Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 11, 726-736
2025
Publisher: Learning Gate
DOI: 10.55214/2576-8484.v9i11.10963

Smart tourism technologies, sustainability awareness, and the paradox of revisit intention: Evidence from Indonesia's marine destinations

Warti Ratnasari[1], Amiartuti Kusmaningtyas[2*], Ida Bagus Cempena[3]
[1,2,3]Faculty of Economics and Business, Universitas 17 Agustus 1945 Surabaya, Surabaya, Indonesia;
wartiratnasari35@gmail.com (W.R.) amiartuti@untag-sby.ac.id (A.K.) ib_cempena@untag-sby.ac.id (I.B.C.).

Abstract: Digital transformation is playing an increasingly significant role in the development of tourism in emerging destinations, where Smart Tourism Technologies (STTs) serve as essential tools for enhancing visitor experiences and promoting sustainable management. This study investigates how STTs influence the formation of memorable tourist experiences, satisfaction with destinations, and intentions to revisit, considering both the moderating and direct effects of over-tourism awareness at sea destinations in Indonesia. A survey and evaluation were conducted on 385 visitors to Derawan, Maratua, and Kaniungan Islands using Partial Least Squares–Structural Equation Modelling (PLS-SEM). The findings indicate that both exploitative and explorative types of STT use significantly improve memorable experiences, which subsequently increase satisfaction with the destination. Destination satisfaction is identified as the most significant predictor of the intention to return, whereas awareness of over-tourism affects revisit intention directly but does not moderate the relationship between satisfaction and loyalty. These results highlight a sustainability contradiction where travelers are eager to explore destinations despite being aware of over-tourism issues. The study enhances theory by broadening the Theory of Planned Behaviour (TPB) and the Theory of Reasoned Action (TRA) to include digital and sustainability aspects. It provides strategic advice for destination managers and policymakers to utilize immersive STTs not only to sustainably improve the tourist experience but also to incorporate sustainability awareness into digital platforms.

Keywords: *Indonesia, Memorable experiences, Over-tourism, Revisit intention, Smart tourism technologies, Tourist behaviour.*

1. Introduction

Tourism plays a central role in fostering economic development, cultural interchange, and regional competitiveness. Like other developing nations, including Indonesia, the sector has been prioritized nationally for generating income, creating jobs, and fostering entrepreneurship in local businesses [1]. Although the role of tourism in domestic economic development is crucial, its rapid expansion often raises concerns over environmental degradation, social ramifications, and sustainability, especially in ecologically sensitive marine areas. Both elements create a demand for transformative actions that reconcile growth with sustainability.

The most significant factor in changing tourism management is digital innovation. The advancements brought by Smart Tourism Technologies (STTs), such as mobile apps, augmented reality, and location-aware services, have significantly transformed how travelers organize, enjoy, and assess destinations [2, 3]. In addition to offering increased convenience and accessibility, STTs also enable immersive and explorative experiences that create stronger emotional connections with locations [4, 5]. As digital penetration rises in Indonesia, the government is increasingly advocating for STTs to enhance lesser-known destinations beyond Bali, making their impact on visitor satisfaction and loyalty an urgent research topic.

History: Received: 9 September 2025; Revised: 20 October 2025; Accepted: 23 October 2025; Published: 11 November 2025
* Correspondence: amiartuti@untag-sby.ac.id

Currently, the worldwide tourism sector confronts increasing challenges related to over-tourism, where swift expansion leads to environmental harm, deterioration of local living standards, and eventually affects the very attractions drawing visitors [6, 7]. Although evidence indicates that destination satisfaction is a significant predictor of the intention to return [8], it is still unclear whether awareness of over-tourism affects this relationship. Present evidence suggests a contradiction: tourists recognize over-tourism as an issue, yet they persist in returning to locations if their experience is pleasurable and fulfilling [9]. The paradox poses significant implications for places such as Derawan and Maratua Islands in East Kalimantan, where a rising influx of visitors boosts economic benefits while also heightening environmental effects [10].

Using the Theory of Planned Behaviour (TPB) and the Theory of Reasoned Action (TRA), this study investigates the effects of attitudes, subjective norms, and perceived behavioural control on visitors' intentions [11]. This study addresses a notable gap in the literature by integrating STTs, satisfaction, revisit intention, and awareness of over-tourism into a unified framework; previous research has primarily treated these constructs separately, paying insufficient attention to emerging marine destinations in Southeast Asia.

Consequently, this study addresses this gap by developing a comprehensive model linking exploitative and exploratory uses of STTs to memorable experiences, satisfaction with the destination, and intentions to revisit. Finally, it investigates whether awareness of over-tourism directly affects or moderates the intention to revisit, thereby addressing the paradox of sustainability in tourism behavior. Third, it offers new empirical data from Indonesian coastal locations that remain underrepresented in worldwide tourism technology studies. In pursuing this, the research broadens behavioral theories to encompass digital and sustainability transformations while also offering strategic insights for destination managers aiming to balance visitor satisfaction with nature conservation.

Expanding on the challenges raised in the introduction, it is necessary to situate this research within the existing theoretical and empirical literature. Although prior studies have highlighted the impacts of Smart Tourism Technologies, significant experiences, and destination satisfaction on tourist behaviour, there has been limited focus on exploring how these elements interrelate in the context of over-tourism issues, especially in developing marine destinations. The following section fills this gap by reviewing relevant literature, establishing the research's theoretical foundations, and formulating the hypotheses that will guide the empirical investigation.

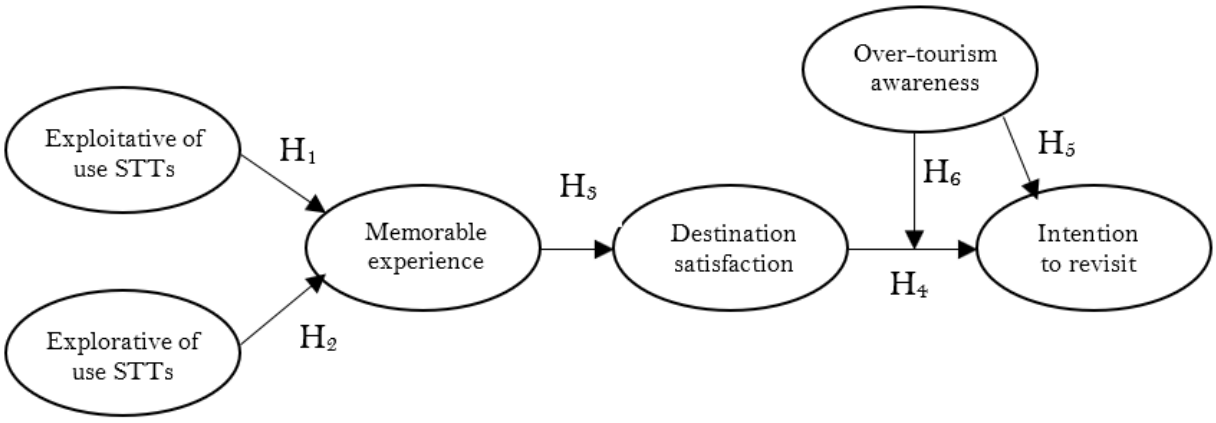

Figure 1.
Conceptual Framework.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 11: 726-736, 2025
DOI: 10.55214/2576-8484.v9i11.10963

2. Methods

2.1. Research Design

This study investigated the relationship between memorable travel experiences (MTE) and smart tourism technologies (STTs) using a quantitative approach and a causal-explanatory framework, as well as satisfaction with destinations, intention to revisit, and over-tourism awareness serving as a moderating factor. Quantitative design was selected because it facilitates systematic hypothesis testing using numerical data and aligns with the research questions focused on causal relationships among variables [12].

To analyze a complex research framework featuring multiple latent constructs and moderating relationships, PLS-SEM, or partial least squares–structural equation modeling, was used. The reason for employing this approach is that it is forecasting, does not necessitate data normality, and is appropriate for medium to large samples featuring reflective indicators [13]. PLS-SEM enables researchers to investigate both direct and indirect effects (mediation/moderation) within one analytical framework, which is pertinent for the current study [14, 15].

2.2. Study Area

This study investigates marine ecotourism in East Kalimantan's Berau Regency, Indonesia, focusing on the islands of Derawan, Maratua, and Kaniungan. The three locations were chosen due to their marine ecotourism assets. The three locations showcase marine ecotourism assets, such as coral reefs, green turtles, and jellyfish lakes, attracting both domestic and international visitors. Furthermore, regional online marketing has boosted the frequency of tourist arrivals. This rise corresponds to the threat of ecosystem over-tourism and deterioration. This situation, supported by local digital marketing, offers Berau the elements of a natural laboratory to examine STTs, tourist experiences, satisfaction, loyalty, and awareness of over-tourism.

2.3. Sampling and Data Collection

The study concentrated on tourists heading to coastal areas in Berau. Convenience sampling was used, selecting respondents according to their readiness and availability to take part. Although it limits generalizability, this method is frequently employed in tourism studies where acquiring a sampling frame is challenging [16].

The sample size was calculated using the Lemeshow formula for social studies, taking into account the minimum sample size required for SEM analysis. According to the calculations, 385 participants were collected, specifically tourists from Derawan (145), Maratua (101), and Kaniungan (139). The sample size meets the minimum criteria in PLS-SEM, being 10 times the number of indicators for the most complex latent variable [13, 17].

Data gathering was performed utilizing a structured questionnaire. The survey was conducted in person by trained bilingual enumerators (English-Indonesian) with both domestic and international tourists. The respondents in the study were at least 17 years old, had finished the tour, and gave their informed consent.

2.4. Measurement of Variables

All variables were assessed on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). The measurement tool was adapted from prior research and tailored to the Indonesian tourism context. The measurement tool was content-validity tested through expert opinion by tourism academics and destination stakeholders.

- Exploitative use of STTs: three items by Torabi et al. [4] from technology use in booking, navigating, and cost-effectiveness.
- Exploratory use of STTs: four scales by Neuhofer et al. [18] and Kim et al. [19] measuring experience of novelty, interaction, and affective connection with STTs.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 11: 726-736, 2025
DOI: 10.55214/2576-8484.v9i11.10963

- Memorable Tourism Experiences (MTEs): seven scales by Kim et al. [19] covering novelty, hedonism, local culture interaction, and meaning of the experience.
- Destination Satisfaction: ten items adapted from Oliver [20] and Prayag et al. [8].
- Over-tourism Awareness: eleven items of Papadopoulou et al. [9] and Koens et al. [21].
- Revisit Intention: six items of Um et al. [22].

2.5. Data Analysis

The data for this investigation were analyzed using partial least squares–structural equation modeling, or PLS-SEM, using the SmartPLS program. The choice of method was made considering the complexity of the research model, which involved latent constructs, moderating paths, and mediating variables. Analysis phases were aligned with the guidelines of Hair et al. [13], beginning with an assessment of the measurement model to ascertain the tool's validity and dependability. Convergent validity was validated by obtaining an Average Variance Extracted (AVE) larger than 0.5 and a factor loading value greater than 0.7. Internal dependability was concurrently evaluated by Cronbach's Alpha and Composite dependability ratings, which should be more than 0.7.

After the measurement model satisfied the criteria, the structural model was analyzed to determine the direction and strength of the correlations between the variables. The path coefficient and the coefficient of determination (R^2) were investigated in this assessment. Hypothesis significance testing was performed utilizing a bootstrapping approach, as recommended by Hair et al. [14]. Besides, the moderating effect of over-tourism awareness was also examined in this study to investigate the degree to which tourist awareness of over-tourism can strengthen or weaken the destination satisfaction-revisit intention relationship.

The application of the PLS-SEM approach was chosen because, in addition to providing predictive values, it has an exploratory nature in demonstrating the variable relationships within a complex research model. This makes the approach suitable, considering the research objectives, which emphasize the impact of digital innovation and sustainability awareness on tourist loyalty [13, 15].

3. Results

3.1. Measurement model

The measurement model, referred to as the outer model, depicts the connections between indicator blocks and their associated latent constructs. It is evaluated to determine construct validity and reliability, which encompass convergent validity, discriminant validity, and internal consistency [13, 17].

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 11: 726-736, 2025
DOI: 10.55214/2576-8484.v9i11.10963

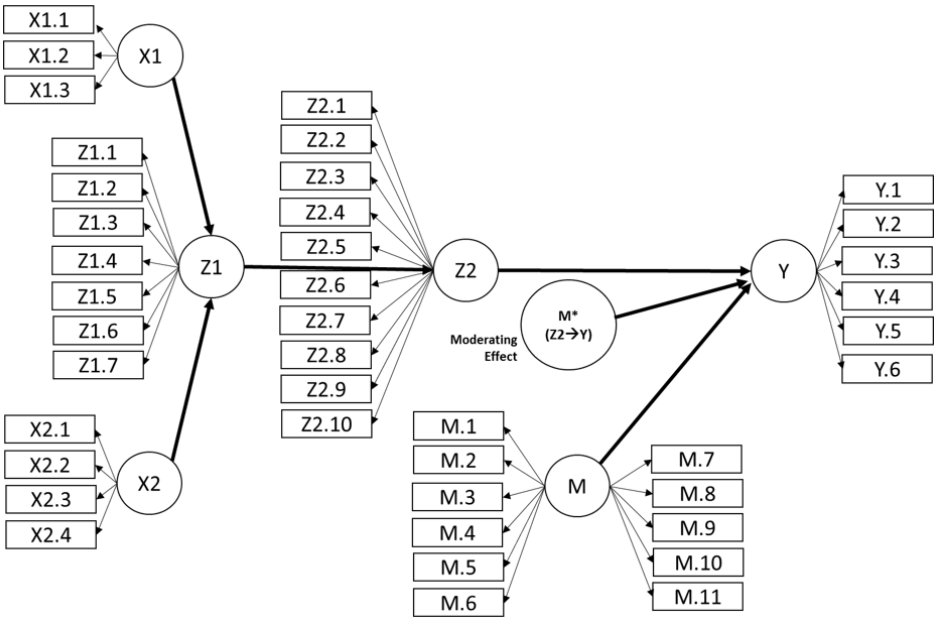

Figure 2.
Outer model evaluation.

3.1.1. Test of Validity

Convergent validity in partial least squares structural equation modelling (PLS-SEM) is checked using the Average Variance Extracted (AVE) and the outer loadings of reflecting indicators. Convergent validity is verified when the concept explains more than half of the variation of its indicators, as indicated by outer loadings and the AVE value exceeding 0.50, with the AVE typically considered acceptable when it is above 0.50 and the outer loadings are above 0.70, respectively [13, 17]. The results of the convergent validity evaluation for all tools are outlined in the following table.

Table 1.
Convergent Validity Test Results.

Variable	Indicator	Factor Loading	AVE	Remark
Exploitative use of STTs (X1)	X1.1	0.884	0.776	Valid
	X1.2	0.884		
	X1.3	0.874		
Exploration of the use of STTs (X2)	X2.1	0.802	0.689	Valid
	X2.2	0.86		
	X2.3	0.871		
	X2.4	0.784		
Memorable experience (Z1)	Z1.1	0.845	0.675	Valid
	Z1.2	0.86		
	Z1.3	0.806		
	Z1.4	0.827		
	Z1.5	0.858		
	Z1.6	0.74		
	Z1.7	0.811		
Destination satisfaction (Z2)	Z2.1	0.78	0.657	Valid
	Z2.2	0.785		
	Z2.3	0.857		
	Z2.4	0.791		
	Z2.5	0.829		
	Z2.6	0.823		

	Z2.7	0.744		
	Z2.8	0.85		
	Z2.9	0.849		
	Z2.10	0.789		
	Z2*M	1.276		
Over tourism Awareness (M)	M.1	0.73	0.609	Valid
	M.2	0.731		
	M.3	0.808		
	M.4	0.779		
	M.5	0.84		
	M.6	0.788		
	M.7	0.814		
	M.8	0.765		
	M.9	0.727		
	M.10	0.817		
	M.11	0.775		
Intention to revisit (Y)	Y.1	0.805	0.724	Valid
	Y.2	0.83		
	Y.3	0.849		
	Y.4	0.888		
	Y.5	0.864		
	Y.6	0.865		

The values of the loading factor (convergent validity) for each indicator are displayed in the table above (Table 1). A loading factor greater than 0.7 or a significance level lower than 0.05 signifies validity. The information in this table demonstrates that every loading factor value for indicators X, Z, M, and Y exceeds the limit of 0.7, validating their significance. Moreover, an examination of the AVE values reveals that each variable in this research has an AVE value greater than 0.5, thereby validating that the questionnaire used in this study adheres to the criteria for convergent validity. As a result, it can be claimed that the developed indicators clearly explain the variables.

3.1.2. Test of Reliability

Cronbach's Alpha and Composite Reliability (CR) are commonly used to evaluate internal consistency reliability in PLS-SEM. While Cronbach's Alpha has previously been utilized, it is not tau-equivalent and is a lower estimate of reliability. Therefore, Composite Reliability proves to be a better estimate in PLS-SEM usage. Both coefficients must exceed 0.70 to demonstrate satisfactory internal consistency; however, scores ranging from 0.60 to 0.70 may also be deemed acceptable for exploratory research. Scores above 0.95, however, can indicate redundancy of indicators [13, 17]. The results of the reliability evaluation conducted in the research are presented in the following table.

Table 2.
Reliability Test Results.

Variable	Cronbach's Alpha	Composite Reliability
X1	0.858	0.912
X2	0.85	0.898
Z1	0.919	0.936
Z2	0.942	0.95
M	0.938	0.954
Moderating Effect 1	1	1
Y	0.923	0.94

According to the reliability test findings in Table 2, Cronbach's Alpha is above 0.6, and the Composite Reliability is greater than 0.7. As a result, it can be concluded that the study's instruments

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 11: 726-736, 2025
DOI: 10.55214/2576-8484.v9i11.10963

satisfy reliability standards, indicating that the measurements reliably and consistently capture the associated latent variables.

3.2. Structural Model

The structural model analyzes the relationships between the constructs using path coefficients measured by t-tests or bootstrapping methods. In addition, it evaluates the importance of the connections and the R-square value, which reflects how effectively the exogenous variables account for the endogenous variation, akin to linear regressions, highlighting the model's explanatory strength regarding construct relationships.

3.2.1. Coefficient of Determination (R^2)

This research fundamentally utilizes two endogenous variables that are influenced by other variables. In particular, variable Z is affected by variables X1 and X2. Likewise, variable Y is influenced by variables Z1, Z2, and Moderation.

Table 3.
Coefficient of Determination Test Results.

Variable	R Square	R Square Adjusted
Y	0.731	0.729
Z1	0.439	0.436
Z2	0.558	0.557

The R-Square value for variable Y is displayed in Table 3 and is 0.731. This R-Square outcome shows that the influences of variables X1, X2, Z1, Z2, and the moderator account for 73.1% of the variation in variable Y. Nonetheless, the remaining 26.9% is affected by factors that were excluded from our analysis. Furthermore, Table 4 indicates that the R-Square values for variables Z1 and Z2 are 0.439 and 0.558, respectively. Consequently, it can be stated that variables X1 and X2 influence Z1 by 43.9% and Z2 by 55.8%.

3.2.2. Hypothesis Evaluation

Hypothesis testing assesses causal relationships through the use of T-statistics and p-values. A hypothesis is considered accepted when the T-statistics are greater than 1.96 and the p-values fall below 0.05. PLS bootstrapping computes t-count values that are later compared with the t-table value of 1.960 or a 5% significance level (α) for validation. The outcomes from the hypothesis testing are summarized as follows.

Table 4.
Hypothesis Testing Results

Correlation between variables	Original sample	T Statistics	P Values	Remark
H1: Exploitative Use of Smart Tourism Technologies Influences Memorable Experiences	0.148	2.499	0.013	Significant
H2: Explorative Use of Smart Tourism Technologies Influences Memorable Experiences	0.56	8.968	0.000	Significant
H3: Memorable experiences influence destination satisfaction.	0.747	9.578	0.000	Significant
H4: Destination Satisfaction Influences Intention to Revisit	0.825	9.644	0.000	Significant
H5: Over-tourism awareness influences intention to revisit	0.097	3.539	0.000	Significant
H6: Over-tourism awareness moderates the relationship between destination satisfaction and the intention to revisit.	-0.047	1.735	0.083	Not Significant

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 11: 726-736, 2025
DOI: 10.55214/2576-8484.v9i11.10963

The results obtained from the direct hypothesis testing (H1, H2, H3, H4, H5, and H6) carried out in this study are grounded in the data shown in Table 4. In light of the outcomes from the hypothesis test, four hypotheses, specifically H1, H2, H3, and H4, were accepted; H5 was also accepted, while H6 was rejected.

4. Discussion

The findings of this research demonstrate that the application of Smart Tourism Technologies (STTs), both for exploitation and exploration, positively influences the creation of Memorable Tourism Experiences (MTEs). This outcome aligns with previous studies indicating that intelligent technologies are not only used to facilitate transactions but also to enhance the tourism experience, making it more experiential and emotional [4, 5]. However, this study has a new contribution of explicitly differentiating between the two functions of STTs usage for utilitarian ends and exploration for experiential experiences, and exploring both within the context of Indonesian sea tourist destinations. Thus, the current research substantiates the argument that STTs are more than mere functional aids but also experience contributors with the power to augment the hedonic and cognitive worth of tourism experiences.

Additionally, current research indicates that MTEs contribute significantly to destination satisfaction, which in turn strengthens revisit intention. This is corroborated by studies on the importance of memorable experiences as a determinant of tourist satisfaction and loyalty [23, 24]. However, this research contributes further to emphasizing the significance of MTEs in consideration of ecologically delicate marine locations, such as Derawan and Maratua. These findings highlight the importance of destination strategies beyond the exclusive reliance on natural attractions, as well as designing experiences that convey emotional value and a sense of sustainability.

Contrary to expectations, the research findings illustrate that over-tourism awareness interacts more intricately with revisit intention. Over-tourism awareness does not inversely reduce revisit intention significantly; satisfied tourists remain more inclined to return. This trend corroborates the work of Papadopoulou et al. [9] and Yamin et al. [25], who established a paradox of sustainability where tourists remained loyal despite their awareness that they were subject to threats of overpopulation and damage to the environment. Over-tourism sensitivity, when utilized as a moderator, was reported to influence the intensity of the relationship between satisfaction and revisit intent. This is an indication that in high satisfaction contexts, awareness of over-tourism does not necessarily reduce revisit intention, but it may strengthen tourists' non-return decisions in low satisfaction contexts.

This research makes a theoretical contribution by integrating Sustainable Tourism Techniques (STTs), Management of Tourism Experiences (MTEs), awareness of over-tourism, and satisfaction into the frameworks of the Theory of Planned Behaviour (TPB) and the Theory of Reasoned Action (TRA). Although earlier research has largely focused on these factors separately, this study offers a conceptual framework illustrating how digital innovation interacts with sustainability awareness to influence tourist loyalty. By adding technology and environmental consciousness as significant factors influencing travellers' attitudes, subjective norms, and perceived behavioural control, this study broadens the application of the TPB.

Practically, the study findings hold considerable relevance for destination managers. Firstly, the research findings, pointing out the exploratory role of STTs, suggest making investments in experiential technologies such as interpretive apps, augmented reality, or gamification platforms to increase tourist interaction. Secondly, research on overtourism awareness confirms that even in instances where tourists are cognizant of sustainability issues, high levels of satisfaction may continue to act as drivers of loyalty. Therefore, destination management strategies must give priority to balancing a quality improvement of experiences and the protection of the ecosystem's carrying capacity. This can be achieved through visitor capacity management, tourist conservation education, and storytelling sustainability included in the tourism experience [26].

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 11: 726-736, 2025
DOI: 10.55214/2576-8484.v9i11.10963

Overall, this research confirms that Indonesian marine destinations face a trade-off between tourist growth and ecosystem sustainability. By providing empirical evidence from Derawan and Maratua, this study contributes to the global literature, where research from Europe and mega tourist cities has been predominant [6, 27]. In turn, this research opens doors for debate regarding how over-tourism's loyalty paradox may be bridged by digital innovation and experience strategies that are sustainability-driven.

5. Conclusions

This study confirms that Smart Tourism Technologies (STTs) are determinants of Memorable Tourism Experiences (MTEs), and MTEs result in destination satisfaction and revisit intentions. By uncovering the dual roles of STTs: exploitation for efficiency and exploration for immersive experience, this study contributes distinctly to the literature that has viewed tourism technology as a unidimensional tool. These findings confirm that the exploratory dimension of STTs performs a greater function in the construction of memorable experiences that strengthen tourist loyalty.

Moreover, this study demonstrates that over-tourism consciousness is a paradox in the sense that while tourists are conscious of the potential adverse consequences of over-crowding and environmental degradation, high satisfaction continues to inspire them to return. Even so, consciousness plays a valuable role as a moderator of the strength of the satisfaction-revisit intention bond, and thus provides fresh insight into the processes of tourist loyalty in ecologically vulnerable marine destinations.

The study conceptually expands the application of the Theory of Planned Behaviour (TPB) and the Theory of Reasoned Action (TRA) by integrating digital innovation and sustainability consciousness as significant elements impacting attitude, subjective norms, and perceived control. This bridges two important themes in contemporary tourism digitalization and sustainability that are rarely studied in combination in tourist loyalty models.

Practically, the findings of the research provide strategic guidance for Indonesia's marine destination managers. An investment in experiential technologies such as interpretive apps and augmented reality can elevate experiences while adding conservation stories. At the same time, visitor carrying capacities and sustainability education must be enforced regularly to achieve a balance between tourism development and ecosystem conservation.

From our field observations at Derawan and Maratua, this research makes a contribution to the global literature that, to date, is still limited in Southeast Asian oceanic tourist sites. This research underlines the need for smart and sustainable tourism planning, whereby technology is not only an advertising channel but also a means of providing valuable tourism experiences without compromising ecosystem sustainability.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Acknowledgment:

The authors convey sincere appreciation to the promoters for their insightful contributions, helpful critiques, and continuous support during this research. The writer expresses sincere gratitude to all individuals and organizations that played a role in the completion of this research, whether directly or indirectly, as their help, collaboration, and support in different ways have been essential and greatly valued.

References

[1] P. Ollivaud and P. Haxton, "Making the most of tourism in Indonesia to promote sustainable regional development," OECD Economics Department Working Papers No. 1535. Paris, France: OECD Publishing, 2019.

[2] U. Gretzel, M. Sigala, Z. Xiang, and C. Koo, "Smart tourism: Foundations and developments," *Electronic Markets*, vol. 25, pp. 179-188, 2015. https://doi.org/10.1007/s12525-015-0196-8

[3] D. Buhalis and A. Amaranggana, "Smart tourism destinations enhancing tourism experience through personalisation of services," in *Information and Communication Technologies in Tourism 2015: Proceedings of the International Conference in Lugano, Switzerland, February 3-6, 2015 (pp. 377-389). Cham: Springer International Publishing*, 2014.

[4] Z.-A. Torabi, A. A. Shalbafian, Z. Allam, Z. Ghaderi, B. Murgante, and A. R. Khavarian-Garmsir, "Enhancing memorable experiences, tourist satisfaction, and revisit intention through smart tourism technologies," *Sustainability*, vol. 14, no. 5, p. 2721, 2022. https://doi.org/10.3390/su14052721

[5] M. Jeong and H. H. Shin, "Tourists' experiences with smart tourism technology at smart destinations and their behavior intentions," *Journal of Travel Research*, vol. 59, no. 8, pp. 1464-1477, 2020. https://doi.org/10.1177/0047287519883034

[6] A. Capocchi, C. Vallone, M. Pierotti, and A. Amaduzzi, "Overtourism: A literature review to assess implications and future perspectives," *Sustainability*, vol. 11, no. 12, p. 3303, 2019. https://doi.org/10.3390/su11123303

[7] H. Seraphin, P. Sheeran, and M. Pilato, "Over-tourism and the fall of Venice as a destination," *Journal of Destination Marketing & Management*, vol. 9, pp. 374-376, 2018. https://doi.org/10.1016/j.jdmm.2018.01.011

[8] G. Prayag, S. Hosany, B. Muskat, and G. Del Chiappa, "Understanding the relationships between tourists' emotional experiences, perceived overall image, satisfaction, and intention to recommend," *Journal of Travel Research*, vol. 56, no. 1, pp. 41-54, 2017. https://doi.org/10.1177/0047287515620567

[9] N. M. Papadopoulou, M. A. Ribeiro, and G. Prayag, "Psychological determinants of tourist satisfaction and destination loyalty: The influence of perceived overcrowding and overtourism," *Journal of Travel Research*, vol. 62, no. 3, pp. 644-662, 2023. https://doi.org/10.1177/00472875221089049

[10] L. A. Pratomo and Y. R. Krisna, "Analysis of the concept of sustainable tourism in Maratua Island, Berau Regency, East Kalimantan province," *Journal of Social Research*, vol. 2, no. 3, pp. 883-891, 2023. https://doi.org/10.55324/josr.v2i3.740

[11] M. Mahyarni, "Theory of reasoned action dan theory of planned behavior (Sebuah kajian historis tentang perilaku)," *Jurnal El-Riyasah*, vol. 4, no. 1, pp. 13-23, 2013. http://dx.doi.org/10.24014/jel.v4i1.17

[12] J. W. Creswell and J. D. Creswell, *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: SAGE Publications, 2017.

[13] J. F. J. Hair, G. T. M. Hult, C. M. Ringle, M. Sarstedt, N. P. Danks, and S. Ray, *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook*. Cham, Switzerland: Springer International Publishing, 2021.

[14] J. F. Hair, M. Sarstedt, and C. M. Ringle, "Rethinking some of the rethinking of partial least squares," *European Journal of Marketing*, vol. 53, no. 4, pp. 566-584, 2019. https://doi.org/10.1108/EJM-10-2018-0665

[15] C. M. Ringle, M. Sarstedt, R. Mitchell, and S. P. Gudergan, "Partial least squares structural equation modeling in HRM research," *The International Journal of Human Resource Management*, vol. 31, no. 12, pp. 1617-1643, 2020. https://doi.org/10.1080/09585192.2017.1416655

[16] M. Saunders, P. Lewis, and A. Thornhill, *Research methods for business students*, 5th ed. Harlow, England: Pearson Education Limited, 2009.

[17] J. Henseler, G. Hubona, and P. A. Ray, "Using PLS path modeling in new technology research: Updated guidelines," *Industrial Management & Data Systems*, vol. 116, no. 1, pp. 2-20, 2016. https://doi.org/10.1108/IMDS-09-2015-0382

[18] B. Neuhofer, D. Buhalis, and A. Ladkin, "Smart technologies for personalized experiences: A case study in the hospitality domain," *Electronic Markets*, vol. 25, no. 3, pp. 243-254, 2015. https://doi.org/10.1007/s12525-015-0182-1

[19] J.-H. Kim, J. B. Ritchie, and B. McCormick, "Development of a scale to measure memorable tourism experiences," *Journal of Travel Research*, vol. 51, no. 1, pp. 12-25, 2012. https://doi.org/10.1177/0047287510385467

[20] R. L. Oliver, "A cognitive model of the antecedents and consequences of satisfaction decisions," *Journal of Marketing Research*, vol. 17, no. 4, pp. 460-469, 1980. https://doi.org/10.1177/002224378001700405

[21] K. Koens, A. Postma, and B. Papp, "Is overtourism overused? Understanding the impact of tourism in a city context," *Sustainability*, vol. 10, no. 12, p. 4384, 2018. https://doi.org/10.3390/su10124384

[22] S. Um, K. Chon, and Y. Ro, "Antecedents of revisit intention," *Annals of Tourism Research*, vol. 33, no. 4, pp. 1141-1158, 2006. https://doi.org/10.1016/j.annals.2006.06.003

[23] E. Sthapit and D. N. Coudounaris, "Memorable tourism experiences: Antecedents and outcomes," *Scandinavian Journal of Hospitality and Tourism*, vol. 18, no. 1, pp. 72-94, 2018. https://doi.org/10.1080/15022250.2017.1287003

[24] X. Chen, Z.-f. Cheng, and G.-B. Kim, "Make it memorable: Tourism experience, fun, recommendation and revisit intentions of Chinese outbound tourists," *Sustainability*, vol. 12, no. 5, p. 1904, 2020. https://doi.org/10.3390/su12051904

[25] M. Yamin, I. Kamal, A. P. Primadata, S. Rosyadi, and A. G. Runtiko, "Overtourism in Indonesia after the Covid-19 pandemic: Social psychology perspective," *Sociología y Tecnociencia*, vol. 13, no. 1, pp. 165–186, 2023.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 11: 726-736, 2025
DOI: 10.55214/2576-8484.v9i11.10963

[26] R. Miftah Wirakusuma, S. Gardiner, and A. Coghlan, "Overtourism and tourism sustainable management in the Komodo National Park, Indonesia," *Tourism Cases*, vol. 2024, p. tourism202400026, 2024. https://doi.org/10.1079/tourism.2024.0026

[27] L. N. Phi, D. H. Phuong, and T. V. Huy, "How perceived crowding changes the interrelationships between perceived value, tourist satisfaction and destination loyalty: The empirical study at Hoi An," *International Journal of Tourism Cities*, vol. 10, no. 1, pp. 324-352, 2024. https://doi.org/10.1108/IJTC-08-2023-0155

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 11: 726-736, 2025
DOI: 10.55214/2576-8484.v9i11.10963