ผลกระทบของเทคโนโลยีอัจฉริยะทางการท่องเที่ยวต่อความพึงพอใจของนักท่องเที่ยวในการท่องเที่ยวพิพิธภัณฑ์ในประเทศไทย กรณีศึกษาพิพิธภัณฑสถานแห่งชาติพระนคร

ภัทรมุข พงษธา* จิตสุภา เมืองแมน** ทิพย์กนก เวียงคำ* เกิดศิริ เจริญวิศาล***

บทคัดย่อ

การวิจัยนี้มีวัตถุประสงค์เพื่อ 1) ศึกษาความสัมพันธ์ระหว่างเทคโนโลยีอัจฉริยะและความพึงพอใจของนักท่องเที่ยวรุ่นเยาว์ต่อการท่องเที่ยวพิพิธภัณฑ์ในไทย กรณีศึกษาพิพิธภัณฑสถานแห่งชาติพระนคร และ 2) ศึกษาผลกระทบของเทคโนโลยีอัจฉริยะต่อความพึงพอใจของนักท่องเที่ยวรุ่นเยาว์ต่อการท่องเที่ยวพิพิธภัณฑ์ในประเทศไทย: กรณีศึกษาพิพิธภัณฑสถานแห่งชาติพระนคร โดยกรอบแนวคิดในงานวิจัยนี้ได้แสดงถึงความสัมพันธ์ระหว่างตัวแปรต้น คือ เทคโนโลยีอัจฉริยะทางการท่องเที่ยวซึ่งประกอบไปด้วย 4 มิติ ได้แก่ การให้ข้อมูล การโต้ตอบสื่อสาร การเข้าถึง และความเฉาะเจาะจง และตัวแปรตัวตาม คือ ความพึงพอใจของนักท่องเที่ยรุ่นเยาว์ต่อการท่องเที่ยวพิพิธภัณฑ์ในประเทศไทย งานวิจัยนี้ใช้แบบสอบถามเป็นเครื่องมือในการวิจัย โดยเก็บรวบรวมข้อมูลกับผู้มาเยือนพิพิธภัณฑสถานแห่งชาติพระนคร จำนวน 400 ตัวอย่างด้วยการสุ่มตัวอย่างตามความสะดวก การวิเคราะห์ข้อมูลใช้การวิเคราะห์สหสัมพันธ์และการวิเคราะห์การถดถอยพหุคูณ โดยผลของการวิจัยแสดงให้เห็นถึงความสัมพันธ์ระหว่างเทคโนโลยีอัจฉริยะและความพึงพอใจของนักท่องเที่ยว นอกจากนั้น ผลของงานวิจัยแสดงให้เห็นว่า การให้ข้อมูล การเข้าถึง และความเฉาะเจาะจงเป็นองค์ประกอบที่ส่งผลกระทบต่อความพึงพอใจของนักท่องเที่ยว ในขณะที่การโต้ตอบสื่อสารไม่ส่งผลกระทบต่อความพึงพอใจของนักท่องเที่ยวในพิพิธภัณฑ์ การวิจัยนี้มีประโยชน์ต่อพิพิธภัณฑ์และองค์กรการท่องเที่ยวอื่น ๆ ที่เกี่ยวข้องในการจัดการเทคโนโลยีอัจฉริยะได้อย่างมีประสิทธิภาพมากขึ้น

คำสำคัญ: เทคโนโลยีอัจฉริยะทางการท่องเที่ยวในพิพิธภัณฑ์, การท่องเที่ยวพิพิธภัณฑ์, ความพึงพอใจของนักท่องเที่ยว, พิพิธภัณฑสถานแห่งชาติพระนคร

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* อาจารย์ คณะศิลปศาสตร์ มหาวิทยาลัยเทคโนโลยีราชมงคลพระนคร

** อาจารย์ คณะวิทยาการจัดการ มหาวิทยาลัยราชภัฏภูเก็ต

***ผู้ช่วยศาสตราจารย์ คณะวิทยาการจัดการ มหาวิทยาลัยศิลปากร

Corresponding author, email: pattaramook.p@rmutp.acth, Tel. 086-386-3519

An Impact of Smart Tourism Technology on Young Travelers' Satisfaction Towards Museum Tourism in Thailand: A Case Study of National Museum Bangkok

Pattaramook Pongsata* Jitsupa Maungman** Tipkanok Wiangkham* Kerdsiri Jaroenwisan***

Abstract

This research aimed to 1) identify the relationship between smart technology and young travelers' satisfaction with museum tourism in Thailand; and 2) study the effects of smart technology on young travelers' satisfaction with museum tourism in Thailand: a case study of National Museum Bangkok. A conceptual model was used to find an association among dependent and independent variables, namely, smart tourism technology and young travelers' satisfaction. The conceptual model proposes that 4 characteristics of smart tourism technology, namely, informativeness, interactivity, accessibility, and personalization, have a significant impact on young travelers' satisfaction with museum tourism in Thailand. The survey questionnaires, using convenient sampling, were distributed to a target sample of 400 young travelers aged 14 to 25 who visited a National Museum Bangkok in Thailand within a year. The quantitative analysis of the questionnaire was conducted through Pearson correlations and multiple regression analysis. The results revealed a positive relationship between smart technology and young travelers' satisfaction. Furthermore, it was determined that informativeness, accessibility, and personalization were the key elements that influenced young travelers' satisfaction with museum tourism, while interactivity was not. This research will be useful for museums and other related tourism organizations to manage smart technology more effectively.

Keywords: Smart Tourism Technology, Museum Tourism, Traveler Satisfaction, National Museum Bangkok.

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* Lecturer at Faculty of Liberal Arts, Rajamangala University of Technology Phra Nakhon

** Lecturer at Faculty of Management Sciences, Phuket Rajabhat University

*** Assistant Professor at Faculty of Management Sciences, Silpakorn University

Corresponding author, email: pattaramook.p@rmutp.acth, Tel. 086-386-3519

Statement and Significance of the Problems

According to the development of information and communication technology (ICT), the 21st century has entered the era of the internet, when smart tourism technology (STT) was first used (Pai, Kang, Liu, & Zheng, 2021). The term "smart tourism technology" refers to the application of information and communication technology that delivers real-time support for all stakeholders in the tourism destination (Um & Chung, 2021). includes cloud systems, big data analysis, artificial intelligence (AI), wearable devices and smartphones, mobile-connected devices, virtual reality (VR), augmented reality (AR), and social networking sites (Jeong & Shin, 2020). STT have become necessary tools for industrial growth. So, many tourism organizations have started using STT to enhance the management effectiveness and efficiency of tourism resources, to enhance the quality of life for both locals and visitors, and to encourage the sustainable growth and optimal usage of tourism resources (Zhang, Sotiriadis, & Shen, 2022). Furthermore, STT can be used to collect data from tourists and generate added value based on it (Yuan, Tseng, & Ho, 2019). STT can also be used as marketing tools to create the organization's competitive advantage and increase revenue and reputation for tourist destinations (Pai, Liu, Kang, & Dai, 2020).

Museums, the biggest and fastest-growing segments of the global tourism industry, also increasingly use STT in their operations (Richter, Sinkovics, Ringle, & Schlägel, 2016) because they provide numerous benefits, especially during the COVID-19 pandemic, when every nation and region was affected by the mobility and nation closure policies that caused pressure for museum operations (Richter et al., 2016). STT have enabled museums to remove physical barriers for tourists (Buhalis, 2019). For instance, museums use more emerging technologies, such as virtual reality (VR), augmented reality (AR), and mixed reality (MR), digital exhibitions, online websites, and applications, to overcome the limitations of physical presence (Trunfio, Campana, & Magnelli, 2020). Museums all across the world have tried to stay in touch with their visitors by using all those smart devices. As a result, they have launched numerous projects online and through social media (UNESCO, 2020).

Moreover, museums offer innovative services through both on-site and online platforms to enrich their visitor experiences, which are significant phenomena in the tourism industry these days (Jeong & Shin, 2020; Palumbo, 2022). Literally, it is stated that STT have a bigger impact on visitor experiences and satisfaction than traditional offers, such as museum settings with substantive amenities and staff service (Yang & Zhang, 2022). Therefore, museums are more likely to satisfy visitors by providing them with experiences using smart technologies such as portable devices, personalized guides, animations, virtual reality, films, projections, and chat bots (Trunfio et al., 2020). Also, big data analysis is used to strengthen visitor connections (Pesce, Neirotti, & Paolucci, 2019).

Thailand's National Museum Bangkok (Phranakorn) is an excellent example of a typical tourism institution that digitally transformed itself from a traditional museum to a more sophisticated one. In terms of onsite service, a sophisticated environment with smart technologies, including QR codes, digital exhibitions, offline VR experiences, and wearable devices, can increase your level of satisfaction. For online service, visitors can seek information and travel to the National Museum Bangkok using virtual Model 360, a smart museum application developed by the Fine Art Department, and the FADiscovery application, which provides a new learning experience as well as enhances the enjoyable experience of viewing historic sites that visitors can access from their smartphones (Thai Post, 2023).

All of the smart devices offered by museums mentioned earlier, especially in National Museum Bangkok, contribute to a better visitor's experience and make museums even more appealing in terms of education, entertainment, and expectations (Um & Yoon, 2021), especially for a Generation Z traveler who was born into technology and raised in a digital world. Gen Z is a young traveler who is a fast learner, a good developer, and intertwined with technology. They are quickly adapted to the new knowledge and are willing to adopt technological innovations (Ozdemir-Guzel & Bas, 2021). They are digital natives who use technology at every step of their daily activities. This generation, which prefers to use smart gadgets and applications in all of their activities, is a key target segment for the tourism industry (Ozdemir-Guzel & Bas, 2021). Therefore, Generation Z is considered one of the most interesting

generations in terms of the future of tourism due to the characteristics it presents, and many researchers have been attracted by them in the field of tourism on topics such as their needs and their behavior as tourists (Possamai, 2022). However, there are still some debates about using smart tourism technologies in museums' services (Kim Lian Chan, 2009). While smart tourism technologies are devices to improve travelers' experiences resulting in traveler satisfaction, many museum experts are concerned that using smart tourism technologies for an experiential approach is paradoxical to the museum's educational function (Komarac, Ozretic-Dosen, & Skare, 2017). Also, it is said that not all tourists are willing to accept smart services offered by museums, even for the young generation (Komarac et al., 2017).

Academically, it found that research on smart tourism destinations has been limited, especially the studies that have investigated the impact of smart tourism technologies on tourist satisfaction and other outcomes (Palumbo, 2022). Additionally, although academics and participants have noticed the impact of smart tourism on tourism satisfaction, there is still a lack of acknowledged investigation (Wang, Li, Zhen, & Zhang, 2016). According to most of the literature, most of the work related to smart tourism technology is mostly done in large tourist cities or countries that are recognized as world smart cities, such as the United States (Jeong & Shin, 2020), South Korea (Um & Yoon, 2021), China (Zhang et al., 2022), France, Spain, and the United Kingdom (Kim Lian Chan, 2009). However, no research on smart tourism technology has been conducted in Thailand, particularly in the context of museums. Hence, in order to fill both industrial and academic gaps, the following objectives were identified: (1) identify the relationship between smart technology and young travelers' satisfaction with museum tourism in Thailand; and (2) study the effects of smart technology on young travelers' satisfaction with museum tourism in Thailand. By answering these research objectives, this study intends to provide museums and other related organizations with useful suggestions for the future development of destination and degitization.

Research Objectives

1) To identify the relationship between smart technology and young travelers' satisfaction with museum tourism in Thailand, a case study of Bangkok national museum

2) To study the effects of smart technology on young travelers' satisfaction with museum tourism in Thailand, a case study of Bangkok national museum

Research Framework and Hypotheses

To assess the efficiency of smart tourism technology in tourism destinations, scholars classified STT into 4 distinct attributes: informativeness, accessibility, interactivity, and personalization. These four attributes are classified, which can improve the usability and perceived utility of smart tourism and can be implemented in smart technology at the destination. To start with, Pai et al. (2021) investigated whether tourists were satisfied with their smart tourism technology experience by using informativeness, accessibility, interactivity, and personalization as smart technology attributes. The result revealed that accessibility, informativeness, and accessibility are all significant contributors to the perceived STT experience, whereas tourists expressed relatively low satisfaction with personalization in the context of their overall STT experience. The study by Aziz, Chan, & Aprilia (2020) investigated the role of STT and perceived valued destination on tourists' happiness, mediated by tourism experience satisfaction. It has been demonstrated that the higher the level of smart tourism technology, measured by the informativeness, accessibility, interaction, and personalization provided at a tourist site, the better the tourists' satisfaction with their trip experience. Kim, Choi, & Koo (2022). studied the effect of smart behavior and found that interactive information accessibility and personalization indirectly influence experience satisfaction by way of transaction satisfaction. Huang, Goo, Nam, & Yoo, (2017). also use four attributes: interactivity, informativeness, accessibility, and personality to define the meaning of smart tourism technology as well. Therefore, this research selects the attributes of smart tourism technology based on prior research, including informativeness, accessibility, interactivity, and personalization.

Previous research has indicated that smart tourism technology's attributes influence tourist satisfaction, and there is a significant positive relationship between informativeness, accessibility, interactivity, and personalization with tourists'

perceptions of the destination, such as traveler satisfaction. To start with, Um & Chung (2021) conducted research on smart tourism technology in Seoul, Busan, and Jeju, South Korea, and discovered that all four attributes of smart tourism technology have a positive effect on smart tourist satisfaction in all three cities. Similarly, Aziz et al. (2020) examined the role of smart tourism technology and tourism experience satisfaction. It revealed smart tourism technology influenced tourism experience satisfaction. Yoo, Goo, Huang, Nam, & Woo (2017) investigated the impact of the important STT characteristics on travel decision support satisfaction. It found that informativeness, interactivity, and accessibility have a positive effect on travel decision support satisfaction. Orden-Mejia & Huertas (2022) investigated the characteristics of chatbots' smart tourism technologies (STT) and their effect on tourist satisfaction. It was discovered that the informativeness and interactivity of destination chatbots influence and predict tourist satisfaction, although accessibility did not.

Based on the relationships addressed in previous studies, this study proposes the following hypotheses:

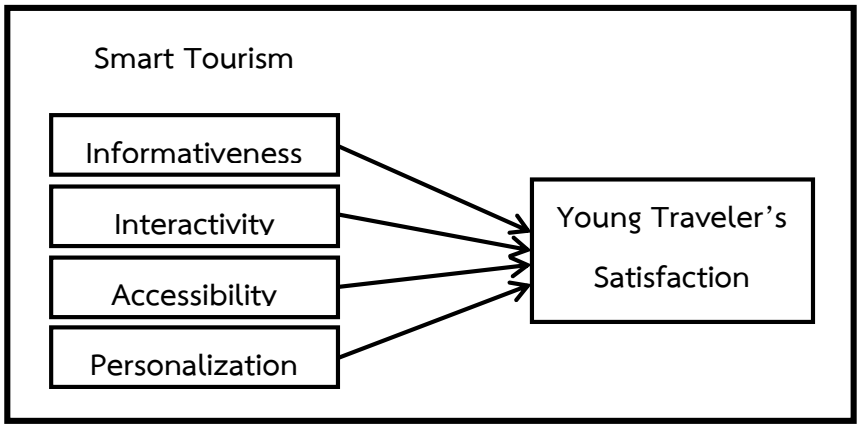

Figure I: Conceptual Model with Hypotheses

H1: Informativeness has positive impacts on young travelers' satisfaction with museum tourism in Thailand: a case study of National Museum Bangkok.

H2: Interactivity has positive impacts on young travelers' satisfaction with museum tourism in Thailand: a case study of National Museum Bangkok.

H3: Accessibility has positive impacts on young travelers' satisfaction with museum tourism in Thailand: a case study of National Museum Bangkok.

H4: Personalization has positive impacts on young travelers' satisfaction with museum tourism in Thailand: a case study of National Museum Bangkok.

Research Methodology

1) Sampling and Data Collection

The National Museum Bangkok, Thailand, was chosen as a research site for this study because it was part of a major museum's attempt to make Thailand's historic collections available both on-site and online. Travelers can enjoy a variety of STT at this museum, including QR codes, digital exhibitions, online VR tours, offline VR experiences, and AR exhibitions.

The population of this study was a Thai Generation Z traveler (young travelers) aged 14 to 25 (Feitosa & Barbosa, 2020), who visited a National Museum Bangkok, Thailand, and experienced using STT there within a year. The sampling technique used was non-probability sampling with a convenient sampling type. The sample size was more than 385 based on Cochran (1977), with a confidence level of 95% (α = 0.05). The survey was conducted from February to March 2023. Finally, 413 questionnaires were collected. After excluding invalid questionnaires, 400 valid questionnaires remained.

On-site data collection was accomplished through the use of a questionnaire. One trained interviewer waited outside the museum's exit, requesting visitors who had finished the tour and utilized the STT service to answer questions by scanning a QR code linked to a Google Form questionnaire.

2) Measurement Items

The questionnaires were separated into two parts, with the first using a five-point Likert scale to assess STT and traveler satisfaction. The second part collected respondents' demographic information, such as gender, age, education, and income.

This research adopted measurement scales from previous research related to smart tourism technology and travel satisfaction and modified them for this study. This research reconstructed STT attributes, including informativeness, accessibility, interactivity, and personalization. The three items related to informativeness were adapted from Huang et al. (2017) The three items related to interactivity were adapted from No & Kim (2015). The three items related to accessibility were adapted from Jeong & Shin (2020). The three items related to personalization were adapted by Jeong & Shin (2020). For the construct of young traveler satisfaction, three items were adapted from No & Kim (2015). and Lee, Lee, Chung & Koo (2018).

In order to test the validity of the questionnaire, a pilot test was conducted. The questionnaire was sent to all three experts who were eligible for content evaluation. The Index of Item Objective Congruence (IOC) was used to evaluate the content accuracy of the questionnaire. The results showed that every question in the questionnaire had a congruence index ranging from 0.5 to 1, which was greater than the required 0.50, indicating that the questionnaire used for data collection had passed comprehensive quality checks to assure its accuracy. Then, a pre-test was conducted with 30 respondents to resolve any ambiguity associated with wording or measurement. Cronbach's alpha was used to evaluate measuring scale reliability. In this investigation, factors with Cronbach's alpha coefficients larger than 0.7 will be retained (Cronbach, 1990). According to the statistics, the value of each item ranged between 0.718 and 0.931, and the aggregate Cronbach's alpha coefficient for all variables was 0.951, which was greater than 0.7. As a result, the questionnaire was rated as highly reliable.

3) Data Analysis

The analysis was separated into three parts. First, descriptive statistics were used to analyze respondents' demographic information. 2) Pearson correlations and 3) A multiple regression test was implemented to test research hypotheses.

Research Findings

Descriptive analysis

Regarding the demographic profile of the young travelers, it is observed that 50% of them were enrolled as students, 72.50% were identified as females, and around 49.8% reported monthly incomes below THB10,000.

Table I: Means and standard deviations of variables

Variables	Mean	Std. Deviation
Smart tourism technology (STT)	**4.349**	**0.589**
- Informativeness (SI)	4.566	0.497
- Interactivity (SR)	4.200	0.803
- Accessibility (SA)	4.266	0.710
- Personalization (SP)	4.364	0.673
Young travelers' satisfaction (TSAT)	**4.513**	**0.561**

According to the data presented in Table I, the total mean of smart tourism technology was 4.349 (SD = 0.589). In terms of dimensions, informativeness was the most important (mean = 4.566; SD = 0.497), followed by personalization (mean = 4.364; SD = 0.673), accessibility (mean =4.266; SD = 0.710), and interactivity (mean = 4.200; SD = 0.803). For the dependent variable, the total mean of young travelers' satisfaction was 4.513 (SD = 0.561).

Pearson's correlation analysis

The relationships between the dependent variable, young travelers' satisfaction, and the independent variables, informativeness, interactivity, accessibility, and personalization, were examined using a Pearson correlation analysis.

Table II: Pearson's correlation analysis of variables

Variable	SI	SR	SA	SP	TSAT
Informativeness (SI)	1.000				
Interactivity (SR)	0.613**	1.000			
Accessibility (SA)	0.576**	0.751**	1.000		
Personalization (SP)	0.564**	0.765**	0.791**	1.000	
Travelers' satisfaction (TSAT)	0.552**	0.576**	0.595**	0.618**	1.000**

**** Correlation is significant at the 0.01 level (2-tailed).**

It can be seen in Table II that "informativeness" (SI) (r = 0.552, p.01), "interactivity" (r = 0.576, <p.01), "accessibility" (r = 0.595, p.01), "personalization" (r = 0.618, p.01), and young travelers' satisfaction were all strongly positively related.

Multiple Regression Analysis

To analyze the impact of STT on young travelers' satisfaction, multiple regression analysis was executed with four independence variables: informativeness, interactivity, accessibility, and personalization. The results are presented in Table III

Table III: Multiple regression analysis of STT on young travelers' satisfaction

Dependent variable: young travelers' satisfaction					Collinearity statistics	
Independent variables	b	β	t-value	Sig.(p)	Tolerance	VIF
Constant	1.414		7.090	0.000**		
Informativeness (SI)	0.276	0.244	5.054	0.000**	0.589	1.697
Interactivity (SR)	0.059	0.085	1.319	0.188	0.331	3.023
Accessibility (SA)	0.131	0.166	2.517	0.012*	0.316	3.164
Personalization (SP)	0.237	0.284	4.230	0.000**	0.305	3.276

R = 0.676; R^2 = 0.457; Adj R2 = 0.452; Durbin-Watson = 2.027; F = 83.264; p = 0.000**

***p<0.05 **p<0.01**

According to Table III, 3 factors of STT seemed to influence young travelers' satisfaction, which represented 45.2% of the variation (Adj R2 = 0.452). The F-test was significant ($p < 0.05$), which indicated a real relationship between significant predictors and young travelers' satisfaction. Tolerance values greater than 0.1 and the variance inflation factor (VIF) below 10 indicated that there was no multicollinearity between the independent variables (Hair, Black, Babin, & Anderson, 2010). Furthermore, the Durbin-Watson statistic reached a value of 2.001, which was close to 2, so it could be assumed that there was no self-correlation in the errors. When comparing the absolute values of the standardized regression coefficient (beta coefficient), it was found that the personalization factor was the most significant predictor of young travelers' satisfaction ($\beta = 0.284$, $p < 0.01$), followed by the informativeness factor ($\beta = 0.244$, $p < 0.01$) and accessibility ($\beta = 0.166$, $p < 0.05$), while the interactivity factor was not a significant predictor.

Table IV: Summary of hypotheses testing

Hypotheses	Relationship	Direction	Results
H1	SI → TSAT	Positive	Supported
H2	SR → TSAT	-	Unsupported
H3	SA → TSAT	Positive	Supported
H4	SP → TSAT	Positive	Supported

Therefore, based on the findings of the hypotheses testing presented in Table IV, it may be concluded that H1, H3, and H4 are supported, whereas H2 is unsupported. The multiple linear regression model is illustrated with the following equation:

$$\hat{y} = 1.414 + 0.276\,(SI) + 0.237\,(SP) + 0.131\,(SA)$$

From the equation, it can be explained that a one percent increase in informativeness, personalization, and accessibility will lead to a 0.276, 0.237, and 0.131 percent increase in young travelers' satisfaction, respectively.

Discussion

According to Pearson's correlation analysis results, there is a significant and positive correlation between travelers' satisfaction and STT in all dimensions. These findings are consistent with earlier research (Um & Chung, 2021; Goo, Huang, Yoo &

Koo, 2022). Additionally, multiple regression analyses revealed that the three attributes of STT have a significant impact on the level of satisfaction among young Thai museum tourists. In descending order of importance, these attributes are as follows: Personalization, informativeness, and accessibility are the three most important factors to consider in this context.

Personalization has a positive impact on young travelers' satisfaction with museum tourism in Thailand: a case study of National Museum Bangkok. According to the findings, personalization, which refers to young visitors' ability to acquire specialized or appropriate information in the museum to fulfill their individual needs, contributes to their satisfaction. This is consistent with the findings of No & Kim (2015), who studied online tourism information and discovered that personalized offerings meet the demands of travelers and increase their satisfaction with smart tourism destinations.

Informativeness has a positive impact on young travelers' satisfaction with museum tourism in Thailand: a case study of National Museum Bangkok. The study found that the informativeness of STT, which was defined as the ability to provide reliable, valuable, and up-to-date data while using a smart technology system in a museum, increased the satisfaction of young travelers. In the same way, Yoo et al. (2017) reached a similar conclusion in their study of South Korean tourists' decisions, finding that the quality of the information has a positive influence on tourists' satisfaction. In addition, this is comparable to the results of Orden-Mejia & Huertas (2022) in their study of the attributes of chatbots applied to STT and their impact on travelers' experiences. It proved that the informativeness of destination chatbots affects and predicts the satisfaction of tourists.

Accessibility has a positive impact on young travelers' satisfaction with museum tourism in Thailand: a case study of National Museum Bangkok. According to the results, young tourists are more satisfied when they can easily access and utilize the information provided at the museum through the use of various forms of STT. Yoo et al. (2017) reached a similar conclusion in their research on South Korean visitors' decisions, namely, that ease of accessibility has a positive effect on tourists' satisfaction.

Interactivity has no impact on young travelers' satisfaction with museum tourism in Thailand: a case study of National Museum Bangkok. Although the

research findings suggest that the personalization, informativeness, and accessibility of STT at the museum have a significant positive impact on the satisfaction of young travelers, interactivity, defined as communication and interaction between stakeholders while exploring a museum, has no effect on the satisfaction of young tourists, so hypothesis (H2) was rejected. This is in contrast to the studies of Yoo et al. (2017) and Orden-Mejia & Huertas (2022). On the other hand, it lends support to the results from Ng, Wong, Xie, & Zhu, (2023), who investigated tourists' perceptions of STT in Macau and found that interaction has no significant effect on satisfaction. This phenomenon may be associated with the unique characteristics of young travelers, who prefer personalization over interpersonal interaction.

Conclusion and Recommendations

To summarize, the research found a significant beneficial effect of STT attributes, which are informativeness, accessibility, and personalization, on young visitors' satisfaction with museums in Thailand. It can be stated that museums are more likely to satisfy visitors by offering them experiences through the use of smart technologies, particularly among young museum visitors who grew up with technology, including the necessity of learning in new ways. As a result, the development of STT for museums in Thailand should take this into consideration in order to encourage and create unforgettable experiences. Personalization, or the ability of young visitors to obtain specialized or relevant information at the museum to meet their individual demands, comes first. Furthermore, informativeness must be considered, such as giving reliable, valuable, and up-to-date data while utilizing a smart technology system, as well as the accessibility of STT, which must be easy to access and use. This will be useful for museums and other related tourism organizations to manage smart technology more effectively and successfully.

Future Research Directions

In terms of future research, because this study was a study of specific samples in the opinion of young tourists who visited the National Museum Bangkok, Thailand, the following study should be explored further: 1) Studying a broader range of sample groups, such as museum curators and museum stakeholders, which would result in more comprehensive perspectives; 2) Studying a broader range of areas by focusing on

analyzing and comparing each type of museum, which may have different contexts and features; and 3) Including more relevant variables in the study, such as studying the variables of antecedents and consequences of STT.

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