CATRA RESEARCH INSTITUTE
• P-ISSN 2720 - 9644 (Print)
• E-ISSN 2721 - 0871 (Online)
JTEP
Journal of Tourism Economics and Policy
JOURNAL OF TOURISM ECONOMICS AND POLICY
Indexed By : GARUDA Google Scholar doi Crossref ROAD DRJI OneSearch ISJD sinta INDEX COPERNICUS Clarivate Analytics WEB OF SCIENCE BASE

Volume: 6
Number: 1
Page: 97 - 105

Article History:
Received: 2025-12-01
Revised: 2025-12-26
Accepted: 2025-01-17

SMART–GREEN TOURISM: THE ROLE OF DIGITAL TECHNOLOGIES IN STRENGTHENING SUSTAINABLE PRACTICES AT DESTINATION BALI

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Abstract:
This study explores how digital technologies are utilized to promote and implement sustainable tourism practices in Bali, Indonesia. Using a qualitative descriptive approach, the research investigates the integration of smart systems—such as e-ticketing, digital waste management applications, and eco-friendly mobile platforms—in shaping sustainable tourism behavior and governance. Data were collected through in-depth interviews, participant observation, and document analysis conducted in two key destinations: Sanur, representing government-led smart city initiatives, and Ubud, representing community-based green tourism. The findings reveal that digital innovation enhances efficiency, transparency, and environmental accountability while also fostering tourists' awareness and participation in sustainability practices. Social media engagement, particularly through digital storytelling and user-generated content, plays a significant role in strengthening Bali's image as a smart and sustainable destination. The study proposes a conceptual model of Smart–Green Tourism comprising four components: digital infrastructure, digital engagement, collaborative governance, and continuous monitoring. This model demonstrates how technological innovation and local cultural values can work synergistically to promote environmental stewardship and destination resilience. The study concludes that successful implementation of smart–green tourism in Bali requires cross-sector collaboration, inclusive digital literacy, and sustained commitment to eco-conscious innovation.

Keywords: Smart Tourism, Green Tourism, Sustainability, Digital Transformation, Bali

INTRODUCTION

The transformation of global tourism toward sustainability has become an urgent agenda as the industry faces increasing environmental pressures and social inequalities. According to the United Nations World Tourism Organization (UNWTO, 2022), sustainable tourism emphasizes balanced growth that ensures economic viability, environmental protection, and socio-cultural preservation for both present and future generations. The rapid development of digital technologies has reshaped the operational model of tourism, creating opportunities for efficiency and transparency in resource management (Gretzel et al., 2015). As tourism destinations compete in a global digital economy, the integration of smart technologies with sustainable principles is not merely a trend but a necessity (Buhalis & Amaranggana, 2015). Consequently, the emergence of the smart–green tourism paradigm represents a strategic synthesis between digital innovation and ecological responsibility, positioning technology as an enabler of sustainable destination management (García-Medina et al., 2022).

Smart tourism leverages big data, mobile applications, Internet of Things (IoT), and artificial intelligence (AI) to enhance tourists' experiences and optimize destination management systems

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(Boes et al., 2016). Through digital platforms, destinations can monitor visitor flows, energy consumption, and waste management in real time, supporting evidence-based decision-making for sustainable planning (Gretzel et al., 2020). Digital transformation also facilitates stakeholder collaboration—linking governments, businesses, and local communities—through open data ecosystems that promote accountability and participation (Jovicic, 2019). Moreover, social media platforms function as both marketing and educational tools, influencing tourists' awareness of environmental responsibility (Yoo et al., 2017). These digital mechanisms contribute to a more resilient and adaptive tourism system, particularly relevant in post-pandemic recovery contexts where sustainability and technology converge as core pillars of tourism resilience (Sigala, 2020).

The adoption of digital tools enhances the implementation of green tourism practices by improving operational efficiency and fostering eco-friendly behavior among tourists. For instance, mobile apps offering eco-guidelines, digital ticketing systems reducing paper waste, and smart mobility options all contribute to minimizing the carbon footprint of tourism activities (Ali et al., 2021). Green tourism, in this sense, is no longer limited to environmental management but extends to digital behavior that supports environmental ethics in travel consumption (Han et al., 2017). Integrating digitalization with green tourism enables destinations to track and measure sustainability performance using indicators such as energy use, waste reduction, and visitor satisfaction (García-Medina et al., 2022). Thus, the convergence of digital innovation and sustainability—coined as smart–green tourism—offers a comprehensive framework for future-oriented tourism governance.

Bali, as one of the world's most popular tourism destinations, faces a paradox between mass tourism growth and sustainability challenges. The island's heavy dependence on tourism revenue has led to environmental degradation, including waste accumulation, water scarcity, and carbon-intensive mobility (Cole, 2012; Sunarta & Putra, 2021). Despite numerous sustainable tourism initiatives, the effectiveness of such programs is often constrained by limited digital integration and inconsistent stakeholder coordination (Putra & Prameswari, 2023). However, the recent introduction of smart technologies—such as the Love Bali App, Waste4Change digital reporting, and Bali Smart Island Initiative—signals a shift toward data-driven destination management. These initiatives demonstrate Bali's potential to become a leading model for smart–green tourism in Southeast Asia, balancing its cultural identity with technological modernization (Suryawan et al., 2022).

Although studies have explored smart tourism and sustainable tourism independently, limited empirical research examines their integration within the Indonesian context, particularly in Bali. Most existing research focuses either on digital marketing or on environmental policy, rarely linking technological innovation with behavioral and managerial aspects of sustainability (Ayu et al., 2023). This study seeks to bridge that gap by analyzing how digital technologies enhance sustainable tourism practices in Bali. Specifically, it investigates how digital platforms, applications, and data-driven systems contribute to tourists' environmental awareness, eco-friendly behavior, and the overall sustainability image of the destination. By conceptualizing and empirically testing the smart–green tourism model, this study aims to contribute to theoretical advancement and provide practical implications for policymakers, destination managers, and tourism entrepreneurs striving for sustainable transformation in the digital era.

Concept of Sustainable Tourism. Sustainable tourism emphasizes development that fulfills the needs of present tourists and host regions while protecting opportunities for the future (UNWTO, 2022). It integrates three interdependent pillars—economic viability, social equity, and environmental preservation (Goodwin, 2011). The concept has evolved from eco-tourism toward a

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broader sustainability framework encompassing governance, local participation, and technology-enabled monitoring systems (Bramwell & Lane, 2013). Previous studies highlight that sustainable tourism practices succeed when supported by strong policy frameworks and measurable environmental indicators (Gössling & Hall, 2019). In destinations such as Bali, sustainability is critical due to the island's dependency on natural and cultural assets that are vulnerable to overexploitation (Cole, 2012). Thus, sustainable tourism must be viewed not only as an ethical imperative but as a strategic response to global environmental change.

Smart Tourism and Technological Innovation. The rise of smart tourism has redefined how destinations operate, driven by the proliferation of digital infrastructure, Internet of Things (IoT), and real-time data analytics (Gretzel et al., 2015). Smart tourism destinations integrate technological, human, and institutional components to enhance visitor experiences, improve management efficiency, and ensure sustainability (Buhalis & Amaranggana, 2015). Through digital sensors, mobile applications, and online data platforms, stakeholders can monitor tourist flows, energy consumption, and waste management—allowing timely interventions (Boes et al., 2016). Jovicic (2019) emphasizes that the smart tourism paradigm aligns with sustainable development when technology is directed toward environmental stewardship and community welfare. Therefore, digital transformation in tourism is not merely about modernization but about building resilient and adaptive destinations in the face of socio-ecological challenges (Sigala, 2020).

The Convergence of Smart and Green Tourism. The intersection between smart and green tourism gives rise to the smart–green tourism model, in which technology acts as an enabler for sustainability (García-Medina et al., 2022). Digital tools facilitate efficient resource management through automated lighting, e-ticketing, and smart transportation that reduce carbon footprints (Ali et al., 2021). Furthermore, green digital platforms allow tourists to make informed, eco-conscious choices by visualizing their environmental impact (Han et al., 2017). Studies in Spain, South Korea, and Singapore demonstrate that the combination of IoT and environmental monitoring improves both operational efficiency and visitor satisfaction (Xiang et al., 2021). In this regard, smart–green tourism positions technology as a behavioral catalyst—encouraging tourists and operators to adopt more sustainable practices while maintaining competitiveness and innovation (Gretzel et al., 2020).

Digital Engagement and Sustainable Tourist Behavior. Social media and online platforms are increasingly influential in shaping tourists' attitudes toward sustainability. User-generated content (UGC) and digital storytelling have proven effective in promoting eco-friendly behavior and enhancing green destination image (Yoo et al., 2017; Rahman et al., 2021). Platforms such as Instagram, TikTok, and TripAdvisor serve as both educational and persuasive tools, helping destinations communicate environmental values and influence traveler choices (Ayu et al., 2023). According to the Theory of Planned Behavior (Ajzen, 1991), behavioral intention toward sustainability is strengthened when individuals perceive both social approval and personal control—factors amplified by digital visibility. Thus, digital engagement not only promotes awareness but also reinforces behavioral consistency, making online interaction a critical driver of sustainable tourism transformation (Han et al., 2017).

Empirical Studies in Bali's Digital–Sustainable Transition. Empirical evidence from Bali demonstrates the growing integration between sustainability initiatives and digital technologies. Programs such as Love Bali App by the Provincial Government enable tourists to report environmental violations, while smart waste management projects in Sanur and Nusa Dua reduce pollution through IoT-based tracking (Putra & Prameswari, 2023; Suryawan et al., 2022). Research by Sunarta and Putra (2021) indicates that Bali's tourism sustainability depends on community

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engagement and adaptive governance supported by digital transparency. However, challenges remain in terms of limited digital literacy among local operators and fragmented policy implementation (Ayu et al., 2023). Therefore, Bali offers a dynamic case to examine how smart–green tourism can be institutionalized as both a technological and socio-cultural transformation—bridging traditional Balinese values of Tri Hita Karana (harmony with nature, people, and God) with the global agenda for sustainable innovation.

METHODS

This study employs a qualitative descriptive approach to gain an in-depth understanding of how digital technologies strengthen sustainable tourism practices in Bali. A qualitative approach is chosen because the phenomenon of smart–green tourism involves complex social and behavioral dimensions that require contextual and interpretive insights into the experiences of tourism actors, government representatives, and local communities. The aim of this research is not to quantify causal relationships but to explore meanings, perceptions, and real-life practices that illustrate the connection between digitalization and sustainability. Therefore, this study is exploratory in nature, seeking to build both conceptual and empirical understanding of how digital technology supports sustainability transformation in tropical destinations such as Bali.

The research was conducted in Bali Province, focusing on two key tourism areas: Sanur in Denpasar City and Ubud in Gianyar Regency. Sanur was selected as a pilot area of the Denpasar Smart City initiative, which integrates technological innovations into tourism management, including smart waste management systems, digital ticketing, and environmentally friendly promotion through the Love Bali App. Meanwhile, Ubud was chosen for its strong representation of community-based green cultural tourism, where digital technologies are used to promote eco-tourism campaigns and sustainability awareness. These two areas reflect the dual nature of Bali's tourism development: government-driven digital innovation and community-driven sustainability initiatives. The fieldwork was carried out from June to October 2025, coinciding with the high tourist season, to enable more comprehensive observation of visitor activities and local engagement.

Data were collected through in-depth interviews, participant observation, and document analysis. In-depth interviews were conducted with key informants, including: (1) domestic and international tourists using digital technology during their visits; (2) tourism industry players such as hotel managers, tour operators, and café owners implementing green practices supported by digital systems; (3) representatives from the Bali Provincial Tourism Office and Denpasar City Tourism Office; and (4) community-based environmental groups such as Bye Bye Plastic Bags and EcoBali Recycling. Informants were selected through purposive sampling based on their direct involvement in implementing or utilizing digital technologies related to sustainability. The total number of informants ranged from 15 to 20 people, determined by the principle of data saturation, where additional interviews no longer produced new or relevant information.

Field observations were carried out at strategic sites, including Sanur Beach, community centers in Ubud, and hotels applying digital environmental management systems. Observations covered tourist behavior in using digital platforms, technology-assisted waste management systems, and local community engagement in environmental campaigns. Document analysis was conducted by reviewing secondary data such as government reports, online articles, official publications from the Bali Tourism Office, and relevant social media campaigns like #LoveBali and #SmartGreenBali.

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Triangulation among interviews, observations, and documents ensured the validity and reliability of the findings.

Data analysis followed the interactive model of Miles, Huberman, and Saldaña (2014), consisting of three key stages: (1) data reduction, involving sorting, coding, and categorizing meaningful information from interviews and observations; (2) data display, where findings were organized into thematic narratives illustrating digital technology adoption and sustainable practices; and (3) conclusion drawing and verification, where the researcher interpreted the meaning of the data in relation to the research focus and theoretical framework. The analysis was conducted concurrently with data collection, allowing flexible interpretation and continuous reflection on field realities.

To ensure research trustworthiness, this study employed the criteria of credibility, dependability, transferability, and confirmability. Credibility was maintained through member checking, asking informants to verify the accuracy of interpretations. Dependability and confirmability were achieved by maintaining systematic documentation of interviews and field notes, while transferability was strengthened by providing rich contextual descriptions of the research sites and informants. Ethical considerations were strictly followed: all participants were informed about the study's purpose and voluntarily provided consent.

RESULT AND DISCUSSION

The findings of this study reveal that digital technologies in Bali have become essential instruments for promoting and implementing sustainable tourism practices. Interviews with government officials and tourism industry actors in Sanur and Ubud indicate that the integration of digital tools has transformed not only the operational aspects of tourism management but also the behavior and awareness of tourists. In Sanur, the Denpasar Smart City initiative has introduced systems such as digital parking, electronic waste monitoring, and online tourism permits, all of which enhance transparency and efficiency in environmental management. Meanwhile, in Ubud, local communities and eco-lodges employ social media campaigns and digital storytelling to highlight sustainability practices such as organic farming, waste segregation, and the use of renewable energy in accommodation services. These examples demonstrate that digital innovation has become a key enabler in supporting both top-down governance and bottom-up community participation toward sustainable tourism.

Tourists' perceptions of smart–green initiatives were largely positive, as most respondents recognized that technology simplified their participation in eco-friendly activities. International tourists interviewed expressed appreciation for the availability of e-ticketing systems in tourist attractions and temples, which reduced paper waste and waiting times. Similarly, domestic tourists found that eco-apps, such as the Love Bali App and Waste4Change, increased their awareness of environmental regulations and waste management practices. However, several respondents noted that information about these digital initiatives was not yet uniformly accessible across destinations. For instance, while Sanur had visible signage and QR codes directing tourists to digital platforms, such resources were less available in rural attractions. It suggests that the effectiveness of smart–green technologies depends not only on technological infrastructure but also on communication strategies and visitor education.

Digital engagement through social media was also found to play a significant role in shaping tourists' environmentally responsible behavior and in strengthening Bali's sustainable destination

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image. Thematic analysis of interviews and documentation showed that online campaigns with hashtags such as #SmartGreenBali and #SustainableBali were instrumental in spreading awareness about conservation and eco-friendly lifestyles. Influencers and travel bloggers who actively shared sustainability-oriented content helped amplify the island's image as a conscious and responsible tourism destination. In addition, user-generated content (UGC) encouraged social validation, where tourists imitated positive environmental actions observed online, such as bringing reusable bottles or participating in beach clean-ups. These findings are consistent with Yoo et al. (2017) and Han et al. (2017), who found that digital platforms can foster behavioral change through informational and emotional engagement.

Local partnerships between government agencies, private businesses, and community organizations further reinforced the role of digitalization in promoting sustainable practices. In Ubud, several eco-lodges collaborate with digital booking platforms that feature "green certification" labels, while in Sanur, government-led initiatives use IoT sensors to monitor waste collection and water usage. Such examples highlight the emergence of a digital ecosystem that supports environmental accountability through data-driven decision-making. Interviews with policymakers confirmed that digital records of waste management and carbon tracking systems have improved the ability of local authorities to evaluate sustainability indicators in real time. However, challenges remain, particularly regarding digital literacy among small-scale tourism operators and limited integration between government and private databases.

Based on the synthesis of empirical findings and theoretical reflection, this study proposes a conceptual model of Smart–Green Tourism tailored to tropical island destinations. The model consists of four interrelated components: (1) digital infrastructure as the foundation for sustainable management, including e-ticketing systems, IoT sensors, and eco-apps; (2) digital engagement as a catalyst for behavioral transformation, achieved through social media, online storytelling, and interactive learning platforms; (3) collaborative governance linking government, private sectors, and communities to implement sustainability standards; and (4) continuous monitoring through open data systems that evaluate environmental, social, and cultural performance. In the context of Bali, this model illustrates how smart technologies and local cultural values can coexist to achieve environmental stewardship and destination resilience. The proposed framework thus provides practical guidance for other tropical destinations seeking to integrate digital transformation with sustainability objectives.

Overall, the study concludes that the success of smart–green tourism in Bali depends on the synergy between technological innovation, digital engagement, and community participation. While the technological infrastructure provides the foundation for efficient management, the behavioral and cultural dimensions of sustainability are driven by awareness, trust, and collaboration among stakeholders. These findings reaffirm the notion that digitalization in tourism should not be seen merely as modernization but as a pathway to achieving balanced, inclusive, and ecologically responsible destination development.

CONCLUSION

This study concludes that digital technologies play a crucial role in strengthening sustainable tourism practices in Bali by bridging the gap between innovation, behavior, and environmental responsibility. The qualitative findings demonstrate that the integration of smart systems—such as e-ticketing, eco-apps, and IoT-based waste monitoring—has improved efficiency, transparency, and participation in sustainable management. Tourists perceive these digital initiatives as practical tools

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that not only simplify their travel experiences but also encourage eco-friendly behavior. Furthermore, digital engagement through social media and online campaigns has successfully shaped a positive image of Bali as a smart and sustainable destination. The synergy between government initiatives, private sector innovation, and community participation forms the foundation of Bali's transformation toward a smart–green tourism model suited for tropical island contexts.

Managerial Implications. The results of this research offer several implications for tourism stakeholders in Bali. For government agencies, the findings highlight the importance of strengthening digital infrastructure and ensuring accessibility of eco-apps and information across all destinations, including rural areas. Developing integrated data systems and real-time dashboards for environmental monitoring can support evidence-based policy decisions. For tourism businesses, particularly hotels and tour operators, adopting smart technologies—such as digital check-in systems, smart energy controls, and online green certification—can enhance operational efficiency while promoting sustainability to visitors. Meanwhile, local communities and NGOs are encouraged to leverage digital storytelling and social media platforms to increase awareness and engagement with sustainability initiatives. Collaboration between these actors through digital ecosystems can ensure that Bali's tourism growth aligns with environmental and socio-cultural preservation.

Research Limitations. This study is limited by its qualitative scope and geographic focus, which centers on Sanur and Ubud as representative areas of Bali. Although these locations provide valuable insights into the implementation of smart–green tourism, the findings may not fully capture the diversity of sustainability practices across all regions of the island. Another limitation lies in the reliance on self-reported data from interviews, which may contain subjective biases. Future research should expand to other destinations in Indonesia or Southeast Asia to test the transferability of the Smart–Green Tourism model proposed in this study. A mixed-method or quantitative approach using structural equation modeling (SEM) could also be employed to statistically validate the relationships between digital technology adoption, tourist behavior, and sustainability outcomes. Additionally, further investigation into the role of artificial intelligence, blockchain, and data analytics in advancing sustainable tourism governance would offer valuable contributions to this emerging field.

REFERENCES

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Ali, A., Rasoolimanesh, S. M., Sarstedt, M., Ringle, C. M., & Ryu, K. (2021). An assessment of the use of partial least squares structural equation modeling (PLS-SEM) in hospitality research. *International Journal of Contemporary Hospitality Management, 33*(10), 4150–4179. https://doi.org/10.1108/IJCHM-10-2020-1176

Ayu, K. D. N., Dewi, I. A. M., & Wiranatha, A. S. (2023). Digital marketing for sustainable tourism in Bali: Opportunities and challenges. *Journal of Tourism and Digital Transformation, 5*(2), 45–59.

Boes, K., Buhalis, D., & Inversini, A. (2016). Smart tourism destinations: Ecosystems for tourism destination competitiveness. *International Journal of Tourism Cities, 2*(2), 108–124. https://doi.org/10.1108/IJTC-12-2015-0032

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Indexed By : GARUDA Google Scholar doi Crossref ROAD DRJI OneSearch ISJD sinta INDEX COPERNICUS Clarivate Analytics WEB OF SCIENCE BASE

Bramwell, B., & Lane, B. (2013). Getting from here to there: Systems change, behavioral change and sustainable tourism. *Journal of Sustainable Tourism, 21*(1), 1–4. https://doi.org/10.1080/09669582.2012.741601

Buhalis, D., & Amaranggana, A. (2015). Smart tourism destinations are enhancing the tourism experience through the personalization of services. In Z. Xiang & I. Tussyadiah (Eds.), Information and Communication Technologies in Tourism 2015 (pp. 377–389). Springer. https://doi.org/10.1007/978-3-319-14343-9_28

Cole, S. (2012). A political ecology of water equity and tourism: A case study from Bali. *Annals of Tourism Research, 39*(2), 1221–1241. https://doi.org/10.1016/j.annals.2012.01.003

García-Medina, I., Fernández, J. A. S., & Martínez, J. L. (2022). Smart green destinations: A framework for sustainable digital transformation. *Sustainability, 14*(5), 2789. https://doi.org/10.3390/su14052789

Goodwin, H. (2011). *Taking responsibility for tourism. Goodfellow Publishers.*

Gössling, S., & Hall, C. M. (2019). *Sustainable tourism: A global perspective (2nd ed.).* Routledge. https://doi.org/10.4324/9781315263792

Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015). Smart tourism: Foundations and developments. *Electronic Markets, 25*(3), 179–188. https://doi.org/10.1007/s12525-015-0196-8

Gretzel, U., Zhong, L., & Koo, C. (2020). Application of smart tourism technologies in destination management. *Current Issues in Tourism, 23*(12), 1445–1459. https://doi.org/10.1080/13683500.2019.1571021

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM) (3rd ed.).* Sage Publications.

Han, H., Hsu, L. T., & Sheu, C. (2017). Application of the theory of planned behavior to green hotel choice: Testing the effect of environmentally friendly activities. *Tourism Management, 33*(4), 862–875. https://doi.org/10.1016/j.tourman.2011.09.012

Heykal, M., Prasetya, S., & Harsanti, P. S. (2024). Pengaruh Kualitas Pelayanan terhadap Kepuasan Pelanggan pada Jasa Wisata (Open Trip) CV Tidung Island. *Jurnal Ekonomi Manajemen Akuntansi, 30*(1), 250-265. https://doi.org/10.59725/ema.v30i1.226

Jovicic, D. Z. (2019). From the traditional understanding of a tourism destination to the smart tourism destination. *Current Issues in Tourism, 22*(3), 276–282. https://doi.org/10.1080/13683500.2017.1313203

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook (3rd ed.).* Sage Publications.

Putra, I. M. S., & Prameswari, D. M. (2023). Smart governance for sustainable tourism: Case of Bali Province. *Journal of Sustainable Tourism Policy, 4*(1), 23–35.

Rahman, M. K., Zailani, S., & Musa, G. (2021). Tapping into the sustainable social media marketing in tourism. *Journal of Destination Marketing & Management, 19*, 100557. https://doi.org/10.1016/j.jdmm.2020.100557

Sigala, M. (2020). Tourism and COVID-19: Impacts and implications for advancing and resetting industry and research. *Journal of Business Research, 117*, 312–321. https://doi.org/10.1016/j.jbusres.2020.06.015

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Indexed By : GARUDA Google Scholar doi Crossref ROAD DRJI OneSearch ISJD sinta INDEX COPERNICUS Clarivate Analytics WEB OF SCIENCE BASE

Sunarta, N., & Putra, G. A. (2021). Environmental sustainability of tourism development in Bali: Challenges and prospects. *GeoJournal of Tourism and Geosites, 37*(3), 743–751. https://doi.org/10.30892/gtg.37301-684

Suryawan, A., Kencana, I. D., & Wibawa, I. M. (2022). Smart Island Initiative in Bali: Integrating ICT for tourism sustainability. *Asian Journal of Tourism and Hospitality Research, 10*(2), 88–102.

UNWTO. (2022). Tourism and the Sustainable Development Goals – Progress and Opportunities. World Tourism Organization. https://www.unwto.org

Xiang, Z., Fesenmaier, D. R., & Tussyadiah, I. (2021). Smart tourism in practice: Emerging research and opportunities. IGI Global. https://doi.org/10.4018/978-1-7998-7057-6

Yoo, K. H., Gretzel, U., & Zanker, M. (2017). Persuasive recommender systems: Conceptual background and implications. *Information Technology & Tourism, 17*(2), 105–116. https://doi.org/10.1007/s40558-016-0067-1