capacity emerged as the strongest determinant, underscoring the role of institutional accountability, transparency, and adaptability in ensuring positive visitor experiences. This aligns with adaptive governance theory, which emphasizes the ability of institutions to respond to complex socio-ecological challenges (Folke et al., 2005).

Community participation also demonstrated a significant influence, reinforcing the principles of Community-Based Tourism (CBT). When communities are genuinely involved in decision-making and benefit-sharing, visitors perceive authenticity and social value, which enhances satisfaction and loyalty. However, the findings also highlight the need to avoid tokenistic participation, as meaningful engagement is critical for long-term sustainability.

Digital integration contributed positively, though to a lesser extent, suggesting that technology alone cannot guarantee sustainability. Instead, digital tools must be embedded within governance frameworks and community practices to ensure equitable outcomes. The comparative analysis between Penglipuran and Jatiluwih illustrates how different strengths—governance and community in Penglipuran, digital integration in Jatiluwih—can complement each other in advancing sustainability. Overall, the IGD-C model extends tourism governance theory by identifying visitor performance as the critical transmission mechanism linking institutional, social, and technological dimensions to sustainable heritage tourism.

## VII. BIBLIOGRAPHY

- Abdelmalak, M. (2025). Smart governance and digital transformation in tourism. *Journal of Tourism Futures*, 11(2), 145–162.
- Abreu, J., Silva, R., & Torres, M. (2024). Community-based tourism and the SDGs: Evidence from island destinations. *Sustainability*, 16(4), 2250–2265.
- Bramwell, B., & Lane, B. (2011). Critical research on the governance of tourism and sustainability. *Journal of Sustainable Tourism*, 19(4–5), 411–421.
- Butler, R. W. (1980). The concept of a tourist area cycle of evolution: Implications for management of resources. *Canadian Geographer*, 24(1), 5–12.
- Chambers, R. (1997). *Whose reality counts? Putting the first last*. London: Intermediate Technology Publications.
- Dangi, T. B., & Petrick, J. F. (2021). Community-based tourism: A comprehensive literature review and future research agenda. *Journal of Sustainable Tourism*, 29(1), 102–121.
- Elkington, J. (1997). *Cannibals with forks: The triple bottom line of 21st century business*. Oxford: Capstone Publishing.

- Folke, C., Hahn, T., Olsson, P., & Norberg, J. (2005). Adaptive governance of social-ecological systems. *Annual Review of Environment and Resources*, 30(1), 441–473.
- Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Boston: Pitman.
- Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015). Smart tourism: Foundations and developments. *Electronic Markets*, 25(3), 179–188.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2019). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Thousand Oaks, CA: Sage.
- Jackson, L. (2025). Community-based tourism and poverty alleviation: Evidence from Southeast Asia. *Asian Journal of Tourism Research*, 12(3), 210–225.
- Krittayaruangroja, B., Suriyankietkaew, S., & Hallinger, P. (2023). Research on sustainability in community-based tourism: A bibliometric review and future directions. *Asia Pacific Journal of Tourism Research*, 28(9), 1031–1051.
- North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge: Cambridge University Press.
- Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing*, 63(Special Issue), 33–44.
- Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge: Cambridge University Press.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12–40.
- Pine, B. J., & Gilmore, J. H. (1999). *The experience economy: Work is theatre & every business a stage*. Boston: Harvard Business School Press.

- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.
- Rahman, S. S., & Reddy, P. B. (2021). Community engagement in Southeast Asia's tourism industry: Empowering local economies. *Southeast Asian Journal of Management and Research*, 10(2), 55–70.
- Bui, H. T. (2025). Governance of cultural heritage and tourism development in Southeast Asia. *Southeast Asian Journal of Management and Research*, 12(1), 33–48.
- Simanihuruk, M., Arafah, W., Rahmanita, M., & Hadi, P. (2024). The role of governance, social welfare, and community participation on sustainable tourism village: A case study in Bogor Regency, Indonesia. *Southeast Asian Journal of Management and Research*, 11(6), 120–135.
- Ruhanen, L., Scott, N., Ritchie, B. W., & Tkaczynski, A. (2022). Governance and tourism policy: A review and research agenda. *Tourism Management*, 90, 104–118.
- UNESCO. (2022). *World heritage and sustainable tourism programme*. Paris: UNESCO Publishing.
- UNWTO. (2021). *International tourism highlights*. Madrid: World Tourism Organization.
- WTTC. (2020). *Economic impact report*. London: World Travel and Tourism Council.