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FACTORS AFFECTING USERS' CONTINUOUS ADOPTION INTENTION OF MOBILE BANKING PLATFORMS USING THE VALUE-BASED ADOPTION MODEL

Chan-Sheng Kuo[1], Yowei Kang[2], Yu-Hsuan Liang[3]

[1, 3] *Department of Information Management, Shih Hsin University, Taiwan*

[2] *Department of Communication and Theatre, Auburn University at Montgomery, USA*

Abstract

With the advancement of digitalization, mobile banking platforms provide more comprehensive financial services to customers to complete various online banking tasks. However, limited research has explored what affects users' continuous intention to adopt mobile banking platforms. Deriving from the Value-Based Adoption Model (VAM), our study examined whether technology readiness and other significant variables could influence users' continuous intention to adopt the Home Bank App. Empirical results indicate that perceived usefulness, enjoyment, perceived quality, and perceived convenience positively influence perceived value, while technicality, perceived fee, and financial operation complexity negatively influence perceived value. Additionally, optimism, innovativeness, trust, and perceived value positively influence satisfaction, while perceived insecurity negatively influences satisfaction, and both perceived value and satisfaction positively influence continuous adoption intention. Unexpectedly, mobile ease of use and perceived fairness do not significantly influence satisfaction. Our study provides managerial insights and recommendations for stakeholders involved in mobile banking platforms.

Keywords

Technology Readiness Index, Mobile Banking Platforms, Value-based Adoption Model, Continuous Adoption Intention

1. Introduction

1.1 Background and Research Motivation

With the widespread use of mobile devices, mobile banking services provide customers with more diverse access to banking services. In 2015, the Financial Supervisory Commission (R.O.C.) launched the "Digital Financial Environment 3.0" initiative to allow existing bank customers to complete twelve online banking services. In response to the rapid development of financial technology and the banking industry's needs, ten more online application services were introduced in May 2019 (Financial Supervisory Commission, R.O.C., 2021). According to the Financial Supervisory Commission (R.O.C.) (2024), by the end of 2023, thirty-six local Taiwanese banks offered online account opening for digital deposit accounts, leading to a total of approximately 19.686 million accounts opened (a 4.8% growth increase, equivalent to 909,000 accounts from the previous quarter).

Our study primarily investigates the factors influencing users' continued intention to adopt a home bank App. Our research explores the relationships between users' perceived value, satisfaction, and continued adoption intention toward the home bank App. Using the Value Acceptance Model as our theoretical framework, our study combines technology's perceived benefits (such as perceived usefulness, enjoyment, perceived quality, perceived convenience), perceived sacrifices (technology-related issues, perceived costs, complexity of financial operations), and trust. Our study also introduces perceived fairness, a new variable in the proposed model. Additionally, our study assesses various dimensions of Technology Readiness (such as optimism, innovativeness, perceived insecurity, and ease of use) to address the gap in the literature to identify the most critical factors affecting users' continued intention to adopt a home bank App.

The Financial Supervisory Commission (R.O.C.) (2023) identified CTBC Bank, Taipei Fubon Bank, Cathay United Bank, Cooperative Bank, Mega International Commercial Bank, and First Commercial Bank as important local banks in Taiwan's financial ecosystem. Recent technological advancements have prompted many banks to introduce mobile banking services to their customers to address the time constraint issue, allowing them to handle many banking services online. In 2024, several international financial media outlets honored CTBC Bank as "Taiwan's Best Digital Bank of the Year" (Financial Supervisory Commission, 2023). The Bank's assets include its outstanding operational performance and proactive digital service innovations. To create a mobile banking experience that best meets customer needs and offers optimal usability, the Bank has integrated several relevant functions and simplified operational processes into its home bank App for easy setup. Since its 2018 redesign effort, Home Bank App has optimized many existing and innovative features to consolidate traditional users' account information with wealth management, digital membership, and cardholder benefits functionalities. The payment and transfer screen also integrates payment and transfer functions, making it easy for users to find and complete transactions quickly. The Bank has developed seamless service experience with intelligent customer service functions. Unlike other banking services, when users call the intelligent customer service within the Home Bank App, the system retrospectively retrieves records of the previous five operation interfaces. With this innovation, customers of the Bank do not need to explain their problems again. As banks in Taiwan begin to embrace mobile banking platforms, it is critical to identify the factors influencing users' use of mobile banking platforms in general and the Home Bank App in particular to provide valuable managerial and practical recommendations for mobile banking adopters and developers in the industry.

1.2 Research Purpose

The main purposes of this study are as follows:

(1) To explore the main factors that users consider when using the Home Bank App.

(2) To investigate which variables from the proposed theoretical framework are most predictive. These variables are taken from the Value-Based Adoption Model (such as perceived usefulness, enjoyment, perceived quality, perceived convenience, technicality, perceived fee, and financial operation complexity), technology readiness theory (such as optimism, innovativeness, perceived insecurity, and mobile ease of use), and other variables (such as trust, and perceived fairness on perceived value, satisfaction, and continuous adoption intention).

(3) To explore the implications of users' experiences with the Home Bank App and better provide management recommendations for mobile banking industry stakeholders.

2. Literature Review

2.1 Value-based Adoption Model

In light of the limitations of the Technology Acceptance Model (henceforth, TAM), Kim, Chan, and Gupta (2007) proposed The Value-Based Adoption Model (henceforth, VAM) to explain the adoption of new information and communication technologies among users who are not employed in organizational settings where the use of technology is for work purposes and the costs of mandatory adoption often borne by the organization. However, most adoption decisions of new information and communication technologies are typically for personal purposes, with the costs of voluntary adoption borne by the individual consumers. Compared to TAM, VAM is particularly useful in explaining the adoption of mobile internet. VAM can be used to examine individuals who play dual roles as technology users and service consumers, focusing on their adoption of mobile internet. VAM is more effective than TAM in explaining customer adoption of mobile internet. Previous VAM studies have been widely applied in various research fields, such as mobile banking (Komlan, Koffi, & Kingsford, 2016), e-wallets (Ling, Teo, Ho, & Choo, 2020), mobile payments (Shelvia, Prayitno, Kartono, & Sundjaja, 2020), smart homes (Kim, Park, & Choi, 2017), and mobile shopping (Ko, Kim, & Lee, 2009). Findings from these relevant studies help lay the foundation of our study.

Dodds and Monroe (1985) suggested that perceived value is directly related to preference or choice; in other words, the greater the buyer's perception of value, the more likely they are to prefer or purchase the product. Howat and Assaker (2013) examined the hierarchical effects of perceived quality on perceived value, satisfaction, and loyalty. They found that perceived quality positively influences perceived value based on empirical results gathered from the public. Copeland (1923) defined the concept of convenience as referring to convenience goods, which are products that consumers frequently purchase at easily accessible stores. Berry, Seiders, and Grewal (2002) argued that any service that helps reduce consumers' time, effort, and psychological costs during shopping will enhance service convenience. When customers perceive lower time and effort costs, their perceived

convenience is higher; conversely, the perceived convenience is lower when selecting and using a service requires higher time and effort costs. Pham et al. (2018) investigated the relationship between convenience, perceived value, and repurchase intention in online shopping in Vietnam. Their study found that convenience has a positive relationship with perceived value. Rogers (1995) defined complexity as the degree of difficulty in using a new product; the lower the complexity, the more easily consumers adopt the product. Based on the above literature review, our study adds perceived quality and convenience to the perceived benefits and the complexity of financial operations to the perceived sacrifices.

According to VAM (Kim et al., 2007), "perceived usefulness" and "enjoyment" have a positive relationship with perceived value, while "technicality" and "perceived fee" have a negative relationship with perceived value. Additionally, "perceived value" has a positive relationship with adoption intention. Wang, Yeh, and Liao (2013) further examined the effects of purchase intention on online content services. They found that "perceived usefulness" and "enjoyment" have a positive relationship with perceived value, while "perceived fee" has a negative relationship with perceived value. Pandega (2017) found in their study the factors influencing purchase intention that "perceived usefulness" and "enjoyment" have a positive relationship with perceived value, while "technicality" has a negative relationship with perceived value. Seyal, Ibrahim, and Rahman (2014) explored the adoption of mobile services by business clients in Brunei, and they found that "perceived usefulness" has a positive relationship with perceived value. Niknejad, Foroutani, Nazari, Ghani, and Hussin (2022) found in their study on smart health wearables usage intention among Malaysian users that "perceived enjoyment" has a negative relationship with perceived value. Dodds and Monroe (1985), in their study on the impact of brand and price information on subjective product evaluations, found that "perceived quality" has a positive relationship with perceived value. Zeqiri, Ramadani, and Aloulou (2023) further explored the impact of perceived convenience and perceived value on online shopping repurchase intention, and they found that "perceived convenience" has a positive relationship with perceived value. According to Rogers' (1995) innovation diffusion model, "complexity" refers to how easily consumers can understand or use a new product. The more complex a new product is, the longer it takes to be accepted, as consumers may need more time to learn how to use the product. Chung and Koo (2015) studied social media applications in travel information search and concluded that "complexity" negatively affects perceived value. Based on the literature above, we proposed the following hypotheses:

H1: Perceived usefulness positively influences perceived value.
H2: Enjoyment positively influences perceived value.
H3: Perceived quality positively influences perceived value.
H4: Perceived convenience positively influences perceived value.
H5: Technicality negatively influences perceived value.
H6: Perceived fee negatively influences perceived value.
H7: The complexity of financial management operations negatively influences perceived value.
H15: Perceived value positively influences continuous adoption intention.

2.2 Technology Readiness Index

Parasuraman (2000) defined the Technology Readiness Index (TRI) as the tendency or habit of individuals to accept or use new technology to accomplish tasks or achieve work goals. The simplified scale introduced by Parasuraman (2000) includes a questionnaire of twenty-eight items that can be divided into the following four categories:

(1) Optimism: A positive view of technology, believing it can enhance control, flexibility, and efficiency.

(2) Innovativeness: The tendency to be a technology pioneer and thought leader.

(3) Discomfort: A perceived lack of control over technology, feeling overwhelmed by it.

(4) Insecurity: Distrust of technology, with doubts about its proper functioning.

Parasuraman (2000) proposed the Technology Readiness Index model. In this model, optimism, a positive view of technology, can enhance control, flexibility, and efficiency in people's lives. Innovativeness represents the tendency to be a technology pioneer and thought leader, while insecurity refers to distrust of technology and doubts about its proper functioning. Pham et al. (2020) found the role of perceived value and online satisfaction in luxury hotels, when "optimism" and "innovativeness" have a positive relationship with satisfaction. Huy et al. (2019) also examined the effects of technology readiness and satisfaction in luxury hotels in Vietnam. They concluded that "optimism" has a positive relationship with satisfaction, while "insecurity" has a negative relationship with satisfaction. Chen et al. (2009) found that factors influencing satisfaction and continued intention with self-service technology, "optimism" and "innovativeness" have a positive relationship with satisfaction. Echoing Davis (1989), perceived ease of use positively influences perceived usefulness and usage intention. Based on the literature mentioned above, this study proposes the following hypotheses:

H8: Optimism positively influences satisfaction.
H9: Innovativeness positively influences satisfaction.
H10: Perceived insecurity negatively influences satisfaction.
H11: Mobile ease of use influences satisfaction.

2.3 Trust

Morgan and Hunt (1994) pointed out that if the actions of a service provider can make consumers feel trusted, it can reduce the perceived risk consumers have towards the service provider. The establishment of trust helps to continue the transactional relationship between both parties. Xu Da (2006) conducted a study on the satisfaction, trust, and behavioral intentions of military personnel with the military pension system, finding that trust has a positive relationship with satisfaction. Kim, Ferrin, and Rao (2003) examined the impact of consumer trust on consumer expectations and satisfaction, and they found that consumer trust and satisfaction have a positive relationship. Kim (2012) studied the impact of online consumer trust on expectations, satisfaction, and future expectations and found that trust and satisfaction have a positive relationship. Paillé, Bourdeau, and Galois (2010) conducted a study on support, trust, satisfaction, turnover intentions, and organizational citizenship behavior, finding that trust and satisfaction have a positive relationship. In their exploratory study, Beneke, Adams, Demetriou, and Solomons (2011) investigated the relationship between store image, trust, satisfaction, and loyalty in a franchising environment. They found that trust and satisfaction have a positive relationship. Ruswanti, Eff, and Kusumawati (2020) examined the influence of word of mouth, trust, and satisfaction on repurchase intentions at Batavia Hospital in West Jakarta, found that trust and satisfaction have a positive relationship. Based on the literature as mentioned above, this study proposes the following hypothesis:

H12: Trust positively influences satisfaction.

2.4 Perceived Fairness

Austin (1979) categorized fairness into three dimensions: distributive, procedural, and interactional. Tax et al. (1998) defined distributive fairness as the outcome customers receive after complaining about procedural fairness as the fairness perceived by customers in the decision-making process during service recovery, and interactional fairness as the interpersonal treatment customers receive during the process and outcome of service recovery. Turel et al. (2008) defined distributive fairness as the fairness perceived when comparing one's input and outcomes; procedural fairness as the fairness perceived in the process and procedure of receiving electronic customer service; and interactional fairness as the fairness perceived in the interpersonal treatment one receives throughout the process. Smith et al. (1999) posited that distributive fairness is influenced by the type and severity of a service provider's failure, which in turn affects the compensation provided by the service provider. This compensation is compared to the customer's investment, impacting on their level of satisfaction. Procedural fairness refers to whether the consumer and service provider's overall transaction process adheres to a series of fair practices; interactional fairness refers to how the consumer perceives the service provider's interactions, attitudes, and efforts as fair and equitable treatment. Grégoire and Fisher (2008) also concluded that when the quality of the relationship between the consumer and the service provider is high, combined with the perceived unfairness in both the outcome and process of compensation for service failures, it can lead to a sense of betrayal among consumers. This sense of betrayal may intensify and even result in emotional responses such as anger or revenge. Based on the literature as mentioned above, this study proposes the following hypothesis:

H13: Perceived fairness positively influences satisfaction.

2.5 Satisfaction

Oliver (1980) defined satisfaction as the degree to which consumers subjectively judge their contentment after experiencing a product or service. García-Fernández et al. (2018) examined the influence of service convenience. They perceived quality on perceived value, satisfaction, and loyalty in low-cost fitness centers, and it was found that "perceived value" has a positive relationship with satisfaction. Jang and Lee (2020) also researched the management and application of service robots for the restaurant industry's sustainable development and found that "perceived value" positively influences satisfaction. Based on the value acceptance model and expectation-confirmation theory, Kim, Bae, and Jeon (2019) found that "satisfaction" has a positive relationship with the intention to continue using accommodation Apps. Chen et al. (2009) explored the determinants of satisfaction and continued intention in self-service technologies and found that "satisfaction" has a positive relationship with the intention to continue using. Rajeh et al. (2021) investigated students' satisfaction with e-learning and their continued intention and found that "satisfaction" has a positive relationship with the intention to continue using. Based on the literature mentioned above, this study proposes the following hypothesis:

H14: Perceived value positively influences satisfaction.

H16: Satisfaction positively influences continuous adoption intention.

3. Research Methods

3.1 Research Framework

Our study explored users' continued adoption intentions towards the Home Bank App. The research framework was derived from two theoretical frameworks on user adoption behaviors: the Value Adoption Model (Kim et al., 2007) and Technology Readiness (Parasuraman, 2000). Our study examined the various factors influencing users' perceptions of the Home Bank App, particularly regarding system completeness and satisfaction levels. Users' continued adoption intentions towards the Home Bank App may be enhanced if they have a higher affinity for critical influencing variables identified in the combined theoretical models. Our study investigated the relationship between users' perceptions of usefulness, enjoyment, perceived quality, perceived convenience, technicality, perceived cost, financial management complexity, optimism, innovativeness, perceived insecurity, ease of use, trust, and perceived fairness, and their perceived value, satisfaction, and continued adoption intentions towards the Home Bank App, as illustrated in Research Framework Figure 1.

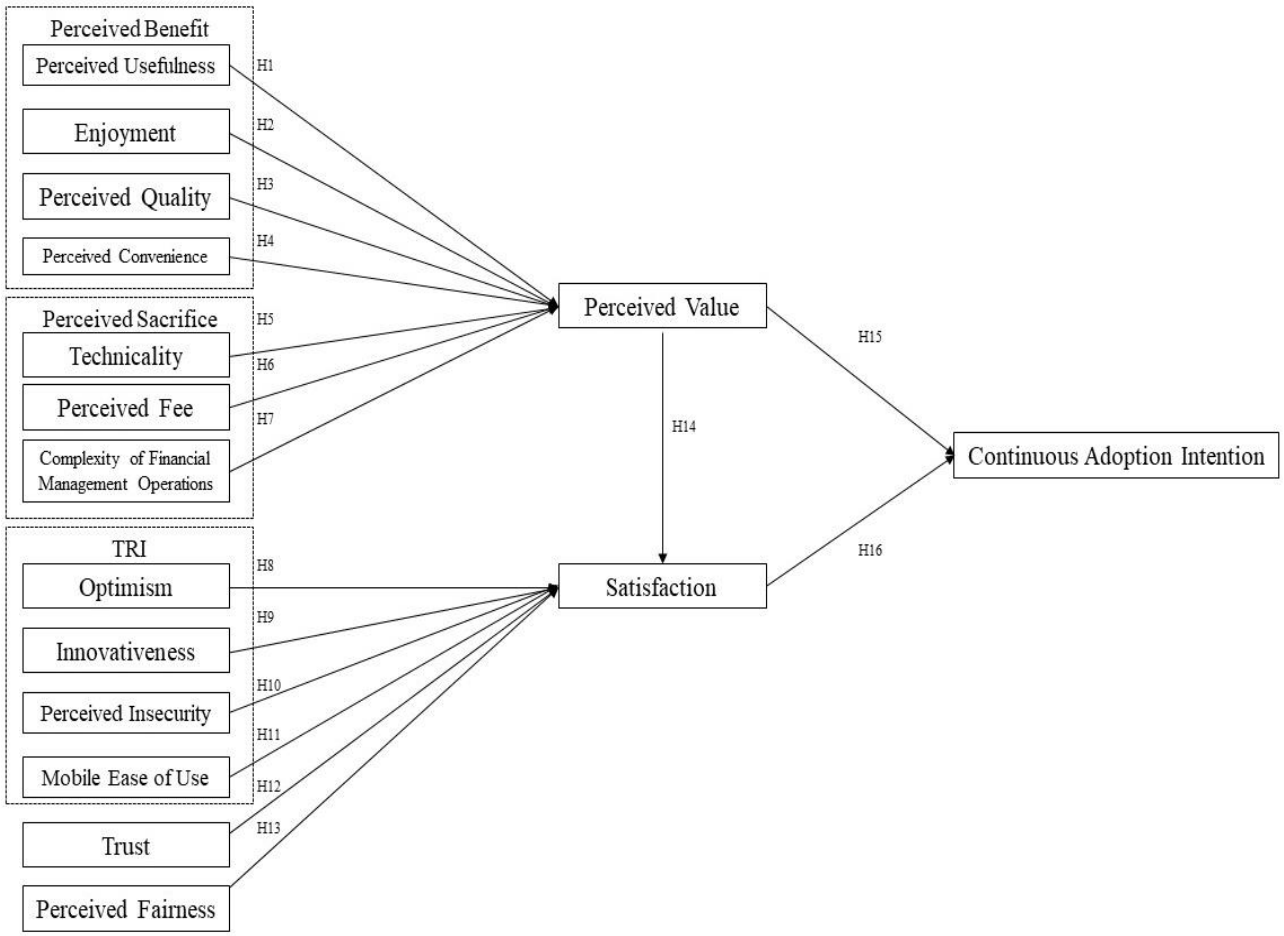

Figure 1. Research Framework

3.2 Instrumentation

This study employed a seven-point Likert scale to design and measure the survey items. The questionnaire comprised two sections: the first collected respondents' basic demographic information, while the second assessed constructs relevant to the research model, as summarized in Table 1. The target population consisted of users who had prior experience using or interacting with the Home Bank App. Data were collected through an online survey administered via Google Forms and disseminated across major social media platforms, including Facebook and LINE, between January and May 2024. A total of 660 questionnaires were returned, of which 603 were deemed valid after data screening, yielding a valid response rate of 91.3%. Subsequent data analysis and statistical processing were conducted using SmartPLS 4. The software was employed to organize the dataset and perform the required statistical analyses to support hypothesis testing and model evaluation.

Table 1. Questionnaire Development

Dimensions	Measurement Questions	References
Perceived Usefulness	I believe using Home Bank App's mobile payment feature can increase efficiency in daily life.	Davis(1989), Kim et al. (2007)
	I believe that using Home Bank App's mobile payment feature can increase efficiency in daily life.	
	I believe that the account integration and inquiry feature provided by the Home Bank App allows for quick access to the necessary account information.	
Enjoyment	I find using the Home Bank App's mobile inquiry service to be a pleasant experience.	Kim et al. (2007), Chung & Koo (2015), Yang et al. (2016)
	I feel good using Home Bank App's mobile inquiry service.	
	I enjoy using the Home Bank App's mobile inquiry service.	
Perceived Quality	I believe that the various services offered by Home Bank App have good quality.	Zeithaml (1988), Dodds & Monroe (1985), Dodds et al. (1991)
	I believe that the inquiry services provided by Home Bank App offer timely service.	
	I believe that the financial services offered by Home Bank App are highly reliable.	
Perceived Convenience	I find it easy to learn how to operate the functions of the Home Bank App.	Pham et al. (2018), Zeqiri et al. (2023), Benoit (2017)
	I find that querying financial information using the Home Bank App is convenient.	
	I find that using Home Bank App's mobile payment function is convenient.	
Technicality	I find that using Home Bank App's CTBC Wallet function is difficult.	Kim et al. (2007), Wang et al. (2013), Kim et al. (2019)
	I find that using Home Bank App's smart investment function is difficult.	
	I find that using Home Bank App's fund subscription function is difficult.	
Perceived Fee	I find the handling fees for Home Bank App's currency exchange function to be too high.	Kim et al. (2007), Wang et al. (2013), Kim et al. (2019)
	I find the handling fees for Home Bank App's smart investment function to be too high.	
	I am dissatisfied with the handling fees for applying for credit through Home Bank App.	
Complexity of Financial Management Operations	I find learning how to use the various financial functions of the Home Bank App to be complex.	Chung & Koo (2015)
	I find the process for subscribing to funds through the Home Bank App to be complex.	
	I find the process for applying for insurance through the Home Bank App to be complex.	
Optimism	I believe that the various services provided by the Home Bank App can improve my quality of life.	Parasuraman (2000), Parasuraman et al. (2015), Blut & Wang (2020)
	I think that using Home Bank App's services can make my life more efficient.	
	I feel that the services offered by Home Bank App allow me to avoid being constrained by bank business hours.	
Innovativeness	I believe that the intelligent customer service provided by Home Bank App is an innovative service feature.	Parasuraman (2000), Parasuraman et al. (2015), Blut & Wang (2020)
	I believe that the intelligent investment offered by Home Bank App is an innovative financial service.	
	If a new innovative service feature is launched, I am usually one of the first users to try it.	
Perceived Insecurity	I believe that the transfer function of the Home Bank App is not secure.	Parasuraman (2000), Parasuraman et al. (2015), Blut & Wang (2020)
	I believe that the financial services provided by Home Bank App are not secure.	
	I believe that the cardless withdrawal function of the Home Bank App is not secure.	
Mobile Ease of Use	I believe that interacting with the various service functions of the Home Bank App does not require much effort.	Davis (1989), Venkatesh & Davis (2000), Venkatesh & Bala (2008)
	I believe that the interface design of the Home Bank App is aligned with users' operation methods.	
	I believe that the various service functions of the Home Bank App are easy to use.	

Trust	I believe that the account information provided by Home Bank App is trustworthy.	Zeqiri et al. (2023), Martínez et al. (2013), Raman (2019)
	I believe that the financial information provided by Home Bank App is reliable.	
	I believe that the financial services conducted by Home Bank App are dependable.	
Perceived Fairness	I believe that the Home Bank App provides timely explanations of the application procedures for financial investments.	Grégoire & Fisher (2008)
	I believe that Home Bank App clearly explains the intelligent investment services.	
	I believe that when using mobile payments with Home Bank App, the platform offers diverse payment services based on my personal needs.	
Perceived Value	Compared to the effort invested, I believe that using the Home Bank App is beneficial.	Kim et al. (2007), Yang et al. (2016)
	Compared to the time spent, I believe that using the Home Bank App is worthwhile.	
	Compared to other mobile banking Apps, I believe that using the Home Bank App provides good value.	
Satisfaction	I am satisfied with the service innovation provided by the Home Bank App.	Kim et al. (2019)
	I am satisfied with the ease of use of the services provided by Home Bank App.	
	I am satisfied with the user experience of the various services of Home Bank App.	
Continuous Adoption Intention	I am willing to continue using the various services of Home Bank App.	Kim et al. (2019)
	I plan to use the Home Bank App for various financial services in the future.	
	I am willing to recommend the Home Bank App to friends and family for financial services.	

4. Results

4.1 Descriptive Statistics

The descriptive statistical analysis analyzed the frequency and proportion of basic demographic data. A summary of participant demographics is as follows. Regarding participants' gender distribution, males account for 42.1% (N=254), while females account for 57.9% (N=349). Most respondents are aged 18-25, accounting for 68.5% (N=413). As to their marital status, 91% of respondents are unmarried (N=549). Regarding participants' occupation, students comprise the majority, accounting for 63.7% (N=384), followed by the highest education level, with most having a university education, accounting for 70.8% (N=427).

Regarding the total time spent using the Home Bank App per week, most people use it for less than 1 hour, accounting for 60.5% (N=356). As to the total number of days using the Home Bank App per week, the majority use it for 1 day, accounting for 43% (N=259). As to the experience using the home banking App, most people have used the Home Bank App for 1 year, accounting for 49.8% (N=300). The most frequently used function of the Home Bank App is checking balances and transferring funds (66%, N=398). The primary purpose is easy bill payments and quick transactions, accounting for 40.8% (N=246). Most people made 2 payments via Home Bank App per week, accounting for 56.9% (N=343), with less than 500 per year, accounting for 28.7% (N=173). The majority spend less than 100 monthly via mobile payment via the Home Bank App, accounting for 32.2% (N=194). Most people redeem coupons 2 times per week via the Home Bank App, accounting for 75.5% (N=455). Regarding the source of awareness of the Home Bank App: 38.6% of users learned about the Home Bank App through recommendations from friends and family (N=233).

4.2 Validity and Reliability Analyses

In this study, all sixteen tested variables achieved a significant level of correlation. In terms of reliability analysis, to verify whether each dimension has internal consistency, the Cronbach's α and Composite Reliability (CR) values for each variable should be greater than 0.7 to indicate high reliability of the measurement results (Hair et al., 2019). Upon examination, the Cronbach's α values (ranging from 0.800 to 0.963) and CR values (ranging from 0.884 to 0.976) of the variables in this study are all greater than 0.7, as shown in Table 3. This index indicates a high level of reliability in this study.

Validity analysis can be divided into Convergent Validity and Discriminant Validity. For Convergent Validity, as shown in Table 2, Fornell and Larcker (1981) suggest that the Average Variance Extracted (AVE) for each variable should be above 0.5, and the factor loadings for each dimension should be greater than 0.7 (Hair et al., 2019). In this study, the AVE values for the latent variables range from 0.720 to 0.931 (>0.5); the factor loadings range from 0.711 to 0.965 (>0.7), indicating good Convergent Validity for each dimension in this study.

For Discriminant Validity, the root mean square of the AVE values of each dimension should be greater than the correlation coefficients of all variables on the diagonal (Fornell & Larcker, 1981), which helps researchers understand the degree of association between dimensions. As shown in Table 3, each dimension is greater than the correlation coefficients of all other dimensions on the diagonal, demonstrating that the items in this study have Discriminant Validity.

Table 2. Validity and Reliability Analyses

Dimension	Cronbach's Alpha	CR	AVE
Perceived Usefulness	0.907	0.941	0.843
Enjoyment	0.922	0.950	0.865
Perceived Quality	0.901	0.938	0.835
Perceived Convenience	0.896	0.935	0.827
Technicality	0.963	0.976	0.931
Perceived Fee	0.938	0.960	0.889
Complexity of Financial Management Operations	0.961	0.975	0.928
Optimism	0.889	0.931	0.819
Innovativeness	0.800	0.884	0.720
Perceived Insecurity	0.956	0.972	0.920
Mobile Ease of Use	0.837	0.901	0.754
Trust	0.923	0.951	0.866
Perceived Fairness	0.892	0.933	0.822
Perceived Value	0.892	0.933	0.823
Satisfaction	0.921	0.950	0.864
Continuous Adoption Intention	0.875	0.923	0.800

Table 3. Discriminant Validity

Dimension	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
1.Perceived Usefulness	0.92															
2.Enjoyment	0.78	0.93														
3.Perceived Quality	0.87	0.80	0.91													
4.Perceived Convenience	0.86	0.73	0.88	0.91												
5.Technicality	-0.11	0.03	-0.12	-0.16	0.97											
6.Perceived Fee	-0.21	-0.26	-0.25	-0.22	-0.42	0.94										
7.Complexity of Financial Management Operations	-0.15	-0.36	-0.19	-0.12	-0.36	0.61	0.96									
8.Optimism	0.75	0.70	0.78	0.76	-0.02	-0.33	-0.28	0.91								
9.Innovativeness	0.72	0.65	0.75	0.74	-0.05	-0.36	-0.30	0.80	0.85							
10.Perceived Insecurity	-0.08	-0.29	-0.13	-0.06	-0.48	0.76	0.68	-0.19	-0.26	0.96						
11.Mobile Ease of Use	0.74	0.60	0.77	0.79	-0.10	-0.35	-0.20	0.75	0.75	-0.17	0.87					
12.Trust	0.76	0.61	0.80	0.81	-0.17	-0.26	-0.15	0.76	0.79	-0.09	0.85	0.93				
13.Perceived Fairness	0.75	0.60	0.78	0.80	-0.13	-0.31	-0.17	0.75	0.79	-0.17	0.83	0.88	0.91			
14.Perceived Value	0.76	0.72	0.79	0.77	-0.08	-0.31	-0.28	0.79	0.78	-0.19	0.79	0.83	0.81	0.91		
15.Satisfaction	0.77	0.80	0.79	0.76	-0.03	-0.29	-0.30	0.78	0.79	-0.22	0.74	0.79	0.77	0.87	0.93	
16.Continuous Adoption Intention	0.77	0.69	0.79	0.79	-0.13	-0.29	-0.20	0.75	0.80	-0.18	0.78	0.83	0.81	0.83	0.85	0.90

4.2 Structural Equation Modeling

This study uses SmartPLS 4 software for Structural Equation Modeling (SEM) analysis. The study tests whether the research hypotheses and our model are valid by combining factor and path analysis. According to Hair et al. (2019), the t-value should not be less than 1.96 (* indicates t > 1.96; ** indicates t > 2.58; *** indicates t > 3.29), indicating that the hypothesis has a significant influence and can be used to explain the causal relationship between latent variables.

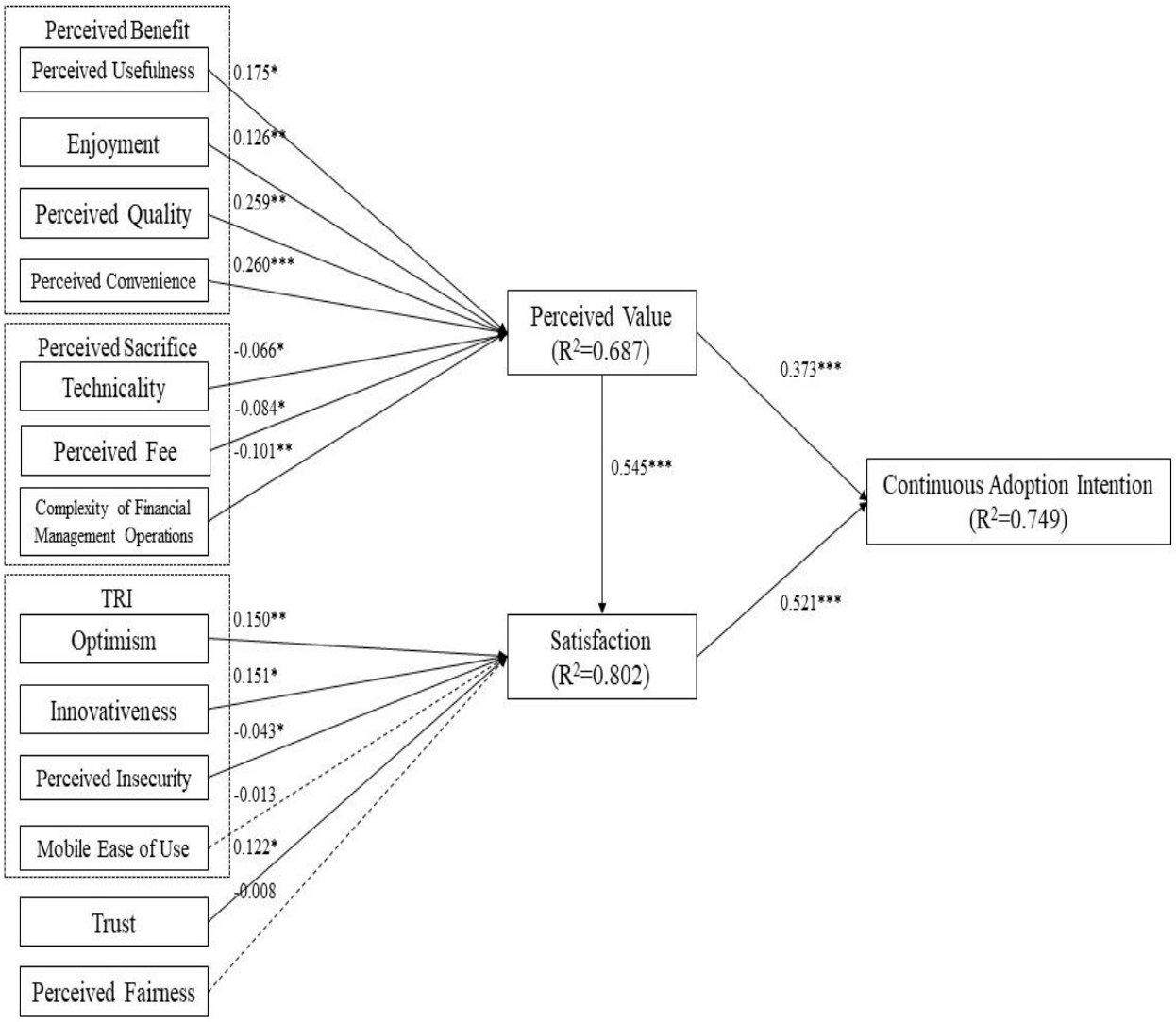

Figure 2. Structural Equation Model Measurement Diagram

In the section on testing standards, when the t-value is less than 1.96, it indicates that the path coefficient is not significant ($p > 0.05$), meaning that the causal relationship proposed by the research hypothesis is not statistically significant. Conversely, when the t-value exceeds 1.96, the path coefficient is significant ($p < 0.05$), indicating that the causal relationship proposed by the research hypothesis is statistically significant. Upon testing, it was found that, except for H11: Ease of Use on Satisfaction and H13: Perceived Fairness on Satisfaction, which were not significant, the t-values for the other fourteen research hypotheses ranged from 1.982 to 9.995, all surpassing the significance level of 1.96 (t > 1.96), indicating that they are supported. Figure 2 presents the results of the Structural Equation Modeling analysis, while Table 4 summarizes the path coefficients and t-values for each hypothesis.

Table 4. The Results of Structural Equation Model Analysis

Hy-poth-esis	Variable Relationships	Path Coeffc-ients	t-Value	t-Value Standard	Measurement Results
H1	Perceived Usefulness→Perceived Value	0.175	2.216	> 1.96	Established
H2	Enjoyment→Perceived Value	0.126	2.616	> 1.96	Established
H3	Perceived Quality→Perceived Value	0.259	2.827	> 1.96	Established
H4	Perceived Convenience→Perceived Value	0.260	3.373	> 1.96	Established
H5	Technicality→Perceived Value	-0.066	2.203	> 1.96	Established
H6	Perceived Fee→Perceived Value	-0.084	2.461	> 1.96	Established
H7	Complexity of Financial Management Operations→Perceived Value	-0.101	3.108	> 1.96	Established
H8	Optimism→Satisfaction	0.150	2.806	> 1.96	Established
H9	Innovativeness→Satisfaction	0.151	2.574	> 1.96	Established
H10	Perceived Insecurity→Satisfaction	-0.043	2.137	> 1.96	Established
H11	Mobile Ease of Use→Satisfaction	-0.013	0.257	< 1.96	Not established
H12	Trust→Satisfaction	0.122	1.982	> 1.96	Established
H13	Perceived Fairness→Satisfaction	-0.008	0.144	< 1.96	Not established
H14	Perceived Value→Satisfaction	0.545	8.547	> 1.96	Established
H15	Perceived Value→Continuous Adoption Intention	0.373	6.960	> 1.96	Established
H16	Satisfaction→Continuous Adoption Intention	0.521	9.995	> 1.96	Established

5. Conclusion and Recommendations

5.1 Conclusion

Our study digressed from existing TAM analysis to adopt a user-centered approach to explore the factors influencing users' perceptions of functions and services in mobile banking. Our study examined whether users' perceived benefits (i.e., perceived usefulness, enjoyment, perceived quality, perceived convenience), perceived sacrifices (i.e., technical aspects, perceived cost, complexity of financial operations), technological readiness (i.e., optimism, innovativeness, perceived insecurity, ease of use), trust, and perceived fairness impact perceived value and satisfaction. Additionally, our study investigated whether perceived value and satisfaction affect users' continued intention to use the service.

Previous studies have primarily focused on customer satisfaction with the Home Bank App. Our study was built on VAM (Kim et al., 2007), incorporating technological readiness, trust, and perceived fairness to explore the factors influencing continued adoption intention. The VAM has been widely applied in various research topics, such as mobile internet (Kim et al., 2007), customized services (Yu et al., 2019), and wearable devices (Yang et al., 2016). Unlike previous studies, this research adds perceived quality and perceived convenience to the perceived benefits dimension and the complexity of financial operations to the perceived sacrifices dimension. The positive impact of perceived quality on perceived value aligns with past research by Howat and Assaker (2013). Additionally, the positive impact of perceived convenience on perceived value is consistent with findings by Zeqiri et al. (2023), while the negative impact of complexity on perceived value matches the results of Chung and Koo (2015).

Our study further examined users' continued adoption intentions of the Home Bank App using the framework of technological readiness. Our findings show that optimism and innovativeness positively impact satisfaction, consistent with Pham et al. (2020). Additionally, perceived insecurity negatively affects satisfaction, aligning with Huy et al. (2019). Unlike previous studies, this research introduces mobile usability as a new variable in our improved theoretical model. The data analysis reveals that mobile usability does not significantly impact satisfaction, possibly because users find that using Home Bank App's various services requires significant effort or that the interface does not align with their preferred way of operating.

The present study also incorporated important variables such as trust and perceived fairness. The results indicated that trust positively affects satisfaction, consistent with Beneke et al. (2011). However, perceived fairness did not significantly impact satisfaction, which might be because users feel that the explanations or instructions on Home Bank App's financial investment and smart investment services are unclear. As a result, perceived fairness does not significantly impact satisfaction.

Our research results confirm that these factors affect users' continued adoption intentions. For future research on the continued adoption intentions of mobile banking, it is important to carefully consider these variables to fully understand and analyze the impact of features and services on users. Our study comprehensively reflects the factors influencing users' continued adoption intentions.

5.2 Practical Recommendations

Our study explored the impact of perceived value on users, with technical aspects of the Home Bank App as a primary variable. It was found that users experience difficulties with features like Home Bank App Wallet, Smart Investment, and Fund Subscription, leading to a negative relationship with the platform. Therefore, the study recommends that, for technical issues, a practical approach would be to implement a pop-up prompt when users repeatedly select the same function. This particular feature should offer guidance and tutorials for functions that users find challenging.

Our study also examined the influence of perceived value on user satisfaction. Users expressed satisfaction with the time spent on the platform compared to other mobile banking services, which positively affects their view of the platform. Therefore, the study suggests enhancing perceived value by adding a quick transfer feature. This attribute would allow users to select a previous transfer recipient and send the same amount again, with the option to save it in frequently used settings to speed up the process.

Additionally, the study investigated the impact of perceived value and satisfaction on users' continued adoption intentions. When users find mobile banking beneficial and are satisfied with its services, it creates a positive relationship with the platform. Users who perceive the platform as helpful and satisfactory are likelier to continue using it and recommend it to friends and family, thereby increasing its usage rate. Consequently, the study recommends that future system developers focus on enhancing perceived value and satisfaction. Personalized suggestions and recommendations based on customer usage habits and preferences could significantly improve customer experience.

5.3 Research Limitations and Future Recommendations

Several limitations should be taken into consideration. The main limitation is related to the questionnaire sample collection. Due to time constraints and resources, our questionnaire was distributed through limited channels, specifically Facebook groups and LINE, and the data collection period was only a few months. Consequently, the opinions of certain important user groups may not have been captured. Additionally, while this study primarily focuses on Value-based Adoption Model and technology readiness, other theories and variables could influence users' continuous adoption intention, which were not explored in this research. Future researchers could consider incorporating additional dimensions, such as consumer value theory or social identity, to analyze this topic comprehensively. Our research framework, which extended from TAM and VAM, could offer more relevant insights and recommendations for industry development, helping practitioners gain a more detailed and diverse understanding of business strategies and future planning.

The present study focused on research subjects from Facebook groups and LINE channels. It is recommended that future researchers find additional channels to reach diverse user groups of different mobile banking Apps for subsequent studies. Furthermore, creating an English version of the questionnaire and distributing it to mobile banking App users in other countries could help investigate whether there are cultural differences between international and domestic mobile banking ecosystems. Our study examined factors affecting users' continuous adoption intention, including perceived usefulness, enjoyment, perceived quality, perceived convenience, technicality, perceived fee, complexity of financial management operations, optimism, innovativeness, perceived insecurity, ease of use, trust, and perceived fairness, concerning users' perceived value and satisfaction with the Home Bank App. However, future research could adopt a platform-centric perspective to improve mobile banking platforms and enhance their competitiveness. Researchers could explore what functions or features need modification and optimization from the platform's standpoint. Such an approach would help reveal the challenges and opportunities faced by mobile banking platforms and provide valuable suggestions and directions to guide industry development.

References

Austin, W. G. (1979). Justice, freedom and self-interest in intergroup relations. The social psychology of intergroup relations, 67: 20-37.

Beneke, J., Adams, E., Demetriou, O., & Solomons, R. (2011). An exploratory study of the relationship between store image, trust, satisfaction and loyalty in a franchise setting. Southern African Business Review, 15(2): 59-74.

Benoit, S., Klose, S., & Ettinger, A. (2017). Linking service convenience to satisfaction: Dimensions and key moderators. Journal of Services Marketing, 31(6): 527-538.

Blut, M., & Wang, C. (2020). Technology readiness: a meta-analysis of conceptualizations of the construct and its impact on technology usage. Journal of the Academy of Marketing Science, 48: 649-669.

Chen, S. C., Chen, H. H., & Chen, M. F. (2009). Determinants of satisfaction and continuance intention towards self-service technologies. Industrial Management & Data Systems, 109(9): 1248-1263.

Chung, N., & Koo, C. (2015). The use of social media in travel information search. Telematics and Informatics, 32(2): 215-229.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3): 319-340.

Dodds, W. B., & Monroe, K. B. (1985). The effect of brand and price information on subjective product evaluations. Advances in Consumer Research, 12(1): 85-90.

Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of price, brand, and store information on 'buyers' product evaluations. Journal of Marketing Research, 28(3): 307-319.

Financial Supervisory Commission (R.O.C.) (2024). The status of digital deposit account business of domestic banks at the end of December 2012. https://www.fsc.gov.tw /ch/home.jsp?id=96&parentpath=0,2&mcustomize=news_view.jsp&dataserno=202403280001&toolsflag=Y&dtable=News.

Financial Supervisory Commission (R.O.C.) (2021). The Financial Supervisory Commission (FSC) advanced measures related to financial digitization during the pandemic. https://www.fsc.gov.tw/ch/home.jsp?id=96&parentpath=0,2&mcustomize=news_view.jsp&dataserno=202106100003&dtable=News.

Financial Supervisory Commission (R.O.C.) (2023). The list of systemically important banks for the 112nd year remains the same as in the 111th year. https://www.fsc.gov.tw/ch/ home.jsp?id=96&parentpath=0,2&mcustomize=news_view.jsp&dataserno=202310260003&toolsflag=Y&dtable=News.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1): 39-50.

García-Fernández, J., Gálvez-Ruíz, P., Fernández-Gavira, J., Vélez-Colón, L., Pitts, B., & Bernal-García, A. (2018). The effects of service convenience and perceived quality on perceived value, satisfaction and loyalty in low-cost fitness centers. Sport Management Review, 21(3): 250-262.

Grégoire, Y., & Fisher, R. J. (2008). Customer betrayal and retaliation: when your best customers become your worst enemies. Journal of the Academy of Marketing Science, 36: 247-261.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). Multivariate data analysis (8th ed.). Boston Cengage.

Howat, G., & Assaker, G. (2013). The hierarchical effects of perceived quality on perceived value, satisfaction, and loyalty: Empirical results from public, outdoor aquatic centres in Australia. Sport management review, 16(3): 268-284.

Huy, L. V., Nguyen, P. T. H., Pham, L., & Berry, R. (2019). Technology readiness and satisfaction in Vietnam's luxury hotels. International Journal of Management and Decision Making, 18(2): 183-208.

Jang, H. W., & Lee, S. B. (2020). Serving robots: Management and applications for restaurant business sustainability. Sustainability, 12(10): 3998.

Kim, D. J. (2012). An investigation of the effect of online consumer trust on expectation, satisfaction, and post-expectation. Information Systems and e-Business Management, 10: 219-240.

Kim, D. J., Ferrin, D. L., & Rao, H. R. (2003). A study of the effect of consumer trust on consumer expectations and satisfaction: The Korean experience. In Proceedings of the 5th international conference on Electronic commerce (pp. 310-315).

Kim, H. W., Chan, H. C., & Gupta, S. (2007). Value-based adoption of mobile internet: an empirical investigation. Decision Support Systems, 43(1): 111-126.

Kim, S. H., Bae, J. H., & Jeon, H. M. (2019). Continuous intention on accommodation apps: Integrated value-based adoption and expectation–confirmation model analysis. Sustainability, 11(6): 1578.

Kim, Y., Park, Y., & Choi, J. (2017). A study on the adoption of IoT smart home service: using Value-based Adoption Model. Total Quality Management & Business Excellence, 28(9-10): 1149-1165.

Ko, E., Kim, E. Y., & Lee, E. K. (2009). Modeling consumer adoption of mobile shopping for fashion products in Korea. Psychology & Marketing, 26(7): 669-687.

Komlan, G., Koffi, D., & Kingsford, K. M. (2016). MCDM technique to evaluating mobile banking adoption in the Togolese banking industry based on the perceived value: Perceived benefit and perceived sacrifice factors. International Journal of Data Mining & Knowledge Management Process, 6(3): 37-56.

Likert, R. (1932). A technique for the measurement of attitudes. Archives of Psychology, 140(22): 55.

Ling, C. H., Teo, P. C., Ho, T. C., & Choo, L. S. (2020, November). Value-Based Adoption Model on E-Wallet in Malaysia: A Conceptual Paper. In 2020 International Conference on Decision Aid Sciences and Application (DASA) (pp. 501-503).

Martínez, P., & Del Bosque, I. R. (2013). CSR and customer loyalty: The roles of trust, customer identification with the company and satisfaction. International Journal of Hospitality Management, 35: 89-99.

Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. Journal of Marketing, 58(3): 20-38.

Niknejad, N., Foroutani, S., Nazari, B., Ghani, I., & Hussin, A. R. C. (2022). Smart Wellness Wearables Usage Intention Among Users in Malaysia: An Extension of Value-Based Adoption Model and Unified Theory of Acceptance and Use of Technology2. Available at SSRN 4030570.

Oliver, R. L. (1980). A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. Journal of Marketing Research, 17(4): 460–469.

Paillé, P., Bourdeau, L., & Galois, I. (2010). Support, trust, satisfaction, intent to leave and citizenship at organizational level: A social exchange approach. International Journal of Organizational Analysis, 18(1): 41-58.

Pandega, W. R. (2017). The implication of purchase Intention: analysis of Perceived Usefulness, Perceived Enjoyment, Technicality and Perceived Price towards Perceived Value. Russian Journal of Agricultural and Socio-Economic Sciences, 71(11): 153-160.

Parasuraman, A. (2000). Technology Readiness Index (TRI) a multiple-item scale to measure readiness to embrace new technologies. Journal of Service Research, 2(4): 307-320.

Parasuraman, A., & Colby, C. L. (2015). An updated and streamlined technology readiness index: TRI 2.0. Journal of service research, 18(1): 59-74.

Pham, L., Williamson, S., Lane, P., Limbu, Y., Nguyen, P. T. H., & Coomer, T. (2020). Technology readiness and purchase intention: role of perceived value and online satisfaction in the context of luxury hotels. International Journal of Management and Decision Making, 19(1): 91-117.

Pham, Q. T., Tran, X. P., Misra, S., Maskeliūnas, R., & Damaševičius, R. (2018). Relationship between convenience, perceived value, and repurchase intention in online shopping in Vietnam. Sustainability, 10(1): 156.

Rajeh, M. T., Abduljabbar, F. H., Alqahtani, S. M., Waly, F. J., Alnaami, I., Aljurayyan, A., & Alzaman, N. (2021). 'Students' satisfaction and continued intention toward e-learning: A theory-based study. Medical Education Online, 26(1): 1961348.

Rogers, E.M., (1995). Diffusion of Innovations, fourth ed. The Free Press, New York.

Ruswanti, E., Eff, A., & Kusumawati, M. (2020). Word of mouth, trust, satisfaction and effect of repurchase intention to Batavia hospital in west Jakarta, Indonesia. Management Science Letters, 10(2): 265-270.

Seyal, A. H., Ibrahim, H., & Rahman, M. N. A. (2014). A Study of Bruneian Corporate 'Customers' Uses of Mobile Services: An Application of Value-Based Adoption Model. Journal of Communication and Computer, 11: 255-265.

Shelvia, O., Prayitno, A. T., Kartono, R., & Sundjaja, A. M. (2020). Analysis of factors affecting c' 'consumer's continuance intention to use mobile payments with a value-based adoption model (Vam) approach. Psychology and Education, 57(9): 2883-2898.

Smith, A. K., Bolton, R. N., & Wagner, J. (1999). A model of customer satisfaction with service encounters involving failure and recovery. Journal of Marketing Research, 36(3): 356-372.

Tax, S. S., Brown, S. W., & Chandrashekaran, M. (1998). Customer evaluations of service complaint experiences: implications for relationship marketing. Journal of Marketing, 62(2): 60-76.

Turel, O., Yuan, Y., & Connelly, C. E. (2008). In justice we trust: Predicting user acceptance of e-customer services. Journal of Management Information Systems, 24(4): 123-151.

Venkatesh, V., & Bala, H. (2008). Technology acceptance model 3 and a research agenda on interventions. Decision sciences, 39(2): 273-315.

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. Management Science, 46(2): 186-204.

Wang, Y. S., Yeh, C. H., & Liao, Y. W. (2013). What drives purchase intention in the context of online content services? The moderating role of ethical self-efficacy for online piracy. International Journal of Information Management, 33(1): 199-208.

Yang, H., Yu, J., Zo, H., & Choi, M. (2016). User acceptance of wearable devices: An extended perspective of perceived value. Telematics and Informatics, 33(2): 256-269.

Yu, H., Seo, I., & Choi, J. (2019). A study of critical factors affecting adoption of self-customisation service–focused on value-based adoption model. Total Quality Management & Business Excellence, 30(1): S98-S113.

Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence. Journal of Marketing, 52(3): 2-22.

Zeqiri, J., Ramadani, V., & Aloulou, W. J. (2023). The effect of perceived convenience and perceived value on intention to repurchase in online shopping: the mediating effect of e-WOM and trust. Economic Research-Ekonomska Istraživanja, 36(3): 2153721.