The Impact of Smart Tourism Experience Attributes on Tourists' Revisit Intention to Destination: The Case of Can Tho, Vietnam

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Abstract

The purpose of this study is to measure the impact of experiencing smart tourism technology attributes on the responses of the main subjects, namely the travel experience of tourists and their intention to revisit Can Tho based on the Stimulus-Organism-Response (S-O-R) theoretical framework. Drawing on a survey of 402 tourists who have visited Can Tho and utilized smart technology (STT) during their trip, the research reveals the current state of technology application in tourism services and assesses tourists' experiences with STT attributes such as informativeness and accessibility influencing their travel experience (tourists' travel enjoyment, tourists' travel confidence benefits, and tourists' travel satisfaction) and subsequently their intention to revisit Can Tho in the future.

Keywords: *Smart Tourism Technology Experience, Smart Tourism Technology, Intention to Revisit, Can Tho.*

INTRODUCTION

In the context of tourism, a necessary condition for positively influencing travellers' pleasure and behavioural intents is the development of destinations connected to information technology (Prayag, 2011). Traveller behaviour has changed as a result of the introduction of new services like Airbnb, Uber, Velocity, Hotels.com, and Google Trips (Pradhan et al., 2018). By offering individualised information, increasing accessibility, and encouraging interactive participation, this technology has the potential to improve the entire travel experience (Koo et al., 2016). The expanding number of studies published in respected academic publications indicates that researchers are becoming more and more interested in Smart Tourism Technology (STT) experiences at destinations and tourists' behavioural intents. Adoption, implementation, and the effect of STT on visitor behaviour have all been examined in this research (Huang et al., 2017). Can Tho City is aggressively using technology at the moment to improve the travel and tourism sector, encourage economic expansion, and boost competitiveness. The city of Can Tho has put in place noteworthy applications, including the "Canthotourism" application, which offers travellers a smart tourism ecosystem that includes details on attractions, lodging, and trip guides, to steer the growth of the city into a smart tourism destination. The city has also been encouraging the use of technology like virtual reality, artificial intelligence, and 3D/360-degree maps in order to improve the administration of tourist attractions and the overall tourism experience. Can Tho is home to several hotels that have integrated technology, including the Wink Hotel and the Sojo Hotel. Based on the Stimulus-Organism-Response (S-O-R) theoretical framework, this study examines the impact of perceived attributes related to smart tourism technology (STT) on tourists' responses, specifically their tourism experiences and the subsequent intention to return to Can Tho. It is critical to comprehend the reasons and mechanisms underlying tourists' intent to return. Although STT has been the subject of several studies, not many have clearly described how STT and different tourism experiences affect return intention. By examining visitors' perceived STT experiences and how these experiences affect their intention to return, this study seeks to create a comprehensive STT model. First, in order to direct the creation of a smart destination, this study examines the common technology applications utilised by Can Tho City. Four characteristics of smart tourism experiences—informative, accessible, tailored, and interactive—are incorporated in the study model, according to expert

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surveys. The study uses this information to ascertain how perceived STT affects various tourism experiences and, in the end, travellers' propensity to return. This study is one of use SOR framework to STT application services and tourism experiences, consequently influencing tourists' intention to return.

Theoretical Framework and Hypothesis Development

Smart Tourism - ST

The use of information and communication technology (ICT) to improve travel-related experiences, goods, and services is known as "smart tourism" (Botilias et al., 2022). Gretzel et al. (2015) described smart tourism as "tourism supported by the synergistic efforts at a destination to collect and aggregate/exploit data originating from physical infrastructure, social connectedness, government/organizational resources, and human bodies minds combined with the use of advanced technologies to transform that data into on-site experiences and business value propositions with a clear focus on efficiency, sustainability, and experience enrichment". Smart tourism is made up of various elements and tiers of "smartness," such as: 1. Smart Destinations: A specific type of smart city that incorporates ICT into the built environment. 2. Smart Experiences: emphasizing in particular the personalization, context awareness, and real-time monitoring of technology-mediated tourism experiences. 3. Smart Business: This term describes the intricate network of businesses that develops and facilitates the sharing of travel resources and the collaborative creation of travel experiences. According to Gretzel et al. (2015), big data and artificial intelligence techniques for data processing, storage, integration, analysis, and utilization are critical for smart tourism. These techniques are used to inform business innovation, operations, and services.

Smart Tourism Technology - STT

By offering personalized, interactive, and co-created experiences, smart tourism technology (STT) is an innovative technological platform that may greatly improve the value proposition for travelers and increase their overall trip experience (Neuhofer et al., 2015). In order to facilitate efficient data transmission and processing, this technology includes a variety of cutting-edge tools, such as the Internet of Things (IoT), wireless communication, and near-field communication (NFC) (Pencarelli, 2020); it also includes applications of augmented reality (AR) (Chung et al., 2015), ambient intelligence (AmI) (Buhalis, 2020), big data, machine learning (ML) (Rahmadian et al., 2023), the Metaverse (Filimonau et al., 2024), digital twins (Ivanov et al., 2020), 5G, and artificial intelligence (AI). STT has the potential to transform the tourism sector by utilizing these technologies to offer travelers customized, engaging, and rich experiences that are catered to their unique requirements and inclinations. In conclusion, this may result in greater contentment, a stronger desire to visit the location again, and eventually the expansion of the travel and tourist sector.

Stimulus-Organism-Response Theory (SOR)

The S-O-R theory offers a basis for conducting empirical studies to examine the effects of technology features including social media (Cao & Sun, 2022), online commerce (Parbo et al., 2009), and surveillance (Jung et al., 2021). The tourism industry has also made extensive use of the S-O-R model (Hew et al., 2018; Kim et al., 2020). The S-O-R paradigm, which has its roots in environmental psychology, postulates that external stimuli have the ability to affect a person's internal state (organism), which in turn can cause approach or avoidance reactions (response) (Mehrabian & Russell, 1974). Because it enables us to better understand how visitors see, feel, and experience external stimulus as well as how these feelings transfer into behavior, this model is useful in the study of tourism. (Manthiou et al., 2017).

Figure 1. Proposed Research Theoretical Framework

(Source: The authors)

Theory of Tourism Experience

Research on tourism experience has been conducted in various fields such as psychology, marketing, and anthropology (Kahneman, 1979; Pine & Gilmore, 1999), contributing significantly to the study of tourism experience. There are multiple definitions and approaches to defining tourism experience, both in terms of its nature and structure (Volo, 2010). According to Tung (2011), "Tourism experience is an individual's subjective evaluation of emotions, perceptions, and behaviors regarding events related to tourist activities before, during, and after the trip." Tourism experience is often seen as extraordinary - different from an individual's everyday experiences (Cohen, 1984). The need to provide tourists with unique experiences is further acknowledged with the concept of the experience economy by Pine & Gilmore (1999), suggesting that businesses need to stop merely providing goods and services to begin attracting customers in a more personal way, creating memorable, unique experiences. Tourism experience is a pervasive concept in recent tourism literature, with memorable tourism experiences reflecting a consumer-centric perspective, eliciting emotional and subjective responses from tourists (Kladou, 2015).

The relationship between the benefits of confidence in travel and the perceived experience of technology features in tourism; the pleasure that tourists derive from visiting

Stimulus are environmental signals that regulate an individual's psychological state (Jung et al., 2021), influencing their perception and playing a role as the starting point for decision-making (Koo et al., 2010). These attributes enhance tourists' awareness and stimulate their conscious or subconscious actions (Koo et al., 2010). In the context of tourism, social stimuli refer to interactions between individuals and the society around them; attributes brought into tourists' minds include social stimuli such as perceived smart tourism technology attributes consisting of informativeness, accessibility, interactivity, and personalization (No & Kim, 2015; Huang et al., 2017; Jeong & Shin, 2019), which affect the benefit of trust when traveling. Perceived Smart Tourism Technology (STT) Experience Attributes are categorized into four attributes: informativeness, accessibility, interactivity, and personalization. These four attributes are classified, enhancing the perceived usefulness and usability of smart tourism and can be embedded into destination smart technology (Neuhofer & Buhalis, 2021). First, the technology-embedded environment enables all users to engage in cross-sharing of information; second, smart technology relies on real-time communication systems, achieving higher interactivity among all users; third, the smart device revolution contributes to increased access to information; fourth, from diverse information sources, users are more likely to browse through their most important needs (Jeong & Shin, 2019). Some studies have also examined the role of security at technology-based tourist destinations, with some findings suggesting that decisions about whether to use smart tourism technology at tourist destinations depend entirely on tourists' views on digital privacy protection and security.

Informativeness: Informativeness reflects the combination of quality, reliability, and accuracy of information received from Smart Tourism Technology (STT) at tourist destinations (Huang et al., 2017). Informativeness is crucial for STT and can directly influence tourists' attitudes towards them. When STT provides appropriate, comprehensive, and accurate information about activities, accommodations, transportation, timing, and effort searching for information will decrease, and tourists will be satisfied with their experience. Informativeness stimulates tourists' rational evaluation of destinations and helps them make effective decisions.

Accessibility: Accessibility reflects the extent to which tourists can easily access and utilize the information provided at destinations by using different types of Smart Tourism Technology (STT) (Huang et al., 2017). Accessibility determines the usability of STT at the destination. Individuals tend to explore more information about the destination when STT has high accessibility.

Interactivity: Interactivity is defined as a tool to facilitate real-time feedback from tourists and positive communication when using Smart Tourism Technology (STT) (Huang et al., 2017). This influences tourists' reactions to STT. In social media communication services, when tourists perceive a high level of interactivity, they tend to use the services and interact more with tourism service providers through purchasing behavior, comments, and feedback (Tan & Lee, 2018).

Personalization: Personalization refers to the ability of tourists to obtain specific information tailored to their individual trip planning needs by using various types of Smart Tourism Technology (STT) (Huang et al., 2017).. Based on their behavior, personality, and past shopping preferences, tourists may receive appropriate recommendations through big data or cloud computing. These stimuli can significantly influence the perceived attractiveness of a tourist destination, affecting the internal state of a specific organism, namely the traveler, with experiences in tourism, such as the perceived benefits of passenger confidence related to their evaluation of technology (Bogicevic et al., 2017). Consumer concerns about technology have diminished in the past, and travelers will feel more confident about technology helping them maintain control and independence (Bogicevic et al., 2017). Tourists perceive the attributes of Smart Tourism Technology (Pai et al., 2023). Experiences can enhance the benefits of travelers' confidence when traveling to unfamiliar places (Pai et al., 2023). Perceived enjoyment influences people's attitudes toward online shopping and the quality of online services can alter emotional trust, such as the enjoyment of travel (Lai, 2015), which found that the informational and entertainment aspects of mobile tour guide apps have created an exciting travel experience for tourists. Travelers can not only "reduce boredom" while waiting at the airport but also increase joy and enjoyment when traveling by interacting with apps (Wang, 2013). In the context of tourism, satisfaction is considered a function of expectations before and after traveling, a comparison between expectations before traveling and the actual travel experience. Furthermore, Shahijan et al. (2018) point out that tourist expectations are important because they will affect individuals' satisfaction or dissatisfaction with a specific tourist destination.

Tourists' Travel Confidence Benefits: The comfort in psychological terms stems from the trust of tourists in businesses, and the reduction in anxiety after establishing long-term and stable relationships (Gwinner et al., 1998). Furthermore, the benefit of confidence manifests in the sense of knowing what will happen and making decisions regarding arising issues (Bogicevic et al., 2017). This concept can be extended to the tourism industry, where the benefits of trust in travel refer to the increasing psychological comfort due to tourists' growing trust in destinations, reducing their concerns about uncertainty and unfamiliarity with destinations, and improving their expectations for encountered services (Cohen, 1984). Bogicevic et al. (2017) observed that people's awareness of trust in online transactions is expected to have a positive impact on maintaining the benefits of trust. From these discussions, the following research hypotheses are developed:

H1: Perceived experience attributes of smart technology including informativeness (H₁ₐ), accessibility (H₁ᵦ), interactivity (H₁ᵪ), and personalization (H₁ᵈ) have a positive influence on tourists' travel confidence benefits.

Tourists' Travel Enjoyment: In the context of smart technology, enjoyment while traveling plays a significant role in user technology acceptance, with enjoyment considered a primary prerequisite for technology adoption (Bogicevic et al., 2017). Perceived enjoyment influences people's attitudes towards online shopping and the quality of online services, which can affect emotional trust, such as travel enjoyment (Koufaris, 2002). Lai (2015) observed that the informational and entertainment aspects of virtual tour guides via applications have created enjoyable travel experiences for tourists. Travelers not only alleviate boredom while waiting at airports but also enhance their joy and excitement while traveling through interactions with applications (Wakefield & Whitten, 2006).Từ những thảo luận trên, các giả thuyết nghiên cứu sau đây được phát triển:

H₂: The experience of smart technology attributes, including informativeness (H₂ₐ), accessibility (H₂ᵦ), interactivity (H₂ᵪ), and personalization (H₂ᵈ), positively affects tourists' travel enjoyment.

The Relationship Between the Benefits of Travel Confidence; Travel Enjoyment; And Tourist Satisfaction.

Tourist satisfaction has been the focus of numerous studies in the field of tourism research and is crucial in predicting behavioral intentions (Giao, 2018, Giao & Son, 2012, Giao et al., 2021a, 2021b, 2021c, 2022). According to Waheed & Hassan (2016), a person experiencing pleasure or disappointment stemming from comparing a product with their views of its performance (or outcome) is said to be experiencing tourist satisfaction. Som & Badarneh (2011) define satisfaction as the degree of positive emotion gained from the experience at the destination and as a judgment that the products or services given are highly pleasant to fulfill the relevant consumption level (Chi & Qu, 2008). consumers' perceptions effect perceived quality, which in

turn affects customer satisfaction with a particular experience (Waheed & Hassan, 2016), and consumers' perceived value is a direct determining factor that positively influences customer satisfaction (Puspitasari et al., 2018). All facets of tourism, such as lodging, attractions, and modes of transportation, are included in smart tourism. Tourists will have a gratifying experience at the place when they feel positively about smart tourism technology (STT). Consequently, visitor satisfaction is a direct effect of trip satisfaction. It is discovered that visitors' general pleasure with the technologies at their destination is positively correlated with both the advantages of enjoyment and confidence (Bogicevic et al., 2017).

From the above discussions, the following research hypotheses are developed:

H3: The benefits of travel confidence (H3a) and travel enjoyment (H3b) positively affect tourist satisfaction.

The Relationship Between Tourist Satisfaction And The Intention To Return.

Travelers will learn more about the destination after engaging in tourism based on smart tourism technologies (such as smart tours using VR Tour360, lodging in smart hotels using IoT technology, smart navigation with travel maps, etc.). This will help them decide whether to visit or return to the destination and will also encourage them to spread knowledge and information about the destination to others (Huang et al., 2013). The SOR model indicates that in the restaurant and park industries, consumers' intention to return can be greatly influenced by good perceptions leading to positive beliefs (Kim & Moon, 2009; Wei et al., 2019). Research in the field of tourism has demonstrated the connection between visitor satisfaction and their intention to return, and it has been empirically shown that visitor satisfaction has a major impact on the generation of good return intentions (Hasan, 2017; Breiby, 2018). An et al. (2019) looked at how travel affects Airbnb guests' plans to return, and they found empirical evidence that traveler pleasure increases travelers' intentions to return to the location. This suggests that visitors are much more likely to plan to return to a location if they are happy with it (An, 2019). Tourists' favorable perception of their trip experience is referred to as satisfaction (Jiang et al., 2018), and it has a direct impact on their intention to return to the place (Vo Thanh et al., 2018). Return intention, a type of post-consumption behavior, describes travelers' intentions to return to the same place or destination (Cole & Scott, 2004). Numerous studies show that the intention to return to a certain location and memorable experiences are mediated by satisfaction (Chen & Rahman, 2018; Torabi et al., 2022).

From the above discussions, the following research hypothesis is developed:

H4: Satisfaction positively affects tourists' intention to return.

Based on the literature review, the research team proposes a conceptual research model established between perceived smart tourism technology (STT) experience, travel experience (benefits of travel confidence, travel enjoyment, travel satisfaction), and the intention to return. With the development of information and communication technology, this theoretical framework and research model are applied in the context of the economy and the current state of Can Tho, with 11 hypotheses proposed as shown in the following model:
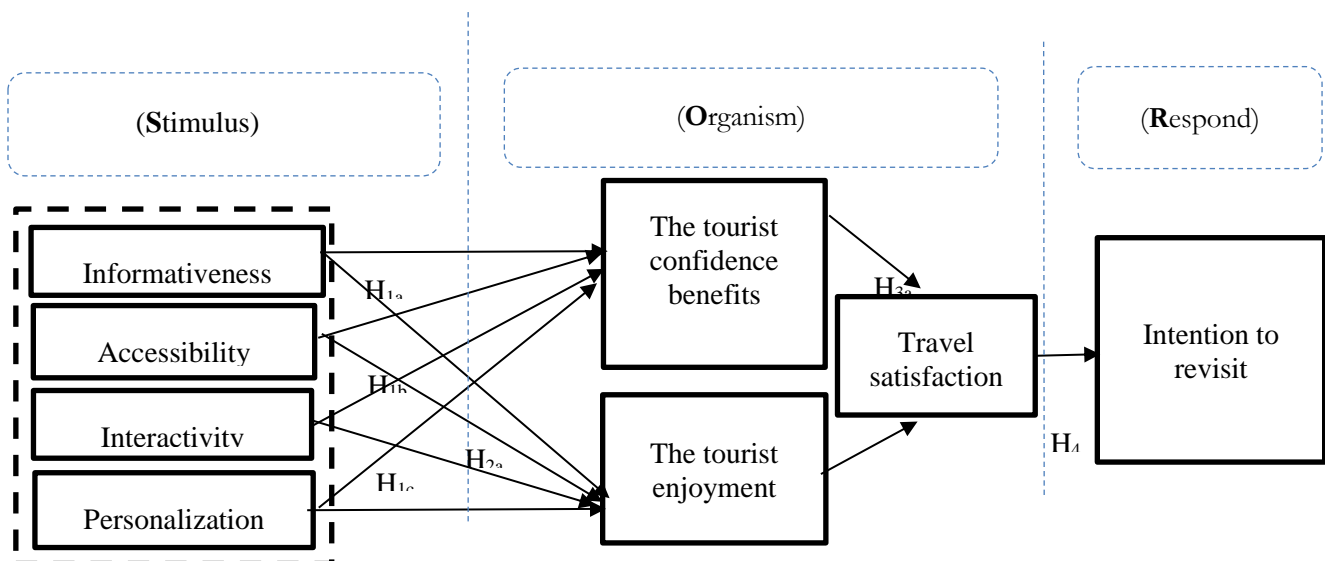
H₁ₐ   H₂ᵦ

H₂ᵧ   H₃ᵦ

H₂ₐ

Figure 2. Conceptual Model.
(Source: The authors)

RESEARCH METHODOLOGY

DATA COLLECTION

Travelers who have already visited Can Tho and utilized smart tourism technology (STT) on their travels are included in the target market. A convenience sampling technique was used, and 402 visitors were questioned at Con Phung Island, Vinpearl Can Tho, Sojo Hotel, Ninh Kieu. Pedestrian Bridge, and Tran Phu Night Market, among other places in Can Tho. There were 450 survey respondents in all, and 402 of them legitimate responses were used. Of these, 61.4% (n = 247) and 38.6% (n = 155) of the survey respondents were women. Over 50% of survey participants were between the ages of 21 and 30. Table 1 describes the attributes of the visitors.

Table 1. Descriptive Statistics of the Survey Sample.

Target	Feature	Quantity	Frequency (%)
Gender	Male	155	38,6
	Femlae	247	61,4
Age	<20	10	2,5
	20 – 30	222	55,2
	31-40	122	30,3
	41-50	31	7,7
	Trên 50	17	4,2
Occupation	Student	129	32,1
	Business	160	39,8
	Teacher	56	13,9
	Worker	19	4,7
	Public official	21	5,2
	Other	17	4,2
Experience of using STT	<1 years	150	37,3
	1-3 years	233	33,9
	3-5 years	17	55,5
	Over 5 years	12	4,2
Travel and overnight stay duration	During day	112	27,9
	1 night	144	35,8
	2 nights	117	29,1
	3 nights	22	5,5
	4 nights and more	7	1,7
Tourism purpose	Sightseeing	225	56
	Resort	142	35,3
	Business	26	6,5
	Other	9	2,2
	Total	402	100%

(Source: The authors)

When asked which technologies tourists typically use when traveling, the results showed that out of 402 respondents, 100% of tourists have used "wifi" and "4G", followed by "Google Maps". Additionally, 80% of surveyed tourists used the applications "Canthotourism" and the Smart Tourism Gateway and Smart Travel Application developed by VNPT Corporation: canthotourism.vn and https://mycantho.vn. These applications

employ Web 2.0 technology (displaying information) and integrate some Web 3.0 features (interactive website). A significant number of tourists, accounting for 58.6%, utilized IoT technology at the Sojo Hotel. Tourists also used applications such as "3D/360 City Maps" and "mobile payment". Few tourists were aware of applications specific to destinations such as: "Panorama of Can Tho":

https://sanpham.starglobal3d.com/smart-city-3d/khoa-hoc-cong-nghe-can-tho/; "Digital Heritage Site": Binh Thuy Ancient House, Can Tho City https://smarttravel-vr.mobifone.vn/vr-tour/den-hung-can-tho; "Tourist Destination Con Son": https://smarttravel-vr.mobifone.vn/vr-tour/con-son; "Lung Tram Eco-tourism Area": https://smarttravel-vr.mobifone.vn/vr-tour/khu-du-lich-lung-tram. Only 3 out of 420 tourists were aware of QR codes on street signs to find information about the road.

Every assessment on the Likert scale was between 1 and 5, or "strongly disagree" and "strongly agree." SPSS 27 was used for descriptive analysis, and SmartPLS software version 4.0 was used for PLS-SEM analysis to assess the structural models and measurement (Hair et al., 2019).

Table 2. Measurement Criteria

Element	Encoding	Number of variables	Nguồn trích dẫn
Perceived Smart Tourism Technology Experience Attributes			
Informativeness	Inf	4	(Huang et al., 2017)
Accessibility	A	4	(Huang et al., 2017)
Interactivity	Int	5	(Huang et al., 2017)
Personalization	P	3	(Huang et al., 2017)
Travel Experience			
Confidence Benefits	CB	3	(Bogicevic et al., 2017)
Enjoyment	E	4	(Bogicevic et al., 2017)
Satisfaction	S	4	(Bogicevic et al., 2017)
Intention to revisit	IR	4	Vo-Thanh, T., Tran, T. A. C., & Dang, R. (2018)

(Source: The authors)

RESULTS OF THE STUDY AND DISCUSSION

Measurement Model Validation

IBM SPSS Statistics 20.0 and SmartPLS 4.0 were used in the proposed research model's data analysis. Because the Partial Least Squares (PLS) approach is a good statistical tool for validating exploratory route models with latent variables, even with small sample sizes, it was selected over Covariance-based Structural Equation Modeling (CB-SEM) (Hair et al., 2016). Furthermore, PLS is superior to CB-SEM in that it doesn't always require a normal distribution.

The measurement criteria used to evaluate the study's reliability were Composite Reliability (CR) and Cronbach's Alpha reliability. All of the constructs' Cronbach's Alpha and CR values were greater than 0.70, as seen in Table 3. This suggests that the measuring scales guarantee consistency.

Table 3. Reliability of Measurement Scales

	Number of observed variables	Cronbach's Alpha	rho_a	rho_c	Extracted Average Variance Extracted (AVE)
Inf	4	0,861	0,869	0,905	0,706
A	4	0,757	0,761	0,849	0,587
Int	5	0,925	0,925	0,943	0,769
P	3	0,835	0,838	0,901	0,752
CB	3	0,801	0,804	0,883	0,716
E	4	0,805	0,811	0,885	0,720
S	4	0,694	0,692	0,818	0,537
RI	4	0,770	0,774	0,857	0,604

(Source: The authors)

The extracted Average Variance Extracted (AVE) and the factor loadings of the measurement criteria associated with each concept are examined in order to evaluate the convergence validity. The factor loadings were computed using confirmatory factor analysis. According to Table 3, convergence is guaranteed by the AVE values, which range from 0.537 to 0.769 and are all greater than 0.5 (Giao & Vuong, 2019). By comparing the square root of the AVE for each construct with the correlations between constructs, the Fornell-Larcker criterion is used to assess the discriminant validity of the study (Giao & Vuong, 2019). Table 4 shows that all diagonal elements, which are the square roots of the AVE, satisfy the discriminant validity criteria since they exceed the correlations in the respective row and column.

Table 4. Fornell-Larcker Discriminant Validity Criterion

	A	CB	E	IR	Inf	Int	P	S
A	0,766							
CB	0,363	0,846						
E	0,391	0,529	0,848					
IR	0,451	0,526	0,491	0,777				
Inf	0,466	0,398	0,456	0,438	0,840			
Int	0,597	0,277	0,364	0,564	0,401	0,877		
P	0,443	0,219	0,280	0,421	0,314	0,700	0,867	
S	0,481	0,495	0,501	0,665	0,416	0,495	0,450	0,733

(Source: The authors)

The issue of multicollinearity is considered, following Hair et al. (2016), where Variance Inflation Factor (VIF) values should not exceed 5.

The results indicate that the VIF values of the measurement variables are all smaller than 5, thus, multicollinearity is not present.
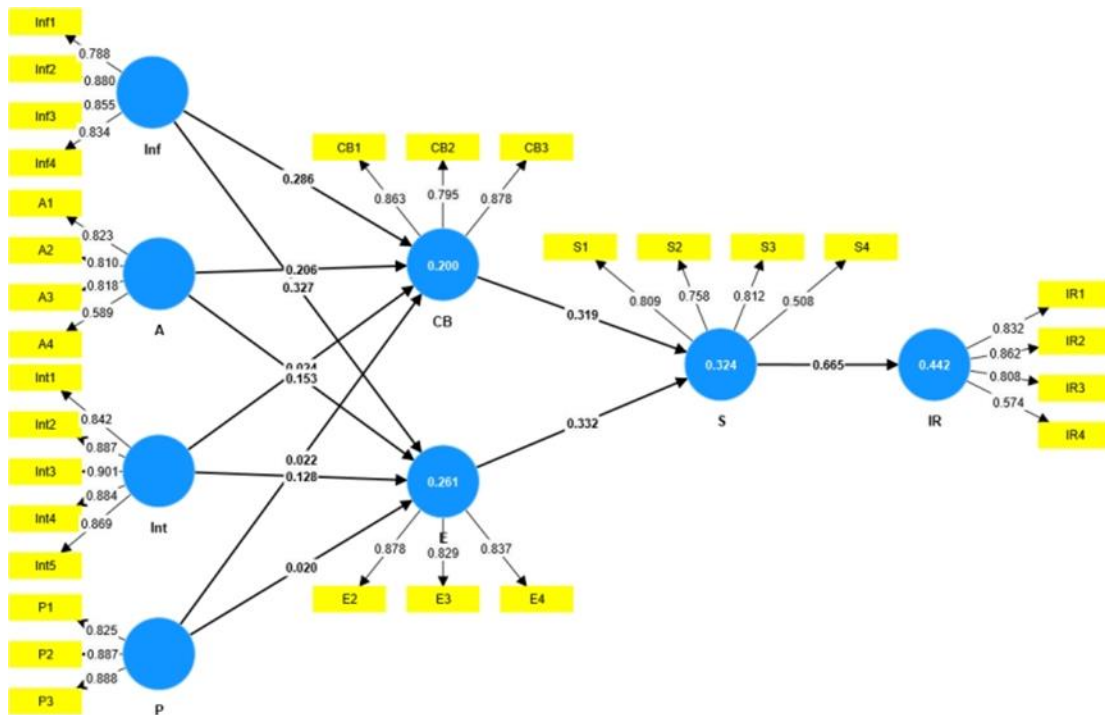

Figure 3. Results of the PLS-SEM Structural Model

(Source: The authors)

To test the hypotheses, the study measured the explained variance (R2) of the dependent and intermediate variables, path coefficients (β), and their significance levels (t-values), obtained from bootstrapping (with 5000

samples) to assess the importance of the assumed relationships. The hypothesis testing results are summarized in Figure 2, Table 5, and Table 6.

Table 5. Total Effects Matrix of the Model

	A	CB	E	IR	Int	P	S
A		0,206	0,153	0,078			0,117
CB				0,212			0,319
E				0,221			0,332
Inf		0,286	0,327	0,133			0,200
Int		0,024	0,128	0,033			0,050
P		0,022	0,020	0,009			0,013
S				0,665			

(Source: The authors)

Table 6. Results of Structural Relationships in the Model

	Regression Coefficients	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Hypothesis Testing Results
A -> CB	0,206	0,079	2,604	0,009	Accept
A -> E	0,153	0,070	2,189	0,029	Accept
Inf -> CB	0,286	0,067	4,298	0,000	Accept
Inf -> E	0,327	0,056	5,810	0,000	Accept
Int -> CB	0,024	0,083	0,290	0,772	Rejected
Int -> E	0,128	0,087	1,466	0,143	Rejected
P -> CB	0,022	0,080	0,268	0,789	Rejected
P -> E	0,020	0,078	0,253	0,801	Rejected
CB -> S	0,319	0,056	5,675	0,000	Accept
E -> S	0,332	0,062	5,342	0,000	Accept
S -> IR	0,665	0,032	21,101	0,000	Accept

(Source: The authors)

Hypothesis H_{1a}: *Perceived attribute of smart technology experience, specifically information richness (H_{1a}), has a positive* influence on tourists' trust benefits. From the results in Table 6, the coefficient $\beta_{Inf-> CB}$ = 0.286; p=0.00<0.05. This indicates a significant direct influence from information richness to trust benefits in tourism at a relatively high level. Therefore, hypothesis H1a is accepted. This result aligns with the studies by Huang et al. (2017).

Hypothesis H_{1b}: *Perceived attribute of smart technology experience, specifically accessibility (H_{1b}) has a positive influence on tourists' trust benefits in tourism.* From the figure 6 result $\beta_{A->CB}$= 0,206; p=0,09<0.05. This means there is a relatively high direct influence from accessibility to trust benefits in tourism for tourists, and it is statistically significant. Therefore, hypothesis H_{1b} is accepted. This result is consistent with the study of Huang et al. (2017).

Hypothesis H_{1c}: *Perceived attribute of smart technology experience, specifically interactivity (H_{1c}) has a positive influence on tourists' trust benefits in tourism.* With the results from Table 6, the relationship between *interactivity and trust benefits in tourism for tourists* is small (coefficient. $\beta_{Int->CB}$= 0,024; p=0,772). Therefore, hypothesis H_{1c} is not accepted. This result differs from the findings of Huang et al. (2017).

Hypothesis H_{1d}: Perceived attribute of smart technology experience, specifically personalization (H_{1d}), has a *positive influence on tourists' trust benefits in tourism.* With the results from Table 6, *the relationship between personalization and trust benefits in tourism for tourists* is small. (coefficient $\beta_{P->CB}$ = 0,022; p=0,789). Therefore, hypothesis H_{1d} is not accepted. This result differs from the findings of Huang et al. (2017).

Hypothesis H_{2a}: *Perceived attribute of smart technology experience, specifically information richness (H_{2a}) Positive influence on tourists' enjoyment of travel.* With the result from table 6, coefficient $\beta_{Inf->E}$= 0,327 p=0,00<0.00. This means there is a relatively high direct influence from *information richness* to *tourists' enjoyment of travel*, and it is statistically significant. Therefore, the hypothesis. H_{2a} is accepted. This result is consistent with the study of Huang et al. (2017).

Hypothesis H_{2b}: *Perceived attribute of smart technology experience, specifically accessibility (H_{2b}) Positive influence on tourists'*

enjoyment of travel. With the result from table 6, coefficient $\beta_{A->E}$ = 0,153; p=0,029<0.05. This means there is a relatively high direct influence from accessibility *to tourists enjoyment of travel*, and it is statistically significant. Therefore, the hypothesis. H_{2b} is accepted. This result is consistent with the study of Huang et al. (2017).

Hypothesis H_{2c}: *Perceived attribute of smart technology experience, specifically interactivity (H₂c) Positive influence on tourists enjoyment of travel*. With the results from Table 6, the relationship between *interactivity and tourists' enjoyment of travel* is small. (coefficient $\beta_{Int->E}$= 0,128; p=0,143). Therefore, the hypotheise H_{2c} is not accepted. This result differs from the findings of Huang et al. (2017).

Hypothesis H_{2d}: *Perceived attribute of smart technology experience, specifically personalization (H₂d) Positive influence on tourists' enjoyment of travel*. With the results from Table 6, the relationship between *personalization and tourists' enjoyment of travel* is small. (coefficient $\beta_{P->E}$ = 0,020; p=0,801). Therefore, hypothesis H_{2d} is not accepted. This result differs from the findings of Huang et al. (2017).

So, the two attributes of the smart tourism technology experience scale perceived as information richness and accessibility have a positive influence on tourists' experience, which is enjoyment and trust benefit when traveling.

Hypothesis H_{3a}: *The trust benefit of tourists when traveling positively influences their satisfaction.* The results in Table 6 show a positive relationship between the factors, meaning that if tourists have trust benefits, they will have better satisfaction. The results are also statistically significant. ($\beta_{CB->S}$ = 0,319; p = 0,000<0,005). Therefore, hypothesis H_{3a} is supported. This result is similar to the findings of Bogicevic et al. (2017).

Hypothesis H_{3b}: *The tourist enjoyment when traveling positively influences their satisfaction.* The results in Table 6 show a positive relationship between the factors, meaning that if tourist fell enjoying, they will have better satisfaction. The results are also statistically significant. ($\beta_{E->S}$ = 0,319; p = 0,000<0,005). Therefore, hypothesis H_{3b} is supported. This result is similar to the findings of Bogicevic et al. (2017).

Hypothesis H_4: Satisfaction has a positive influence on tourists' intention to return. The results in Table 6 show a positive relationship between the factors, meaning that if tourists are satisfied, they will have the intention to return. The results are also statistically significant. ($\beta_{S->IR}$ = 0,665; p = 0,000<0,005). Therefore, hypothesis H_4 is supported. This result is similar to the findings of Vo-Thanh, T., Tran, T. A. C., & Dang, R. (2018)

The results of the proposed research model testing indicate that 7/11 hypotheses are accepted.

Using the blindfolding technique with a step size D = 6 to test the predictive ability of the model. The result of figure 7 show Q^2 The structures predictive ability is high and >0. These results provide clear support for predicting the relationships within the model.

Table 7. Value Q²

	SSO	SSE	Q² (=1-SSE/SSO)
A	258,771	173,676	0,329
CB	180,240	106,331	0,410
E	145,444	90,342	0,379
IR	268,717	178,123	0,337
Inf	216,118	90,971	0,579
Int	316,964	123,796	0,609
P	157,237	89,648	0,430
S	262,156	206,514	0,212

(Source: The authors)

DISCUSSION

There are variations in the findings when compared to the research conducted by Huang et al. (2017). The primary causes of the discrepancy are as follows: (1) the research setting; and (2) the fact that No & Kim (2015) and Huang et al. (2017) just examined the perceived features of smart tourism technology experiences, failing to take into account the relationships that are the focus of this study. Comparing this finding to other earlier

studies conducted at various locations, it is also novel in the context of research on the perceived qualities of smart tourism technology experience and visitors' views or experiences. In particular, when it comes to travel, knowledge richness has a greater positive effect on satisfaction than the benefit of trust. $\beta_{Inf->E} = 0,327 > \beta_{Inf->CB} = 0,286$. Accessibility has a more positive impact on trust benefits than on tourists' enjoyment of travel because. $\beta_{A->CB} = 0,206 > \beta_{A->E} = 0,153$. Meanwhile, $\beta_{Inf->CB} = 0,286 > \beta_{A->CB} = 0,206$ và $\beta_{Inf->E} = 0,327 > \beta_{Inf->CB} = 0,286$ while demonstrating that information richness has a stronger impact on tourists' enjoyment and trust benefits when traveling compared to accessibility. The results of this study confirm the relationship between satisfaction and tourists' intention to return to. $\beta_{S->IR} = 0,665$ is very high.

CONCLUSION & RECOMMENDATION

The research results indicate a correlation between the perceived experience of smart tourism attributes and tourists' travel experiences and intention to return. This suggests that investing in technology at tourist destinations, with a focus on attributes like information richness, accessibility, interactivity, and personalization, can provide tourists with enjoyable experiences and increase their intention to return (No & Kim, 2015; Huang et al., 2017; Bogicevic et al., 2017; Vo-Thanh et al., 2018).

This study does, however, still have a number of shortcomings. First of all, it took place in Can Tho City, a riverfront urban region that is digitally transforming and confronting unique difficulties in the growth of tourism. Second, the study's sample size was modest and arbitrarily selected. As such, it's possible that the findings cannot be applied to Can Tho's larger tourism environment. Furthermore, a variety of technology applications were polled for the study; nevertheless, the characteristics of each technology application may differ, which could affect the survey's findings.

REFERENCES

Bhuiyan, K. H., Jahan, I., Zayed, N. M., Islam, K. M. A., Suyaiya, S., Tkachenko, O., & Nitsenko, V. (2022). Smart tourisecosystem: a new dimension toward sustainable value co-creation. *Sustainability*, *14*(22), 15043.

Bogicevic, V., Bujisic, M., Bilgihan, A., Yang, W., & Cobanoglu, C. (2017). The impact of traveler-focused airport technology on traveler satisfaction. *Technological Forecasting and Social Change*, *123*, 351-361.

Botilias, G. P., Pachoulas, G., Margariti, S. V., Besarat, J., Salmas, D., & Stylios, C. (2022, September). Smart Tourism via Smart Phone–An Enhanced Approach. In *2022 7th South-East Europe Design Automation, Computer Engineering, Computer Networks and Social Media Conference (SEEDA-CECNSM)* (pp. 1-5). IEEE.

Cao, D., Sun, Y., Goh, E., Wang, R., & Kuiavska, K. (2022). Adoption of smart voice assistants technology amonAirbnb guests: a revised self-efficacy-based value adoption model (SVAM). *International Journal of Hospitality Management*, *101*, 103124.

Chi, C. G. Q., & Qu, H. (2008). Examining the structural relationships of destination image, tourist satisfaction and destination loyalty: An integrated approach. *Tourism management*, *29*(4), 624-636.

Chuang, C. M. (2023). The conceptualization of smart tourism service platforms on tourist value co-creation behaviours: an integrative perspective of smart tourism services. *Humanities and Social Sciences Communications*, *10*(1), 1-16.

Chung, N., Han, H., & Joun, Y. (2015). Tourists' intention to visit a destination: The role of augmented reality (AR) application for a heritage site. *Computers in Human Behavior*, *50*, 588-599.

Cohen, E. (1984). The sociology of tourism: approaches, issues, and findings. *Annual review of sociology*, *10*(1), 373-392.

Filimonau, V., Ashton, M., & Stankov, U. (2024). Virtual spaces as the future of consumption in tourism, hospitality and events. *Journal of Tourism Futures*, *10*(1), 110-115.

Flavián, C., & Casaló, L. V. (2021). Artificial intelligence in services: current trends, benefits and challenges. *The Service Industries Journal*, *41*(13-14), 853-859.

Giao, H. N. K. (2018), *Sách chuyên khảo Đo lường chất lượng dịch vụ tại Việt Nam- nhìn từ phía khách hàng*, Hà Nội: Nhà xuất bản Tài chính. ISBN: 978-604-79-1788-4

Giao, H. N. K. (2020), *Gợi ý nâng cao trải nghiệm du khách với du lịch thông minh*. Hội thảo "Giải pháp phát triển hệ thống du lịch thông minh của các tỉnh/thành phố", Khoa Vận tải Hàng không, Học viện Hàng không Việt Nam, Ngày 15/12/2020. DOI: 10.31219/osf.io/uwxar.

Giao, H. N. K., & Sơn, L. T. (2012), "Factors Affecting the Satisfaction of Visitors to Dalat Flower Festival 2012", *Journal of Economic Development, 214*(10), 144-156. DOI: 10.31219/osf.io/p93ye.

Giao, H. N. K., & Vuong, B. N. (2019), *Giáo trình Cao học Phương pháp Nghiên cứu Khoa học trong Kinh doanh- Cập nhật SmartPLS*, Hà Nội: Nhà xuất bản Tài chính. ISBN: 978-604-79-2154-6

Giao, H. N. K., Đồng, Đ. Q., & Anh, H. D. T. (2021a), *Giáo trình Quản trị Cơ sở lưu trú du lịch*. Hà Nội: Nhà xuất bản Tài chính, ISBN: 978-604-79-2797-5

Giao, H. N. K., Hằng, T. D., Phúc, N. P. H., Tuấn, H. Q., Hồng, H. K., Ngân, N. T. K. (2022), *Giáo trình Marketing Du lịch*, Hà Nội: Nhà Xuất bản Thông tin và Truyền thông. ISBN: 978-604-80-6800-4.

Giao, H. N. K., Sơn, L. T., & Tuấn, H. Q. (2021b), *Giáo trình Quản trị Chiến lược trong Tổ chức du lịch*, Hà Nội: Nhà xuất bản Tài chính. ISBN: 978-6040-79-2798-2.

Giao, H. N. K., Vuong, B. N., Phuong, N. N. D., & Dat, N. T. (2021c), "A model of factors affecting domestic tourist satisfaction on eco-tourism service quality in the Mekong Delta, Vietnam", *GeoJournal of Tourism and Geosites, 36*(2), 663–671. DOI: https://doi.org/10.30892/gtg.362spl14-696

González-Rodríguez, M. R., Díaz-Fernández, M. C., & Pino-Mejías, M. Á. (2020). The impact of virtual reality technology on tourists' experience: a textual data analysis. *Soft Computing, 24*(18), 13879-13892.Gretzel, U., Reino, S., Kopera, S., & Koo, C. (2015). Smart tourism challenges. *Journal of Tourism, 16*(1), 41-47.

Gwinner, K. P., Gremler, D. D., & Bitner, M. J. (1998). Relational benefits in services industries: the customer's perspective. *Journal of the academy of marketing science, 26*, 101-114.

Hassan, M., Waheed, M. M., & Anjum, M. N. (2016). Dose of radiation enhancement, using silver nanoparticles in a human tissue equivalent gel dosimeter. *JPMA. The Journal of the Pakistan Medical Association, 66*(1), 45-48.

Hew, J. J., Leong, L. Y., Tan, G. W. H., Lee, V. H., & Ooi, K. B. (2018). Mobile social tourism shopping: A dual-stage analysis of a multi-mediation model. *Tourism Management, 66*, 121-139.

Hong, M., & Jung, J. J. (2021). Multi-criteria tensor model consolidating spatial and temporal information for tourism recommendation. *Journal of Ambient Intelligence and Smart Environments, 13*(1), 5-19.

Huang, C. D., Goo, J., Nam, K., & Yoo, C. W. (2017). Smart tourism technologies in travel planning: The role of exploration and exploitation. *Information & Management, 54*(6), 757-770.

Ivanov, S., & Webster, C. (2020). Robots in tourism: A research agenda for tourism economics. *Tourism Economics, 26*(7)1065-1085.

Kai-Ineman, D. A. N. I. E. L., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica, 47*(2), 363-391.

Kim, J. J., & Han, H. (2020). Hotel of the future: exploring the attributes of a smart hotel adopting a mixed-methoapproach. *Journal of Travel & Tourism Marketing, 37*(7), 804-822.

Kladou, S., Giannopoulos, A. A., & Mavragani, E. (2015). Destination brand equity research from 2001 to 2012. *TouriAnalysis, 20*(2), 189-200.

Koo, C., Shin, S., Gretzel, U., Hunter, W. C., & Chung, N. (2016). Conceptualization of smart tourism destination competitiveness. *Asia pacific journal of information systems, 26*(4), 561-576.

Koufaris, M. (2002). Applying the technology acceptance model and flow theory to online consumer behavior. *Information systems research, 13*(2), 205-223.

Lai, I. K. (2015). Traveler acceptance of an app-based mobile tour guide. *Journal of Hospitality & Tourism Research, 39*(3), 401-432.

Lee, H., Lee, J., Chung, N., & Koo, C. (2018). Tourists' happiness: are there smart tourism technology effects?. *Asia Pacific Journal of Tourism Research, 23*(5), 486-501.

Liberato, P. M., Alén-González, E., & de Azevedo Liberato, D. F. V. (2018). Digital technology in a smart tourist destination: the case of Porto. *Journal of Urban Technology, 25*(1), 75-97.

Mehrabian, A., & Russell, J. A. (1974). A verbal measure of information rate for studies in environmental psychology. *Environment and Behavior, 6*(2), 233.

Neuhofer, B., & Buhalis, D. (2021). Experience design in the smart tourism destination. In *Routledge Handbook of the Tourist Experience* (pp. 616-629). Routledge.

Neuhofer, B., Buhalis, D., & Ladkin, A. (2015). Smart technologies for personalized experiences: a case study in the hospitality domain. *Electronic Markets, 25*, 243-254.

No, E., & Kim, J. K. (2015). Comparing the attributes of online tourism information sources. *Computers in human behavior, 50*, 564-575.

Pai, C. K., Liu, Y., Kang, S., & Dai, A. (2020). The role of perceived smart tourism technology experience for tourist satisfaction, happiness and revisit intention. *Sustainability, 12*(16), 6592.

Parbo, J., Nielsen, O. A., & Prato, C. G. (2016). Passenger perspectives in railway timetabling: a literature review. *Transport Reviews, 36*(4), 500-526.

Pencarelli, T. (2020). The digital revolution in the travel and tourism industry. *Information Technology & Tourism, 22*(3), 455476.

Pine, B. J., & Gilmore, J. H. (2013). The experience economy: past, present and future. *Handbook on the experience economy*, 21-44.

Pradhan, M. K., Oh, J., & Lee, H. (2018). Understanding travelers' behavior for sustainable smart tourism: A technology readiness perspective. *Sustainability, 10*(11), 4259.

Prayag, G., & Ryan, C. (2011). The relationship between the 'push'and 'pull'factors of a tourist destination: The role of nationality–an analytical qualitative research approach. *Current issues in tourism, 14*(2), 121-143.

Prihastomo, Y., Goestjahjanti, F. S., Kumoro, D. F. C., Subekhi, I., Chaeroni, N., Hermawan, A. B., & Abadiyah, S. (2022, August). Gamification for E-Tourism Based on Virtual Reality Study on Indonesia Tourism. In *2022 International Conference on ICT for Smart Society (ICISS)* (pp. 01-05). IEEE.

Puspitasari, L., In'am, A., & Syaifuddin, M. (2018). Analysis of students' creative thinking in solving arithmetic problems. *International Electronic Journal of Mathematics Education*, *14*(1), 49-60.

Rahmadian, E., Feitosa, D., & Virantina, Y. (2023). Digital twins, big data governance, and sustainable tourism. *Ethics and Information Technology*, *25*(4), 61.

Shahijan, M. K., Rezaei, S., & Amin, M. (2018). Qualities of effective cruise marketing strategy: Cruisers' experience, service convenience, values, satisfaction and revisit intention. *International Journal of Quality & Reliability Management*, *35*(10), 2304-2327.

Shin, H. H., Kim, J., & Jeong, M. (2023). Memorable tourism experience at smart tourism destinations: Do travelers' residential tourism clusters matter?. *Tourism Management Perspectives*, *46*, 101103.

Som, A. P. M., & Badarneh, M. B. (2011). Tourist satisfaction and repeat visitation; toward a new comprehensive model. *International Journal of Human and Social Sciences*, *6*(1), 1106-1111.

Volo, S. (2010). Bloggers' reported tourist experiences: Their utility as a tourism data source and their effect on prospective tourists. *Journal of Vacation marketing*, *16*(4), 297-311.

Vo-Thanh, T., Tran, T. A. C., & Dang, R. (2018). Satisfaction as a bridge to loyalty in a tourist destination. *Tourism Analysis*, *23*(1), 45–60. https://doi.org/10.3727/108354218X15143857349486

Wang, C., Harris, J., & Patterson, P. (2013). The roles of habit, self-efficacy, and satisfaction in driving continued use of self-service technologies: A longitudinal study. *Journal of Service Research*, *16*(3), 400-414.

Wang, X., Li, X. R., Zhen, F., & Zhang, J. (2016). How smart is your tourist attraction?: Measuring tourist preferences of smart tourism attractions via a FCEM-AHP and IPA approach. *Tourism management*, *54*, 309-320.

Wong, J. W. C., Lai, I. K. W., & Tao, Z. (2020). Sharing memorable tourism experiences on mobile social media and how it influences further travel decisions. *Current Issues in Tourism*, *23*(14), 1773-1787.