Sustainable Tourism Experiences

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Sustainable Tourism Experiences: The Role of Digital Technology and Government Support in Creating Tourists' Memorable Experiences

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Abstract

Sustainability practices in the tourism industry offer significant benefits to destinations, particularly when supported by digital technology and government involvement. This study investigates how sustainable tourism experiences influence the memorable experiences of foreign tourists, with digital technology and government support as moderating factors. Data from a survey of 270 foreign tourists across four cities in Indonesia were analyzed using partial least squares structural equation modeling (PLS-SEM). The results indicate that socio-cultural factors are the most significant influencers of tourists' memorable experiences, with environmental factors also playing a key role. In contrast, economic factors do not significantly affect the memorability of tourists, particularly through initiatives that foster cultural engagement while ensuring that travelers feel safe. Digital technology, however, plays a dual role: it can either strengthen or weaken the influence of sustainability practices on tourists' memorable experiences, depending on how it is integrated into the tourism experiences. These findings emphasize the critical role of socio-cultural elements in shaping tourist memories and highlight how digital innovation and government involvement can amplify or mitigate the effects of sustainable practices, offering valuable insights for tourism stakeholders to enhance the value of international visitors.

Keywords: Sustainable Tourism Experiences, Memorable Experiences, Digital Technology, Government Support

Introduction

The contemporary tourism industry places notable emphasis on the concept of sustainability (Guo et al., 2019; Rasoolimanesh et al., 2023; Streimikiene et al., 2021) as the core element of the managerial approach. This emphasis on sustainability in the tourism industry indicates a growing recognition of the necessity to prioritize responsible tourism practices to preserve natural environments and cultural heritage while simultaneously pursuing economic benefits. (Alvarez-Risco et al., 2020; Moliner-Tena et al., 2021; Van Dyk et al., 2019). This concept is believed to provide tourists with positive experiences (Breiby et al., 2020; Kusumah, 2023; Moliner-Tena et al., 2021) and generate value-added (Phuc & Nguyen, 2023; Zhu et al., 2017). Moreover, digital technology in the tourism sector has facilitated easier access to tourist information while enhancing the personalization and interactivity of travelers' experiences via the internet, mobile applications, and social media (Barashok et al., 2021; Jeong & Shin, 2020; Preko et al., 2023). Consequently, the digitalization of tourism services not only elevates service quality but also enhances the competitiveness of tourist destinations (Bazazo et al., 2022).

Additionally, it is believed that the utilization of digital technology reinforces the favorable perception of the tourist experiences, thereby enhancing its memorability (Anaya & Lehto, 2020; Kuchumov et al., 2020). The application of digital technology has the potential to enhance the tourist experiences by facilitating convenient travel and personalizing the experiences to a greater extent, thereby making it more meaningful (Ballina et al., 2019; Elgammal et al., 2020; Kusumah, 2023; Saseanu et al., 2020; Thipsingh et al., 2022). Such experiences are not only beneficial for the long-term viability of tourist destinations but also have a significant impact on how tourists perceive and remember

their visits (Chen et al., 2020; Huang & Bu, 2022; Kahraman & Cifci, 2023; Satrya et al., 2024).

This research uses the memory theory approach to provide a fundamental understanding of the dynamics of the traveler experiences. Martin and Deutscher (1966) proposed the causal theory of memory, which states that memory involves causal relationships with past events (Moran, 2022). Thus, memory theory is a suitable theoretical lens to explain the important role of experiences in enriching tourists' memories. However, memory theory in the context of international tourism often fails to comprehensively explain external factors such as the government's role and the destination's political environment. Although memorable tourism experiences are essential for attracting tourists to a destination, tourist behavior cannot be fully captured without considering the influence of government policies and the political situation in a country as a whole (Amiruddin et al., 2022; Lee, 2016; Moslehpour et al., 2023). Therefore, this study also combines stakeholder theory to demonstrate how government support can strengthen the influence of tourism experiences on tourists' memories. This theory is used to show that tourism management needs to involve many parties, such as local communities, the government, the private sector, and tourists (Byrd, 2007; Plichta, 2019). The government in tourism is considered a more significant party than other private stakeholders because of its central role in balancing cooperation and competition in business actors building tourism networks (Presenza & Cipollina, 2010; Saito & Ruhanen, 2017).

Therefore, the government's role in tourism development cannot be ignored (Amiruddin et al., 2022). The ease of internet access policies enacted by the government facilitates the acquisition of information, mitigation of travel problems, sharing of experiences, and preservation of memories of tourists' journeys (Wang et al., 2012). Furthermore, government involvement, particularly in monitoring and controlling conditions in a destination such as congestion, environmental issues, noise, and security, clarifies tourists' memories of positive experiences in tourist destinations (Kim et al., 2022; Wang et al., 2023). Therefore, the government's role in enhancing the tourism experiences can strengthen its impact on the impressions and memories of tourists.

Previous studies have highlighted the importance of integrating sustainable tourism and digital technology to enhance tourists' experiences (Bekele & Raj, 2024; El Archi et al., 2023; Kuchumov et al., 2020; Kusumawardhani et al., 2024; Rodrigues et al., 2023; Saseanu et al., 2020) and create lasting memories (Ahn et al., 2017; Ittamalla & Kumar, 2021; Manthiou et al., 2014). Furthermore, previous studies on the role of government in the tourism industry have primarily focused on the perspectives of the local community (Moslehpour et al., 2023; Vieira et al., 2016) and tourism business (Dung et al., 2018; Seow et al., 2021), while there is a scarcity of research examining the role of government support from tourists' perspectives (Lee, 2016). The evaluation of tourist perception is key to success in building the competitiveness of a tourist destination, where the strategy to create an experience that will continue to be remembered by tourists is the main essence of marketing a destination. Therefore, this study sought to assess the influence of sustainability dimensions on memorable experiences using digital technology and government support as moderating variables.

In addition, this study advances the concept of memorable experiences by incorporating both biological and digital technologies, such as smartphones and social media, to enhance memory recall Eliseev & Marsh, (2021); Hutmacher et al., (2023); Kirjakovski, (2023). Thus, it offers a more comprehensive measurement of memorable experiences by including both natural and external technological aids.

Theoretically, this study expands the current understanding of the factors influencing memorable tourism experiences by integrating sustainability practices, digital technology, and government influence into a comprehensive model. These findings contribute to the development of a more holistic model of memorable tourism experiences, providing a foundation for future research on the interplay between sustainability, technology, and sustainability dimensions in the tourism sector. This research also contributes to the achievement of Sustainable Development Goals (SDGs) by utilizing digital

technology to create more memorable tourism experiences, as well as applying sustainability practices to tourist destinations, which can support more environmentally friendly and responsible tourism management. In addition, innovation in the tourism sector using digital technology can drive a country's economic growth and strengthen the tourism ecosystem. The results of this study are expected to contribute to the design of effective digital and sustainable tourism strategies. Furthermore, it is useful to emphasize the importance of the government's role in supporting international tourism initiatives.

Theoretical Perspective

Memory Theory

The memory process begins with sensory memory, which temporarily stores information received through the five senses (Solomon, 2020). The duration of information storage in sensory memory is temporary and typically lasts only a few seconds. Despite its short duration, this initial stage is sufficient for an individual to assess whether the information is of interest and to determine whether it will be transferred to short-term memory. Short-term memory (STM) has limited capacity; therefore, information intended for long-term retention must undergo a cognitive process (Madan, 2024; Solomon, 2020). This process, known as elaborative rehearsal, involves integrating incoming information, evaluating its significance, and associating it with preexisting knowledge in memory. The greater effort required for this cognitive process, referred to as deep processing, is more likely to be transferred to long-term memory (LTM). Marketers often leverage this stimulus process to design effective marketing strategies that capture attention and facilitate the transfer of information into consumers' long-term memories. The stimulus processes in this research were sustainable practices and digital technology in tourist destinations.

Stakeholder Theory

Stakeholder theory redefines value creation by emphasizing the long-term development and interests of all parties involved in an organization (Mahajan et al., 2023; Valentinov & Chia, 2022). Unlike the traditional neoclassical view, which focuses on maximizing shareholder wealth, this theory highlights the importance of ethical and social impacts in decision making. It has been widely applied in sustainability, organizational performance, and tourism management, where it helps manage complex stakeholder relationships and ensures that policies consider not only economic benefits, but also social, cultural, and environmental impacts (Plichta, 2019; Valentinov, 2023; Valentinov & Chia, 2022). The stakeholder theory highlights the government's key role as a primary stakeholder in tourism. According to Presenza & Cipollina (2010), public stakeholders, such as tourism bureaus and local governments, are more significant than private tourism businesses because of their role in balancing cooperation and competition. Additionally, Saito & Ruhanen (2017) it emphasizes the government's coercive power, enabling it to set policies, regulations, and laws that guide tourism management. The government ensures stakeholder collaboration, resolves conflicts, and creates an environment that supports sustainable tourism and enhances tourist experiences.

Memorable Experiences

The concept of a memorable experience may be defined as an experience that is strongly remembered and retained in one's memory long after an event has occurred. The definition of a memorable experience may vary, depending on the stage of the memory process being studied. As such, memorable experience (MTE) process is generalized by Kim et al. (2024) into two stages: the memory encoding process, which concerns the influence of experiential factors on the formation of memories; and the memory retrieval process, which pertains to the recall of past experiences. According to Wang et al. (2023), memorable experiences encompass both recollection and vividness. It is more probable that activities associated with cognitive and affective processes will be recalled, and that when recalling

travel experiences, individuals will often remember specific moments at the destination with their companions. Gannon et al. (2022) demonstrated that both tangible and intangible destination attributes contribute to memorable experiences. Experiences perceived as exciting, thrilling, significant, authentic, or unique are more likely to evoke emotional and sensory stimulation, thus triggering memories. Furthermore, Guleria et al. (2024) stated that travelers' memories were consistently shaped by their experiences at a destination. Memorable experiences are crucial for a destination's success, serve as a key predictor of loyalty behavior, and act as a determinant of the sustainability of tourist destination marketing.

The measurement of a memorable experiences can be expressed in a wide variety of ways. The most frequently used MTE scales are those proposed by Kim (2012), which encompass seven dimensions: hedonism, refreshment, local culture, meaningfulness, knowledge, involvement, and novelty (Akhshik et al., 2023; Coelho et al., 2018; Kahraman & Cifci, 2023; Rasoolimanesh et al., 2022). These seven dimensions represent the factors identified as most influential in forming memorable memories. However, some previous studies have also employed a more general approach to measuring MTE, focusing on positive memories of the visited tourist destination (Huang & Bu, 2022; Sthapit et al., 2018; Tsaur et al., 2023; Ye et al., 2021). Additionally, in accordance with the definition of MTE, which is the process of recollection and vividness of memory, previous research has measured MTE with these two dimensions (Kim, 2010; Wei et al., 2019). Conversely, Wang et al. (2023) synthesized these into a unified dimension encompassing both the vividness of memory and recall process. In the digital age context, the process of measuring memory must consider the impact of digital technology, which enables individuals to recall past events with the aid of photographs on smartphones, digital records, and social media platforms. This is consistent with the arguments proposed in Eliseev & Marsh, (2021); Hutmacher et al., (2023); Kirjakovski, (2023).

Sustainable Tourism and Memorable Experiences

The concept of sustainable tourism was first defined by the United Nations World Tourism Organization (UNWTO) in 1996. This definition outlines a framework for managing all areas to ensure the fulfillment of economic, social, and environmental needs. This approach is designed to facilitate the sustainable development of society (Janusz & Bajdor, 2013). Furthermore, the UNWTO highlights that sustainable tourism is an ongoing process that considers the needs of current and future generations (World Tourism Organization, 2013).

The concept of sustainable tourism is inherently multifaceted, necessitating a comprehensive assessment beyond a unidimensional measure, such as environmental impact alone(Pîrghie & Matei, 2020; Thipsingh et al., 2022; Zakharchenko et al., 2021), thus necessitating a multidimensional measurement approach (Conti et al., 2023; Sánchez-Fernández et al., 2019). Most previous research has divided the dimensions of sustainable tourism into three main categories: economic, socio-cultural, and environmental (Çalışkan, 2021; Janusz & Bajdor, 2013; Kusumah, 2023; Moliner-Tena et al., 2021; Sánchez-Fernández et al., 2019).

Prior research indicates that tourists' perceptions of their experiences can be a significant determinant of the clarity and vividness of their memories (Ahn et al., 2017; Ittamalla & Kumar, 2021; Juliana et al., 2023). This conclusion is supported by previous research indicating that the quality of tourist destinations—including the availability of dining and drinking establishments, the condition of accommodation facilities, the characteristics of the natural environment, the presence of cultural attractions, and the availability of recreational and entertainment activities—can influence tourists' memories (Wang et al., 2021). Consequently, tourists' perceptions of the distinctive attributes of a tourist destination markedly enhance the vividness of their memories, including scenes of rural beauty and cultural values that diverge from those of their place of origin (Chen et al., 2022).

Accommodation can be considered a component of the infrastructure that contributes to a

destination's economic viability and its overall appeal. Therefore, this is an essential aspect of an unforgettable travel experience(Huang & Bu, 2022). Additionally, locally sourced souvenirs that reflect the distinctive character of the visited destination can contribute to tourists' ability to vividly recall their experiences (Kim & Jang, 2016; King & Kongpradit, 2019).

The natural resources and environments that tourists encounter, including wildlife, weather conditions, and natural scenery, are inherently difficult to control and not created by humans. Tourists' positive judgments about these things can directly affect their memories (Sthapit et al., 2023). Travelers who appreciate the natural authenticity of tourist attractions may temporarily detach themselves from their daily routines, immersing themselves in a different world that offers a unique form of beauty and satisfaction. This experience, as posited by Hill et al., (2014), can be characterized as unforgettable.

The cultural symbols and attractions experienced by travelers can serve as stimulants, facilitating the formation of deep cultural impressions and understanding, which are then stored in the form of tourist memories(Zhang et al., 2021). Therefore, a local culture's distinctiveness and authenticity can serve as a region's defining feature, which is then reinforced by creativity and technology to disseminate its traditional culture, thereby fostering positive memories among tourists (King & Kongpradit, 2019; Lai et al., 2021). Accordingly, the following hypothesis was formulated:

H1. (a) Economic aspect, (b) Environmental aspect, and (c) Sociocultural aspect in the destination positively influence tourists' memorable experiences.

Digital Technology and Memorable Experiences

Some previous researches have used the terms e-tourism or smart tourism to describe tourist destinations that digitalize their service systems (Azis et al., 2020; Ballina et al., 2019; Gretzel et al., 2020; Jeong & Shin, 2020; Shen et al., 2020). Moreover, digital tourism experiences could be defined as the application of various digital technologies that integrate digital content with the real world to enhance the overall tourism experiences (Li et al., 2024; Preko et al., 2023). Digital technology is viewed as any tool or system capable of collecting, processing, and utilizing data in an electronic format, thereby enabling the efficient and effective processing of information (Bican & Brem, 2020). Digital technology employed in the tourism sector encompasses a multitude of forms, including interactive websites, booking systems, social media platforms, and mobile applications (Adeola & Evans, 2019; Roziqin et al., 2023; Van Nuenen & Scarles, 2021). The primary objective of these technologies is to enhance the capacity for sharing, collaboration, and reduction of labor through the use of automated services. (Golja & Paulišić, 2021). Thus, the concept of experiences in digital tourism refers to the value and benefits that tourists gain from interacting with the digital technologies available at tourist destinations (Ballina et al., 2019; Jeong & Shin, 2020; Pai et al., 2020). Previous studies have employed four attributes of Smart Tourism Technology (STT) to assess travelers' perceptions of the value they derive from interacting with digital technology at tourist destinations. The four benefits derived from the utilization of digital technology are informational, accessible, interactive, and personalized (Huang et al., 2017; Jeong & Shin, 2020; Pai et al., 2020).

Digital technologies have been demonstrated to influence the recollection of travel experiences and enhance the clarity of travelers' memories. The utilization of sophisticated technologies, such as augmented reality (AR) and virtual reality (VR), can facilitate the generation of sensory experiences that are conducive to the formation of vivid memories that are closely aligned with the tourist experiences (Beták et al., 2023; Huang et al., 2023; Huang & Tseng, 2015). Moreover, the capability of digital technology to render travelers' experiences more interactive and personalized can ultimately enhance the vividness of their memory (Jeong & Shin, 2020; Zhu et al., 2024). Providing comprehensive and easily accessible information via digital technologies can assist travelers in

developing a more profound understanding of tourist destinations (Preko et al., 2023). Travelers can obtain more comprehensive information on attractions, local history, culture, and available activities, which can contribute to an unforgettable tour experience (Jeong & Shin, 2020). Following the aforementioned considerations, the following hypothesis was formulated:

H2. The relationship between (a) the Economic aspect, (b) the Environmental aspect, (c) the Sociocultural aspect, and memorable experiences is moderated by digital technology.

Government Support in Tourism

The government plays a critical role in creating an environment conducive to sustainable tourism practices that significantly affect the quality and memorability of the tourist experiences. Government programs such as improving infrastructure, implementing regulations to protect tourists, and encouraging local communities to ensure safety contribute to the development of tourist destinations(Pawestri et al., 2022). When tourists enjoy beautiful natural landscapes while feeling safe and comfortable, they enhance their positive memories.

Additionally, governments can strengthen the image of a destination by providing detailed information about local culture, including customs, cuisine, cultural heritage sites, and entertainment centers, which attracts tourists seeking authentic and profound experiences (Azizah & Said, 2024; Satrya et al., 2024). Highlighting these unique cultural aspects can create lasting and captivating impressions in tourists' minds (Amiruddin et al., 2022; Aydın & Alvarez, 2020; Kim & Jang, 2016). Destinations that cater to tourists' hedonistic desires, such as pleasure, excitement, and enjoyment, create strong, positive, and unforgettable memories(Kim et al., 2022; Wang et al., 2023).

Furthermore, the government plays a key role in ensuring smooth travel processes, including administrative and legal procedures, which strengthens the formation of positive memories associated with the destination (Azizah & Said, 2024; Javed & Tučková, 2020; Pawestri et al., 2022). Thus, the government contributes significantly to optimizing various aspects of the tourism experiences to deepen tourists' memories (Huang & Bu, 2022). Consequently, the following hypothesis was formulated:

H3. The relationship between (a) the Economic aspect, (b) the Environmental aspect, (c) the Sociocultural aspect, and memorable experiences is moderated by government support.

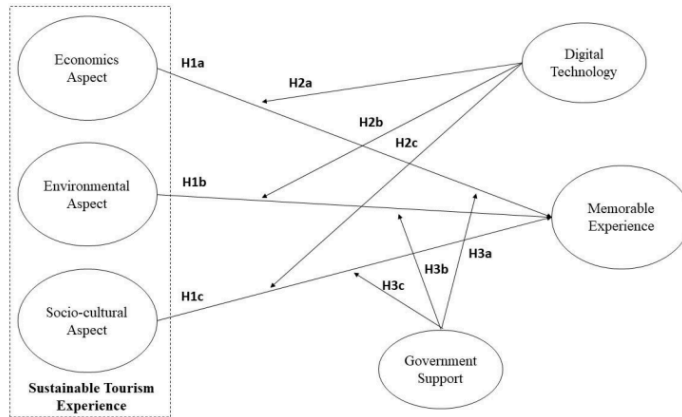The research model and hypotheses are illustrated in the figure I below.

Figure I. Research Model

Methodology

Data collection procedure

The data collection method employed was a survey using a questionnaire as an instrument. Questionnaires were distributed to foreign tourists visiting four cities that serve as tourist destinations: Likupang/Manado, Bali, Magelang/Jogjakarta, and Surabaya. Electronic questionnaires in the form of Google Forms were used to disseminate on-site and online data efficiently. This methodology was selected to facilitate the identification of respondents whose experiences and perspectives were aligned with the research objectives. (Sekaran & Bougie, 2016, p.158).

The sample was drawn from individuals who met specific criteria, namely foreign nationals who visited at least one of Indonesia's tourist destinations within the past year for online distribution and stayed for at least one day during the onsite distribution. A total of 270 answers were collected from foreign tourists. The respondent profile is shown in table I below.

Tabel I. Demographic profile

	Frequency (N =270)	Percent
Gender		
Female	145	53.70
Male	122	45.19
Prefer not to mention	3	1.11
Age Group		
17 - 21 years old	39	14.44
22 - 30 years old	147	54.44
31 - 40 years old	58	21.48
41- 50 years old	19	7.04
More than 50 years old	7	2.59

Origin

Africa	4	1.48
America	14	5.19
Asia	93	34.44
Australia	16	5.93
Europe	139	51.48
Others	4	1.48

Occupation

Employee	117	43.33
Entrepreneur	33	12.22
Housewife	17	6.30
Not working/Retired	10	3.70
Self-employed	33	12.22
Student	60	22.22

As illustrated in Table I, the majority of respondents in this study were female, although their representation was nearly equivalent to that of males. Furthermore, most respondents were between the ages of 22 and 40, originated from European countries, and were employees.

Measurement and Analytical approaches

In this study, sustainable tourism is defined as tourists' positive experiences of a destination's natural, cultural, and economic conditions. Accordingly, the assessment of sustainable tourism experiences is classified into three principal dimensions: environmental, sociocultural, and economic.

The economic aspect can be defined as tourists' perceptions of the conditions of tourist destinations that have the potential to generate economic benefits for both tourists and the destination. This condition is reflected in eight indicators adapted from previous research (Aydın & Alvarez, 2020; Kusumah, 2023; Lee & Xue, 2020). Environmental aspects pertain to tourists' perceptions of the conditions of tourist destinations that evoke concern for preserving the natural environment and engendering a positive experience. This assessment was based on eight indicators adapted from prior research(Aydın & Alvarez, 2020; Kusumah, 2023; Lee & Xue, 2020; Sánchez-Fernández et al., 2019). The socio-cultural component pertains to visitors' evaluation of tourist destinations regarding the preservation and sustainability of cultural identity as an added value to their travel experiences. This aspect is operationalized through six indicators adapted from previous research(Aydın & Alvarez, 2020; Kusumah, 2023; Lee & Xue, 2020; Stojanović et al., 2024). A memorable experience is defined as a quality of memory clarity consistent with the tourist experiences, encompassing both biological memories and those facilitated by digital technology. The nine indicators were adapted from previous studies (Ahn et al., 2017; Huang et al., 2023; Ittamalla & Kumar, 2021; Wei et al., 2019; Soares et al., 2023; Kirjakovski, 2023; Stone & Zwolinski, 2022; Hutmacher et al., 2023; Wang et al., 2017). The implementation of digital technology in tourist destinations is evaluated by its perceived value to ascertain its impact on tourist experiences. This variable comprises four primary dimensions: informativeness, accessibility, interactivity, and personalization. These dimensions were subsequently developed into research indicators adapted from several previous studies(Huang et al., 2017; Jeong & Shin, 2020; Pai et al., 2020). Government support can be defined as a form of government involvement in creating an optimal tourism experiences for tourists. Therefore, this variable is reflected in six indicators adapted from previous research (Amiruddin et al., 2022; Lee, 2016; Lee et al., 2015; Pawestri

et al., 2022). To evaluate the constructs, all questionnaire indicators employed a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). They were tested on 30 respondents; and showed valid and reliable results.

The data were processed and analyzed using SPSS to calculate descriptive statistics including the average value, frequency percentage, and standard deviation. Path analysis and research models will be analyzed using the Smart Partial Least Square (SmartPLS).

Result

Measurement Model

The results of the discriminant validity, convergent validity, and construct reliability tests indicated that some indicators initially did not meet the validity criteria, particularly those with an Average Variance Extracted (AVE) below 0.5, as stated in Hair et al. (2019). To address this issue, 15 indicators were excluded from the analysis. The details of invalid indicators include three indicators pertaining to the economy, three indicators related to the environment, two indicators concerning social and cultural aspects, four indicators related to memorable experiences, one indicator associated with digital technology, and two indicators related to government support.

After excluding indicators with low external loadings, the remaining constructs were re-evaluated and found to be valid and reliable. Subsequently, a discriminant validity test was conducted using the Fornell-Larcker and HTMT ratio, wherein the HTMT value must be less than 0.90 (Hair et al., 2019). The validity assessment showed that all remaining indicators met the criterion for discriminant validity, in which the loading value of each item on its respective construct exceeded the loading factors of other constructs. The reliability analysis also confirmed that the constructs were reliable, as all composite reliability and Cronbach's alpha values exceed the 0.6 cutoff. The results of the validity and reliability tests are presented in table II below.

Table II. Reliability and Validity

Item	Loading Factor	Cronbach Alpha	Composite Reliability	AVE	Mean	Standard deviation
Economy Aspect		0.751	0.757	0.501		
Good public transportation system	0.805				5.19	1.495
Good public physical infrastructure	0.647				5.22	1.294
Diverse locally-owned business	0.680				5.98	1.027
widely available public facilities	0.723				5.61	1.217
High-quality of local souvenirs and crafts	0.674				5.66	1.025
Environmental Aspect		0.777	0.815	0.520		
Interesting natural attractions	0.800				5.91	1.282
The level of pollution is acceptable	0.565				4.84	1.801
Concerned preservation of natural areas	0.667				5.04	1.310
Pleasant weather and climate	0.742				5.73	1.270
Restful and relaxing atmosphere	0.802				5.39	1.454
Social cultural Aspect		0.705	0.714	0.525		
Fascinating cultural attractions	0.768				5.94	1.075
Aesthetic local arts and crafts	0.741				5.76	1.059
Authentic cultural heritage and traditions	0.654				6.10	0.999
Interaction between residents and visitor	0.732				5.72	1.125
Memorable Experiences		0.810	0.814	0.512		
Recall what I saw	0.727				6.29	0.924
Recall what I heard	0.726				5.88	1.072
Remember my emotions	0.721				6.07	1.005
Remember the ambience	0.746				6.21	1.051
Remember by aid of the photos in cell phone	0.678				6.30	0.914
Remember by reading my social media posts	0.692				6.07	1.160

Digital Technology		0.659	0.710	0.591		
Can easily find anytime and anywhere	0.611				5.79	1.046
Highly interactive	0.848				5.37	1.199
Tailored information	0.825				5.67	1.127
Government Support		0.710	0.736	0.536		
Guarantees the safety of travelers	0.815				5.71	1.210
Guarantees the physical safety of travelers	0.775				5.59	1.175
Offers high-quality technology	0.595				5.26	1.336
Provides facilities to issue visas easily	0.725				5.95	1.162

Structural Model

The R-squared value for the memorable experiences construct in this research model was 0.507. This indicates that approximately 50.7% of the variance in the construct of memorable experiences can be explained by the predictors included in the model. The R-squared value is moderate, indicating that the model is a robust predictor of memorable experiences in the context of sustainable tourism while acknowledging the potential influence of additional factors.

The results of the structural model test on international tourists indicate that not all the proposed hypotheses were accepted. The signs of the associations between the constructs are presented in table III.

Tabel III. Path Analysis Result

Hyphotheses	Path	Original Sample (O)/ Beta Values	T statistics (|O/STDEV|)	P values	Hyphotheses Result
H1a	Ec -> ME	0.092	1.092	0.275	Rejected
H1b	En -> ME	0.146	2.061	0.039**	Accepted
H1c	SC -> ME	0.206	2.624	0.009***	Accepted
H2a	DT x Ec -> ME	0.123	1.728	0.084*	Accepted
H2b	DT x En -> ME	-0.143	1.774	0.076*	Accepted
H2c	DT x SC -> ME	-0.194	2.917	0.004***	Accepted
H3a	GS x Ec -> ME	0.065	0.936	0.350	Rejected
H3b	GS x En -> ME	-0.056	0.640	0.522	Rejected
H3c	GS x SC -> ME	0.140	1.649	0.099*	Accepted

Note(s): P-value at *10%, **5%, ***1%

Table III shows that there are three rejected hypotheses, H1a, H3a, and H3b, which can be seen from the p-values above 0.1. In other words, a destination's economic factors do not influence what makes the tourist experience memorable. On the other hand, the results of this significance test also show that the environmental (H1b) and socio-cultural (H1c) aspects of a tourist destination can significantly influence the memorable tourism experiences of foreign tourists. This finding is consistent with prior research, indicating that exposure to natural elements can create positive emotional responses, thereby creating a lasting impression on tourists (Akhshik et al., 2023; Sthapit et al., 2023) and cultural aspects can leave a strong impression on international tourists (Lai et al., 2021; Satrya et al., 2024; Zhang et al., 2021). Additionally, there is evidence that digital technology plays an active role as a moderator that can strengthen or weaken the effect of sustainability tourism experiences (H2a, H2b, H2c) on

memorable tourism experiences. Digital technology can strengthen the effect of experiences related to economic aspects to make them more memorable. However, it can weaken the impression of experiences related to environmental and sociocultural aspects and be less memorable. This result contradicts previous studies (Beták et al., 2023; Elgammal et al., 2020; Jeong & Shin, 2020; Preko et al., 2023) that suggest that digital technology can amplify the tourist experiences and make it more memorable. On the other hand, the government plays a role in strengthening tourists' experiences of sociocultural aspects to be more memorable (H3c). This is in line with previous research (Amiruddin et al., 2022; Javed & Tučková, 2020; Moslehpour et al., 2023) that highlights the government's responsibility to facilitate and enable the advancement of sociocultural aspects.

Discussion and Conclusion
Discussion

The findings indicate that sustainable tourism experiences, as manifested in environmental and sociocultural aspects, significantly influence the creation of memorable tourist experiences. By contrast, the influence of economic aspects on foreign tourists' memorable experiences was found to be insignificant. This finding contrasts with the results presented in Huang & Bu (2022), which suggested that factors such as accommodation and economic aspects can positively influence the perceptions of foreign tourists, particularly when they are perceived as culturally authentic or as offering an element of surprise. However, in this study, the respondents primarily came from more economically advanced countries in Europe and Asia, such as Singapore, Malaysia, Taiwan, and China. Given the higher level of economic development in these countries, the economic aspects of Indonesia, such as infrastructure, transportation, and public facilities, did not leave a profound impression on the tourists. These tourists are likely to have higher expectations owing to their experiences with better-developed infrastructure in their home countries. This finding can be attributed to the unique characteristics of destinations, while economic aspects play a significant role in rural destinations (Moliner-Tena et al., 2021). This implies that economic aspects may not directly shape the emotional and cognitive aspects of memorable experiences, particularly at destinations where economic development is still in progress. As a result, economic aspects, while still important, did not stand out as significant contributors to creating memorable experiences. Instead, the sociocultural context of the destination was found to have a much greater influence, as these tourists were likely to seek authentic cultural experiences. Furthermore, the most significant factor influencing the memorable experiences of foreign tourists is the sociocultural context. This finding corroborates the results of previous studies indicating that culture has the potential to enhance tourists' memories of destinations through new cultural learning (Zhang et al., 2021), as well as nostalgic experiences and authenticity (King & Kongpradit, 2019). In this context, memorable tourism is synonymous with elements perceived as novel that have high levels of interaction (Sthapit et al., 2023).

The results also showed that government support can strengthen the influence of socio-cultural aspects on memorable experiences. This finding is explained by the loading factor value in the analysis, which indicates that the most salient role is to ensure the safety of tourists from crime or terrorism. This allows tourists to attend cultural events and attractions without undue concern for personal security (Lee, 2016; Lee et al., 2015). Providing government support to maintain safety and comfort is essential to creating a positive tourist experiences. Nevertheless, government support did not serve as a significant moderator between the economic and environmental aspects and memorable experiences. This could be attributed to the government's less visible role for overseas tourists.

Another interesting finding was the role of digital technology in tourist destinations. Digital technology can potentially reinforce economic factors. However, this may simultaneously diminish the impact of environmental and sociocultural elements on creating memorable experiences. This result can be explained by the fact that digital technology is currently employed in destination marketing,

commerce, and the delivery of public services (Gutierriz et al., 2023; Li et al., 2024; Roziqin et al., 2023). Consequently, it tends to favor economic-related aspects. However, a contradictory finding exists regarding the environmental and cultural aspects, whereby the utilization of digital technology can, in fact, serve to diminish its impact. This phenomenon can be explained through the concept of "digital free tourism" (Cai & McKenna, 2023; Egger et al., 2020; Gutierriz et al., 2023), which posits that tourists' motivation to engage in natural scenery and cultural interactions is driven by a desire for recreation and escape from the rigors of daily life. Consequently, the use of digital technology may result in less memorable experiences in terms of nature and culture. Additionally, it can be assumed that digital technology content can shape impressions and expectations regarding visiting tourist attractions. However, in reality, the images presented often do not align with and are inferior to those displayed on the information provided on social media or websites (Golja & Paulišić, 2021).

Theoretical Implication

This study reveals a complex relationship between sustainable tourism and memorable experiences, especially in the context of foreign tourists. This study introduces a new perspective by highlighting the importance of sustainability practices, the application of digital technology, and government intervention in shaping the memorable experiences model. The findings clearly highlight the important role of digital technology in moderating the influence of sustainability practices at tourist destinations on memorable experiences. In addition, this study highlights the contribution of the government in strengthening the socio-cultural aspects of a destination, which has the potential to significantly enhance positive experiences for foreign tourists.

Practical Implication

The results of this study indicate that the attractiveness of tourism to international tourists lies primarily in the social and cultural aspects of a destination. Therefore, it is important to maintain the authenticity of local culture and behavior properly. This includes efforts to preserve traditions, local values, and social interactions unique to the destination. In addition, destination managers and governments should proactively emphasize this sociocultural content in destination promotion strategies. This can be achieved by developing promotional materials that highlight the uniqueness of the local culture and sustainable practices that support cultural preservation.

In addition, the government needs to organize international events, such as cultural festivals or art exhibitions, that not only introduce tourists to the richness of the culture but also provide them with safety guarantees. Safety is a crucial aspect that makes the experiences of foreign tourists more memorable. Therefore, strict enforcement of security and clear communication of the security measures will increase tourists' confidence in the destination.

Furthermore, destination managers and tourism businesses must be attentive to the needs of the tourist segments, recognizing that each segment may have unique preferences. They should also be aware that motivation and the country of origin influence tourists' perceptions of a destination (Moliner-Tena et al., 2021). For instance, tourists from different regions may have varying expectations and attitudes towards the destination (Carr, 2002; Ghazvini et al., 2020; L. S. Stone & Nyaupane, 2019). This is particularly relevant when considering the economic aspect of the study, as tourists from developing countries might prioritize different factors in their travel experiences compared to those from developed countries. These economic differences could explain why economic factors did not significantly impact the perception of memorable experiences. Additionally, not all travelers see digital technology as adding value to their travel experiences. Some tourists may feel that digital technology can reduce the depth of their experiences of enjoying local culture and natural beauty. Therefore, it is important to develop a balanced approach in which digital technology is used to enhance the tourist experiences without compromising the authenticity of culture and nature, which is the main attraction.

Conclusion

The results of this study conclude that the economic aspects of a destination do not significantly affect memorable experiences of foreign tourists. In contrast, both environmental and socio-cultural factors were found to have a significant influence on the memorability of the tourism experiences. Digital technology also plays a moderating role, either enhancing or weakening the impact of sustainability-related experiences on memorable tourism. Specifically, digital technology has been shown to strengthen the effect of experiences related to economic aspects, making them more memorable, while weakening the impact of experiences related to environmental and socio-cultural aspects, making them less memorable. The findings contribute to the development of a more holistic model of memorable tourism experiences, providing a foundation for future research on the interplay between sustainability, technology, and socio-cultural dimensions in the tourism sector. The findings also offer practical implications for tourism marketers and destination managers, emphasizing the importance of leveraging digital tools to enhance certain aspects of the tourist experiences while carefully considering the broader impact on sustainability-related dimensions.

Limitation and Further Research

In addition to offering new insights into sustainability practices, digitalization, and the role of government support in enhancing the international tourist experience, this study has certain limitations that must be acknowledged. This study is limited to four cities in Indonesia, whereas other regions or countries have unique characteristics and economic dynamics. Therefore, future studies should be conducted at other locations for a more comprehensive comparison. Furthermore, the research model can be developed by including intangible aspects of the destination such as reputation and branding. Additionally, mediating variables, such as emotions, could be incorporated to gain a more comprehensive understanding of the factors influencing the tourist experiences.

Sustainable Tourism Experiences