



Exploring Customer Loyalty in Vietnam's Digital Banking Industry: Insights from Switching Costs and Alternative Attractiveness

Nguyen Ha Thach¹, Bui Huy Khoi¹, Pham Thi Kim Thanh², Chu Thi Thuong², Tran Nha Ghi^{1*}

¹Industrial University of Ho Chi Minh City, Vietnam, ²University of Finance - Marketing, Ho Chi Minh City, Vietnam.

*Email: trannhaghi@iuh.edu.vn

Received: 03 December 2024

Accepted: 10 May 2025

DOI: <https://doi.org/10.32479/irmm.18473>

ABSTRACT

This study investigates the factors influencing customer loyalty in Vietnam's digital banking sector by integrating the Cognitive-Affective-Behavioral model and the Theory of Consumption Values. The research aims to bridge the gap in existing literature by focusing on post-adoption behavior and exploring the drivers of loyalty within the digital banking context. To expand the traditional loyalty framework, the study incorporates switching costs and alternative attractiveness as both mediating and moderating factors that influence the relationship between customer satisfaction and loyalty. Survey data were collected from 544 digital banking users in Vietnam, and higher-order structural equation modeling was employed for analysis. The findings reveal that consumption value, which includes functional, social, emotional, epistemic, and monetary dimensions, has a significant positive effect on customer satisfaction, which in turn strongly impacts loyalty. Additionally, both switching costs and alternative attractiveness play crucial roles as mediators in the satisfaction-loyalty relationship. These insights provide valuable guidance for digital banking providers, emphasizing the need to focus on key consumption values while also managing switching barriers and the competitive threat posed by alternative options to enhance customer retention and loyalty.

Keywords: Digital Banking, Consumption Value, Satisfaction, Loyalty, Switching Costs, Alternative Attractiveness

JEL Classifications: M12, M310

1. INTRODUCTION

Liébana-Cabanillas et al. (2020) highlighted previous research on mobile payments has mostly focused on consumers' initial adoption behaviour, overlooking their subsequent usage after adoption, despite the notable problem of losing customer loyalty. Customer attrition in the banking sector, where clients discontinue using a bank's services and eventually sever their ties, underscores the critical need for customer retention in today's highly competitive market. Retaining customers not only ensures a stable client base but also helps attract new business through trust-building and referrals from satisfied customers (Singh et al., 2024).

The number of newly established businesses in the fields of finance, banking, and insurance services in Vietnam is projected to exceed 1,000 units from 2016 to 2022. Notably, the peak years are 2018 with 1,867 newly established units and 2022 with 1,678 (Statista, 2023). Therefore, banks face significant challenges in today's landscape. They are tasked with operating with exceptional cost efficiency and resilience, managing the general ledger and balance sheet, conducting asset liability management with precision, and ensuring error-free operations. This alone is a monumental undertaking. However, in addition to these responsibilities, banks are also expected to prioritize innovation and growth, delivering personalized services tailored to each individual customer. These dual sets of expectations create inherent tension.

Previous research on the elements influencing customer loyalty has not consistently come to a consensus (Kumar et al., 2013; Zhang et al., 2023). Furthermore, Smith (2020) made the argument that while a great deal of research has established the link between loyalty and satisfaction, this relationship can get complicated when other factors like alternative attractions are present. Opinions vary about how alternative attractiveness and switching costs affect the correlation between loyalty and satisfaction (Kim et al., 2018). Zhang et al. (2023) used alternative attractiveness as a moderating variable to examine the factors influencing mobile payment loyalty from a multidimensional value perspective. Although every attempt was made to incorporate all relevant variables into the research framework, it was not possible to account for the most recent developments in this field. Going forward, studies may take into account additional elements that could influence the loyalty of mobile payment users (Zhang et al., 2023).

Using theories such as TAM, TAM2, and UTAUT, numerous research endeavours have attempted to determine what motivates consumers to begin utilising new technologies (Raman and Aashish, 2021). The research outlined above provides several rationales for studying post-adoption consumer behavior, with a particular emphasis on customer loyalty. Therefore, by combining value, satisfaction, switching costs, alternative attractiveness, and loyalty into a single framework, the current study aims to close these gaps. To do this, we build upon and integrate the Cognitive-Affective-Behavioral (C-A-B) model and the theory of consumption values (TCV), with the aim of examining the factors that influence customer loyalty in digital banking from a multidimensional value perspective.

The research currently being published highlights several important factors that affect customer loyalty in the context of digital banking. Research, for example, has demonstrated that e-banking service quality has a major impact on customer satisfaction, which in turn has an impact on e-loyalty (Tran et al., 2023). According to Nguyen (2023), social media marketing plays a crucial role in cultivating brand loyalty among younger consumers of digital banking services in Vietnam.

By utilizing a psychological value framework, this study seeks to offer a novel viewpoint on comprehending consumer loyalty in the setting of digital banking in Vietnam. It seeks to provide in-depth insights into the behavior of digital banking consumers, moving beyond the traditional emphasis on technical attributes or service quality. Through an analysis of the interplay among different characteristics of perceived value, customer satisfaction, and loyalty, this research reveals facets of consumer decision-making that have not been thoroughly investigated in earlier research. Furthermore, the investigation delves into the moderating and mediating roles of alternative attractiveness and switching costs in the link between satisfaction and loyalty. This offers a more sophisticated understanding of the ways in which external options affect consumer loyalty in digital banking. To gain a deeper knowledge of how customers make decisions in this business, the study also examines the role that alternative attractiveness and switching costs play as mediators in the value-satisfaction-loyalty cycle. The findings from this study have substantial

practical implications, as they suggest strategies for digital banking businesses to enhance customer loyalty. By identifying and prioritizing the key values that resonate most with customers, these businesses can not only foster stronger loyalty but also adeptly navigate the competitive challenges posed by switching costs and attractive alternatives.

This study is innovative because it examines customer loyalty in Vietnam's digital banking industry by fusing the TCV with the C-A-B model. Although factors impacting customer loyalty have been studied in the past, this study takes a novel approach by looking at the mediating and moderating effects of alternative attractiveness (ALAT) and switching costs (SWCO) inside a higher-order model. This method makes it possible to comprehend customer behavior more thoroughly, especially when it comes to digital banking, where quick technical developments are always changing how consumers demand products and how markets operate.

Furthermore, this study fills a major vacuum in the literature by concentrating on the post-adoption behavior of Vietnamese digital banking customers. It offers fresh perspectives on the ways in which these factors interact to impact customer loyalty. Specifically, the study offers a novel theoretical framework for assessing loyalty in the context of digital banking in addition to illuminating the intricate relationships between alternative attractiveness, switching costs, and satisfaction. Furthermore, this study provides banking organizations with useful implications by highlighting critical elements that can improve customer retention in a market that is becoming more and more competitive.

2. THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

2.1. Digital Banking and Customer Loyalty

Digital banking, or internet banking, blurs the lines with traditional banking services. However, the key distinction lies in their lack of physical branches. Unlike traditional banks, which offer in-person services through brick-and-mortar locations, digital-only banks operate exclusively through digital platforms. Through foregoing physical offices and in-person customer interactions, digital-only banks rely exclusively on virtual infrastructure for all transactions, resulting in substantial reductions in operational costs, particularly those related to maintaining physical branches and providing face-to-face services (Fathima, 2020).

Research on digital banking predominantly centers on business, financial inclusion, and regulatory issues, underscoring its importance in contemporary banking discussions (Fathima, 2020; Tosun, 2020). Revolutionary fintech applications, digital-only banks defy conventional banking norms by operating as entirely paperless, signature-less, and branchless entities. The financial ecosystem and corporate operations are altered by this revolutionary strategy, which improves operational effectiveness but also raises security and privacy concerns (Dharamshi, 2019). Empirical research on customer loyalty in the context of digital banking is still scarce in peer-reviewed journals, despite its broad acceptance.

A strong and persistent commitment to regularly select or return to a preferred good or service in the future is what defines loyalty (Oliver, 1999). According to Ahmed et al. (2023), retaining customers is essential to a business's ability to develop and survive in a cutthroat market. For mobile service providers, retaining their clientele and fostering customer loyalty are crucial goals, as satisfied customers are more likely to recommend and repurchase products and services, reducing marketing costs and increasing market share (Chang, 2015).

Many studies have been done on consumer loyalty, with two main approaches concentrating on its definition and measurement: behavior-based approaches and attitude-based approaches (Buttle and Maklan, 2019). As a result, extensive empirical research has been conducted to identify factors that may influence consumer loyalty. For example, Zhang et al. (2023) looked into alternative attractiveness from a consumption value perspective and how it promotes customer loyalty in mobile payments. Zhou et al. (2021) discovered that service quality significantly predicts customer loyalty in mobile banking, despite the fact that usage experience was determined to be the primary factor impacting user loyalty in mobile apps (Molinillo et al., 2020).

The model, referred to as the satisfaction-profit chain presents a convincing rationale (Anderson and Mittal, 2000). It posits that as companies gain insight into their customers, they can enhance customer value propositions and improve overall customer experiences, leading to increased satisfaction. As satisfaction levels rise, so does the intention of customers to repurchase (Anderson, 1994). As a result, a lot of research has been conducted on the relationship between satisfaction, quality, and loyalty (Kim et al., 2021; Omar et al., 2021). In this case, it's unclear how value-based elements function as antecedents (Omigie et al., 2017). Zhang et al. (2023) suggested that future studies should not only consider other potential drivers of mobile payment users' loyalty but also explore how consumer behaviors vary across different countries and cultural groups. Therefore, it is important to examine the factors influencing customer loyalty in digital banking from a value perspective, particularly the roles of alternative attractiveness and switching costs, especially in the context of Vietnam.

2.2. Cognitive-Affective-Behavioral Model

Havlena and Holbrook (1986) first introduced the C-A-B model, which offers a thorough framework for comprehending consumer decision-making processes. This model suggests that consumer behavior progresses through three distinct phases: cognitive, affective, and behavioral (Havlena and Holbrook, 1986; Zheng et al., 2022). Huang and Chen (2022) posit that consumers' thoughts and beliefs about a brand are fundamental in shaping their emotional responses. These emotional responses, which encompass a range of feelings such as satisfaction or trust, subsequently influence consumers' actions and purchasing decisions. By emphasizing the role of cognitive perceptions, the authors highlight the intricate process through which initial thoughts and beliefs can lead to tangible behavioral outcomes in the marketplace. According to (Moon et al., 2017), within this model, cognition involves consumers' knowledge, beliefs, and

awareness about products or services; affect includes emotions, moods, and attitudes; and behavior refers to the actual actions or tendencies towards those products or services. The C-A-B model has been effectively utilized in various fields to explore customer loyalty, including retail (Parwati et al., 2021), mobile shopping (Kim et al., 2021), the food industry (Huang and Chen, 2022), tourism (Zheng et al., 2022), and mobile payment (Zhang et al., 2023).

The C-A-B model is employed in our study to establish the theoretical framework and provide support for the links between important constructs. More precisely, we propose a C-A-B model for client loyalty in digital banking that is step-by-step. The cognitive component encompasses five consumption values: Functional, social, emotional, epistemic, and monetary. Loyalty denotes the behavioural component, and satisfaction reflects the affective component. Given that digital banking products and services require high consumer involvement, consumers may need to progress from awareness and understanding of the product or service, to forming emotional responses, before finally deciding to use them. Thus, our hypothesis is that different consumption values have a major impact on satisfaction, which in turn has an impact on loyalty. Moreover, we propose that satisfaction acts as a mediator in the relationship between consumption values and loyalty. This makes the C-A-B model particularly suitable for analysis in the context of digital banking.

2.3. Theory of Consumption Values

Marketing, recognized as a value-creation discipline according to contemporary marketing philosophy, is tasked with constructing, sustaining, and augmenting customer relationships by delivering superior customer value, as customers tend to favor products or services perceived to offer the highest value (Kotler et al., 2021). Developed by Sheth et al. (1991), the TCV outlines the rationale behind consumer decisions about product, product category, and brand selection from a value perspective. It has a significant impact on theoretical frameworks as well as practical applications. TCV stands out for its ability to shed light on a broad spectrum of consumption behaviors across various domains such as food, apparel, leisure activities like smoking, educational pursuits, tourism, and more, thereby enriching our comprehension of consumer preferences and behaviors in diverse contexts. This theory states that the five discrete consumption values (COVA) - functional, social, emotional, epistemic, and conditional - shape the complex process of consumer decision-making. These values collectively contribute to the formation of consumer preferences and play a pivotal role in guiding individuals' choices across a wide array of services and products. These five COVA provide a comprehensive framework for understanding the diverse factors influencing consumer choices and preferences across various contexts and decision-making scenarios. Information systems (Karjaluoto et al., 2021), tourism (Hsu et al., 2022; Min Ho et al., 2022), green products (Lang and Conroy, 2021; Yuan et al., 2022), mobile (Chakraborty et al., 2022; Omigie et al., 2017), and mobile payment (Zhang et al., 2023) are just a few of the contexts in which TCV has found extensive application. Expanding on the original TCV paradigm,

we incorporate “monetary value” as a new independent variable in our analysis. According to the participants, economic value is a quality that increases value by including extra advantages or cost savings. Monetary value is the cost incurred in exchange for a specific good or service and embodies the concept of “what you get for what you pay” (Gielens et al., 2021). In this context, monetary value includes discounts or cashback incentives that customers receive for utilizing a specific mobile payment service, in addition to the cost or time lost (Pinem et al., 2020). In addition, the concept of monetary value in digital banking services in Vietnam is also an issue that needs to be discussed in this study. According to Circular No. 26/2013/TT-NHNN dated December 5, 2013, issued by the State Bank of Vietnam, users may be required to pay various fees when participating in digital banking services, including participation fees in the payment system, annual fees, domestic payment service fees, international payment service fees,... (The State Bank of Vietnam, 2013). These fees vary between banks. Therefore, economic value (annual costs and benefits achieved) is also an aspect that requires attention when engaging in digital banking services in Vietnam.

Since digital banking primarily centers on financial transactions and the core features offered by various service providers are largely identical, it is unlikely that customers' behavior will be influenced by a variety of preconditioned circumstances. Consequently, this study does not consider conditional value, which refers to the perceived utility of an alternative under specific conditions or circumstances experienced by the decision-maker. Instead, we incorporate five COVA (functional, epistemic, social, monetary, and emotional) from the TCV to represent the cognitive aspect in the study model. Based on our literature review on TCV, we present the following hypothesis:

H₁: Consumption value (COVA), a second-order construct composed of five first-order constructs (functional, epistemic, social, monetary, and emotional value), positively affects customer satisfaction.

2.4. Satisfaction and Loyalty: Mediating Effect of Satisfaction

Customer satisfaction, according to Raman and Aashish (2021), refers to the extent to which customers' pre-purchase expectations align or do not align with the perceived value of the product. Customer loyalty, as defined by Nguyen et al. (2020), is a strong commitment to regularly repurchase a specific good or service in the future. Additionally, strong consumer loyalty is often linked to a significant level of commitment.

Numerous studies have investigated and validated the strong correlation between customer satisfaction and loyalty, concluding that customer satisfaction plays a pivotal role in determining consumer loyalty (Li et al., 2021; Prentice et al., 2020). According to Moon et al. (2017), dissatisfied consumers are more likely to switch to alternatives that meet their expectations, thereby reducing their loyalty. Conversely, satisfied customers are more likely to remain with the same supplier and make additional purchases of goods and services (Gallarza et al., 2016; Mohd Suki, 2017).

Based on our literature review on customer satisfaction, we present the following hypothesis:

H₂: Customer satisfaction significantly enhances loyalty to digital banking services.

H₃: Customer satisfaction mediates the impact of consumption values on loyalty towards digital banking services.

2.5. The Role of Switching Cost: A Mediator or a Moderator

According to Kandampully and Suhartanto (2000), customer satisfaction is a crucial predictor of loyalty and repurchase intentions; however, competing theories suggest that loyalty does not always result from satisfaction and that switching does not always stem from dissatisfaction (Wu, 2011). Han et al. (2009) suggest that additional factors, like SWCO and ALAT, which may moderate or mediate the link between customer satisfaction and loyalty, need further investigation due to the inconsistent nature of this association. The literature on switching costs outlines a variety of costs that customers could take into consideration when contemplating a transition from their current supplier to another (Woisetschlager et al., 2011). These include the idea of putting in time and effort, the potential for financial loss, and the feelings of loss or discomfort associated with changing providers, according to (Jones et al., 2002).

SWCO is recognised as an effective defensive marketing technique that develops long-term connections and hence boosts income (Matzler et al., 2015). A mediator is a process by which the predictor variable influences the outcome variable. Conflicting findings regarding SWCO's influence on the satisfaction-loyalty relationship have been reported in several empirical studies that examined it as a moderator (Chuah et al., 2017). However, Rose et al. (2004) describe a moderator as a variable that influences the direction or intensity of the relationship between a predictor and a criterion.

Chang and Chen (2008) asserts that SWCO enhances the relationship between loyalty and satisfaction. On the other hand, Aydin et al. (2005), along with Augusto de Matos et al. (2013), found only a modest correlation between loyalty and satisfaction in high SWCO environments. The inconclusive results have prompted new research into SWCO from a mediator's perspective (Matzler et al., 2015; Picón et al., 2014). According to Picón et al. (2014), satisfaction influences the perceived benefits and drawbacks of switching, which in turn affects the decision to remain loyal. Highly satisfied customers perceive switching to have higher opportunity costs or lower satisfaction, making them more likely to maintain their current link. Based on this discussion, we suggest that SWCO can function as both a mediator and a moderator. Moreover, there is a significant research gap, as the role of SWCO as a mediator and moderator in the context of digital banking in Vietnam has not been thoroughly explored. Consequently, the following was proposed:

H₄: SWCO mediates the relationship between customer satisfaction and loyalty.

H₅: SWCO moderates the connection between customer satisfaction and loyalty, weakening the relationship for those who perceive SWCO as strong.

2.6. The Role of Alternative Attractiveness: A Mediator or a Moderator

The potential for receiving superior service from another provider, known as alternative attractiveness (ALAT), greatly influences customers' loyalty decisions (Chuah et al., 2017; Mannan et al., 2017). Greater awareness of ALAT may result in a decrease in customers' willingness to accept costs, satisfaction levels, perceptions of service quality, and loyalty to their current provider (Ghazali et al., 2016). Loyalty to the current provider, initially driven by satisfaction, might decline as consumers realize that switching to another provider could offer a more fulfilling service. Customers should be discouraged from moving to other providers as the perceived benefits of doing so decline with an increase in favourable service experiences. Picón et al. (2014) found that in the insurance industry, perceived ALAT mediates the link between satisfaction and loyalty. Specifically, higher satisfaction levels reduce ALAT, which subsequently boosts customer loyalty. El-Manstrly (2016) argued that while customer satisfaction is crucial, it alone is not enough to foster customer loyalty. Alternative attractiveness of a product or service can influence the link between satisfaction and loyalty. Nagengast et al. (2014) emphasized that ALAT serves as a significant moderator, particularly impacting the link between repurchase intention and its immediate antecedents. Our literature analysis indicates that ALAT may serve a dual role in the link between customer satisfaction and loyalty, functioning both as a moderator and a mediator. Thus, we put up the following hypothesis:

- H₆: ALAT mediates the relationship between customer satisfaction and loyalty.
 H₇: ALAT moderates the relationship between customer satisfaction and loyalty, with a stronger association

observed among those who perceive higher attractiveness of alternatives.

The theoretical foundation of this study is illustrated in Figure 1, and the proposed relationships between these variables are grounded in the TCV and the C-A-B model (Figure 1).

3. METHODS

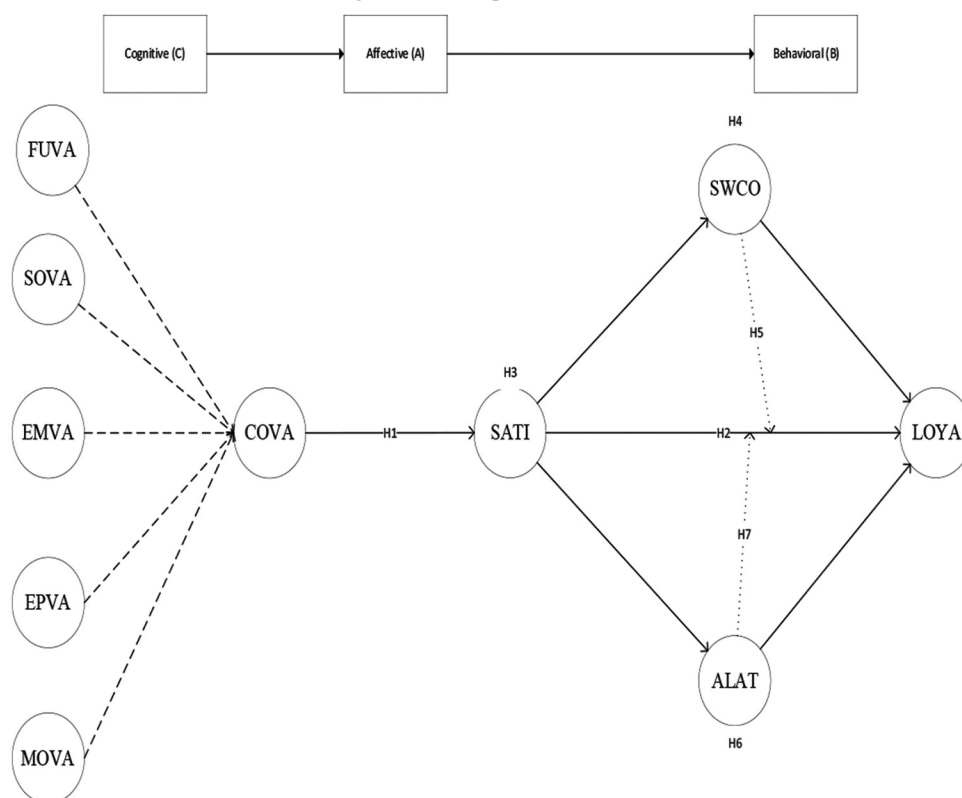
3.1. Measures

The survey begins with a succinct introduction, followed by a filter question to confirm participants' experience with digital banking services. We used multiple-item scales from the literature to ensure the validity and reliability of our survey instruments, with slight phrasing adjustments to better fit the specific context of our study.

We modified the items based on their specific sources: Karjaluoto et al. (2021) for their functional and epistemic value; Raman and Aashish (2021) and Omigie et al. (2017) for their social value; Wong et al. (2019) for their emotional value; Omigie et al. (2017) and Pal et al. (2021) for their monetary value. The satisfaction scale items were modified from (Raman and Aashish, 2021). To assess customer perceptions of SWCO, we used six items from (Aydin et al., 2005) and (Burnham et al., 2003). Finally, items from (Chuah et al., 2017) that dealt with loyalty and alternative attractiveness were modified.

A five-point Likert scale, ranging from strongly disagree (1) to strongly agree (5), was utilised for the five segments indicated above. All measurement items for the study are listed in Appendix I.

Figure 1: Conceptual framework



3.2. Sample and Data Collection Procedure

Digital banking users aged 18 and older were polled in this study. The quiz was designed to eliminate non-digital banking consumers who did not answer subsequent questions. Incomplete responses from individuals not responding mandatory questions or providing erroneous information were eliminated (Hair et al., 2013). A refined 544 eligible replies were used in this investigation. This study examines Vietnamese digital banking users' age, gender, and education. Recent studies emphasize demographics' role in adoption of digital banking. Nepal and Nepal (2023) found that habit, effort anticipation, and facilitating environment strongly predicted digital banking uptake in Nepal across demographics. Demographic factors including age, gender, and income strongly influence digital banking usage, according to research. Akhter et al. (2022) found that perceived security risk, utility, ease of use, social influence, and customer innovativeness affect online banking adoption in Bangladesh. Additionally, Chawla and Joshi (2018) found that demographic characteristics including gender, age, and wealth significantly affect the association between user attitudes and mobile banking uptake.

Vietnam's fintech business relies on digital banking due to a young population, abundant internet, and a booming economy. Include demographic parameters in the research to ensure a representative sample and explain digital banking user sample selection. Understanding user demographics helps tailor digital banking services to various requirements and interests, promoting digital finance in Vietnam. Google Forms was used to collect study data in May and June 2024 to ensure a good sample.

For this study, statistical analyses were performed using Excel software and SmartPLS 4.0. For the more intricate components of the study, path analysis was conducted using partial least square structural equation modelling (PLS-SEM) as the primary method. This approach was selected due to the complexity of the study's proposed model. This model included both first- and second-order constructs, following the Reflective-Formative model. According to Sarstedt et al. (2019), the analysis was conducted in two stages: first, evaluating the measurement model, and second, assessing the structural model.

4. RESULTS

4.1. Sample

Table 1 presents a comprehensive overview of the demographic characteristics of the respondents, highlighting a significant gender disparity with females making up 69.1% of the sample, compared to 30.9% males. Most respondents fall within the 18-25 age group, accounting for a substantial 84.4% of the sample. Regarding educational attainment, the majority of participants, 78.7%, possess an undergraduate degree, making it the most prevalent level of education. This is followed by 10.8% of respondents who have completed high school or a lower level of education. Regarding occupation, over half of the respondents (52.8%) are students. Additionally, a significant portion of the respondents (31.4%) report an income exceeding 10 million VND, indicating a relatively high-income bracket within the sample.

4.2. Assessment of the Measurement Model

Internal consistency reliability was assessed using Cronbach's Alpha (α) and composite reliability (CR). For each construct, both α and CR values exceeded the required threshold of 0.7, ranging from 0.721 to 0.923 (Table 2), indicating a satisfactory level of internal consistency reliability (Sarstedt et al., 2021). To evaluate convergent validity, Sarstedt et al. (2021) employed outer loadings and the average variance extracted (AVE). All outer loadings were at or above 0.7, and AVE values surpassed 0.5 (Table 2), confirming the convergent validity of the constructs.

Table 3 shows that the Fornell-Larcker criterion provides strong evidence supporting the discriminant validity of all constructs in the proposed model.

The paper applied the full collinearity variance inflation factors (VIFs) test, as suggested by Kock (2015), to detect common method

Table 1: Characteristic sample (n=544)

Variables	n	Percentage
Gender		
Male	168	30.9
Female	376	69.1
Demographic age		
18-25	459	84.4
25-35	38	7.0
36-50	36	6.6
≥50	11	2.0
Education		
High school and below	59	10.8
Vocational training or associate degree	19	3.5
Undergraduate degree	428	78.7
Master's or doctorate	38	7.0
Occupation		
Student	287	52.8
Self-employment	38	7.0
Working in the private sector	93	17.1
Working in the public sector	106	19.5
Other	20	3.7
Income (Million VND)		
<3 million VND	151	27.8
Between 3 and 5 million VND	93	17.1
Between 5 and 10 million VND	129	23.7
Above 10 million VND	171	31.4

Source: Synthesized by the authors from survey data

Table 2: Discriminant validity assessment using the Fornell-Larcker criterion

Measurement model analysis: first-order constructs level					
	EMVA	EPVA	FUVA	MOVA	SOVA
EMVA					
EPVA	0.824				
FUVA	0.765	0.647			
MOVA	0.776	0.790	0.659		
SOVA	0.669	0.685	0.647	0.710	
Measurement model analysis: Second-order construct level					
	ALAT	LOYA	SATI	SWCO	
ALAT	0.850				
LOYA	0.530	0.812			
SATI	0.513	0.762	0.862		
SWCO	0.578	0.576	0.509	0.799	

Source: Synthesized by the authors from survey data

Table 3: Outer loadings, cronbach's alpha, CR and AVE

Constructs	Items	Outer loadings	Outer weights	Cronbach's alpha	Composite reliability (rho_c)	Average variance extracted (AVE)
Measurement model analysis: First-order constructs level						
EMVA	EMVA1	0.815		0.873	0.908	0.666
	EMVA2	0.855				
	EMVA3	0.855				
	EMVA4	0.822				
	EMVA5	0.725				
EPVA	EPVA1	0.792		0.782	0.873	0.697
	EPVA2	0.871				
	EPVA3	0.840				
FUVA	FUVA1	0.733		0.849	0.888	0.570
	FUVA2	0.773				
	FUVA3	0.782				
	FUVA4	0.733				
	FUVA5	0.787				
	FUVA6	0.721				
MOVA	MOVA1	0.814		0.820	0.881	0.650
	MOVA2	0.833				
	MOVA3	0.810				
	MOVA4	0.765				
SOVA	SOVA1	0.793		0.895	0.923	0.706
	SOVA2	0.865				
	SOVA3	0.878				
	SOVA4	0.850				
	SOVA5	0.812				
Measurement model analysis: Second-order construct level						
COVA	EMVA		0.000			
	EPVA		0.000			
	FUVA		0.003			
	MOVA		0.000			
	SOVA		0.535			
SATI	SATI1	0.862		0.885	0.921	0.744
	SATI2	0.851				
	SATI3	0.863				
	SATI4	0.873				
SWCO	SWCO1	0.763		0.886	0.914	0.638
	SWCO2	0.823				
	SWCO3	0.803				
	SWCO4	0.776				
	SWCO5	0.809				
	SWCO6	0.816				
ALAT	ALAT1	0.837		0.808	0.886	0.722
	ALAT2	0.859				
	ALAT3	0.852				
LOYA	LOYA1	0.742		0.869	0.906	0.659
	LOYA2	0.818				
	LOYA3	0.789				
	LOYA4	0.840				
	LOYA5	0.864				

Source: Synthesized by the authors from survey data

bias (CMB). According to Kock, the VIF threshold for detecting CMB is 3.3 when utilizing factor-based PLS-SEM algorithms, or 5 for algorithms that account for measurement error. For the variable COVA, which uses a formative scale, the VIF values for EMVA, EPVA, FUVA, MOVA, and SOVA are 2.134, 1.793, 1.717, 1.927, and 1.522, respectively. Since all values fall below the 3.3 threshold, it suggests that the proposed research model is free from CMB.

4.3. Assessment of the Structural Model

In Table 4, the VIF values of ALAT, SATI, SWCO, SWCO*SATI, ALAT * SATI are below the threshold of 3.3, indicating that the research model is not affected by CMB.

The relationships between constructs were analyzed using regression coefficients (β). Furthermore, a bootstrap procedure was conducted to evaluate the statistical significance of these coefficients. As shown in Table 5, the analysis reveals that most hypotheses (H_1 , H_2 , H_3 , H_4 , and H_6) are supported, with $P < 0.05$. The findings indicate that consumption value has a positive influence on customer satisfaction, which in turn greatly strengthens loyalty to digital banking services. Furthermore, customer satisfaction acts as a mediator between consumption value and loyalty. Additionally, ALAT and SWCO serve as mediators in the relationship between customer satisfaction and loyalty. However, the study did not find support for Hypotheses H_5 .

and H₇. Specifically, the findings indicate that neither ALAT nor SWCO significantly moderate the relationship between customer satisfaction and loyalty. The detailed results are shown in Table 5.

5. DISCUSSION

5.1. Discussion on Key Findings

This study extends the TCV within the C-A-B framework to evaluate the factors impacting customer loyalty in digital banking. We developed a theoretical model and conducted an empirical analysis with 544 digital banking users in Vietnam. Our goal was to understand the relationship between overall consumption value - a second-order construct made up of monetary, social, emotional, functional, and epistemic values - customer satisfaction, which subsequently influences loyalty to digital banking. Additionally, we explored how satisfaction's effect on loyalty is mediated by SWCO and ALAT. The findings revealed that while consumption value significantly enhances satisfaction and loyalty, various mediators and moderators are at play. Notably, SWCO played a more substantial mediating role between satisfaction and loyalty compared to ALAT. Interestingly, neither SWCO nor ALAT moderated the satisfaction-loyalty relationship. This study enriches the literature by elucidating the complex interactions among consumption value, satisfaction, SWCO, ALAT, and loyalty in the context of digital banking in Vietnam.

The findings of this study, conducted within the Vietnamese digital banking context, supported Hypothesis H₁, which asserts that customer satisfaction is positively impacted by consumption value, a second-order construct comprising five first-order components. These findings are consistent with current empirical research in the field of digital banking. For example, Duc (2022) identified that elements aligning with the functional and social components of consumer value, such as service quality and responsiveness, significantly impact customer satisfaction in Vietnam's digital

banking industry. Furthermore, Nguyen et al. (2022) reported that customer satisfaction is greatly enhanced by the customer experience with digital banking, which incorporates emotional and epistemic values. Additionally, Le (2022) demonstrated that the perceived efficiency and security of e-banking services, which correlate with monetary value, strongly influence customer satisfaction in Vietnam. Collectively, these results underscore the multifaceted nature of consumer value and its significant influence on customer satisfaction across various industries, including Vietnamese digital banking.

Building upon these findings, the current investigation further validated Hypotheses H₂ and H₃. The results of the study showed that customer satisfaction greatly increases loyalty to digital banking services and that it mediates the effect of COVA on loyalty. These results are consistent with current research conducted in the field of digital banking. For instance, Phi and Huong (2023) found that customer satisfaction acts as a mediator between customer loyalty and service quality, supporting the notion that satisfaction is essential to the formation of loyalty. Moreover, Nguyen et al. (2022) highlighted the critical role of the customer experience associated with digital banking, encompassing various COVA, in shaping customer satisfaction and loyalty, thereby supporting the mediating role of satisfaction in this relationship.

In line with the investigation, the study also supported hypotheses H₄ and H₆, which suggest that SWCO and ALAT act as mediators in the relationship between loyalty and customer satisfaction. These findings are consistent with recent research in the digital banking sector. For instance, Nguyen et al. (2020) conducted a study on Vietnam's e-banking services, demonstrating the influence of switching costs on customer loyalty. Their results indicate that higher switching barriers can enhance customer loyalty, thereby reinforcing the connection between loyalty and satisfaction. Furthermore, Thuy and Quang (2022) discovered that commitment and switching costs significantly moderate the transition from satisfaction to repurchase intention in retail banking, indicating the mediating role of SWCO in customer loyalty. Collectively, these findings underscore the critical role of SWCO and ALAT in shaping customer loyalty, especially in highly competitive markets such as digital banking.

However, the study did not find support for Hypotheses H₅ and H₇. Specifically, the findings revealed that neither ALAT nor SWCO significantly moderated the link between customer satisfaction

Table 4: Collinearity variance inflation factors (VIFs)

	ALAT	LOYA	SATI	SWCO
ALAT		1.745		
COVA			1.000	
LOYA				
SATI	1.000	1.545		1.000
SWCO		1.855		
SWCO×SATI		1.852		
ALAT×SATI		1.755		

Source: Synthesized by the authors from survey data

Table 5: Hypothesis testing

Hypothesis	Path coefficient	Standard deviation (STDEV)	T statistics (O/STDEV)	P-values	Results
Direct effects					
H ₁ : COVA→SATI	0.791	0.017	46.829	0.000	Supported
H ₂ : SATI→LOYA	0.591	0.033	17.779	0.000	Supported
Indirect effects					
H ₃ : COVA→SATI→LOYA	0.467	0.031	15.150	0.000	Supported
H ₄ : SATI→SWCO→LOYA	0.121	0.025	4.857	0.000	Supported
H ₅ : SATI→ALAT→LOYA	0.045	0.023	1.964	0.050	Supported
Moderating effects					
H ₆ : SWCO×SATI→LOYA	-0.069	0.042	1.638	0.101	Unsupported
H ₇ : SWCO×SATI→LOYA	0.019	0.039	0.479	0.632	Unsupported

Source: The authors performed the hypothesis testing using SmartPLS 4.0.9.8

and loyalty. Several factors may explain these results. First, the standardized nature of digital banking services in Vietnam might limit the perceived impact of switching costs. As digital banking services become more uniform across different providers, customers may not perceive significant differences between banks, thereby reducing the impact of SWCO as a barrier to switching. This is consistent with the findings of Bui et al. (2022), who found that, in the case of mobile banking, the moderating influence of SWCO on loyalty was insignificant. The lack of considerable moderation in ALAT might be ascribed to Vietnam's competitive banking market, wherein clients are presented with an array of appealing options.

5.2. Theoretical Contribution

Our study adds in several ways to the literature on services marketing and consumer behaviour. First, we deepen our understanding of value by looking at how it affects customer satisfaction and loyalty in the context of digital banking in Vietnam. According to our findings, consumers of digital banking evaluated goods and services based on their monetary, emotional, functional, and epistemic values.

Second, the TCV is extended inside the C-A-B framework and SWCO and ALAT are incorporated, thus expanding the value-satisfaction-loyalty framework (Gallarza et al., 2016; Zhang et al., 2023) in this study. Our study also innovatively employs higher-order models to analyze consumer behavior, thereby offering a more nuanced understanding of digital banking dynamics. Furthermore, the study conducts an empirical analysis of the mediating roles of ALAT and SWCO in the satisfaction-loyalty relationship, offering more comprehensive understanding of customer behaviour in Vietnam's digital banking market. These insights can inform targeted strategies for enhancing customer loyalty and satisfaction in the rapidly evolving digital banking landscape.

5.3. Managerial Implications

Our studies' conclusions have important real-world ramifications for digital banking service providers, particularly as banks look to improve their client retention tactics. Therefore, understanding what customers care about and truly value is essential to achieving business performance and customer loyalty. Our empirical results indicate that consumption value significantly and positively impacts customer satisfaction. Moreover, we experimentally investigated how SWCO and ALAT mediate the satisfaction-loyalty relationship in our study. This scientific evidence is essential for banks to enhance the effectiveness of their marketing strategies.

Furthermore, our study underscores the significance of satisfaction in anticipating loyalty, stressing its pivotal function in moderating the influence of consumer consumption values on the final level of loyalty. As a result, providers of digital banking services ought to keep a close eye on customer satisfaction and work hard to create memorable customer experiences by providing services that either match or surpass clients' expectations. For example, they can regularly collect input from customers and improve the digital banking services' user experience.

6. LIMITATIONS AND FUTURE RESEARCH

Our study recognizes several limitations despite its significant contributions. Firstly, this research did not analyse the differences between users from different digital banking service providers. Instead, the study population was considered as a collective group of digital banking service providers to establish general findings. Future research could be enhanced by conducting comparative studies to investigate potential variations in the factors that impact customer loyalty across different digital banking service providers, including commercial banks and international banks. In addition, we have made a thorough attempt to incorporate all significant factors into our research framework. However, it was not possible for us to encompass all the recent advancements in this field. Future studies could explore additional factors that may influence customer satisfaction and loyalty in digital banking services, including perceptions of environmental value and regulatory factors. Lastly, the empirical data came from a particular Vietnamese environment. Future research could explore consumer behaviours across diverse cultural contexts and larger samples to draw more widely applicable conclusions. This would help account for potential variations in consumer behaviours across different countries and cultural groups.

CONCLUSION

This study investigated customer loyalty in Vietnam's digital banking context through the combined lens of the TCV and the C-A-B model. As a second-order construct, the findings confirm that consumption value significantly contributes to customer satisfaction, enhancing loyalty. Emotional, monetary, and functional values exhibited the most potent effects among the five value dimensions.

The study also demonstrates the mediating roles of switching costs and alternative attractiveness in the satisfaction-loyalty relationship. However, their moderating effects were statistically insignificant. Although both SWCO and ALAT serve as mediators between satisfaction and loyalty, the analysis did not find significant moderating effects. One possible explanation is that users may perceive limited differentiation among digital banking providers in Vietnam, which diminishes the relevance of switching-related factors in shaping loyalty responses.

Theoretically, this research contributes to loyalty literature by extending the C-A-B model with multidimensional consumption values and identifying indirect mechanisms in loyalty formation. From a managerial perspective, enhancing emotional engagement and perceived benefits may be more impactful than emphasizing switching deterrents. Digital banks should prioritize customer-centric strategies that increase satisfaction through perceived value rather than reliance on structural constraints.

REFERENCES

- Ahmed, S., Al Asheq, A., Ahmed, E., Chowdhury, U.Y., Sufi, T., Mostofa, M.G. (2023), The intricate relationships of consumers' loyalty and their perceptions of service quality, price and satisfaction in restaurant service. *The TQM Journal*, 35(2), 519-539.
- Akhter, A., Karim, M.M., Jannat, S., Islam, K.A. (2022), Determining

- factors of intention to adopt internet banking services: A study on commercial bank users in Bangladesh. *Banks and Bank Systems*, 17(1), 125-136.
- Anderson, E.W. (1994), Cross-category variation in customer satisfaction and retention. *Marketing Letters*, 5, 19-30.
- Anderson, E.W., Mittal, V. (2000), Strengthening the satisfaction-profit chain. *Journal of Service Research*, 3(2), 107-120.
- Augusto de Matos, C., Luiz Henrique, J., de Rosa, F. (2013), Customer reactions to service failure and recovery in the banking industry: The influence of switching costs. *Journal of Services Marketing*, 27(7), 526-538.
- Aydin, S., Özer, G., Arasil, Ö. (2005), Customer loyalty and the effect of switching costs as a moderator variable: A case in the Turkish mobile phone market. *Marketing Intelligence and Planning*, 23(1), 89-103.
- Bui, N., Moore, Z., Wimmer, H., Pham, L. (2022), Predicting customer loyalty in the mobile banking setting: An integrated approach. *International Journal of E-Services and Mobile Applications*, 14(1), 1-22.
- Burnham, T.A., Frels, J.K., Mahajan, V. (2003), Consumer switching costs: A typology, antecedents, and consequences. *Journal of the Academy of Marketing Science*, 31(2), 109-126.
- Buttle, F., Maklan, S. (2019), *Customer Relationship Management: Concepts and Technologies*. United Kingdom: Routledge.
- Chakraborty, D., Siddiqui, A., Siddiqui, M., Rana, N.P., Dash, G. (2022), Mobile payment apps filling value gaps: Integrating consumption values with initial trust and customer involvement. *Journal of Retailing and Consumer Services*, 66, 102946.
- Chang, C.C. (2015), Exploring mobile application customer loyalty: The moderating effect of use contexts. *Telecommunications Policy*, 39(8), 678-690.
- Chang, H.H., Chen, S.W. (2008), The impact of customer interface quality, satisfaction and switching costs on e-loyalty: Internet experience as a moderator. *Computers in Human Behavior*, 24(6), 2927-2944.
- Chawla, D., Joshi, H. (2018), The moderating effect of demographic variables on mobile banking adoption: An empirical investigation. *Global Business Review*, 19(3_Suppl), S90-S113.
- Chuah, S.H.W., Marimuthu, M., Kandampully, J., Bilgihan, A. (2017), What drives Gen Y loyalty? Understanding the mediated moderating roles of switching costs and alternative attractiveness in the value-satisfaction-loyalty chain. *Journal of Retailing and Consumer Services*, 36, 124-136.
- Dharamshi, L. (2019), Digital-only banks (next level of banking experience). *Journal of Global Economy*, 15(1), 1-5.
- Duc, P.M. (2022), Customer satisfaction in digital banking sector in Vietnam: A meta-case approach. *Telos: Revista de Estudios Interdisciplinarios en Ciencias Sociales*, 24(3), 819-836.
- El-Manstrly, D. (2016), Enhancing customer loyalty: Critical switching cost factors. *Journal of Service Management*, 27(2), 144-169.
- Fathima, J.S. (2020), Challenge management of banking services-with special reference to virtual banking service challenges. *Shanlax International Journal of Management*, 7(3), 57-66.
- Gallarza, M.G., Ruiz-Molina, M.E., Gil-Saura, I. (2016), Stretching the value-satisfaction-loyalty chain by adding value dimensions and cognitive and affective satisfactions: A causal model for retailing. *Management Decision*, 54(4), 981-1003.
- Ghazali, E., Nguyen, B., Mutum, D.S., Mohd-Any, A.A. (2016), Constructing online switching barriers: Examining the effects of switching costs and alternative attractiveness on e-store loyalty in online pure-play retailers. *Electronic Markets*, 26, 157-171.
- Gielens, K., Ma, Y., Namin, A., Sethuraman, R., Smith, R.J., Bachtel, R.C., Jervis, S. (2021), The future of private labels: Towards a smart private label strategy. *Journal of Retailing*, 97(1), 99-115.
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. (2013), *Multivariate Data Analysis: Pearson New International Edition PDF eBook*. New York: Pearson.
- Han, H., Back, K.J., Barrett, B. (2009), Influencing factors on restaurant customers' revisit intention: The roles of emotions and switching barriers. *International Journal of Hospitality Management*, 28(4), 563-572.
- Havlena, W.J., Holbrook, M.B. (1986), The varieties of consumption experience: Comparing two typologies of emotion in consumer behavior. *Journal of Consumer Research*, 13(3), 394-404.
- Hsu, F.C., Agyeiwaah, E., Scott, N. (2022), Understanding tourists' perceived food consumption values: Do different cultures share similar food values? *International Journal of Gastronomy and Food Science*, 28, 100533.
- Huang, C.C., Chen, S.E. (2022), Establishing and deepening brand loyalty through brand experience and customer engagement: Evidence from Taiwan's chain restaurants. *Journal of Quality Assurance in Hospitality and Tourism*, 23(1), 217-239.
- Jones, M.A., Mothersbaugh, D.L., Beatty, S.E. (2002), Why customers stay: Measuring the underlying dimensions of services switching costs and managing their differential strategic outcomes. *Journal of Business Research*, 55(6), 441-450.
- Kandampully, J., Suhartanto, D. (2000), Customer loyalty in the hotel industry: The role of customer satisfaction and image. *International Journal of Contemporary Hospitality Management*, 12(6), 346-351.
- Karjaluoto, H., Glavce-Geo, R., Ramdhony, D., Shaikh, A.A., Hurpaul, A. (2021), Consumption values and mobile banking services: Understanding the urban-rural dichotomy in a developing economy. *International Journal of Bank Marketing*, 39(2), 272-293.
- Kim, M.K., Park, M.C., Park, J.H., Kim, J., Kim, E. (2018), The role of multidimensional switching barriers on the cognitive and affective satisfaction-loyalty link in mobile communication services: Coupling in moderating effects. *Computers in Human Behavior*, 87, 212-223.
- Kim, Y., Wang, Q., Roh, T. (2021), Do information and service quality affect perceived privacy protection, satisfaction, and loyalty? Evidence from a Chinese O2O-based mobile shopping application. *Telematics and Informatics*, 56, 101483.
- Kock, N. (2015), Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration*, 11(4), 1-10.
- Kotler, P.T., Armstrong, G., Opresnik, M.O. (2021), *Principles of Marketing*. 18th Global ed. United Kingdom: Pearson Education Limited.
- Kumar, V., Dalla Pozza, I., Ganesh, J. (2013), Revisiting the satisfaction-loyalty relationship: Empirical generalizations and directions for future research. *Journal of Retailing*, 89(3), 246-262.
- Lang, B., Conroy, D.M. (2021), Are trust and consumption values important for buyers of organic food? A comparison of regular buyers, occasional buyers, and non-buyers. *Appetite*, 161, 105123.
- Le, T.T.K. (2022), E-banking and Customer Satisfaction: A Case Study in Vietnam. In: Paper presented at the Proceedings of the 2022 3rd International Conference on Internet and E-Business.
- Li, T.T., Liu, F., Soutar, G.N. (2021), Experiences, post-trip destination image, satisfaction and loyalty: A study in an ecotourism context. *Journal of Destination Marketing and Management*, 19, 100547.
- Liébana-Cabanillas, F., Japutra, A., Molinillo, S., Singh, N., Sinha, N. (2020), Assessment of mobile technology use in the emerging market: Analyzing intention to use m-payment services in India. *Telecommunications Policy*, 44(9), 102009.
- Mannan, M., Mohiuddin, M.F., Chowdhury, N., Sarker, P. (2017), Customer satisfaction, switching intentions, perceived switching costs, and perceived alternative attractiveness in Bangladesh mobile telecommunications market. *South Asian Journal of Business Studies*, 6(2), 142-160.
- Matzler, K., Strobl, A., Thurner, N., Füller, J. (2015), Switching experience, customer satisfaction, and switching costs in the ICT industry. *Journal of Service Management*, 26(1), 117-136.

- Min Ho, J., Sia, J.K.M., Lee, S., Yap, C.S. (2022), What are convention attendees looking for? An examination of the impact of perceived value and value cocreation on attitude formation. *Event Management*, 26(3), 605-627.
- Mohd Suki, N. (2017), Green products usage: Structural relationships on customer satisfaction and loyalty. *International Journal of Sustainable Development and World Ecology*, 24(1), 88-95.
- Molinillo, S., Navarro-García, A., Anaya-Sánchez, R., Japutra, A. (2020), The impact of affective and cognitive app experiences on loyalty towards retailers. *Journal of Retailing and Consumer Services*, 54, 101948.
- Moon, M., Khalid, M., Awan, H., Attiq, S., Rasool, H., Kiran, M. (2017), Consumer's perceptions of website's utilitarian and hedonic attributes and online purchase intentions: A cognitive-affective attitude approach. *Spanish Journal of Marketing-ESIC*, 21(2), 73-88.
- Moon, S.J., Costello, J.P., Koo, D.M. (2017), The impact of consumer confusion from eco-labels on negative WOM, distrust, and dissatisfaction. *International Journal of Advertising*, 36(2), 246-271.
- Nagengast, L., Evanschitzky, H., Blut, M., Rudolph, T. (2014), New insights in the moderating effect of switching costs on the satisfaction-repurchase behavior link. *Journal of Retailing*, 90(3), 408-427.
- Nepal, S., Nepal, B. (2023), Adoption of digital banking: Insights from a UTAUT model. *Journal of Business and Social Sciences Research*, 8(1), 17-34.
- Nguyen, D.T., Pham, V.T., Tran, D.M., Pham, D.B.T. (2020), Impact of service quality, customer satisfaction and switching costs on customer loyalty. *The Journal of Asian Finance, Economics and Business*, 7(8), 395-405.
- Nguyen, M.S. (2023), The influence of social media marketing on brand loyalty and intention to use among young Vietnamese consumers of digital banking. *Innovative Marketing*, 19(4), 1-13.
- Nguyen, N.T.H., Duc, N.K., Freiburghaus, T.L. (2022), Effect of digital banking-related customer experience on banks' financial performance during Covid-19: A perspective from Vietnam. *Journal of Asia Business Studies*, 16(1), 200-222.
- Oliver, R.L. (1999), Whence consumer loyalty? *Journal of Marketing*, 63(4_Suppl 1), 33-44.
- Omar, S., Mohsen, K., Tsimonis, G., Oozeerally, A., Hsu, J.H. (2021), M-commerce: The nexus between mobile shopping service quality and loyalty. *Journal of Retailing and Consumer Services*, 60, 102468.
- Omigie, N.O., Zo, H., Rho, J.J., Ciganek, A.P. (2017), Customer pre-adoption choice behavior for M-PESA mobile financial services: Extending the theory of consumption values. *Industrial Management and Data Systems*, 117(5), 910-926.
- Pal, A., Herath, T., Rao, H.R. (2021), Why do people use mobile payment technologies and why would they continue? An examination and implications from India. *Research Policy*, 50(6), 104228.
- Parwati, K.Y., Rohman, F., Puspaningrum, A. (2021), The effect of self-congruity and celebrity endorsement on brand loyalty with brand attitude as a mediation variables. *Jurnal Aplikasi Manajemen*, 19(1), 156-165.
- Phi, H.D., Huong, D.P. (2023), Effect of service quality on customer loyalty: The mediation of customer satisfaction, and corporate reputation in banking industry. *Eurasian Journal of Business and Management*, 11(1), 1-16.
- Picón, A., Castro, I., Roldán, J.L. (2014), The relationship between satisfaction and loyalty: A mediator analysis. *Journal of Business Research*, 67(5), 746-751.
- Pinem, R.J., Afrizal, T., Saputra, J. (2020), The relationship of cashback, discount, and voucher toward decision to use digital payment in Indonesia. *Talent Development and Excellence*, 12(3), 2766-2774.
- Prentice, C., Dominique Lopes, S., Wang, X. (2020), The impact of artificial intelligence and employee service quality on customer satisfaction and loyalty. *Journal of Hospitality Marketing and Management*, 29(7), 739-756.
- Raman, P., Aashish, K. (2021), To continue or not to continue: A structural analysis of antecedents of mobile payment systems in India. *International Journal of Bank Marketing*, 39(2), 242-271.
- Rose, B.M., Holmbeck, G.N., Coakley, R.M., Franks, E.A. (2004), Mediator and moderator effects in developmental and behavioral pediatric research. *Journal of Developmental and Behavioral Pediatrics*, 25(1), 58-67.
- Sarstedt, M., Hair, J.F. Jr., Cheah, J.H., Becker, J.M., Ringle, C.M. (2019), How to specify, estimate, and validate higher-order constructs in PLS-SEM. *Australasian Marketing Journal*, 27(3), 197-211.
- Sarstedt, M., Ringle, C.M., Hair, J.F. (2021), Partial least squares structural equation modeling. In: *Handbook of Market Research*. Cham: Springer. p587-632.
- Sheth, J.N., Newman, B.I., Gross, B.L. (1991), Why we buy what we buy: A theory of consumption values. *Journal of Business Research*, 22(2), 159-170.
- Singh, P.P., Anik, F.I., Senapati, R., Sinha, A., Sakib, N., Hossain, E. (2024), Investigating customer churn in banking: A machine learning approach and visualization app for data science and management. *Data Science and Management*, 7(1), 7-16.
- Smith, T.A. (2020), The role of customer personality in satisfaction, attitude-to-brand and loyalty in mobile services. *Spanish Journal of Marketing-ESIC*, 24(2), 155-175.
- Statista. (2023), Banking Industry in Vietnam: Statistics Report on the Banking Industry in Vietnam. Available from: <https://www.statista.com/study/117711/banking-industry-in-vietnam> [Last accessed on 2024 Dec 25].
- The State Bank of Vietnam. (2013), Thông tư số 26/2013/TT-NHNN Được Ban Hành Ngày 05/12/2013 Về Biểu Phí Dịch Vụ Thanh Toán Circular No. 26/2013/TT-NHNN, on the Service Fee Schedule for Payment Services]. Available from: <https://chinhphu.vn/default.aspx?pageid=27160&docid=171674> [Last accessed on 2024 Dec 21].
- Thuy, D.C., Quang, N.N. (2022), Factors affecting satisfaction and intention to repurchase retail banking services in Vietnam. *Cogent Business and Management*, 9(1), 2137952.
- Tosun, P. (2020), Brand Trust for Digital-only Bank Brands: Consumer Insights from an Emerging Market. In: Paper Presented at the ATLAS 7th International Conference on Social Sciences.
- Tran, H.Y., Nguyen, B.N., Nguyen, H.G. (2023), Impact of e-banking service quality on e-loyalty through interplay of e-satisfaction, an empirical evidence from commercial banks in Vietnam. *International Journal of Scientific Research and Management*, 11(3), 4705-4713.
- Woisetschlager, D.M., Lentz, P., Evanschitzky, H. (2011), How habits, social ties, and economic switching barriers affect customer loyalty in contractual service settings. *Journal of Business Research*, 64(8), 800-808.
- Wong, K.H., Chang, H.H., Yeh, C.H. (2019), The effects of consumption values and relational benefits on smartphone brand switching behavior. *Information Technology and People*, 32(1), 217-243.
- Wu, L.W. (2011), Beyond satisfaction: The relative importance of locational convenience, interpersonal relationships, and commitment across service types. *Managing Service Quality: An International Journal*, 21(3), 240-263.
- Yuan, R., Liu, M.J., Blut, M. (2022), What's in it for you? Examining the roles of consumption values and Thaler's acquisition-transaction utility theory in Chinese consumers' green purchase intentions. *European Journal of Marketing*, 56(4), 1065-1107.
- Zhang, Q., Ariffin, S.K., Richardson, C., Wang, Y. (2023), Influencing factors of customer loyalty in mobile payment: A consumption value perspective and the role of alternative attractiveness. *Journal of Retailing and Consumer Services*, 73, 103302.
- Zheng, W., Qiu, H., Morrison, A.M., Wei, W., Zhang, X. (2022), Rural and urban land tourism and destination image: A dual-case study approach examining energy-saving behavior and loyalty. *Land*, 11(2), 146.
- Zhou, Q., Lim, F.J., Yu, H., Xu, G., Ren, X., Liu, D., Wang, X., Mai, X., Xu, H. (2021), A study on factors affecting service quality and loyalty intention in mobile banking. *Journal of Retailing and Consumer Services*, 60, 102424.

APPENDIX

Appendix I: Constructs, measurement items and sources

Constructs	No.	Measurement items	Sources
Functional value	FUVA1	Digital banking services help me manage my time effectively.	Karjaluoto et al. (2021)
	FUVA2	Digital banking services minimize the effort required to achieve specific tasks.	
	FUVA3	Digital banking services offer high-quality performance.	
	FUVA4	Digital banking services are beneficial to me.	
	FUVA5	Digital banking services protect my privacy during use.	
Social value	FUVA6	Digital banking services provide sufficient security measures.	Raman and Aashish (2021); Omigie et al. (2017)
	SOVA1	Using digital banking services makes me feel accepted.	
	SOVA2	Using digital banking services improves how others perceive me.	
	SOVA3	Using digital banking services leaves a positive impression on those I know.	
	SOVA4	Using digital banking services contributes to my social acceptance.	
Emotional value	SOVA5	Using digital banking services enhances my social relationships with family, friends, and groups.	Wong et al. (2019)
	EMVA1	I enjoy using digital banking services.	
	EMVA2	The quality of current digital banking services makes me want to use them continuously.	
	EMVA3	Digital banking services make me feel comfortable.	
	EMVA4	Using digital banking services makes me feel good and convenient.	
Epistemic value	EMVA5	Using digital banking services brings me joy.	Karjaluoto et al. (2021)
	EPVA1	I utilize digital banking services because I am constantly curious to explore new things.	
	EPVA2	I utilize digital banking services because I enjoy keeping up with emerging technological advancements.	
Monetary value	EPVA3	I utilize digital banking services because I enjoy a flexible and varied life.	Omigie et al. (2017); Pal et al. (2021)
	MOVA1	The cost of using digital banking services for money transfers to other users is reasonable.	
	MOVA2	The cost of using digital banking services for paying for services or goods is affordable.	
Satisfaction	MOVA3	I receive cashback offers and coupons when using digital banking services.	Raman and Aashish (2021)
	MOVA4	I save money when making payments through digital banking services.	
	SATI1	I feel satisfied when using digital banking services.	
	SATI2	I feel comfortable using digital banking services.	
Loyalty	SATI3	I feel happy when using digital banking services.	Chuah et al. (2017)
	SATI4	Overall, my use of digital banking services has been rather positive.	
	LOYA1	I will continue to use the current provider's digital banking services in the future.	
	LOYA2	I find the services from my current provider to be better than those offered by others.	
	LOYA3	I will continue to use the current digital banking services even if other providers offer more attractive services.	
Switching costs	LOYA4	I will recommend the current digital banking service provider to those seeking advice on digital banking services.	Aydin et al. (2005); Burnham et al. (2003)
	LOYA5	I plan to recommend the current digital banking provider to my friends and family.	
	SWCO1	Switching digital banking services to a new bank will incur financial costs.	
	SWCO2	Switching to a new digital banking service might not meet my expectations.	
	SWCO3	I'm uncertain if paying for the new digital banking service will be beneficial, as there could be hidden fees or charges.	
	SWCO4	Evaluating all the banking services available in the market requires a significant amount of time, energy, and effort.	
Alternative attractiveness	SWCO5	Switching to a new digital banking service involves numerous legal procedures.	Chuah et al. (2017)
	SWCO6	Switching to a new digital banking service may cause me to lose certain membership privileges or financial benefits.	
	ALAT1	I have the option to choose other providers if I decide to switch from my current digital banking service.	
	ALAT2	I might find the digital banking services of other providers more satisfying compared to my current one.	
	ALAT3	Other providers may offer more benefits through their digital banking services compared to my current provider.	