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Purpose: Integrating modern food technologies within the tourism sector improves the pleasures, convenience, and involvement of travelers. Central to this advancement is AI-powered food applications (AI-PFDA), which are vital in driving this shift. However, the adoption of AI-PFDA is impeded by the gap between travelers' usage intention (UI) and their actual usage behavior (UB), a phenomenon that has received limited scholarly attention in recent years.

Methodology: To address the identified disparity, this study introduces a theoretical model based on Self-Determination Theory, Cognitive Dissonance Theory, and Mere Exposure Theory. The proposed model was tested using data collected from a questionnaire administered to 305 tourists in China, employing partial least squares structural equation modeling and necessary conditions analysis techniques.

Findings: Our findings demonstrate a significant partial mediating effect of perceived autonomy, competence, and relatedness, a positive moderating effect of mere exposure, and a negative moderating effect of reference price on the relationship between UI and UB.

Originality: This research enriches the current literature and assists policymakers in developing measures to mitigate the intention-behavior gap in adopting AI-PFDA within the framework of smart tourism.

Keywords: *Smart tourism, AI-powered food delivery applications, Self-determination, Cognitive dissonance, Mere exposure*

1. Introduction

The development and adoption of modern technologies like the Internet of Things (IoT), artificial intelligence (AI), 5G, big data, and cloud computing have significantly transformed various aspects of our lives (Iftikhar et al., 2023; Meena and Geng, 2022). According to Deloitte's 2023 market research report, these digital innovations are projected to boost the market worth by $500 billion. Additionally, Gupta's (2024) analysis predicts that the global AI-enabled gadgets industry will reach $8.46 billion by 2028. Amidst this technological transformation and revolution, the concept of *"smartness"* has emerged recently from the idea of attributing *"intelligence"* to

digital innovations (El Archi et al., 2023; Papangelis et al., 2020; Wang et al., 2023). One of the most practical applications coined with this notion is "*smart tourism*" (Tsang and Au, 2024). *Smart tourism* is the term used to describe the growing trend where tourists increasingly rely on emerging digital technologies to transform vast amounts of data into valuable insights and enhance their experiences (Wang et al., 2020). Integrating these innovative applications in the tourism and hospitality industry offers a range of practical benefits, including self-guided tours, electronic navigation, delivery services, smart shopping guides, and other recommended activities along the route (El Archi et al., 2023). Among these innovative applications, it is essential to recognize that AI-powered and smart devices have been developed with enhanced levels of adaptivity, connectivity, and learning capability (Wang and Uysal, 2024). Therefore, the tourism and hospitality sector has adapted to this change, as restaurants and other businesses are increasingly implementing AI-based applications for food delivery (Nunkoo et al., 2024).

Despite the enthusiastic digital transformative outlook and positive intention about AI-based applications, geographic, economic, and cultural concerns persist about the widespread traveler's utilization of AI-powered food applications (AI-PFDAs) (Troise et al., 2021). For example, the efficacy of AI-PFDA is contingent upon local infrastructure, situational barriers, restaurant unavailability, and facilitating factors; hence, its performance may be suboptimal in some areas (Lee et al., 2019). Similarly, cost-value asymmetry and price sensitivity hinder visitors' intention and behavior toward this change (Wen et al., 2022; Lefebvre et al., 2024). Moreover, in societies characterized by skepticism toward AI and robotics, users are usually reluctant to trust AI-driven food delivery firms, as visitors are primarily concerned about revealing personal data, such as location and payment information, and a lack of familiarity, which probably leads to privacy misuse (Hsiao and Chen, 2022). Similarly, Tarafdar et al. (2019) and Soltanali et al. (2023) examined the technostress and reliability issues that arise from excessive technology use or difficulties in comprehending its functions. These inconsistencies can be attributed to a well-known phenomenon called the intention-behavior gap in technology management research (Bi and Zou, 2024). A growing body of research has recently begun exploring the intention-behavior gap, even within the tourism research domain.

Prior literature highlights that the gap between AI-PFDA adoption intention and actual behavior hinders the widespread use of AI-PFDA (Birch and Memery, 2020; Wen et al., 2022). Research has consistently pointed out that intention is the closest antecedent to behavior enactment

and is often considered the best predictor of behavior (Khan et al., 2024). However, this intention-behavior gap is exacerbated by several complex factors. Previous studies have shown that various cognitive factors mediate or moderate the bridging of this gap, particularly in adopting digital innovations and changes within the tourism sector (Gamage et al., 2022). While much of this research has focused on e-tourism services, sustainable tourism, self-service technologies, and platform-based services like Airbnb (Khan et al., 2024; Troise et al., 2021), AI-PFDA adoption has received limited scholarly attention (Wen et al., 2022). For example, Yuan et al. (2024a) emphasize the importance of examining the intention-behavior gap in AI-PFDA adoption, noting that its implementation benefits both restaurants and travelers by enabling dynamic pricing strategies, such as adjusting delivery fees based on demand, weather conditions, and real-time restaurant capacity. This paper responds to the scholarly call from Yuan et al. (2024a) to address this gap in the literature, particularly as smart tourism continues to rise.

Building on the aforementioned context, this paper aims to explore the cognitive and motivational factors that help minimize the gap between intention and behavior in adopting AI-PFDA in two ways: first, by identifying predictors that directly influence behavior, and second, by identifying predictors that shape behavior through enhancing behavioral intention (Li et al., 2021). In doing so, this paper distinguishes itself from most existing studies on the intention-behavior gap in the tourism and hospitality context, which predominantly focus on conventional theoretical frameworks such as the Theory of Planned Behavior and the Technology Acceptance Model (Khan et al., 2024). Unlike most prior studies, this paper adopts a different perspective, drawing on Self-Determination Theory (SDT), Cognitive Dissonance Theory (CDT), and Mere Exposure Theory (MET). It proposes that perceived autonomy (PA), perceived competency (PC), perceived relatedness (PR), reference pricing (RP), and mere exposure (ME) are potential cognitive and motivational factors that can help bridge and minimize the intention-behavior gap in the AI-PFDA context (Tribe, 2020; Duncan et al., 2018). The selection of these theoretical perspectives and predictors is driven by the unique characteristics of tourism, which is often a recreational and costly consumption behavior marked by intangibility, heterogeneity, and inseparability. Additionally, tourists typically seek exposure to new services to motivate themselves, become familiar with, and experience these offerings (McIntyre, 2007).

Unlike most existing studies that heavily rely solely on Partial Least Squares Structural Equation Modeling (PLS-SEM) (Wang et al., 2024b), this study integrates PLS-SEM with

Necessary Condition Analysis (NCA) (Su et al., 2024) to examine the proposed framework. The combination of PLS-SEM and NCA provides a comprehensive evaluation of the research model and offers practical insights that are highly relevant to the context explored in this study.

The contribution of this study to both literature and practice is fourfold. First, the study advances the literature by integrating and validating SDT, CDT, and MET within the tourism and food delivery service sectors, which have received limited scholarly attention (*1st theoretical contribution*). Most existing studies on the intention-behavior gap in digital innovations within the tourism context have primarily focused on conventional technology adoption models, such as the Theory of Planned Behavior and the Technology Acceptance Model (Khan et al., 2024). Second, this study is one of the first to develop and empirically test a comprehensive theoretical model for bridging the intention-behavior gap in the adoption of AI-PFDA within the tourism and hospitality context, a topic that has remained underexplored (*2nd theoretical contribution*). Third, this study employs a multi-analytic approach, combining PLS-SEM and NCA, to investigate travelers' behavior in the context of smart tourism and AI-PFDA adoption, an approach that extends beyond the conventional use of PLS-SEM (*3rd methodological contribution*). Finally, this research offers valuable insights for policymakers and industry practitioners looking to promote the use of AI-PFDA among tourists. By optimizing strategies and marketing campaigns from a motivational perspective, stakeholders can increase tourist familiarity and comfort with AI-PFDA adoption (*4th practical contribution*).

The subsequent section of the study presents the theoretical background, followed by the proposed research model and hypotheses, the methodology section, analyses and results, and finally, the research conclusion, limitations, and suggestions for future research.

2. Theoretical Background and Hypotheses Development

2.1. Smart Tourism and AI-Powered Delivery Applications

Smart tourism refers to using emerging digital innovations such as big data, 5G technology, AI, the IoT, Virtual Reality (VR), and other smart applications in tourism (Gao et al., 2024). The key aspects of smart tourism are smart application usage, data-driven decision-making, real-time information, awareness of the current context, and real-time collaboration between tourists and service providers (Chuang, 2023). Businesses in this area are embracing cutting-edge technology, including artificial intelligence for food selection and delivery services, to simplify operations and enhance tourist experiences, stay competitive and profitable (Vilas-Boas et al., 2023; Yaiprasert

and Hidayanto, 2023; Ali et al., 2024). According to a recent research study by Quickworks (2024), the industry for developing on-demand food delivery apps will be worth USD 22.3 billion by 2032. Consequently, researchers have analyzed customer preferences and demands while utilizing these services (Recuero-Virto and Valilla-Arróspide, 2022). For example, the research conducted by Shukla et al. (2024) and Gunden et al. (2020) examine the determinants influencing user acceptance, self-image, mindfulness, and trust in food delivery systems in India and USA. Apart from these factors, they utilized the UTAUT model to identify critical elements such as performance expectation, effort expectancy, and social impact while highlighting the pivotal importance of other emotional factors in the adoption process. Similarly, the research conducted by Troise et al. (2021) employs a comprehensive framework that integrates the technology acceptance model (TAM) with the theory of planned behavior (TPB) to examine the primary determinants influencing Italian users' intentions to utilize food delivery applications, revealing that subjective norms emerge as the most significant factor. Moreover, the findings of the Mai et al. (2024) research contribute to the existing body of literature on continuance intention in online food delivery services by incorporating both technology- and affective-based factors from a worldwide perspective.

In turn, the food delivery application market and consumer preferences are becoming increasingly significant in the global economy, propelled by mobile devices and online ordering platforms that facilitate exponential expansion (Yaiprasert and Hidayanto, 2023). However, the remote nature of decision-making in using AI-PFDA implies that minimizing the gap between travelers' UI and actual UB toward this shift demands substantial consideration, and is considered the core objective of this study.

2.2. Related Theories

The study of the intention-behavior gap has gained significant attention in recent tourism and hospitality literature, especially with the recent surge in digital innovations within the industry (Khan et al., 2024). However, most prior research on this topic has primarily focused on the adoption of e-tourism or sustainable tourism, often relying on conventional theoretical frameworks like the Theory of Planned Behavior or the Technology Acceptance Model (Khan et al., 2024; Yuan et al., 2024a). Given that tourism and hospitality are service-oriented industries where the relationship between customer service personnel and tourists is crucial, traditional technology adoption frameworks may not fully account for the shifts in tourist attitudes, behaviors, and their

motivational consequences. Therefore, in contrast to existing studies, this research adopts a theoretical framework by merging prominent motivational theories to investigate the individual motivational differences among tourists in adopting AI-PFDAs.

Self-determination theory (SDT) has proven to be an effective theoretical framework for examining the motivational factors that influence users' intentions and behaviors in adopting various technologies across different research contexts (Mechelin and Liu-Lastres, 2023, Vijaikis and Poškus, 2024). Previous research has utilized SDT as the primary framework to examine the motivational factors affecting users' intentions to adopt novel technologies and services. For example, In the tourism context, Keerthi et al. (2024) established a research framework to combine the diffusion of innovation (DOI) with SDT to analyze tourists' intentions toward food delivery apps. Similarly, Eime et al. (2024) utilized SDT to explore the adoption of virtual reality and augmented reality within the context of tourism research. Thus, building on insights from previous literature, this study adopts key constructs from the SDT—such as perceived autonomy (PA), competence (PC), and relatedness (PR)—as critical variables for explaining the intention-behavior gap in AI-PFDA adoption. SDT serves as the primary theoretical framework for this study. Leveraging SDT, this research will explore the cognitive and motivational factors that help minimize the gap between intention and behavior in adopting AI-PFDA within the tourism and hospitality industry. Additionally, the study incorporates two related theoretical perspectives: *Cognitive Dissonance Theory* (CDT) and *Mere Exposure Theory* (MET).

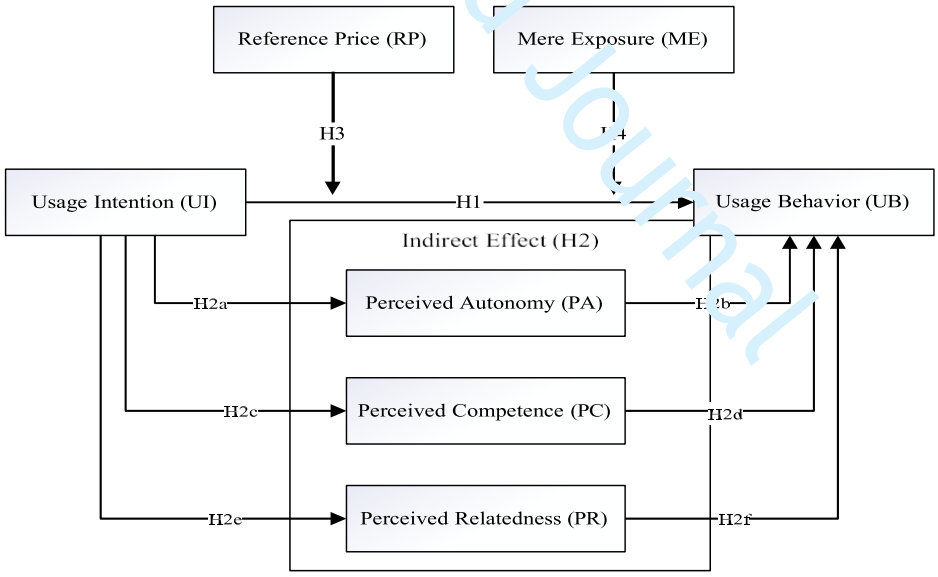
The CDT posits that dissonance arises when an individual holds more contradicting cognitions regarding performance, risk, cost, and familiarity when making purchase decisions (Festinger, 1962). According to Marikyan et al. (2023), dissonance arises when expectations are contradicted, leading to a mental state linked with feelings of distress. Research has shown that when making purchase decisions, individuals often place significant importance on the reference information regarding prices, which can significantly influence their cognitive dissonance and overall decision-making process (Chi et al., 2024; Lee and Jeyaraj, 2014). Due to its nascent state, AI-PFDA remains unfamiliar primarily to most travelers and lacks expertise and comprehension of new tourist spots. Consequently, they rely on benchmarks, such as the familiarity and cost of conventional technology or service. The internal conflict experienced by tourists leads to cognitive dissonance, which compels them to either modify their behavior to match their positive goals (by

embracing the technology) or change their attitudes to alleviate the discomfort (by explaining their hesitancy).

Moreover, to enhance our understanding of how to bridge the intention-behavior gap, this study also utilized the MET initially proposed by Zajonc (1968). In his seminal work, Zajonc (1968) demonstrated that increased exposure to a stimulus leads individuals to rate it more favorably, suggesting that this exposure is crucial for enhancing their attitudes. He defined *"mere exposure"* as a condition that makes a stimulus more accessible to perception. This repeated exposure facilitates learning about the stimulus, increasing our liking for it; this favorability stems from recognition and familiarity. In the marketing context, Tom et al. (2007), Bornstein and Craver-Lemley (2022) and Chung et al. (2015) found that frequent exposure to a product increases consumers' familiarity and favorable perceptions/preferences of it. The MET, therefore, offers a novel theoretical perspective to rigorously understand the factors influencing the intention-behavior gap in adopting AI-PFDA in tourism.

Grounded in SDT, CDT, and MET, this study proposes a theoretical model (Figure 1) along with the associated hypotheses as follows.

Figure 1: Research Model



2.3. Hypotheses Development

2.3.1. Direct relationship

The existing literature demonstrates that intent is a reliable prerequisite that assesses individuals' willingness to commit and exert effort to engage in a specific behavior (Yuan et al.,

2024a). Hence, this study conceptualizes UI as the degree to which tourists consciously intend to use AI-PFDA at their final destinations. In contrast, UB is conceived as a subjective certainty that a traveler will take action to use AI-PFDA. Based on the Patterson (2008) and Shah et al., (2025) studies, we believe that although travelers are motivated to embrace AI-PFDA due to their predicted benefits, they may hesitate to use it. Concerns about a lack of knowledge, costs, privacy, potential risks, and other motivational factors can cause to postpone or completely abandon their intentions to adopt such technologies (Tandon et al., 2021). Thus, this study suggests that users with positive attitudes about AI-PFDA applications are more likely to engage in actual usage behaviors. Consequently, we assume that:

H_1: *Travelers' UI positively influences their UB when adopting AI-PFDA*s.

2.3.2. Mediating relationship

The present study characterizes *perceived autonomy (PA)* as the individual's assessment of their capacity to manage their behavior (Gui et al., 2019). Subsequently, distinct behavior would emerge when they act with intention and choice. Research indicates that humans have an inherent desire for control and the ability to make choices, which are fundamental psychological needs (Yuen et al., 2023). In relation to the smart tourism context, the AI-PFDA has the potential to foster an environment that promotes travelers' autonomy and trust (Wang et al., 2024a). For instance, if an AI-PFDA customizes food recommendations while allowing users to opt-out or modify the ideas, it augments their perceived control, enhancing trust and happiness. Accordingly, when individuals experience autonomy, it indicates that their psychological needs are fulfilled, which leads to increased satisfaction and ultimately fosters their UI to UB.

Similarly, this research also characterizes *perceived relatedness (PR)* as the sense of satisfaction that arises from the fundamental human emotional need to share experiences and affiliate with members of a group or society (Yuen et al., 2023). The increasing adoption of AI-PFDA applications has raised concerns regarding the diminishing proximity in smart tourism, which may lead to a loss of human connection and potential issues of trust (Wang et al., 2024a). A boost in behavior at the systemic level occurs when AI-PFDA are trusted, or when users see them as comprehending and appropriately addressing their demands. When AI-PFDAs provide a list of suggestions tailored to a user's interests, it creates the sense that the user has been comprehended and valued. In other words, a sense of belonging is established when an individual

feels connected to and cared for by others. Consequently, this feeling of belonging would foster the emergence of positive emotions that shape UI to UB.

Moreover, PC includes both technical skills and the capacity to adapt to the changing digital landscape while effectively utilizing technology (Reyes Uribe and González Flores, 2023). Many researchers believe that the progression of technological innovation and its eventual application in various human practices enhances the viability and effectiveness of services (Ashfaq et al., 2020). When travelers perceive themselves as proficient in dealing with and utilizing AI-PFDA, they are more inclined to experience feelings of trust, competence, and satisfaction (Wang et al., 2024a). Their initial intention to adopt this technology is more likely to result in actual usage behavior. The rationale behind this is that enhanced personal computing reduces technical stress, elevates user pleasure, and fosters a feeling of trust and control, thus bridging the divide between intention and behavior. Summing all these, we proposed that:

H2: SDT factors (i.e., perceived autonomy (PA), perceived relatedness (PR), and perceived competency (PC)) mediate the relationship between travelers' UI and actual UB in order to encourage them to adopt AI-PFDAs.

2.3.3. Moderating relationship

Prior literature has demonstrated that product or service performance variations exacerbate consumer uncertainty (Mariani et al., 2022). In this scenario, users typically regard price as a cue in evaluating performance, which in turn influences their intention, attitude, and behavior (Han and Ryu, 2009; Gamble, 1988). According to Ali et al. (2016), when users encounter a new stimulus, they compare its price with reference prices (RP) based on their previous experiences. If the price is nearer to their RP, they may perceive it as *"fair"* and vice versa (Srivastava et al., 2022). When applying the CDT in smart tourism, travelers' perceptions of the value and affordability of AI-PFDA are influenced by RP, such as the comparative pricing of conventional service (Chandon et al., 2005). In that case, tourists will likely perceive the technology as offering good recreational value for money (Kim et al., 2024). Aligning the price with the RP helps minimize dissonance, thereby facilitating individuals to realize their intention into actual behavior. Therefore, we suggest that:

H_3*: RP of AI-PFDA moderates the link between travelers' UI and actual UB in order to encourage them to use AI-PFDAs.*

The MET posits that the tendency of users to develop preferences for things they are already acquainted with (Inoue et al., 2018) is frequently called the "principle of familiarity" or exposure (Han et al., 2023). Users with deep knowledge and proficiency in a product or service can make more accurate and self-assured estimations, subsequently impacting their attitudes and behavior (Biswas and Sherrell, 1993). Tourism and service provider literature emphasizes that destination marketing firms and food delivery service providers pursue various marketing communication strategies to engage and attract travelers to a destination for recreational activities (Rehman et al., 2023).

Gamage et al. (2022) found that travel decisions are subject to ongoing changes as a result of exposure to new information or perceived cognitive dissonance between intentions and actual behavior. Building on this backdrop, this study applies the MET to suggest that when technology users encounter positive information and develop familiarity in the form of *mere exposure (ME)* with the benefits and features of AI-PFDAs, their attitudes toward them become increasingly favorable. Repeated ME to AI-PFDA increases familiarity and liking, resulting in positive attitudes and intentions toward its adoption. Therefore, we hypothesize that:

H_4: *Mere exposure (ME) to AI-PFDA moderates the link between travelers' UI and actual UB in order to encourage them to use AI-PFDA*s.

3. Methodology

3.1. Questionnaire Development

A paper-based questionnaire survey was conducted to examine and validate the proposed hypotheses. Data were collected voluntarily from travelers in four prominent international tourist cities of China: Beijing, Shanghai, Xi'an, and Guangzhou. China was selected as the research setting of this study as it is one of the leading countries in implementing smart tourism technologies and services and places great strategic weight on it at the national level (Wang et al., 2020). These advanced technology applications are being developed in smart city initiatives to enhance the quality of travel and leisure experiences.

For data collection, the questionnaires were provided in Mandarin Chinese and English based on the respondents' characteristics and well-tested measurement scales from prior studies. The measurement scales utilized to measure the key variables were derived from prior research and subsequently modified to align with the context of this study. Both UI and UB were measured using four-item scales adopted from (Shah and Zhongjun, 2021; Van Winkle et al., 2019).

Similarly, other factors were measured by adopting item measurement scales developed by (Artigas et al., 2015; Kennedy et al., 2001; Shan et al., 2020; Yang and Lou, 2024). All the constructs were evaluated using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The consent form for filling out the questionnaire choice was included, and respondents were given a free choice.

3.2. Data Sampling

To enhance readability and validity, we evaluated the questionnaire with the help of three scholars in the field of tourism and management, confirming the relevance and inclusiveness of the items. Next, the study employed purposive sampling to capture usage patterns of food delivery services from participants (Dubey and Kothari, 2022). A total of 325 questionnaires were distributed, resulting in 305 completed responses and an effective response rate of 93.8% within three months. The respondents included an equal illustration of male (46.2%) and female (53.7%) participants, with over 80% falling within the age range above 30. Most respondents, precisely 59.3%, possess higher education. Regarding technology usage, 44.91% reported using food delivery services, while 55% reported using other conventional services. The variation in the level of education, age, and technology use provides insights into tourists' adoption behaviors and perceptions about AI-PFDA systems. This research focused on China, using a data sample from four distinct cities, which enabled the identification of adoption obstacles and motives, therefore assisting in the formulation of tailored interventions to enhance adoption within this demography.

4. Analysis and Findings

This work employed the PLS-SEM and NCA as the primary data analysis techniques to test hypotheses. PLS-SEM is a model of a statistical structure that defines the interrelationships among multiple variables and provides a full illustration of the proposed model, theoretical development, and causal estimation through measurement and structural model (Yuan et al., 2024a). Similarly, the NCA facilitates the identification of essential variables necessary for achieving a specific outcome (Richter et al., 2020). PLS-SEM and NCA can effectively capture complex interactions and minimum requirements for adoption. Moreover, this technique is appropriately aligned with our sample size of 305 respondents, ensuring that any potential deviations from the 'normal' distribution can still yield reliable and robust results. Without the presence of critical variables, achieving the desired outcomes is not feasible.

4.1. Measurement Model Validation

The reliability and validity of the measurement scales were assessed using the PLS-SEM analytic technique, which examined the outer loadings to determine the relationships between latent variables and their reflective indicators. According to Yuan et al. (2024b), the outer loading value of an item below 0.7 should be eliminated to enhance average variance extracted (AVE) and composite reliability (CR). In our analysis, no items needed to be removed, as all outer factor loading values exceeded the threshold of 0.7. As shown in Table 1, each value fell within the appropriate VIF, mean, and standard deviation (SD) ranges. Convergent and discriminant validities can be confirmed because of the factor loadings, C-α, CR, AVE, and HTMT values. Table 2 illustrates the construct's correlations lower than 0.6 and the AVE square root correlation of each construct, which has also been confirmed through the HTMT Criterion. All constructs of the model correspond to this criterion, as no off-diagonal component exceeds the relevant element in the diagonal.

Table 1. Items basic statistics and factor loadings

Items	VIF	Mean	SD	Kurtosis	Skewness	Loadings
ME1	1.589	3.233	0.969	-0.732	0.127	0.936
ME2	1.259	3.275	0.966	-0.727	0.059	0.954
ME3	1.786	3.154	0.937	-0.418	0.265	0.945
PA1	1.566	3.298	0.905	6.773	-1.372	0.731
PA2	1.799	3.085	0.733	0.507	0.217	0.815
PA3	2.258	2.633	0.956	0.150	0.680	0.854
PA4	2.268	2.636	0.976	0.017	0.592	0.849
PC1	1.111	3.210	0.811	-0.012	0.154	0.907
PC2	2.125	2.892	0.852	-0.054	0.113	0.837
PC3	2.41	3.305	0.914	-0.063	-0.305	0.861
PC4	2.673	2.915	0.898	0.070	0.251	0.885
PR1	1.599	3.043	0.798	-0.194	0.117	0.834
PR2	1.452	3.397	0.885	-0.084	0.045	0.844
PR3	1.403	2.905	1.005	-0.648	0.134	0.743
RP1	1.250	3.367	0.914	6.475	-1.337	0.762
RP2	1.320	3.085	0.733	0.507	0.217	0.789
RP3	1.248	3.344	0.925	-0.34	0.063	0.748

UB1	1.626	3.492	0.850	0.146	-0.361	0.794
UB2	1.567	3.266	0.852	-0.070	-0.283	0.783
UB3	1.632	3.770	0.834	0.843	-0.639	0.771
UB4	1.874	3.357	0.861	0.209	-0.358	0.839
UI1	2.946	3.823	0.842	-0.322	-0.217	0.929
UI2	1.437	3.902	0.800	-0.085	-0.284	0.938
UI3	1.180	4.177	0.725	0.786	-0.699	0.813
UI4	2.406	3.764	0.932	-0.440	-0.319	0.878

Table 2. Construct Validity and Reliability and HTMT through PLS-algorithm

	C-α	CR	AVE	ME	PA	PC	PR	RP	UB	UI
ME	0.94	0.962	0.893	**0.845**						
PA	0.828	0.887	0.662	0.616	**0.814**					
PC	0.895	0.927	0.761	0.444	0.703	**0.843**				
PR	0.738	0.849	0.654	0.548	0.815	0.787	**0.808**			
RP	0.649	0.81	0.588	0.515	0.778	0.732	0.805	**0.767**		
UB	0.808	0.874	0.635	0.58	0.564	0.62	0.543	0.65	**0.797**	
UI	0.914	0.939	0.794	0.531	0.302	0.375	0.413	0.484	0.647	**0.831**

4.2. Structural Model Assessment

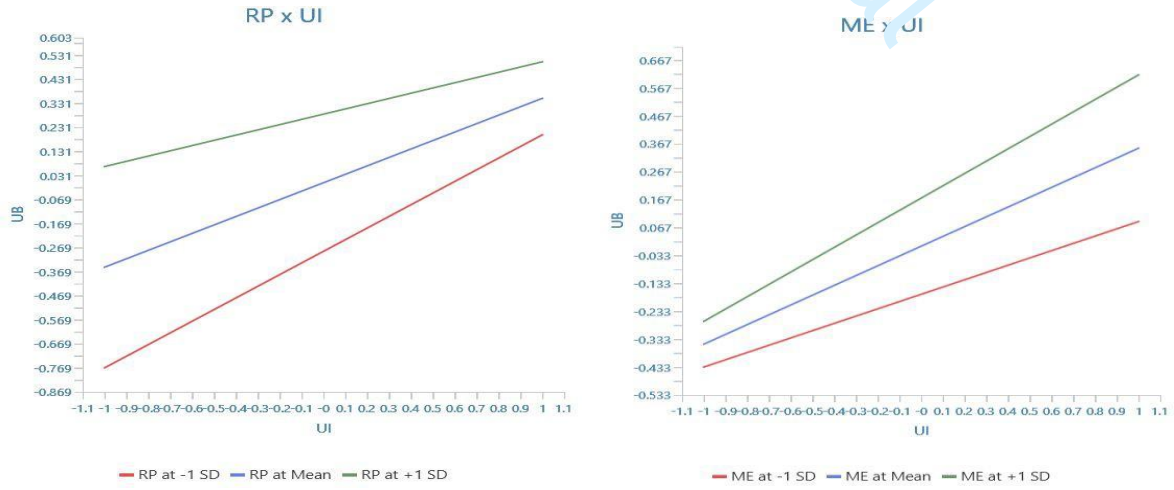
During this phase, the proposed structural model was estimated utilizing the bootstrapping method to assess its predictive capability and path significance. The t-statistic elucidates the estimation stability, and a 95% confidence interval exceeding 1.96 is deemed adequate (Hair Jr et al., 2017). The R^2 statistics indicate that the variance in the endogenous variable explained by the exogenous variable was satisfactory at 0.659, exceeding the critical value of 0.25. The extended model demonstrates a notably enhanced R^2 value in comparison to the basic model, indicating superior performance. By employing the bootstrapping technique, it was also ascertained that the correlation between intention and behavior exhibits a significant positive direct effect. Thus, H1 (β = 0.351, p= 0.000) was found significant. Similarly, the mediating effect of referencing H2 has found a substantial positive effect of PA (β = 0.137, p= 0.000), AC (β = 0.049, p= 0.033), and significant negative influence for PR (β = -0.139, p= 0.000) on intention behavior relationship (as shown in Table 3). Moreover, the moderating effect (as mentioned in Figure 2) of RP in H3: (β =

-0.133, p= 0.000) and ME H4: (β = 0.090, p= 0.020) has a substantial negative and positive impact on the intention behavior relationship. The 2.5% and 97.5% values in bootstrapping indicate the lower and upper bounds of the 95% confidence interval (CI) for a path coefficient, which have been incorporated into our analysis. All these results have been highlighted in Table 3.

Table 3. Structural Model Measurement (Direct, Mediation, and Moderation)

Hypotheses	Original sample	T statistics	P values	2.5%	97.5%	Remarks
Direct effect						
UI →UB	0.351	7.755	0.000	0.258	0.435	Positively supported
UI → PA	0.302	5.025	0.000	0.181	0.417	Positively supported
PA → UB	0.162	2.169	0.030	0.013	0.311	Positively supported
UI → PC	0.375	7.392	0.000	0.272	0.476	Positively supported
PC → UB	0.366	5.677	0.000	0.241	0.487	Positively supported
UI → PR	0.413	8.052	0.000	0.305	0.511	Positively supported
PR → UB	-0.337	4.371	0.000	-0.481	-0.184	Negatively supported
Indirect effect (Mediation)						
UI → PC → UB	0.137	4.602	0.000	0.081	0.198	Positively supported
UI →PA → UB	0.049	1.859	0.033	0.003	0.105	Positively supported
UI → PR → UB	-0.139	3.906	0.000	-0.206	-0.068	Negatively supported
Moderating effect						
RP x UI → UB	-0.133	4.29	0.000	-0.208	-0.083	Negatively supported
ME x UI → UB	0.090	2.331	0.020	0.021	0.170	Positively supported

Figure 2. Moderating relationships of RP and ME

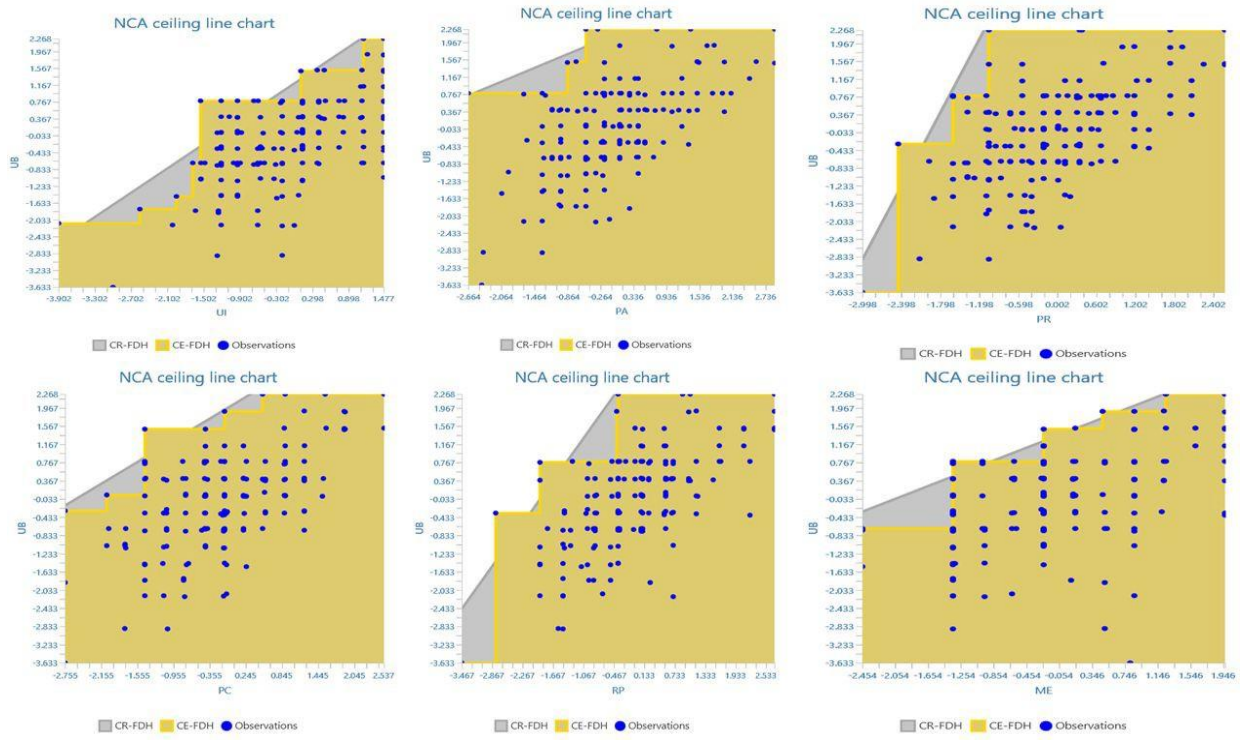


Furthermore, an NCA was also performed to determine the logical necessity for a specific outcome and the prerequisites to attain the desired results (Richter et al., 2020). The NCA effect size was determined to analyze the necessary conditions among the factors. Table 4 and Figure 3 present the results of the NCA assessment and illustrate the scatter plot depicting the relationships between the independent and dependent variables analyzed in this study. Richter et al. (2020) indicate that an effect size below 0.10 and a p-value exceeding 0.05 suggest the absence of a necessary condition between the independent and dependent factors. The tested and endorsed model offers a basis for the discussion.

Table 4. NCA analysis results

Variables	Original effect size	95.00%	Permutation p-value
UI	0.408	0.214	0.000
PA	0.089	0.085	0.033
PR	0.189	0.129	0.000
PC	0.142	0.092	0.000
RP	0.233	0.152	0.000
ME	0.219	0.107	0.000

Figure 3. The NCA plots



5. Discussion and Implications

In recent years, AI service devices have been utilized to deliver a range of services across various tourism contexts (Chi et al., 2022). The research study of Hsiao and Chen (2022) also examined the key antecedents of users' continuance intention, trust, and satisfaction regarding food applications. However, the findings of this study align with the research conducted by Trivedi et al. (2022), which indicates that travelers' user interface positively impacts their user behavior when adopting AI-PFDA in smart tourism, thereby supporting H1. The fundamental reason for this is because, in the context of tourist experiences in China, a significant percentage of tourists, especially seniors, have not fulfilled their adoption objectives, leading to a significant gap between actual UI and UB.

Upon examining the reasons for this discrepancy and identifying the factors that would reduce this gap, our findings through the H2 hypothesis suggest that PA and PC positively mediate the translation of UI into UB, with the exception of PR. The reason is many young Chinese travelers believe they can autonomously control and personalize their activities with AI-PFDAs.The apparent autonomy amplifies their intrinsic incentive, increasing their engagement and commitment to using the technology in their tourist endeavors (Zhu et al.; 2024, Ahn, 2020). These findings are similar to the (Lee et al., 2022; Hong and Ahn, 2023) studies, meaning that with such motives, they are more inclined to translate their intention into actual action. Similarly, a robust feeling of expertise not only enhances confidence but also diminishes hesitancy or doubt that may otherwise obstruct the translation of purpose into action. Conversely, if travelers feel that utilizing AI-PFDA hinders their capacity to engage with locals, fellow tourists, or even other travelers throughout their journey, the sense of relatedness will diminish (Hong and Ahn, 2023).

Moreover, the negative moderating impact of RP through H3 may be attributed to the perception that RP for AI-PFDAs is relatively high compared to conventional services and users can access similar benefits at a lower price through alternative conventional ways of ordering foods. These negative attitudes can create cognitive dissonance when individuals have positive intentions but encounter excessively high or inflated prices. This discrepancy may lead them to question the value of adopting AI-PFDA, resulting in skepticism or uncertainty about the benefits of the technology (Huang and Tsai, 2003). In accordance with the findings of (Bambauer-Sachse and Massera, 2015; Mao et al., 2023), we contend that the phenomenon of overpricing obstructs the congruence between tourists' utility intentions and their actual utility benefits, as individuals may

demonstrate hesitance to adopt a specific product or service when they perceive the price to exceed what they consider fair or justified.

On the other side, the findings reveal that ME positively moderates the AI-PFDA usage behavior. One plausible explanation for the favorable moderating effect, as indicated by the acceptance of H4, is that these days Chinese travelers are increasingly exposed to information about emerging technologies through various channels, including advertisements and word-of-mouth, with significant amusement activities. The increased recognition and understanding of AI-PFDA help to reduce concerns and hesitations about their adoption. This outcome also demonstrates congruity with previous research focusing on Asian travelers of various ages (Yuan and McDonald, 1990; Jang and Cai, 2002; Jang and Wu, 2006). Therefore, regular exposure and detailed knowledge of AI-PFDAs can reduce cognitive dissonance and shape attitudes and perceptions toward digital innovations, leading to a greater propensity toward practicing them.

5.1. Theoretical Implications

The findings of the study will enhance the existing body of research in the tourism and food delivery services industries in many distinct ways. First, although the tourism and food delivery industries have long been at the forefront of technological advancements, most of the studies have focused on adopting tourism in general, with smart tourism receiving limited attention. Based on (Guan et al., 2021; Tajeddini et al., 2021; Gamage et al., 2022) findings, this study is among the first to address the intention-behavior gap in AI-PFDAs by developing a theory-driven research model. Therefore, these empirical findings serve as a reminder for technology researchers to consider such delays when accurate and timely demand forecasting is required to avoid overestimation.

Second, this study offers a fresh theoretical perspective to the tourism and food delivery services literature, which has largely centered on established technology adoption models, including the TAM, TPB, DOI, and UTAUT (Shukla et al., 2024, Troise et al., 2021). By integrating SDT, CDT, and MET, this study explores consumer behavior in using AI-PFDAs in the tourism industry. The findings align with SDT (Ryan and Deci, 2000), indicating that user satisfaction contributes to positive social functioning, encompassing users' affection, cognition, and behavior. Therefore, this approach will further strengthen the existing literature and will help researchers transform toward this innovative platform (Iskender et al., 2024, Park et al., 2023).

Third, this study further enhances the methodology using a multi-analytic approach combining PLS-SEM and NCA. This integrated methodology thoroughly analyzes the intention to continue utilizing AI-PFDA within tourism environments, delivering an enhanced understanding of the intricate relationships and essential conditions influencing traveler behavior. The application of these advanced analytical techniques strengthens the findings and contributes to the methodological rigor of the research to help scholars in behavioral economics and marketing sciences.

Finally, this study underscores the convergence of the tourist and food sectors within the globalized economy of China and a culturally varied technology environment in order to enhance theoretical frameworks regarding consumer behavior, digital engagement, and market dynamics. Therefore, this study enhances academic understanding of digital tourism and technology integration by analyzing the elements influencing user engagement and adoption, providing theoretical insights that will inform future research in analogous digital and cultural contexts.

5.2. Managerial Implications

This research also has practical inferences for policymakers and industry practitioners aiming to encourage using AI-PFDA in the tourism industry. Building on the findings of Kim et al. (2021), this study also demonstrates that higher prices can lead to a failure to make a buying decision, especially when an alternative is available. By considering the SDT characteristics and the favorable moderating impact of RP, this study provided a human-centered methodology for digital transformation, highlighting employee empowerment, and enduring resilience in the labour market. On one side, this research will promote an environment conducive to addressing the critical issues of autonomy, relatedness, and competence, which are essential for facilitating change among policymakers. For example, analysing autonomy and competency will enable employees to challenge prevailing standards and introduce delicate experimental modifications to improve their skills. In a similar vein, the complex dynamics of relatedness will be enhanced through collaborative communication endeavours aimed at inspiring individuals to move beyond their comfort zones and exchange ideas. On the other side, policymakers can develop targeted and acceptable pricing strategies that establish AI-PFDA prices at levels deemed appropriate. The price reduction is unnecessary, and firms can use dynamic pricing models to customize prices according to customer behaviors, preferences, and willingness to pay using segmented pricing methods. Considering these historical purchasing patterns, premium pricing, discounts, and time-based

pricing can be employed to adjust prices according to peak and off-peak demand times. Therefore, tourism and food firms operating in a particular location should establish prices based on the users' perceived worth of such things. Alternatively, a higher benchmark could result in an augmented price that travelers are inclined to pay.

The essential factor in integrating elements that promote transparency and strengthen trust in the use of these systems. The AI-PFDA must communicate to developers the expected functionalities and the management of client data, including the safety measures used to ensure data security. Considering the STD and ME factors, developers can incorporate data, including safety features and personal data protection, to establish user confidence and promote adoption. Over the last ten years, numerous tourism companies in China have implemented multi-information dissemination mechanisms that integrate both traditional and new media channels for marketing purposes (Wang et al., 2022). Therefore, tourism enterprises can effectively align marketing strategies with psychological and cognitive processes, so harnessing their considerable potential for social, corporate, and personal development.

Finally, firms and authorities can enhance the appeal and technical sophistication of the destination by including AI-PFDA inside smart city efforts. China has undertaken several initiatives, including drone food delivery in its smart cities. To this end, we believe that an unlearning approach is crucial for employees to relinquish obsolete methods and adopt new digital competencies, hence enabling adaptation to technologies like automation, data analytics, and digital communication tools. The need to discard obsolete processes is essential to fostering employees' adoption of new technologies (Cummings et al., 2023). Many food industry organizations persist in undervaluing the significance of unlearning and lack systematic strategies for successful change management (Manning et al., 2023). Therefore, this research will help in the creation of an unlearning environment by firms that promote continuous learning in order to improve their digital capabilities and will prioritize training initiatives to empower employees with the autonomy and skills necessary for success.

6. Conclusion

The AI-PFDA is revolutionizing the tourism industry; however, the disparity between travelers' intended use and their actual behavior frequently obstructs its adoption, presenting a significant issue that has not been thoroughly examined in recent academic research. This study utilizes SDT, CDT, and MET to explore the gap by analyzing the travelers' UI and actual UB in

the adoption of AI-PFDA to reduce this disparity. Our findings contribute to the literature by exploring the intention-behavior gap in the adoption of AI-PFDA and offer practical insights for practitioners and policymakers striving to improve the integration of advanced technologies in the tourism industry.

However, some limitations of this study must be acknowledged and should be addressed in future research. Firstly, it is important to recognize that this research is specifically centered on a specific setting and group of people, which restricts the applicability of the results to other contexts and demographic categories. Therefore, future research could expand upon these findings by investigating the influence of additional cognitive and motivational factors to minimize the intention-behavior gap in various cultural and technological contexts. Furthermore, using a cross-sectional design in this study restricts our capacity to understand the changing nature of the cause-and-effect linkages with time. Hence, it would be more feasible to utilize longitudinal approaches in future studies to monitor the evolution of intention and behavior over time, offering significant insights into the dynamic nature of technology adoption processes.

References:

AHN, J. 2020. Understanding the role of perceived satisfaction with autonomy, competence, and relatedness in the CSR context. *Journal of Sustainable Tourism,* 28**,** 2027-2043.

ALI, F., AMIN, M. & COBANOGLU, C. 2016. An integrated model of service experience, emotions, satisfaction, and price acceptance: an empirical analysis in the Chinese hospitality industry. *Journal of Hospitality Marketing & Management,* 25**,** 449-475.

ALI, R., IRFAN, S. & HAMID, S. 2024. Emerging themes in food tourism: a systematic literature review and research agenda. *British Food Journal,* 126**,** 372-408.

ARTIGAS, E. M., VILCHES-MONTERO, S. & YRIGOYEN, C. C. 2015. Antecedents of tourism destination reputation: The mediating role of familiarity. *Journal of Retailing and Consumer Services,* 26**,** 147-152.

ASHFAQ, M., YUN, J., YU, S. & LOUREIRO, S. M. C. 2020. I, Chatbot: Modeling the determinants of users' satisfaction and continuance intention of AI-powered service agents. *Telematics and Informatics,* 54**,** 101473.

BAMBAUER-SACHSE, S. & MASSERA, L. 2015. Interaction effects of different price claims and contextual factors on consumers' reference price adaptation after exposure to a price promotion. *Journal of Retailing and Consumer Services,* 27**,** 63-73.

BI, X. & ZOU, W. 2024. The Effect of Farmer's Cognition on the Inconsistency Between Behavior and Intention in Manure Application. *SAGE Open,* 14**,** 21582440241286583.

BIRCH, D. & MEMERY, J. 2020. Tourists, local food and the intention-behaviour gap. *Journal of Hospitality and Tourism Management,* 43, 53-61.

BISWAS, A. & SHERRELL, D. L. 1993. The influence of product knowledge and brand name on internal price standards and confidence. *Psychology & Marketing,* 10**,** 31-46.

BORNSTEIN, R. F. & CRAVER-LEMLEY, C. 2022. Mere exposure effect. *Cognitive illusions***,** 241-258.

CHANDON, P., MORWITZ, V. G. & REINARTZ, W. J. 2005. Do intentions really predict behavior? Self-generated validity effects in survey research. *Journal of marketing,* 69**,** 1-14.

CHI, C. G., DENG, D. S., CHI, O. H. & LIN, H. 2024. Framing food tourism videos: What drives viewers' attitudes and behaviors? *Journal of Hospitality & Tourism Research,* 48**,** 533-548.

CHI, O. H., GURSOY, D. & CHI, C. G. 2022. Tourists' attitudes toward the use of artificially intelligent (AI) devices in tourism service delivery: moderating role of service value seeking. *Journal of Travel Research,* 61**,** 170-185.

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**,** 1-16.

CHUNG, N., HAN, H. & KOO, C. 2015. Adoption of travel information in user-generated content on social media: the moderating effect of social presence. *Behaviour & information technology,* 34**,** 902-919.

Cummings, J. J., Cahill, T. J., Wertz, E., & Zhong, Q. (2023). Psychological predictors of consumer-level virtual reality technology adoption and usage. Virtual Reality, 27(2), 1357-1379.

DUBEY, U. K. B. & KOTHARI, D. P. 2022. *Research methodology: Techniques and trends,* Chapman and Hall/CRC.

DUNCAN, J. M., WITHERS, M. C., LUCIER-GREER, M., FERRARO, A. J. & REED-FITZKE, K. 2018. Research note: social leisure engagement, peer support, and depressive symptomology among emerging adults. *Leisure Studies,* 37**,** 343-351.

EIME, R., HARVEY, J., CHARITY, M., PANKOWIAK, A., WESTERBEEK, H. & MESAGNO, C. 2024. The motivations to play organised club-based sport in Australia. *Leisure Studies***,** 1-16.

EL ARCHI, Y., BENBBA, B., NIZAMATDINOVA, Z., ISSAKOV, Y., VARGÁNÉ, G. I. & DÁVID, L. D. 2023. Systematic literature review analysing smart tourism destinations in context of sustainable development: Current applications and future directions. *Sustainability,* 15**,** 5086.

FESTINGER, L. 1962. *Cognitive dissonance*, Scientific American.

GAMAGE, T. C., TAJEDDINI, K. & TAJEDDINI, O. 2022. Why Chinese travelers use WeChat to make hotel choice decisions: A uses and gratifications theory perspective. *Journal of Global Scholars of Marketing Science,* 32**,** 285-312.

GAMBLE, P. 1988. Attitudes to computers of managers in the hospitality industry. *Behaviour & Information Technology,* 7**,** 305-321.

GAO, J., XU, D. & PAN, Y. 2024. Configurational Paths to Arouse Tourists' Positive Experiences in Smart Tourism Destinations: A fsQCA Approach. *SAGE Open,* 14**,** 21582440241248226.

GUAN, X., XIE, L., SHEN, W.-G. & HUAN, T.-C. 2021. Are you a tech-savvy person? Exploring factors influencing customers using self-service technology. *Technology in Society,* 65**,** 101564.

GUI, J., KONO, S. & WALKER, G. J. 2019. Basic psychological need satisfaction and affect within the leisure sphere. *Leisure Studies,* 38**,** 114-127.

GUNDEN, N., MOROSAN, C. & DEFRANCO, A. 2020. Consumers' intentions to use online food delivery systems in the USA. *International journal of contemporary hospitality management,* 32**,** 1325-1345.

GUPTA, K. P. 2024. Understanding the challenges of 5G deployment in India. *Digital Policy, Regulation and Governance,* 26**,** 1-17.

HAIR JR, J. F., SARSTEDT, M., RINGLE, C. M. & GUDERGAN, S. P. 2017. *Advanced issues in partial least squares structural equation modeling*, Sage publications.

HAN, H. & RYU, K. 2009. The roles of the physical environment, price perception, and customer satisfaction in determining customer loyalty in the restaurant industry. *Journal of hospitality & tourism research,* 33**,** 487-510.

HAN, S., SHEN, J., WANG, X., GUO, Z., LIU, S., GAN, Y., XU, Q. & ZHANG, L. 2023. The impact of repeated exposure on facial attractiveness: The role of cognition and emotion. *Current Psychology,* 42**,** 25379-25390.

HONG, E. & AHN, J. 2023. The role of autonomy, competence and relatedness in motivation to use self-service technology (SST) among customers with difficulties in SST. *Journal of Hospitality and Tourism Technology,* 14**,** 630-642.

HSIAO, K.-L. & CHEN, C.-C. 2022. What drives continuance intention to use a food-ordering chatbot? An examination of trust and satisfaction. *Library Hi Tech,* 40**,** 929-946.

HUANG, L. & TSAI, H.-T. 2003. The study of senior traveler behavior in Taiwan. *Tourism management,* 24**,** 561-574.

IFTIKHAR, R., KHAN, M. S. & PASANCHAY, K. 2023. Virtual reality tourism and technology acceptance: a disability perspective. *Leisure Studies,* 42**,** 849-865.

INOUE, K., YAGI, Y. & SATO, N. 2018. The mere exposure effect for visual image. *Memory & Cognition,* 46**,** 181-190.

ISKENDER, A., SIRAKAYA-TURK, E., CARDENAS, D. & HARRILL, R. 2024. COVID or VOID: A systematic literature review of technology adoption and acceptance in hospitality and tourism since the breakout of COVID-19. *Tourism and Hospitality Research,* 24**,** 95-114.

JANG, S. & CAI, L. A. 2002. Travel motivations and destination choice: A study of British outbound market. *Journal of Travel & Tourism Marketing,* 13**,** 111-133.

JANG, S. S. & WU, C.-M. E. 2006. Seniors' travel motivation and the influential factors: An examination of Taiwanese seniors. *Tourism management,* 27**,** 306-316.

KEERTHI, P., GAUTAM, V. & KHURANA, V. 2024. Examining Customers' Continued Intention to Reuse Mobile Food Ordering Apps: A Study Using Integrated DOI-SDT Model. *IUP Journal of Marketing Management,* 23.

KENNEDY, M. S., FERRELL, L. K. & LECLAIR, D. T. 2001. Consumers' trust of salesperson and manufacturer: an empirical study. *Journal of Business research,* 51**,** 73-86.

KHAN, N., ACUTI, D., LEMARIE, L., & VIGLIA, G. 2024. The intention-behaviour gap in sustainable hospitality: a critical literature review. *International Journal of Contemporary Hospitality Management*, *36*(5), 1627-1646.

KIM, S., KIM, J., LEE, J. C. & PARK, J. 2024. Threat-induced sustainability: How Covid-19 has affected sustainable behavioral intention and sustainable hotel brand choice. *Journal of Hospitality & Tourism Research,* 48**,** 501-515.

KIM, S. S., KIM, J., BADU-BAIDEN, F., GIROUX, M. & CHOI, Y. 2021. Preference for robot service or human service in hotels? Impacts of the COVID-19 pandemic. *International Journal of Hospitality Management,* 93**,** 102795.

LEE, C., WU, C. & JONG, D. 2022. Understanding the impact of competitive advantage and core competency on regional tourism revitalization: Empirical evidence in Taiwan. *Frontiers in psychology,* 13**,** 922211.

LEE, J. J. Y. & JEYARAJ, S. 2014. Effects of self-construal differences on cognitive dissonance examined by priming the independent and interdependent self. *SAGE Open,* 4**,** 2158244014521434.

LEE, S. W., SUNG, H. J. & JEON, H. M. 2019. Determinants of continuous intention on food delivery apps: extending UTAUT2 with information quality. *Sustainability,* 11**,** 3141.

LEFEBVRE, S., ORLOWSKI, M. & BOMAN, L. 2024. It's all your fault! restaurant vs. platform blame attribution in food delivery service failures. *British Food Journal,* 126**,** 3037-3050.

LI, L., WANG, Z., LI, Y. & LIAO, A. 2021. Impacts of consumer innovativeness on the intention to purchase sustainable products. *Sustainable Production and Consumption,* 27**,** 774-786.

MAI, X. T., TRINH, T. T. & RYAN, C. 2024. Are you hungry for play? Investigating the role of emotional attachment on continuance intention to use food delivery apps. *Journal of Hospitality and Tourism Insights*.

Manning, L., Morris, W., & Birchmore, I. (2023). Organizational unlearning: A risky food safety strategy?. Comprehensive reviews in food science and food safety, 22(3), 1633-1653.

MAO, Z., DUAN, Y. & LIU, W. 2023. Consumers' choice of private label considering reference price and moderating effect. *Journal of Retailing and Consumer Services,* 71**,** 103216.

MARIANI, M. M., PEREZ-VEGA, R. & WIRTZ, J. 2022. AI in marketing, consumer research and psychology: A systematic literature review and research agenda. *Psychology & Marketing,* 39**,** 755-776.

MARIKYAN, D., PAPAGIANNIDIS, S. & ALAMANOS, E. 2023. Cognitive dissonance in technology adoption: a study of smart home users. *Information Systems Frontiers,* 25**,** 1101-1123.

MCINTYRE, C. 2007. Survival theory: Tourist consumption as a beneficial experiential process in a limited risk setting. *International Journal of Tourism Research,* 9**,** 115-130.

MECHELIN, K. J. & LIU-LASTRES, B. 2023. Exploring esport players' motivation, experiences, and well-being. *Leisure Studies***,** 1-15.

MEENA, M. E. & GENG, J. 2022. Dynamic competition in telecommunications: A systematic literature review. *Sage Open,* 12**,** 21582440221094609.

NUNKOO, R., PILLAI, R., SIVATHANU, B. & RANA, N. P. 2024. Drivers and inhibitors of consumers' adoption of AI-driven drone food delivery services. *International Journal of Hospitality Management,* 123**,** 103913.

PAPANGELIS, K., SAKER, M. & JONES, C. 2020. Smart Cities at Play: Technology and Emerging forms of playfulness. Taylor & Francis.

PARK, H., LEE, M. & BACK, K.-J. 2023. A critical review of technology-driven service innovation in hospitality and tourism: current discussions and future research agendas. *International Journal of Contemporary Hospitality Management,* 35**,** 4502-4534.

PATTERSON, I. 2008. Changing Technological Trends in the Travel Behaviour of Older Tourists. *Information Communication Technologies: Concepts, Methodologies, Tools, and Applications.* IGI Global.

QUICKWORKS 2024. Food Delivery Apps in 2024: How AI is Shaping the Future!

RECUERO-VIRTO, N. & VALILLA-ARRÓSPIDE, C. 2022. Forecasting the next revolution: food technology's impact on consumers' acceptance and satisfaction. *British Food Journal,* 124**,** 4339-4353.

REHMAN, A. U., ABBAS, M., ABBASI, F. A. & KHAN, S. 2023. How tourist experience quality, perceived price reasonableness and regenerative tourism involvement influence tourist satisfaction: A study of Ha'il Region, Saudi Arabia. *Sustainability,* 15**,** 1340.

REYES URIBE, A. C. & GONZÁLEZ FLORES, S. C. 2023. The seriousness of massive multiplayer online games: the case of Star Wars Galaxy of Heroes. *Leisure Studies,* 42**,** 483-496.

RICHTER, N. F., SCHUBRING, S., HAUFF, S., RINGLE, C. M. & SARSTEDT, M. 2020. When predictors of outcomes are necessary: Guidelines for the combined use of PLS-SEM and NCA. *Industrial management & data systems,* 120**,** 2243-2267.

SHAH, S. K. & ZHONGJUN, T. 2021. Elaborating on the consumer's intention–behavior gap regarding 5G technology: The moderating role of the product market-creation ability. *Technology in Society,* 66**,** 101657.

Shah, S. K., Yuan, J., Tajeddini, K., Gamage, T. C., & Liu, M. (2025). Exploring the nexus of institutional factors and regulatory focus in driving platform-based servitization and circular economy adoption. Technology in Society, 81, 102854.

SHAN, L., DIAO, H. & WU, L. 2020. Influence of the Framing Effect, Anchoring Effect, and Knowledge on Consumers' Attitude and Purchase Intention of Organic Food. *Front Psychol,* 11**,** 2022.

SHUKLA, V., KUMAR, J., RANA, S. & PRASHAR, S. 2024. Navigating the adoption landscape of blockchain in food delivery: a UTAUT perspective. *British Food Journal,* 126**,** 3113-3133.

SOLTANALI, H., KHOJASTEHPOUR, M. & TORRES FARINHA, J. 2023. An improved risk and reliability framework-based maintenance planning for food processing systems. *Quality Technology & Quantitative Management,* 20**,** 256-278.

SRIVASTAVA, M., PANDEY, N. & SAINI, G. K. 2022. Reference price research in marketing: a bibliometric analysis. *Marketing Intelligence & Planning,* 40**,** 604-623.

SU, Z., LAI, S. & ZHANG, M. 2024. Post-pandemic outdoor music festival consumption behaviour intention: an integrative approach. *Leisure Studies***,** 1-21.

TAJEDDINI, K., RASOOLIMANESH, S. M., GAMAGE, T. C. & MARTIN, E. 2021. Exploring the visitors' decision-making process for Airbnb and hotel accommodations using value-attitude-behavior and theory of planned behavior. *International Journal of Hospitality Management,* 96**,** 102950.

TANDON, A., KAUR, P., BHATT, Y., MÄNTYMÄKI, M. & DHIR, A. 2021. Why do people purchase from food delivery apps? A consumer value perspective. *Journal of Retailing and Consumer Services,* 63**,** 102667.

TARAFDAR, M., COOPER, C. L. & STICH, J. F. 2019. The technostress trifecta-techno eustress, techno distress and design: Theoretical directions and an agenda for research. *Information Systems Journal,* 29**,** 6-42.

TOM, G., NELSON, C., SRZENTIC, T. & KING, R. 2007. Mere exposure and the endowment effect on consumer decision making. *The Journal of psychology,* 141**,** 117-125.

TRIBE, J. 2020. *The economics of recreation, leisure and tourism*, Routledge.

TRIVEDI, S. K., PATRA, P., SRIVASTAVA, P. R., KUMAR, A. & YE, F. 2022. Exploring factors affecting users' behavioral intention to adopt digital technologies: The mediating effect of social influence. *IEEE Transactions on Engineering Management*.

TROISE, C., O'DRISCOLL, A., TANI, M. & PRISCO, A. 2021. Online food delivery services and behavioural intention–a test of an integrated TAM and TPB framework. *British food journal,* 123**,** 664-683.

TSANG, N. K. & AU, W. C. W. 2024. Smart tourism experience design in amusement parks: A quality function deployment (QFD) application. *Journal of Hospitality & Tourism Research,* 48**,** 1051-1066.

VAN WINKLE, C. M., BUEDDEFELD, J. N., HALPENNY, E. A. & MACKAY, K. J. 2019. The unified theory of acceptance and use of technology 2: understanding mobile device use at festivals. *Leisure Studies,* 38**,** 634-650.

VIJAIKIS, A. & POŠKUS, M. S. 2024. Does Being an Environmental Citizen Lead to Greater Well-Being? The Self-Determination Theory Approach. *SAGE Open,* 14**,** 21582440241267156.

VILAS-BOAS, J. L., RODRIGUES, J. J. & ALBERTI, A. M. 2023. Convergence of Distributed Ledger Technologies with Digital Twins, IoT, and AI for fresh food logistics: Challenges and opportunities. *Journal of Industrial Information Integration,* 31**,** 100393.

WANG, W., KUMAR, N., CHEN, J., GONG, Z., KONG, X., WEI, W. & GAO, H. 2020. Realizing the potential of the internet of things for smart tourism with 5G and AI. *IEEE network,* 34**,** 295-301.

WANG, W., YANG, D. & ZHENG, Y. 2024a. How to believe? Building trust in food businesses' consumers based on psychological contracts. *British Food Journal,* 126**,** 1958-1980.

WANG, X., LAI, I. K. W. & WANG, X. 2024b. When women embrace snow-sport adventures: unravelling the influence of memorable travel experiences on well-being. *Leisure Studies***,** 1-17.

WANG, X., ZHEN, F., TANG, J., SHEN, L. & LIU, D. 2022. Applications, experiences, and challenges of smart tourism development in China. *Journal of Urban Technology,* 29**,** 101-126.

WANG, Y.-C. & UYSAL, M. 2024. Artificial intelligence-assisted mindfulness in tourism, hospitality, and events. *International Journal of Contemporary Hospitality Management,* 36**,** 1262-1278.

WANG, Z., FANG, D., LIU, X., ZHANG, L., DUAN, H., WANG, C. & GUO, K. 2023. Consumer acceptance of sports wearables: The role of products attributes. *Sage Open,* 13**,** 21582440231182653.

WEN, H., POOKULANGARA, S. & JOSIAM, B. M. 2022. A comprehensive examination of consumers' intentions to use food delivery apps. *British Food Journal,* 124**,** 1737-1754.

YAIPRASERT, C. & HIDAYANTO, A. N. 2023. AI-driven ensemble three machine learning to enhance digital marketing strategies in the food delivery business. *Intelligent Systems with Applications,* 18**,** 200235.

YANG, J. & LOU, K. 2024. Psychological determinants and technology acceptance in mobile learning for overseas students studying Chinese in China: A self-determination theory perspective. *Learning and Motivation,* 86**,** 101986.

YUAN, J., SHAH, S. K., ARDITO, L. & JIN, X. 2024a. User behaviour in sustainable technology: an exploration of endorsement strategy. *Technology Analysis & Strategic Management***,** 1-16.

YUAN, J., SHAH, S. K., POPP, J. & ACEVEDO-DUQUE, A. 2024b. Understanding the forced adoption of an AI-based health code system in China. *Amfiteatru Economic,* 26**,** 550-567.

YUAN, S. & MCDONALD, C. 1990. Motivational determinates of international pleasure time. *Journal of Travel Research,* 29**,** 42-44.

YUEN, K. F., CHUA, J. Y., LI, X. & WANG, X. 2023. The determinants of users' intention to adopt telehealth: health belief, perceived value and self-determination perspectives. *Journal of Retailing and Consumer Services,* 73**,** 103346.

ZAJONC, R. B. 1968. Attitudinal effects of mere exposure. *Journal of personality and social psychology,* 9**,** 1.

ZHU, T., ZHANG, L., DENG, H., LIU, C. & LIU, X. 2024. Consumer autonomy: A strategy to alleviate the self-serving bias in tourism value co-creation. *Journal of Hospitality and Tourism Management,* 60**,** 72-81.