

# Exploring the Impact of XR Applications on Tourist Experience and Continued Use Intentions at the Zigong Lantern Festival, China

Lan Jiming\*

Received: October 09, 2024. Revised: January 31, 2025. Accepted: February 22, 2025

## Abstract

**Purpose:** This research explores the primary factors influencing tourists' intention to continue using XR applications at the Zigong Lantern Festival in China. **Research design, data, and methodology:** The research examines seven latent variables: Perceived Usefulness, Perceived Ease of Use, Perceived Enjoyment, Aesthetics, Attitude, Subjective Norm, and Continuance Intention, and explores the relationships between them to determine whether these constructs affect tourists' continuance usage intention of XR applications. A quantitative exploratory approach was adopted, and 500 valid samples were collected through electronic and paper questionnaires distributed via the Wenjuanxing platform, QQ groups, WeChat groups, and on-site surveys to tourists from various locations. A multistage sampling method was employed in this study. **Results:** Data analysis was conducted through Confirmatory Factor Analysis and Structural Equation Modeling, validating all the proposed hypotheses. Among these, attitude had the most significant direct influence on continuance intention, closely followed by subjective norms. To enhance tourists' willingness to use XR applications at the Zigong Lantern Festival continuously, operators and developers should pay close attention to the factors that significantly influence continuance intention. **Conclusions:** The findings suggest to refine the business strategies, design concepts, and development content to meet the needs of tourists, thereby bringing greater economic and social value to the Zigong Lantern Festival.

**Keywords:** XR application, Perceived Enjoyment, Attitude, Subjective Norm, Continuance Intention

**JEL Classification Code:** E44, F31, F37, G15

## 1. Introduction

In the realm of information technology, there are many different interpretations of the term "X.R." However, the most widely accepted view now is that X.R. stands for "something R," with the letter X representing any form of digital reality (Rauschnabel et al., 2022), similar to how X is used as a variable in mathematics (Doolani et al., 2020). X.R. technology is an all-encompassing concept that merges various digital reality technologies, such as virtual reality (V.R.), augmented reality (A.R.), and mixed reality (M.R.). X.R. technology seamlessly blends the virtual and real worlds to create a novel, digital, immersive simulation experience using sensors, displays, and interactive technologies. This technology finds applications across diverse fields, including gaming, education, healthcare, industry, and the military, offering users immersive,

interactive, and highly personalized experiences. By integrating real-world elements with virtual content, X.R. technology is revolutionizing how people engage with digital information, unlocking endless possibilities for innovation and growth (Çöltekin et al., 2020).

Zigong, located in the southern Sichuan Basin of China, is renowned for its city highlights: the salt industry, dinosaur fossils, and the lantern festival. As a result, it has earned the titles of the "Millennium Salt Capital," "Hometown of Dinosaurs," and "Southern Lantern City." In particular, the Zigong Lantern Festival is famous worldwide. The Colourful Lantern tradition is recognized as one of China's national intangible cultural heritage assets, with the Zigong Colourful Lantern and the Zigong Lantern Festival particularly renowned globally. The origins of the Zigong Lantern Festival can be traced back to the Tang and Song Dynasties (1st century A.D.), gaining prominence during the Ming and

\*Lan Jiming, Sichuan University of Science and Engineering, China. Email: 24344577@qq.com

© Copyright: The Author(s)  
 This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Qing Dynasties (2nd century A.D.) and continuing to flourish in the modern era. Since 1964, the Zigong Lantern Festival has hosted seven local Spring Welcoming Lantern Festivals and 29 International Dinosaur Lantern Festivals. The festival has been exhibited in over 500 large and medium-sized cities across China and more than 500 times in over 70 countries and regions worldwide, with a cumulative audience of more than 5 billion people. What began as a seasonal lantern display has evolved into a year-round spectacle, transforming from a “festival lantern show” into a “perennial lantern show” and expanding from a “fixed-point exhibition” to an immersive “night tour” of scenic locations across the country. The Zigong Lantern Festival is now a large-scale cultural event that integrates history, culture, art, science and technology, education, entertainment, and trade. It serves as a vital medium for promoting and sharing Chinese culture internationally. Each festival features dozens of large and medium-sized lantern installations and thousands of intricately crafted lamps. The grand scale of the festival creates a mesmerizing sea of vibrant lanterns, evoking a sense of otherworldly beauty. The sheer number of lanterns, combined with their dazzling display, creates a spectacle of breathtaking grandeur. As visitors stroll through the festival, they are enveloped by the harmonious sounds of the orchestra and the vivid, colorful lanterns that fill their view. The festival’s unique blend of artistic craftsmanship and cultural heritage leaves a lasting impression, immersing visitors in the enchanting world of lantern art.

As society advances and living standards rise, along with the rapid development of information technology, the lantern industry faces new demands. Immersive X.R. technologies have been increasingly integrated into large-scale exhibitions, cultural heritage sites (Innocente et al., 2023), scenic areas, and entertainment industries pushing tourism managers to create unforgettable experiences (Kumlu et al., 2024). The Zigong Lantern Festival has embraced X.R. technology to enhance its modern and immersive appeal (Forlizzi & Battarbee, 2004). Additionally, it is a significant achievement that the authors’ team has developed X.R. applications, including the notable “Millennium Salt Charm Gate” showcased at the 28th Zigong Lantern Festival. Despite these advancements, the exhibitors and development teams lack insights into tourists’ feelings, satisfaction, and intentions regarding X.R. experiences. To improve future offerings, it is crucial to understand tourists’ attitudes towards X.R. applications and their willingness to continue using them, ensuring that devices and applications foster engagement and encourage repeat visits.

To this end, this study developed a practical questionnaire distributed offline and online to Chinese tourists attending the Zigong Lantern Festival. The survey investigated five factors influencing their attitudes and continued intention to use the X.R. applications at the Zigong Lantern Festival.

## 2. Literature Review

### 2.1 Perceived Usefulness

Perceived usefulness, according to Davis (1989), refers to the extent to which a person believes using a specific system will improve their work performance. It measures the functionality and effectiveness of a product, service, or technology in a specific industry, reflecting users' overall value assessment. Huang and Liao (2015) described it as an individual's perception of a technology's potential to improve task performance. In the context of augmented reality interactive technology (ARIT) in clothing retail, perceived usefulness pertains to ARIT's ability to assist consumers in trying on, matching, and purchasing clothes by providing accurate and useful product information. Shen et al. (2022) defined it in tourism education as the extent to which students believe AR/VR applications enhance their effectiveness. Huang (2023) highlighted its importance in shaping individuals' intentions to adopt new technology. For example, when consumers use Virtual Try-on technology for functional purposes, perceived usefulness indicates the technology's functionality and utility (Kim & Forsythe, 2008).

**H1:** Perceived usefulness has a significant impact on attitude.

### 2.2 Perceived Ease of Use

Perceived ease of use, in contrast to perceived usefulness, refers to the degree to which an individual believes that using a particular system will be free of effort, as defined by Davis (1989). Huang et al. (2023), in their study of virtual reality (VR) surfing, described it as the difficulty users experience when interacting with technology. Similarly, Lim et al. (2024), in their research on AR/VR adoption for hotel bookings in the hospitality and tourism industry, defined perceived ease of use as the belief that minimal effort is required to use a specific technology. In essence, perceived ease of use encompasses an individual's perception of the effort required to engage with a product, service, or technology effectively. This concept evaluates how intuitive and user-friendly an information system is, with particular attention to the interface and the overall user experience (Schiopu et al., 2021). Within the context of VR, Hoang et al. (2023) emphasized that perceived ease of use relates to the

comfort and convenience users experience when engaging with new technology. It specifically measures the mental effort involved, such as learning how to configure VR software to function with other devices. If users find this process challenging, it can hinder their ability to fully utilize and enjoy the technology (Yang & Han, 2021). Overall, perceived ease of use plays a critical role in shaping technology adoption, as systems seen as difficult to use are less likely to be embraced by users.

**H2:** Perceived ease of use has a significant impact on attitude.

### 2.3 Perceived Enjoyment

Perceived enjoyment refers to how enjoyable an activity, such as using a computer, is beyond expected performance outcomes (Davis et al., 1992). Kim and Hall (2019) argue that perceived enjoyment reflects the pleasure consumers get from using hedonic information technology. Hung et al. (2021) describes it as the entertainment users feel when interacting with AR mobile applications. S.-Y. Hung et al. (2016) equate perceived enjoyment with perceived playfulness, stemming from users' subjective evaluation of their interaction with technology, characterized by concentration, enjoyment, and curiosity. Park and Park (2021) suggest that enjoyment-enhancing activities are crucial for improving quality of life, making perceived enjoyment vital for embracing hedonic technology. S.-W. Hung et al. (2021) classify perceived enjoyment under "intrinsic motivation." Fan et al. (2022) define it as a pleasurable experience independent of any expected performance outcome achieved solely through computer-related technology. In AR/VR tourism, perceived enjoyment is essential for enhancing user experience quality (Yu et al., 2024).

**H3:** Perceived enjoyment has a significant impact on attitude.

### 2.4 Aesthetics

Aesthetics encompasses artistic value or beauty expressed through the visual appeal of entities or objects (Ramezani Nia & Shokouhyar, 2020). In human-computer interaction (HCI), aesthetics is divided into classical aesthetics, focusing on traditional design originality, and expressive aesthetics, which includes dimensions like ergonomics, hedonism, and instrumental/non-instrumental qualities (Sun et al., 2023). Vongurai (2021) defined aesthetics in cosmetic AR try-ons as the visual aspect of the retail environment, influenced by factors such as pictures, physical beauty, shade, VR, AR, and clarity. Huang and Liao (2015) stated that aesthetics, in the context of AR interactive technology for online retail, is a visual appeal controllable through design, color, virtual reality, and vividness. Jiang et al. (2021) found that consumers are more attracted to apps

with aesthetically pleasing interfaces, processes, colors, and experiences, highlighting the importance of aesthetics in human-computer interaction. The degree of aesthetic perception is a key factor influencing consumer intrinsic value. Proper implementation of visual elements in virtual environments enhances the perceptual experience, with high aesthetic value in interface design, creating more immersive experiences in VR (Sun et al., 2023). Studies have shown that computer-generated 2D and 3D simulations can increase tourists' desire to visit destinations, emphasizing the importance of user-friendly and aesthetically pleasing VR applications to influence tourism intentions (Tussyadiah et al., 2016).

**H4:** Aesthetic has a significant impact on attitude.

### 2.5 Attitude

Attitude refers to the extent to which an individual holds a positive or negative perception of a particular behavior (Ajzen, 1991). It reflects an individual's inclination to react in specific ways to concepts or objects, resulting from their beliefs and associated evaluative responses (Zhang et al., 2018). Attitude represents a learned tendency to respond to objects or stimuli consistently in a positive, neutral, or negative manner, shaped by past evaluation experiences. It influences consumer reactions to goods, services, or brands (Carlson & O'Cass, 2010). It significantly influences behavioral choices and intentions, representing a person's evaluative judgment and prominent beliefs at a given time (Ching et al., 2013). It encompasses an individual's psychological and emotional evaluation, which can be inferred from observed behavior despite being unobservable directly (Sun et al., 2023). In the context of AR and VR app usage in tourism education, Shen et al. (2022) described attitude as students' overall feelings towards engaging in digital, visual, and blended learning. A favorable attitude leads to a strong intention to participate.

**H5:** Attitude has a significant impact on continuance intention.

### 2.6 Subjective Norm

Ajzen (1991) states that a subjective norm is the perceived social pressure to engage in or refrain from a particular behavior. It is the social pressure individuals feel from significant others, such as relatives, friends, colleagues, and classmates, regarding the appropriateness of a behavior (S.-W. Hung et al., 2021). Subjective norms are the perceived social influences that motivate individuals to perform certain behaviors (Alzahrani et al., 2017) and reflect the degree to which people perceive significant others as agreeing or disagreeing with their actions (Herrenkind et al., 2019). It relates to perceived social pressures regarding specific

behaviors and the extent to which individuals should engage in or avoid them (Ajzen, 1985). These norms depend on the reference group the individual considers, which may change over time. Adherence to subjective norms also depends on how much an individual is concerned about social pressure and guidance from their social group regarding appropriate behavior (Sreen et al., 2018). Social stress can originate from various societal roles, including family, friends, co-workers, and others (Van Tonder et al., 2023).

**H6:** Subjective norm has a significant impact on continuance intention.

## 2.7 Continuance Intention

Continuance intention refers to a user's likelihood of using a service, product, or technology after initial adoption (Cheng, 2021). Bhattacharjee (2001) was among the first to distinguish between technology acceptance and continuance behavior, defining IS continuance intention as an individual's intent to consistently use an information system, separate from their initial decision to adopt it. This concept assesses whether a user will persist in using and recommending a system over time (Mouakket & Bettayeb, 2015). Whereas initial acceptance is critical, the long-term success of an information system largely depends on its continued use Bhattacharjee (2001). Continuance intention thus measures sustained engagement, evaluating a user's long-term commitment and interaction with the system (Inan et al., 2021). This intention indicates a product's success based on post-adoption behavior. It reflects a psychological inclination to reuse the service, providing valuable insights for predicting future behavior, assessing initiatives, and guiding future product development (Sun et al., 2023). Overall, continuance intention is essential for the ongoing viability of information systems, as it bridges the gap between initial user acceptance and long-term success, offering a critical metric for sustainable engagement and growth.

## 3. Research Methods and Materials

### 3.1 Research Framework

The conceptual framework of this study draws from established research methodologies, primarily leveraging the Theories of Reasoned Action (TRA) and Technology Acceptance Model (TAM), and is grounded in three key theoretical frameworks. The first, proposed by Shen et al. (2022), examines the effects of perceived usefulness and ease of use on the attitudes of Chinese students using AR/VR applications during the COVID-19 pandemic—the second framework, developed by S.-W. Hung et al. (2021)

investigate the influence of attitudes and subjective norms on users' continuance intention of mobile AR entertainment applications while also considering the role of perceived enjoyment in shaping user attitudes. The third framework, introduced by Jiang et al. (2021), explores the impact of aesthetics on attitudes toward using mobile AR virtual try-on applications, focusing on intrinsic factors.

This comprehensive study builds on these frameworks to examine the key factors influencing Chinese tourists' continuance intention to use XR applications at the Zigong Lantern Festival. Specifically, it considers seven latent variables: five independent variables—perceived usefulness, perceived ease of use, perceived enjoyment, aesthetics, and subjective norm—along with one mediating variable (attitude) and one dependent variable (continuance intention).

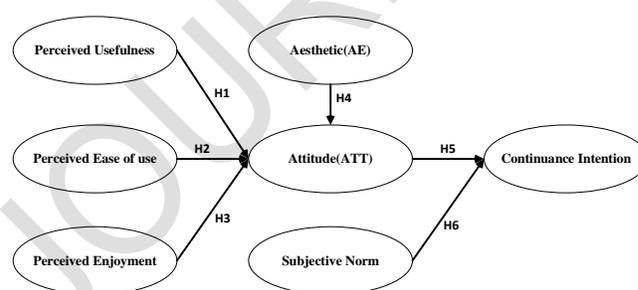


Figure 1: Conceptual Framework

- H1:** Perceived usefulness has a significant impact on attitude.
- H2:** Perceived ease of use has a significant impact on attitude.
- H3:** Perceived enjoyment has a significant impact on attitude.
- H4:** Aesthetic has a significant impact on attitude.
- H5:** Attitude has a significant impact on continuance intention.
- H6:** Subjective norm has a significant impact on continuance intention.

### 3.2 Research Methodology

This study adopted a quantitative research approach, utilizing a structured questionnaire composed of three sections: screening questions, demographic information, and measurement variables. Screening questions are designed to ensure that respondents meet specific criteria for the study, filtering out those who do not fit the target population or lack the necessary experiences or characteristics (Hair et al., 2000). The demographic section captures key characteristics of the participants, such as age, gender, ethnicity, education level, income, marital status, occupation, and geographic location. This demographic profile provides important context, aiding in interpreting and understanding the research findings (Coleman-Prisco, 2016). The measurement section utilizes Likert scales to assess attitudes, opinions, perceptions, and other subjective variables. These scales include statements to

which respondents indicate their level of agreement or disagreement, typically on a 5-point scale ranging from "Strongly Agree" to "Strongly Disagree," with intermediate options like "Agree," "Neutral," and "Disagree"(Anderson, 2018).

To ensure the validity of the questionnaire, three experts with doctoral degrees and extensive research experience in XR technology meticulously evaluated the objective consistency of each item. The content validity was assessed based on the average ratings provided by these highly qualified experts for each item (Ismail & Zubairi, 2021). Additionally, a pilot test involving 50 tourists from the target group was conducted to evaluate the internal consistency reliability of the questionnaire. Cronbach's alpha coefficient, a widely used method for assessing internal consistency, was employed to measure the degree of correlation among the items, with higher values indicating greater consistency (Hassan, 2024; Taber, 2018).

Following the validation and reliability checks, the questionnaires were distributed to over 700 Chinese tourists online and offline. Data analysis was performed using advanced software such as IBM SPSS, Jamovi, and AMOS, ensuring a rigorous and comprehensive analysis. CFA was used to evaluate factor loadings, t-values, composite reliability (CR), average variance extracted (AVE), and discriminant validity (Tavakol & Wetzal, 2020). SEM was employed to test hypotheses and examine the direct, indirect, and overall impacts of the associations among latent constructs (Fan et al., 2016).

### 3.3 Population and Sample Size

The study targeted adult tourists who had used the XR application at the Zigong Lantern Festival in China at least once. A Sample Size Calculator for Structural Equation Models determined that a minimum sample size of 425 participants was necessary to achieve reliable results. To accommodate practical considerations and enhance the robustness of the findings, a sample size of 500 was selected, informed by prior research and methodological requirements.

Data was collected through online platforms, digital tools, and field surveys to ensure a comprehensive and representative sample. This approach not only facilitated efficient data gathering but also provided a diverse set of responses, contributing to the overall statistical validity of the study.

### 3.4 Sampling Technique

This study employed non-probability multistage sampling techniques to target and gather data from the desired population effectively. Initially, judgment sampling was used

to select participants deemed most relevant to the research objectives, ensuring that the sample included individuals with the necessary experience and insights. In the following stage, convenience sampling was applied to streamline the data collection process, allowing for practical and efficient response gathering.

Given the large and diverse population encompassing various regions and age groups, a stratified random sampling approach could have been more practical. Instead, the combination of judgment and convenience sampling methods provided a feasible and effective solution for obtaining a representative sample while addressing logistical constraints. This approach balanced the need for targeted participant selection with the practicalities of data collection.

## 4. Results and Discussion

### 4.1 Demographic Information

Table 1 presents a comprehensive overview of the demographic characteristics of the 500 respondents. Regarding gender distribution, males constitute 56.2% of the sample, whereas females represent 43.8%.

Regarding educational background, only 2.4% of respondents have completed junior high school or below, 17.0% have finished high school, and a substantial 54.2% hold a bachelor's or associate degree, representing the majority of the sample. Those with a master's degree account for 22.4%, while 4.0% possess a doctoral degree.

Our respondents span a wide range of ages. The majority, 68.4%, are between 18 and 39 years old, while 31.6% are aged 40 or older. This diverse age distribution provides a comprehensive view of the population.

This demographic distribution provides valuable insights into the respondent population, highlighting a well-educated, predominantly younger group with a diverse geographic representation.

**Table 1:** Demographic Profile

Demographic Information(n=500)		Frequency	Percentage
Gender	Male	281	56.20%
	Female	219	43.80%
Education Degree	Junior school or below	12	2.40%
	High school	85	17.00%
	Bachelor's and associate's degree	271	54.20%
	Master's degree	112	22.40%
	Doctoral degree	20	4.00%
Age	18-19 years old	81	16.20%
	20-29 years old	134	26.80%
	30-39 years old	127	25.40%
	40-49 years old	74	14.80%
	50-59 years old	52	10.40%
	60 years old or older	32	6.40%

Demographic Information(n=500)		Frequency	Percentage
Region	Zigong	105	21.00%
	Chengdu	88	17.60%
	Other places in Sichuan except Zigong and Chengdu	191	38.20%
	The rest of China except Sichuan	116	23.20%

### 4.2 Confirmatory Factor Analysis (CFA)

CFA is widely used to evaluate how well-observed variables represent underlying latent constructs. Its primary aim is to determine whether the data conforms to a proposed theoretical model (Brown, 2015). CFA plays a critical role in validating the relationships between latent variables and their corresponding indicators, and it is especially significant in

fields such as psychometrics and structural equation modeling.

The results in Table 2 reveal that Cronbach's Alpha coefficients for all latent variables were above 0.80, indicating excellent internal consistency. Furthermore, the CR values, which surpassed 0.70, provide strong evidence for the reliability of the latent constructs. The AVE also exceeded 0.50, confirming that the latent variables account for a substantial portion of the variance in the observed variables.

Furthermore, the factor loadings for each observed variable were consistently above 0.5, with many exceeding 0.7. This suggests that the observed variables have a high level of shared variance with their respective latent constructs, underscoring the robustness and validity of the measurement model.

**Table 2:** Confirmatory Factor Analysis Result, Composite Reliability (CR) and Average Variance Extracted (AVE)

Variables	Source of Questionnaire (Measurement Indicator)	No. of Item	Cronbach's Alpha	Factors Loading	CR	AVE
Perceived Usefulness (PU)	Shen et al. (2022)	4	0.884	0.791-0.834	0.885	0.658
Perceived Ease of Use (PEOU)	Shen et al. (2022))	4	0.874	0.774-0.814	0.874	0.635
Perceived Enjoyment (PE)	Hung et al. (2021)	4	0.884	0.785-0.835	0.884	0.657
Aesthetics (AE)	Jiang et al. (2021)	3	0.841	0.796-0.802	0.841	0.638
Attitude (ATT)	Hung et al. (2021)	3	0.822	0.752-0.793	0.823	0.607
Subjective Norm (SN)	Hung et al. (2021)	3	0.861	0.819-0.824	0.861	0.674
Continuance Intention (CI)	Hung et al. (2021)	4	0.882	0.792-0.828	0.883	0.653

Table 3 illustrates various goodness-of-fit indices used to assess the model's performance. These include CMIN/DF, GFI, AGFI, CFI, NFI, TLI, and RMSEA. Each measure reflects different aspects of model fit. The results indicate that the CFA model applied in this study adequately represents the data, confirming the validity of the factor structure and ensuring that the underlying constructs are well-represented.

**Table 3:** Goodness of Fit for Measurement Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/DF	< 3.00 (Hair et al., 2010)	338.399/254 or 1.332
GFI	≥ 0.85 (Sica & Ghisi, 2007)	0.950
AGFI	≥ 0.80 (Schermelleh-Engel et al., 2003)	0.936
RMSEA	< 0.08 (Pedroso et al., 2016)	0.026
CFI	≥ 0.90 (Hair et al., 2010)	0.987
NFI	≥ 0.80 (Wu & Wang, 2006)	0.950
TLI	≥ 0.90 (Hair et al., 2010)	0.985
Model Summary		Acceptable Model Fit

**Remark:** CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = goodness-of-fit index, AGFI = adjusted goodness-of-fit index, RMSEA = root mean square error of approximation, CFI = comparative fit index NFI = normalized fit index and TLI = Tucker Lewis index

Discriminant validity is evaluated by comparing the square root of the AVE for each construct with its inter-construct correlations (Ab Hamid et al., 2017). Table 4 presents these values, where the diagonal entries represent

the square roots of the AVE for each construct. To confirm discriminant validity, the square root of a construct's AVE must be greater than any of its correlations with other constructs.

The results shown in Table 4 indicate that each construct's AVE square root surpasses the corresponding inter-construct correlations, thereby demonstrating satisfactory discriminant validity. This finding confirms that each construct is distinct and uniquely contributes to the model. Consequently, this study has established both convergent and discriminant validity, providing robust evidence for overall construct validity.

**Table 4:** Discriminant Validity

	PU	PEOU	PE	AE	ATT	SN	CI
PU	<b>0.811</b>						
PEOU	0.332	<b>0.797</b>					
PE	0.240	0.327	<b>0.811</b>				
AE	0.245	0.321	0.288	<b>0.799</b>			
ATT	0.237	0.242	0.216	0.253	<b>0.779</b>		
SN	0.295	0.321	0.238	0.303	0.214	<b>0.821</b>	
CI	0.243	0.353	0.284	0.296	0.228	0.251	<b>0.808</b>

**Note:** The diagonally listed value is the AVE square roots of the variables  
**Source:** Created by the author.

### 4.3 Structural Equation Model (SEM)

Following the CFA, the study proceeded with the planned SEM validation. As detailed in Table 5, the model fit indices—CMIN/DF, GFI, AGFI, CFI, NFI, TLI, and RMSEA—obtained using AMOS version 26 all met or exceeded the acceptable thresholds. These results demonstrate that the SEM model exhibits a strong goodness of fit, affirming that the proposed causal model aligns well with the data and effectively represents the hypothesized relationships (Fan et al., 2016). This confirms the validity and reliability of the model in capturing the underlying structure and dynamics as intended.

**Table 5:** Goodness of Fit for Structural Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/DF	< 3.00 (Hair et al., 2010)	708.306/269 or 2.633
GFI	≥ 0.85 (Sica & Ghisi, 2007)	0.883
AGFI	≥ 0.80 (Schermelell-Engel et al., 2003)	0.858
RMSEA	< 0.08 (Pedroso et al., 2016)	0.057
CFI	≥ 0.90 (Hair et al., 2010)	0.932
NFI	≥ 0.80 (Wu & Wang, 2006)	0.896
TLI	≥ 0.90 (Hair et al., 2010)	0.925
Model Summary		Acceptable Model Fit

**Remark:** CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = goodness-of-fit index, AGFI = adjusted goodness-of-fit index, RMSEA = root mean square error of approximation, CFI = comparative fit index NFI = normalized fit index and TLI = Tucker Lewis index

### 4.4 Research Hypothesis Testing Result

The statistical analysis detailed in Table 6 reveals the profound influence of attitude on continuance intention, with a  $\beta$  coefficient of 0.239 and a t-value of 4.573 ()—the highest among all variables studied. This is closely followed by the impact of social norms on continuance intention, which has a  $\beta$  coefficient of 0.231 and a t-value of 4.572 ()—also demonstrating a strong influence. These findings provide a deeper understanding of the factors influencing continuance intention in XR applications.

Aesthetics significantly affect attitude, with a  $\beta$  coefficient of 0.195 and a t-value of 3.675 (\*\*\*)—the most substantial effect among the predictors of attitude. Perceived usefulness also has a meaningful impact on attitude, shown by a  $\beta$  coefficient of 0.162 and a t-value of 3.153 (\*\*). Similarly, perceived ease of use influences attitude significantly, with a  $\beta$  coefficient of 0.153 and a t-value of 2.951 (\*\*). Furthermore, perceived enjoyment impacts attitude with a  $\beta$  coefficient of 0.129 and a t-value of 2.523 (\*), although to a lesser extent.

These results highlight the intricate relationships between factors affecting user attitudes and their subsequent effect on continuance intention. Specifically, attitude and social norms emerge as the most influential predictors, underscoring their crucial role in fostering sustained engagement with the XR applications.

**Table 7:** Hypothesis Results of the Structural Equation Modeling

Hypothesis	( $\beta$ )	t-value	Result
H1: PU→ATT	0.162	3.153**	Supported
H2: PEOU→ATT	0.153	2.951**	Supported
H3: PE→ATT	0.129	2.523*	Supported
H4: AE→ATT	0.195	3.675***	Supported
H5: ATT→CI	0.239	4.573***	Supported
H6: SN→CI	0.231	4.572***	Supported

**Note:** \*\*\* p<0.001, \*\* p<0.01, \* p<0.05

**Source:** Created by the author

Based on the results presented in Table 6, several extensions to the research hypotheses can be proposed:

For H1, the data indicate that perceived usefulness significantly predicts tourist attitudes, with a standardized path coefficient of 0.162. This finding supports the hypothesis proposed by Shen et al. (2022), which posited that perceived usefulness positively influences users' attitudes toward AR/VR applications. This relationship underscores the importance of perceived usefulness in shaping user perceptions and attitudes toward emerging technologies.

Regarding H2, the analysis shows that perceived ease of use is a critical factor influencing attitude, with a standardized path coefficient of 0.153. This aligns with the Technology Acceptance Model (TAM) explored by Y. C. Huang et al. (2016), who examined the use of VR applications in tourism marketing. Their research demonstrated that the ease of use of 3D environments significantly enhances user interest and positively affects attitudes towards VR applications (Huang et al., 2023; Manis & Choi, 2019).

The findings for H3 confirm that perceived enjoyment significantly affects attitude, with a standardized path coefficient of 0.129. Although this effect is the smallest among the variables studied, it remains significant. S.-W. Hung et al. (2021) also identified a strong positive relationship between perceived enjoyment and attitudes in their study on the continuance intention to use mobile AR for entertainment. This suggests that perceived enjoyment notably shapes user attitudes toward mobile AR entertainment applications.

Additionally, H4 demonstrated that aesthetics significantly influenced tourists' attitudes, with a standardized coefficient of 0.195. This coefficient is the largest among the four direct factors affecting attitudes. According to a study conducted by Sun et al. (2023), users can achieve a more immersive VR experience by

incorporating interfaces with high aesthetic value.

This study substantiated hypothesis H5, demonstrating that user attitude significantly influences continuance intention, evidenced by a standardized path coefficient of 0.239. This coefficient represents the largest influence among the two factors affecting continuance intention. Positive consumer attitudes toward the VR/AR virtual feature will increase the likelihood of continued use. Additionally, attitudes toward utilizing virtual reality devices have positively influenced usage intentions (Jiang et al., 2021).

Finally, hypothesis H6 confirms that subjective norms significantly relate to continuance intention, with a standardized coefficient 0.231. This value is close to the highest coefficient observed for H5. Research by Mäntymäki et al. (2014) and Chang et al. (2014) supports this, showing that subjective norms significantly and positively affect users' intentions to adopt new technology services.

## 5. Conclusion and Recommendation

### 5.1 Conclusion and Discussion

This research aimed to identify the key factors influencing Chinese tourists' intentions to continue using XR applications at the Zigong Lantern Festival. The study was structured around six hypotheses to explore the relationships between perceived usefulness, perceived ease of use, perceived enjoyment, aesthetics, attitude, subjective norm, and continuance intention.

To gather data, a survey was administered to 500 tourists who had previously used XR applications at the festival. CFA was employed to evaluate the model fit and ensure that the data conformed to the proposed theoretical measurement model. Following this, SEM was used to analyze the relationships between observed and latent variables that impact continuance intention and to test the hypothesized relationships.

The analysis revealed that all six hypotheses were supported, a significant finding that contributes to our understanding of XR application usage. Attitude was identified as the most influential factor directly affecting continuance intention, with subjective norm also having a significant, albeit slightly lesser, impact. Among the independent variables, aesthetics had the strongest effect on attitude, while PU, PEOU, and PE also significantly influenced attitude, though to a lesser degree.

These findings not only contribute to the academic understanding of XR application usage but also have practical implications. They highlight the importance of improving user attitudes toward XR applications, enhancing aesthetic appeal, and leveraging social influence to

encourage continued use among visitors to the Zigong Lantern Festival. This knowledge can empower stakeholders to make informed decisions about XR application usage in the tourism sector.

### 5.2 Recommendation

Drawing from the results of this quantitative study, the researcher proposes four actionable recommendations to advance the development and utilization of XR technology at the Zigong Lantern Festival:

First, attitude emerged as the most critical factor influencing Chinese tourists' intention to use XR applications. Attitude was influenced by four latent variables, the most significant being aesthetics. This indicates that tourists at the Zigong Lantern Festival value the aesthetic appeal and visual impact of XR applications. Therefore, in future XR application development, designers should focus on optimizing and enhancing the aesthetic aspects of the interface to better align with popular aesthetic standards and improve the visual appeal of XR content. For example, professional artists could be involved in the interface design process. This would significantly enhance tourists' positive attitudes toward using XR applications at the festival.

Second, a positive subjective norm also boosts tourists' intention to continue using XR applications at the Zigong Lantern Festival. This suggests that many tourists' willingness to continue using XR applications is influenced by the surrounding social environment, particularly the recommendations, experiences, and encouragement of relatives, friends, and colleagues. Hence, the Zigong Lantern Festival organizers should leverage online and offline platforms, advertising media, promotional tools, and marketing strategies to foster a positive social atmosphere around XR applications. This would raise awareness and encourage more tourists to experience and embrace the technology.

Additionally, in terms of perceived usefulness, ease of use, and enjoyment, designers should prioritize the practical utility of XR applications. The technology should effectively enhance how tourists experience the Zigong Lantern Festival, improving the immersive quality of the performances and increasing their overall impact. Ease of use should also be a key consideration, focusing on simple and intuitive operation, minimal steps, and fewer complex options, especially for tourists with lower technological proficiency or limited experience with digital tools. Furthermore, tourists visiting the Zigong Lantern Festival from across China often seek entertainment, excitement, and enjoyment. Thus, designers should ensure that the XR content is engaging and stimulating, with features that deliver an enjoyable and thrilling experience to satisfy tourists' desire for entertainment.

Ultimately, Zigong Lantern Festival operators and XR developers fully consider these factors. In that case, fully considering these factors, tourists' attitudes toward XR applications will improve, leading to a stronger intention to continue using the technology. This, in turn, could generate greater economic returns and social benefits for the Zigong Lantern Festival.

### 5.3 Limitation and Further Study

Despite our efforts to maintain high academic rigor at every stage, this study has certain limitations. For example, we have only considered the continuous usage intentions of domestic Chinese tourists regarding the XR applications at the Zigong Lantern Festival. However, the Zigong Lantern Festival is also exhibited in various countries worldwide, and even within domestic exhibitions, a certain number of international tourists attend. Due to differences in cultural backgrounds, life perspectives, and customs among tourists from different countries, their views on the XR applications at the Zigong Lantern Festival may vary. This is an aspect that should be considered in future research.

Another area for future research is the need for a more comprehensive conceptual framework. Currently, we have only examined the relationships between seven variables. However, the Zigong Lantern Festival is not just about entertainment; it also has historical, cultural, technological, and educational attributes. To fully understand the festival's impact, we should consider other technology acceptance theories, such as the Unified Theory of Acceptance and Use of Technology (UTAUT) and the Information Systems Success Model (ISSM). By deconstructing the antecedents of perceived usefulness and perceived entertainment, we can develop a more comprehensive framework. This, in turn, can provide more targeted recommendations for practitioners, thereby enhancing the overall festival experience.

### References

- Ab Hamid, M. R., Sami, W., & Mohmad Sidek, M. H. (2017). Discriminant validity assessment: Use of Fornell & Larcker criterion versus HTMT criterion. *Journal of Physics: Conference Series*, 890, 012163. <https://doi.org/10.1088/1742-6596/890/1/012163>
- Ajzen, I. (1985). *Action control*. Action-Control: From Cognition to Behavior.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Alzahrani, A. I., Mahmud, I., Ramayah, T., Alfarraj, O., & Alalwan, N. (2017). Extending the theory of planned behavior (TPB) to explain online game playing among Malaysian undergraduate students. *Telematics and Informatics*, 34(4), 239-251. <https://doi.org/10.1016/j.tele.2016.07.001>
- Anderson, R. (2018). *Multivariate data analysis* (8th ed.). Cengage Learning EMEA.
- Bhattacharjee, A. (2001). Understanding information systems continuance: An expectation-confirmation model. *MIS Quarterly*, 25(3), 351. <https://doi.org/10.2307/3250921>
- Brown, T. A. (2015). *Confirmatory factor analysis for applied research*. Guilford Publications.
- Carlson, J., & O'Cass, A. (2010). Exploring the relationships between e-service quality, satisfaction, attitudes, and behaviors in content-driven e-service websites. *Journal of Services Marketing*, 24(2), 112-127. <https://doi.org/10.1108/08876041011031091>
- Chang, I.-C., Liu, C.-C., & Chen, K. (2014). The effects of hedonic/utilitarian expectations and social influence on continuance intention to play online games. *Internet Research*, 24(1), 21-45. <https://doi.org/10.1108/IntR-02-2012-0025>
- Cheng, Y.-M. (2021). Investigating medical professionals' continuance intention of the cloud-based e-learning system: An extension of expectation-confirmation model with flow theory. *Journal of Enterprise Information Management*, 34(4), 1169-1202. <https://doi.org/10.1108/JEIM-12-2019-0401>
- Ching, R. K. H., Tong, P., Chen, J., & Chen, H. (2013). Narrative online advertising: Identification and its effects on attitude toward a product. *Internet Research*, 23(4), 414-438. <https://doi.org/10.1108/IntR-04-2012-0077>
- Coleman-Prisco, V. (2016). Factors influencing faculty innovation and adoption of open educational resources in higher education [Doctoral dissertation]. Northeastern University. <https://doi.org/10.17760/D20237021>
- Çöltekin, A., Lochhead, I., Madden, M., Christophe, S., Devaux, A., Pettit, C., Lock, O., Shukla, S., Herman, L., Stachoň, Z., Kubiček, P., Snopková, D., Bernardes, S., & Hedley, N. (2020). Extended reality in spatial sciences: A review of research challenges and future directions. *ISPRS International Journal of Geo-Information*, 9(7), 439. <https://doi.org/10.3390/ijgi9070439>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340. <https://doi.org/10.2307/249008>
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and intrinsic motivation to use computers in the workplace. *Journal of Applied Social Psychology*, 22(14), 1111-1132. <https://doi.org/10.1111/j.1559-1816.1992.tb00945.x>
- Doolani, S., Wessels, C., Kanal, V., Sevastopoulos, C., Jaiswal, A., Nambiappan, H., & Makedon, F. (2020). A review of extended reality (XR) technologies for manufacturing training. *Technologies*, 8(4), 4. <https://doi.org/10.3390/technologies8040077>
- Fan, X., Jiang, X., & Deng, N. (2022). Immersive technology: A meta-analysis of augmented/virtual reality applications and their impact on tourism experience. *Tourism Management*, 91, 104534. <https://doi.org/10.1016/j.tourman.2022.104534>
- Fan, Y., Chen, J., Shirkey, G., John, R., Wu, S. R., Park, H., & Shao, C. (2016). Applications of structural equation modeling (SEM) in ecological studies: An updated review. *Ecological Processes*, 5(1), 19. <https://doi.org/10.1186/s13717-016-0063-3>

- Forlizzi, J., & Battarbee, K. (2004). Understanding experience in interactive systems. *Proceedings of the 5th Conference on Designing Interactive Systems: Processes, Practices, Methods, and Techniques*, 261-268.  
<https://doi.org/10.1145/1013115.1013152>
- Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (2010). *Multivariate data analysis* (6th ed.). Prentice-Hall.
- Hair, J. F., Bush, R. P., & Ortinau, D. J. (2000). *Marketing research: A practical approach for the new millennium*. Irwin/McGraw-Hill.
- Hassan, M. (2024, January 6). *Internal consistency reliability—Methods, examples, and formulas*.  
<https://researchmethod.net/internal-consistency-reliability/>
- Herrenkind, B., Brendel, A. B., Nastjuk, I., Greve, M., & Kolbe, L. M. (2019). Investigating end-user acceptance of autonomous electric buses to accelerate diffusion. *Transportation Research Part D: Transport and Environment*, 74, 255-276.  
<https://doi.org/10.1016/j.trd.2019.08.003>
- Hoang, S. D., Dey, S. K., Tučková, Z., & Pham, T. P. (2023). Harnessing the power of virtual reality: Enhancing telepresence and inspiring sustainable travel intentions in the tourism industry. *Technology in Society*, 75, 102378.  
<https://doi.org/10.1016/j.techsoc.2023.102378>
- Huang, T.-L., & Liao, S. (2015). A model of acceptance of augmented-reality interactive technology: The moderating role of cognitive innovativeness. *Electronic Commerce Research*, 15(2), 269-295. <https://doi.org/10.1007/s10660-014-9163-2>
- Huang, Y.-C. (2023). Integrated concepts of the UTAUT and TPB in virtual reality behavioral intention. *Journal of Retailing and Consumer Services*, 70, 103127.  
<https://doi.org/10.1016/j.jretconser.2022.103127>
- Huang, Y. C., Backman, K. F., Backman, S. J., & Chang, L. L. (2016). Exploring the implications of virtual reality technology in tourism marketing: An integrated research framework. *International Journal of Tourism Research*, 18(2), 116-128.  
<https://doi.org/10.1002/jtr.2038>
- Huang, Y.-C., Li, L.-N., Lee, H.-Y., Browning, M. H. E. M., & Yu, C.-P. (2023). Surfing in virtual reality: An application of extended technology acceptance model with flow theory. *Computers in Human Behavior Reports*, 9, 100252.  
<https://doi.org/10.1016/j.chbr.2022.100252>
- Hung, S.-W., Chang, C.-W., & Ma, Y.-C. (2021). A new reality: Exploring continuance intention to use mobile augmented reality for entertainment purposes. *Technology in Society*, 67, 101757. <https://doi.org/10.1016/j.techsoc.2021.101757>
- Hung, S.-Y., Tsai, J. C.-A., & Chou, S.-T. (2016). Decomposing perceived playfulness: A contextual examination of two social networking sites. *Information & Management*, 53(6), 698-716.  
<https://doi.org/10.1016/j.im.2016.02.005>
- Inan, D. I., Hidayanto, A. N., Juita, R., Soemawilaga, F. F., Melinda, F., Puspacinantya, P., & Amalia, Y. (2021). Service quality and self-determination theory towards continuance usage intention of mobile banking. *Journal of Science and Technology Policy Management*, 14(2), 303-328.  
<https://doi.org/10.1108/JSTPM-01-2021-0005>
- Innocente, C., Ulrich, L., Moos, S., & Vezzetti, E. (2023). A framework study on the use of immersive XR technologies in the cultural heritage domain. *Journal of Cultural Heritage*, 62, 268-283. <https://doi.org/10.1016/j.culher.2023.06.001>
- Ismail, F. K. M., & Zubairi, A. M. B. (2021). Item objective congruence analysis for multidimensional items content validation of a reading test in Sri Lankan university. *English Language Teaching*, 15(1), 106.  
<https://doi.org/10.5539/elt.v15n1p106>
- Jiang, Q., Sun, J., Yang, C., & Gu, C. (2021). The impact of perceived interactivity and intrinsic value on users' continuance intention in using mobile augmented reality virtual shoe-try-on function. *Systems*, 10(1), 3.  
<https://doi.org/10.3390/systems10010003>
- Kim, J., & Forsythe, S. (2008). Adoption of virtual try-on technology for online apparel shopping. *Journal of Interactive Marketing*, 22(2), 45-59. <https://doi.org/10.1002/dir.20113>
- Kim, M. J., & Hall, C. M. (2019). A hedonic motivation model in virtual reality tourism: Comparing visitors and non-visitors. *International Journal of Information Management*, 46, 236-249.  
<https://doi.org/10.1016/j.ijinfomgt.2018.11.016>
- Kumlu, S. T., Samancıoğlu, E., & Özkul, E. (2024). Reality technologies (AR, VR, MR, XR) in tourism. In C. Tanrısever, H. Pamukçu, & A. Sharma (Eds.), *Future Tourism Trends* (pp. 115-127). Emerald Publishing Limited.  
<https://doi.org/10.1108/978-1-83753-970-320241007>
- Lim, W. M., Mohamed Jasim, K., & Das, M. (2024). Augmented and virtual reality in hotels: Impact on tourist satisfaction and intention to stay and return. *International Journal of Hospitality Management*, 116, 103631.  
<https://doi.org/10.1016/j.ijhm.2023.103631>
- Manis, K. T., & Choi, D. (2019). The virtual reality hardware acceptance model (VR-HAM): Extending and individualizing the technology acceptance model (TAM) for virtual reality hardware. *Journal of Business Research*, 100, 503-513.  
<https://doi.org/10.1016/j.jbusres.2018.10.021>
- Mäntymäki, M., Merikivi, J., Verhagen, T., Feldberg, F., & Rajala, R. (2014). Does a contextualized theory of planned behavior explain why teenagers stay in virtual worlds?. *International Journal of Information Management*, 34(5), 567-576.  
<https://doi.org/10.1016/j.ijinfomgt.2014.05.003>
- Mouakket, S., & Bettayeb, A. M. (2015). Investigating the factors influencing continuance usage intention of learning management systems by university instructors: The Blackboard system case. *International Journal of Web Information Systems*, 11(4), 491-509. <https://doi.org/10.1108/IJWIS-03-2015-0008>
- Park, D. E., & Park, S.-E. (2021). Factors affecting perceived safety and enjoyment based on driver experience. *Transportation Research Part F: Traffic Psychology and Behavior*, 83, 148-163. <https://doi.org/10.1016/j.trf.2021.10.006>
- Pedroso, R., Zanetello, L., Guimarães, L., Petteon, M., Gonçalves, V., Scherer, J., Kessler, F., & Pechansky, F. (2016). Confirmatory factor analysis (CFA) of the Crack Use Relapse Scale (CURS). *Archives of Clinical Psychiatry (São Paulo)*, 43, 37-40. <https://doi.org/10.1590/0101-60830000000081>
- Ramezani Nia, M., & Shokouhyar, S. (2020). Analyzing the effects of visual aesthetic of web pages on users' responses in online retailing using the VisAWI method. *Journal of Research in Interactive Marketing*, 14(4), 357-389.  
<https://doi.org/10.1108/JRIM-11-2018-0147>

- Rauschnabel, P. A., Felix, R., Hinsch, C., Shahab, H., & Alt, F. (2022). What is XR? Towards a framework for augmented and virtual reality. *Computers in Human Behavior*, 133, 107289. <https://doi.org/10.1016/j.chb.2022.107289>
- Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online*, 8(2), 23-74.
- Schiopu, A. F., Hornoiu, R. I., Padurean, M. A., & Nica, A.-M. (2021). Virus tinged? Exploring the facets of virtual reality use in tourism as a result of the COVID-19 pandemic. *Telematics and Informatics*, 60, 101575. <https://doi.org/10.1016/j.tele.2021.101575>
- Shen, S., Xu, K., Sotiriadis, M., & Wang, Y. (2022). Exploring the factors influencing the adoption and usage of augmented reality and virtual reality applications in tourism education within the context of COVID-19 pandemic. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 30, 100373. <https://doi.org/10.1016/j.jhlste.2022.100373>
- Sica, C., & Ghisi, M. (2007). The Italian versions of the Beck Anxiety Inventory and the Beck Depression Inventory-II: Psychometric properties and discriminant power. In M. A. Lange (Ed.), *Leading-edge psychological tests and testing research* (pp. 27-50). Nova.
- Sreen, N., Purbey, S., & Sadarangani, P. (2018). Impact of culture, behavior, and gender on green purchase intention. *Journal of Retailing and Consumer Services*, 41, 177-189. <https://doi.org/10.1016/j.jretconser.2017.12.002>
- Sun, J., Wang, Y., Miao, W., Wei, W., Yang, C., Chen, J., Yang, F., Ren, L., & Gu, C. (2023). A study on how to improve users' perceived playfulness in and continuance intention with VR technology to paint in virtual natural landscapes. *Heliyon*, 9(5), e16201. <https://doi.org/10.1016/j.heliyon.2023.e16201>
- Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, 48(6), 1273-1296. <https://doi.org/10.1007/s11165-016-9602-2>
- Tavakol, M., & Wetzel, A. (2020). Factor analysis: A means for theory and instrument development in support of construct validity. *International Journal of Medical Education*, 11, 245-247. <https://doi.org/10.5116/ijme.5f96.0f4a>
- Tussyadiah, I. P., Wang, D., & Jia, C. (2016). *Exploring the persuasive power of virtual reality imagery for destination marketing* (1st ed.). Semantic Scholar.
- Van Tonder, E., Fullerton, S., De Beer, L. T., & Saunders, S. G. (2023). Social and personal factors influencing green customer citizenship behaviours: The role of subjective norm, internal values, and attitudes. *Journal of Retailing and Consumer Services*, 71, 103190. <https://doi.org/10.1016/j.jretconser.2022.103190>
- Vongurai, R. (2021). Factors influencing experiential value toward using cosmetic AR try-on feature in Thailand. *Journal of Distribution Science*, 19(1), 75-87. <https://doi.org/10.15722/JDS.19.1.202101.75>
- Wu, J.-H., & Wang, Y.-M. (2006). Measuring KMS success: A respecification of the DeLone and McLean's model. *Information & Management*, 43(6), 728-739.
- Yang, H., & Han, S.-Y. (2021). Understanding virtual reality continuance: An extended perspective of perceived value. *Online Information Review*, 45(2), 422-439. <https://doi.org/10.1108/OIR-02-2020-0058>
- Yu, J., Kim, S. (Sam), Hailu, T. B., Park, J., & Han, H. (2024). The effects of virtual reality (VR) and augmented reality (AR) on senior tourists' experiential quality, perceived advantages, perceived enjoyment, and reuse intention. *Current Issues in Tourism*, 27(3), 464-478. <https://doi.org/10.1080/13683500.2023.2165483>
- Zhang, T., Lu, C., & Kizildag, M. (2018). Banking "on-the-go": Examining consumers' adoption of mobile banking services. *International Journal of Quality and Service Sciences*, 10(3), 279-295. <https://doi.org/10.1108/IJQSS-07-2017-0067>