

“Enforcement of consumer rights protection laws and intention to reuse digital financial services among Generation Z youth: Empirical evidence from Vietnamese commercial banks”

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ENFORCEMENT OF CONSUMER RIGHTS PROTECTION LAWS AND INTENTION TO REUSE DIGITAL FINANCIAL SERVICES AMONG GENERATION Z YOUTH: EMPIRICAL EVIDENCE FROM VIETNAMESE COMMERCIAL BANKS

Abstract

Digital financial services are crucial in boosting the competitive edge of businesses and economies in numerous developing nations. This study aims to explore the factors that affect consumers' perceptions of the implementation of consumer protection laws and their willingness to continue using digital financial services. Data were collected through interviews with 689 Gen Z consumers (born after 1996) who have used digital financial services in Vietnamese commercial banks. The results of the partial least square – structural equation modeling indicate that six factors influence attitudes toward the enforcement of consumer protection laws, in descending order: perceived benefits, understanding of legal regulations, perceived asymmetry, perceived risk, understanding of technology and digital finance, and understanding of dispute resolution. Additionally, attitudes toward law enforcement, as well as understanding of technology and digital finance, positively impact consumers' intention to reuse digital financial services, while perceived risk has the opposite effect. Furthermore, all six independent factors impact the intention to reuse digital financial services through the mediating role of attitudes toward the enforcement of consumer protection laws. The study's findings also lay the groundwork for policy recommendations for legislative authorities and strategic guidance for service providers and consumers in emerging markets in the future.

Keywords

digital financial services, consumer protection, enforcement laws, reuse, youth's attitude, youth's perception, generation Z, emerging country, Vietnam, PLS-SEM

JEL Classification G21, D18, M10

INTRODUCTION

Today's rapid technological development drives many industries, particularly in emerging countries, to change their traditional business models through digital transformation. Financial services offered by institutions like banks, insurance firms, and fintech companies are leading this transformation. Nevertheless, the digital shift in the financial services industry also brings new, potentially unregulated risks that could greatly affect consumer rights. The primary reason for this is that consumers of financial services are often in a weaker position in their relationship with product and service providers in the following aspects:

- 1) they are disadvantaged in accessing, processing, and understanding information about financial products and services;



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- 2) they are at a disadvantage when negotiating and establishing contracts and transactions;
- 3) they have limited influence over pricing, business conditions, and market transactions; and
- 4) they are less equipped to handle the risks tied to using these products and services.

As a result, safeguarding consumers has become a top priority in many countries to ensure fair and responsible practices when consumers engage with digital financial services (DFS) and interact with service providers.

In recent times, extensive research has been carried out in numerous countries on the legal framework for consumer protection and the intention to continue using services within DFS sector. Several studies on this topic have focused on the younger Generation Z demographics.

In emerging countries like Vietnam, research on consumer protection and the intention to use DFS has also garnered significant attention from various authors, who have approached the topic from different perspectives. While numerous studies have concentrated on consumer protection and the continued use of DFS across different countries, including emerging countries like Vietnam, most of these studies have primarily concentrated on comparing and contrasting legal regulations between different countries and with international standards, as well as the ability to provide and ensure the quality of DFS offered by service providers. Experimental research that explores consumer perceptions and attitudes towards the enforcement of consumer protection laws and their intention to continue using DFS, particularly among younger consumers who have filed complaints or raised concerns about violations of their rights during their use of DFS, remains relatively limited and underexplored.

1. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

As noted, many researchers have explored the subject of consumer protection and the ongoing intention to use DFS. This section aims to present the development of hypotheses and the construction of the proposed theoretical research model, including the following contents.

1.1. Digital financial services (DFS) and consumer protection in DFS

DFS refers to financial activities that leverage digital technology, encompassing cryptocurrencies, mobile financial services, online financial services, i-tellers, and digital banking, regardless of whether they are offered by banking or non-banking institutions. These services can include a range of financial transactions like deposits, withdrawals, transfers, and receiving funds, as well as various financial products and services such as payments, credit, savings, pensions, and

insurance. Additionally, DFS can cover non-transactional services, such as accessing personal financial information through digital devices (OECD, 2017).

In emerging countries like Vietnam, DFS has only recently developed significantly, and therefore, consumer protection in DFS has started to receive attention and improvement. According to the OECD, there are 12 principles for protecting consumers of financial services, which include:

- 1) legal, regulatory and supervisory framework;
- 2) role of oversight bodies;
- 3) access and inclusion;
- 4) financial literacy and awareness;
- 5) competition;
- 6) equitable and fair treatment of consumers;
- 7) disclosure and transparency;

- 8) quality financial products;
 - 9) responsible business conduct and culture of financial services providers and intermediaries;
 - 10) protection of consumer assets against fraud, scams and misuse;
 - 11) protection of consumer data and privacy;
 - 12) complaints handling and redress (OECD, 2022).
- (2) Insurance Management and Supervision Department (under the Ministry of Finance) for insurance activities;
 - (3) State Securities Commission (under the Ministry of Finance) for securities activities;
 - (4) Competition Management Department (under the Ministry of Industry and Trade); and
 - (5) Vietnam Consumer Protection Association.

The protection of consumer rights in financial services, including DFS, varies based on the specific conditions of each country or region. This variation can be seen in aspects such as legal regulations, the bodies responsible for oversight, the mechanisms for addressing complaints and disputes, and the level of consumer financial literacy (Normawati et al., 2021).

In Vietnam, the development of a legal framework for protecting financial consumers is approached in two ways:

- (1) Implementing broad consumer protection laws without detailed regulations tailored to the financial sector, such as the Civil Code of 2015 and the Consumer Protection Law of 2023;
- (2) Developing specific regulations for financial consumer protection within specialized financial laws, such as: protecting financial consumers in banking (Credit Institutions Law of 2023), protecting financial consumers in insurance (Insurance Business Law of 2022), and protecting financial consumers in securities (Securities Law of 2019).

Currently, Vietnam lacks a dedicated agency specifically tasked with overseeing consumer protection in the financial sector. The oversight of consumer protection enforcement is handled by five entities:

- (1) Banking Supervision Department (under the State Bank of Vietnam) for financial activities provided by banks;

In Vietnam, alternative dispute resolution mechanisms related to DFS consumer rights, such as financial inspections or mediation services, have yet to be established. Furthermore, while Vietnamese law enforces severe penalties for the unlawful collection and use of consumers' personal data, with a maximum imprisonment of up to 7 years, these penalties are rarely applied unless significant damage has occurred. In practice, very few cases in this area are addressed, with most being resolved through mediation or administrative fines. Furthermore, Vietnamese law does not have specific regulations regarding financial literacy and has not assigned any specific agency or organization responsibility for supporting or advising consumers on financial literacy. However, financial education content has been addressed in various projects and strategies, such as the National Financial Inclusion Strategy through 2025 and its vision for 2030, as well as the Scheme for Developing Cashless Payments in Vietnam (Vietnam Ministry of Finance, 2020).

1.2. Understanding legal regulations related to DFS

When using products and services, consumers are expected to have a certain level of understanding of relevant legal regulations. Knowledge of legal regulations related to DFS positively impacts consumer protection and facilitates the enforcement of laws (Schneider & Kokshagina, 2021; Wardhani, 2023). A study by Ngo and Nguyen (2024) also suggests that a general foundation of knowledge and understanding among customers enhances their intention to use financial technology services. At the same time, Rana and colleagues' study indicates that insufficient understanding or the lack of a legal framework, regula-

tions, or guidance for digital services heightens risks and hinders consumers from using DFS effectively (Rana et al., 2020). Simultaneously, the implementation of laws has a notable impact on the intention to use digital services, especially those offered by e-government. Enforcing consumer protection regulations serves as a mechanism to foster competition in the digital market and motivates consumers to engage with digital services more often (Riefa, 2021).

1.3. Perceived benefits of using DFS

The benefits of using products and services are always considered by consumers, and DFS is no exception. The perceived usefulness, ease of use, and additional value of service will impact both the intention to use digital services overall and the decision to engage with DFS specifically (Wibella et al., 2018). At the same time, a study by Thuong et al. (2023) concurs, indicating that young consumers' (students') views on the usefulness and ease of use significantly affect their attitudes towards and intention to use digital banking services. Their perceptions of the advantages of DFS will influence their judgments and actions when their rights are compromised. From a legal perspective, consumer rights regarding DFS services are always protected and enforced by a system of legal regulations that are enacted and applied.

1.4. Understanding dispute resolution when using DFS

In the process of using financial services in general, consumers who experience a violation of their rights can either directly file a complaint or do so through a consumer protection organization to the business or individual involved. The methods for resolving consumer complaints include negotiating directly with the merchant or using a consumer protection organization for mediation. Additionally, consumers can resolve disputes with businesses or individuals by filing a lawsuit in court or through arbitration (Vietnam National Assembly, 2023). Consumers generally have a reluctance to seek justice if the resolution process is complex, costly, or time-consuming. According to Cartwright's research, there are two effective methods for resolving disputes related to consumer financial complaints:

- (i) resolving issues internally within the organization; and
- (ii) resolving them through an independent external agency (Cartwright, 2004).

Recently, according to the National Competition Committee under the Ministry of Industry and Trade in Vietnam, the number of consumer complaints in the financial sector remains high, accounting for over 10% of the total complaints received. Specifically, in 2022, there were 136 out of 818 complaints related to finance, banking, and insurance, representing 16.62%. In the first 11 months of 2023, there were 71 out of 586 complaints, accounting for 12.11% (Lan & Dung, 2023).

This suggests that financial service consumers are aware of the dispute resolution mechanisms and are submitting their complaints to the appropriate authorities. It also demonstrates that understanding their rights when using DFS affects consumers' attitudes toward law enforcement and their intention to reuse the service.

1.5. Perceived asymmetry in using DFS

DFS exacerbates and intensifies the asymmetry between financial consumers and service providers. This asymmetry is evident in the following aspects:

- (i) *Information and Financial Knowledge Asymmetry*: Service providers have a thorough understanding of the features, attributes, benefits, and limitations of financial products and services, along with the necessary information and the skills to effectively use and manage them. On the other hand, financial consumers lack this level of knowledge and expertise;
- (ii) *Asymmetry in Seeking Protection and Self-Protection*: Due to limitations in understanding regulations, financial capacity, and lack of confidence, financial consumers are often at a disadvantage when disputes arise compared to service providers. Research by Dinh et al. (2023) from 2014–2018 across 135 countries also highlights that Vietnam and some

Southeast Asian countries have the lowest Digital Financial Consumer Protection (DFCP) indices (Dinh et al., 2023).

1.6. Perceived risks in using DFS

With the rapid progression of technology and the emergence of new types of technology-related crimes, financial consumers globally are encountering a growing array of diverse and complex risks when using and accessing DFS. These risks include issues related to:

- 1) transparency, disclosure, and communication of information;
- 2) terms, conditions, fees, and rights to fair treatment;
- 3) provider liability for unauthorized digital transactions and regulations concerning agents;
- 4) privacy and security of customer data;
- 5) complaint and dispute resolution mechanisms, protection against abuse, fraud, and illegal seizure of consumer assets by DFS providers and related parties.

The risks faced by and perceived by DFS consumers are higher compared to traditional financial services. As perceived risk increases, the likelihood of using digital services decreases, negatively impacting the intention to continue using these services (Graupner et al., 2015; Schneider & Kokshagina, 2021; Ngo & Nguyen, 2024).

1.7. Understanding of technology and digital finance

Protecting the rights of DFS consumers cannot rely solely on the self-regulation of financial institutions but also requires legal regulations and the consumers themselves. The OECD defines “financial literacy” as the blend of awareness, knowledge, skills, attitudes, and behaviors needed to make informed financial decisions and ultimately attain personal financial well-being (Atkinson & Messy, 2012). It is crucial for consumers to possess a certain level of financial

knowledge and the ability to effectively use and stay updated with technology. Even if financial service providers supply information, it becomes worthless if consumers are unable to understand and utilize that information. Behavioral finance literature shows that consumers may lack understanding, may be indifferent, or may not have the ability to use the available information effectively (Micklitz et al., 2010). Thus, consumers must have sufficient financial knowledge and awareness, which should be communicated through accessible channels in a clear and straightforward way. This enables them to comprehend and utilize the information provided to achieve optimal financial outcomes (Huston, 2010).

1.8. Relationship between attitudes toward enforcement of consumer protection laws and intention to reuse DFS

Both TPB and TAM suggest that consumers’ perceptions, attitudes, and subjective norms shape their intentions and decisions about using products and services, including the intention to continue using services for those who have already committed to them. Research on young DFS users concurs that perceptions and attitudes towards DFS, in general, along with the enforcement of consumer protection laws in particular, positively influence their decision to use and their intention to continue using DFS (Lusoli & Miltgen, 2009; Khuong et al., 2022).

This study aims to explore the factors shaping Generation Z youth’s attitudes toward the enforcement of consumer protection laws and their intention to continue using DFS in Vietnam. The following hypotheses and theoretical research model were put forward:

H1: Understanding of legal regulations positively affects attitudes toward enforcement of consumer protection laws in DFS at commercial banks.

H1a: Understanding of legal regulations positively affects intention to reuse DFS through mediating attitudes toward enforcement of consumer protection laws at commercial banks.

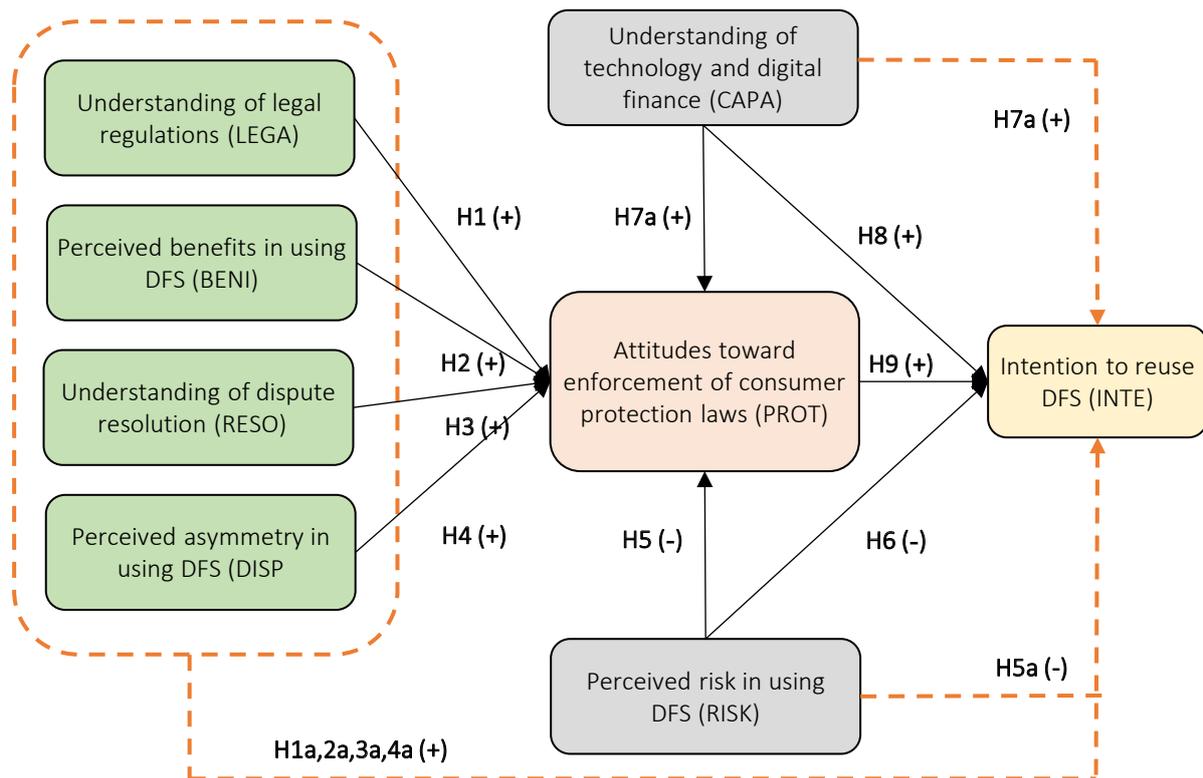


Figure 1. Model and hypotheses

- H2:* Perceived benefits have a positive impact on attitudes toward enforcement of consumer protection laws in DFS at commercial banks.
- H2a:* Perceived benefits positively affect the intention to reuse DFS at commercial banks through mediating attitudes toward enforcement of consumer protection laws.
- H3:* Understanding of dispute resolution positively affects attitudes toward enforcement of consumer protection laws in DFS at commercial banks.
- H3a:* Understanding of dispute resolution positively affects intention to reuse DFS at commercial banks through mediating of attitudes toward enforcement of consumer protection laws.
- H4:* Perceived asymmetry in using DFS at commercial banks positively affects attitudes toward enforcement of consumer protection laws.
- H4a:* Perceived asymmetry positively affects intention to reuse DFS at commercial banks through mediating attitudes toward enforcement of consumer protection laws.
- H5:* Perceived risk negatively affects attitudes toward enforcement of consumer protection laws at commercial banks.
- H5a:* Perceived risk negatively affects intention to reuse DFS at commercial banks through mediating attitudes toward enforcement of consumer protection laws.
- H6:* Perceived risk negatively affects the intention to reuse DFS at commercial banks.
- H7:* Understanding of technology and digital finance positively affects attitudes toward enforcement of consumer protection laws in DFS at commercial banks.
- H7a:* Understanding of technology and digital finance positively affects intention to reuse DFS at commercial banks through mediating attitudes toward enforcement of consumer protection laws.

H8: *Understanding of technology and digital finance positively affects intention to reuse DFS at commercial banks.*

H9: *Attitudes toward enforcement of consumer protection laws positively affect intention to reuse DFS at commercial banks.*

This model is proposed based on the combination of the TAM and TPB.

2. METHODOLOGY

2.1. Research design

The primary target for the survey is DFS consumers who meet two conditions:

- 1) they are from Generation Z, specifically those born between 1997 and 2005 to ensure they are over 18 years old;
- 2) they have used one of the DFS products provided by entities such as commercial banks, telecommunications companies, fintech firms, or insurance companies in Vietnam, and have had complaints or grievances submitted to the Vietnam Consumer Protection Association between 2019 and 2023.

The choice of this group is because Generation Z refers to individuals born from approximately 1997 to 2012. The current Gen Z cohort has either graduated from high school, is in college, or has been in the workforce for a few years. By 2025, it is estimated that Gen Z will represent one-quarter of the population in the Asia-Pacific region. By 2025, this group will account for nearly one-third of Vietnam's working-age population. This generation grew up during the explosion of technology and the internet, making them distinct from previous generations. They are characterized by their individuality, self-expression, and shopping habits on e-commerce sites. They are the first generation to use smartphones extensively and engage with multimedia communication. They are familiar with various DFS services, including online payment methods like credit/ATM cards, QR code payments, and digital wallets.

Based on the theoretical overview, the research team developed a theoretical research model, a preliminary questionnaire, and conducted in-depth interviews with five experts. These included lawyers and arbitrators with over ten years of experience in mediation, handling lawsuits and disputes related to consumer protection, who are currently professional advisors for the Vietnam Consumer Protection Association. The team also consulted ten postdoctoral lecturers in economic law from three universities, Hanoi Law University, Hue Law University, and the University of Economics and Law in Ho Chi Minh City, Vietnam, to refine and select factors and scales for the questionnaire. The results of this qualitative research phase led the team to revise the questionnaire compared to the initial version based on scales from previous studies such as Wardhani (2023), Dinh et al. (2023), Abu Daqar et al. (2020), Normawati et al. (2021), Frolova and Ermakova (2022), Khuong et al. (2022), and Lusoli and Miltgen (2009). With support from the Vietnam Consumer Protection Association, the research team collected information to contact and survey consumers who met the two conditions mentioned above, either directly or by sending a Google Form link via email. After gathering data from surveys conducted between October 2023 and April 2024, the team utilized SPSS 20 and SmartPLS 4.0 software to analyze the data and present the findings

2.2. Research sample

According to data from the Vietnam Consumer Protection Association, which has 142,429 members, including 1,407 organizational members, between 2019 and 2023, the association successfully resolved 2,800 complaint cases. Additionally, it provided advice, guidance, and resolution via its hotline for nearly 300,000 cases, with over 10% related to financial service consumers (Lan, 2024; Lan & Dung, 2023). Based on these data and through the connection facilitated by the competition management department, the competition committee of the Ministry of Industry and Trade of Vietnam, and the Vietnam Consumer Protection Association, 35 Vietnamese commercial banks, the research team obtained information about consumers to request interviews. The selected list includes only Generation Z consum-

ers born between 1997 and 2005 and complaint cases related to DFS. The results indicate that 752 consumers meet these two conditions and have complete contact information. This is considered the study population.

Based on this minimum sample size, the research team submitted the introduction letter to the Vietnam Consumer Protection Association for approval, ensuring the legal and confidentiality aspects of the study. Following this, the survey team sent emails with the introduction letter and Google Form survey link to the 752 consumers. From October 2023 to the end of April 2024, the research team received 702 responses (a response rate of 93%). After reviewing and screening the responses, the team selected 689 valid responses for analysis and evaluation. This sample size is entirely suitable for conducting a quantitative study using PLS-SEM. According to Hair et al., the minimum sample size required for this method should be over 200 (Hair et al., 2014). To measure the demographic information of the 689 respondents, the research team utilized the scale developed by Wei et al. (2019). The sample details are presented in Appendix A.

2.3. Measuring scale

Based on the original scales from the studies by Wardhani (2023), Dinh et al. (2023), Abu Daqar et al. (2020), Normawati et al. (2021), Frolova and Ermakova (2022), Khuong et al. (2022), and Lusoli and Miltgen (2009) and informed by interviews with 20 experts, the authors developed a measurement scale comprising 34 items. These concepts are evaluated using a Likert scale ranging from 1 to 7, where 1 represents ‘strongly disagree,’ 2 represents ‘disagree,’ 3 represents ‘somewhat disagree,’ 4 represents ‘neutral,’ 5 represents ‘somewhat agree,’ 6 represents ‘agree,’ and 7 represents ‘strongly agree.’ Detailed information on these measurement scales can be found in Appendix B.

3. RESULTS

3.1. Results of the measurement model evaluation

According to Hair et al.’s research, a measurement scale is considered reliable if and only if Cronbach’s Alpha and Composite Reliability are

Table 1. Statistics of indicators measuring model reliability

Source: SmartPLS output, 2024.

Constructs	Items	Factor Loading	Mean	CRA	C.A	AVE
Understanding of legal regulations (LEGA)	LEGA1	0.854	3.964	0.885	0.886	0.743
	LEGA2	0.858	3.964			
	LEGA3	0.872	3.955			
	LEGA4	0.863	3.954			
Perceived risk in using DFS (RISK)	RISK1	0.843	4.626	0.871	0.875	0.720
	RISK2	0.864	4.668			
	RISK3	0.862	4.640			
	RISK4	0.826	4.617			
Perceived benefits in using DFS (BENI)	BENI1	0.893	5.097	0.901	0.903	0.771
	BENI2	0.877	5.148			
	BENI3	0.878	5.102			
	BENI4	0.866	5.091			
Understanding of dispute resolution (RESO)	RESO1	0.811	4.669	0.851	0.853	0.626
	RESO2	0.767	4.649			
	RESO3	0.778	4.630			
	RESO4	0.802	4.592			
Understanding of technology and digital finance (CAPA)	CAPA1	0.819	4.856	0.810	0.814	0.569
	CAPA2	0.712	4.842			
	CAPA3	0.720	4.816			
	CAPA4	0.775	4.813			
	CAPA5	0.741	4.853			

Table 1 (cont.). Statistics of indicators measuring model reliability

Constructs	Items	Factor Loading	Mean	CRA	C.A	AVE
Perceived asymmetry in using DFS (DISP)	DISP1	0.905	4.250	0.911	0.916	0.790
	DISP2	0.859	4.948			
	DISP3	0.906	4.253			
	DISP4	0.883	4.273			
Attitudes toward enforcement of consumer protection laws (PROT)	PROT1	0.870	4.765	0.901	0.901	0.770
	PROT2	0.888	4.769			
	PROT3	0.875	4.804			
	PROT4	0.877	4.801			
Intention to reuse DFS (INTE)	INTE1	0.821	4.774	0.790	0.790	0.673
	INTE2	0.852	4.778			
	INTE3	0.801	4.811			
	INTE4	0.822	4.836			
	INTE5	0.803	4.821			

Note: CRA – Cronbach’s Alpha; C.A – Composite reliability; AVE – Average Variance Extracted.

both greater than 0.8, outer loadings are all above 0.7, and Average Variance Extracted (AVE) is greater than 0.5 (Hair et al., 2010) based on the results in Table 1. Based on Hair et al. (2010), a measurement scale is deemed reliable if Cronbach’s Alpha and Composite Reliability exceed 0.8, outer loadings are above 0.7, and Average Variance Extracted (AVE) is greater than 0.5 (Hair et al., 2010). As indicated by the results in Table 1, all in-

dications meet these criteria, thus concluding that the measurement scale used in the study ensures high reliability.

In addition to reliability, the discriminant validity of the constructs in the research model is also essential. It is commonly assessed using the HTMT ratio or the square root of AVE. According to Henseler et al. (2015), the HTMT value between

Table 2. Discriminant reliability

Source: SmartPLS output, 2024.

Constructs	BENI	CAPA	DISP	INTE	LEGA	PROT	RESO	RISK
Fornell-Larcker								
BENI	0.878	–	–	–	–	–	–	–
CAPA	0.177	0.754	–	–	–	–	–	–
DISP	0.102	0.032	0.889	–	–	–	–	–
INTE	0.221	0.441	0.151	0.820	–	–	–	–
LEGA	0.168	0.284	0.119	0.513	0.862	–	–	–
PROT	0.481	0.370	0.264	0.581	0.443	0.878	–	–
RESO	0.174	0.189	0.091	0.260	0.164	0.329	0.791	–
RISK	–0.029	–0.197	–0.059	–0.352	–0.212	–0.294	–0.128	0.849
Heterotrait-monotrait ratio (HTMT)								
BENI	–	–	–	–	–	–	–	–
CAPA	0.209	–	–	–	–	–	–	–
DISP	0.111	0.057	–	–	–	–	–	–
INTE	0.248	0.521	0.166	–	–	–	–	–
LEGA	0.188	0.337	0.131	0.583	–	–	–	–
PROT	0.533	0.435	0.289	0.653	0.495	–	–	–
RESO	0.197	0.227	0.102	0.301	0.188	0.375	–	–
RISK	0.034	0.237	0.093	0.400	0.237	0.330	0.150	–

construct pairs should be below 0.85. Conversely, Fornell and Larcker (1981) stipulate that the square root of AVE for each construct should exceed 0.7. As shown in Table 2, the HTMT values between construct pairs range from 0.057 to 0.583, all below 0.85, while the square root of AVE for each pair ranges from 0.754 to 0.889, all above 0.7. This confirms that the measurement scale satisfies the criteria for discriminant validity.

3.2. Results of structural model evaluation

To evaluate the linear structural model, it is crucial to check for multicollinearity, assess the model's fit with the actual data collected, and evaluate the model's predictive capability. Typically, indicators such as Inner VIF should be less than 10, and the SRMR coefficient should be less than 0.08, according to the standards set by Henseler et al. (2015) and Hu and Bentler (1999). Additionally, higher R² (the accuracy of the prediction) and Q² (the relevance of the prediction) values indicate that the model is meaningfully explained by the constructed factors (Hair et al, 2019).

According to Table 3, the Inner VIF values range from 1.027 to 1.232 < 10, and the SRMR is 0.048 < 0.08, indicating that the model does not suffer from multicollinearity and fits well with the actual data collected.

Table 3. Inner VIF test results

Source: SmartPLS output, 2024.

Constructs	BENI	CAPA	DISP	INTE	LEGA	PROT	RESO	RISK
BENI	–	–	–	–	–	1.075	–	–
CAPA	–	–	–	1.171	–	1.151	–	–
DISP	–	–	–	–	–	1.027	–	–
INTE	–	–	–	–	–	–	–	–
LEGA	–	–	–	–	–	1.155	–	–
PROT	–	–	–	1.232	–	–	–	–
RESO	–	–	–	–	–	1.081	–	–
RISK	–	–	–	1.106	–	1.079	–	–

Note: SRMR = 0.048; Chi-square = 1575.38; NFI = 0.887.

Table 4. Statistics of the model's predictive ability

Source: SmartPLS output, 2024.

Constructs	R-square	R-square adjusted	Q-square
INTE	0.424	0.422	0.283
PROT	0.493	0.488	0.375

According to Table 4, the attitude of Gen Z consumers towards the enforcement of consumer protection laws in DFS is accounted for by the independent factors in the model with an accuracy rate of 42.2% and a relevance rate of 28.3%. For the intention to continue using DFS, these indicators are 48.8% and 37.5%, respectively.

A key component of PLS-SEM analysis is examining both the direct and indirect relationships among the established factors. Table 5 shows that the results for testing the direct effects of the independent variables on the mediating variable adhere to statistical principles, with p-values < 0.000. Consequently, all hypotheses from H1 to H9 are accepted. This finding indicates that six factors affect attitudes toward the enforcement of consumer protection laws in DFS, and there is a positive correlation between these attitudes and the intention to continue using DFS among Generation Z consumers in the Vietnamese market.

In addition to direct relationships, the PLS-SEM analysis using bootstrapping with a sample size of 5,000 offers insights into the indirect relationships between independent variables and the dependent variable. According to Table 6, all independent variables exert a statistically significant influence on the dependent variable (intention to continue using DFS among Gen Z consumers) through the mediator variable (attitude towards the en-

Table 5. Results of testing hypotheses with direct effects

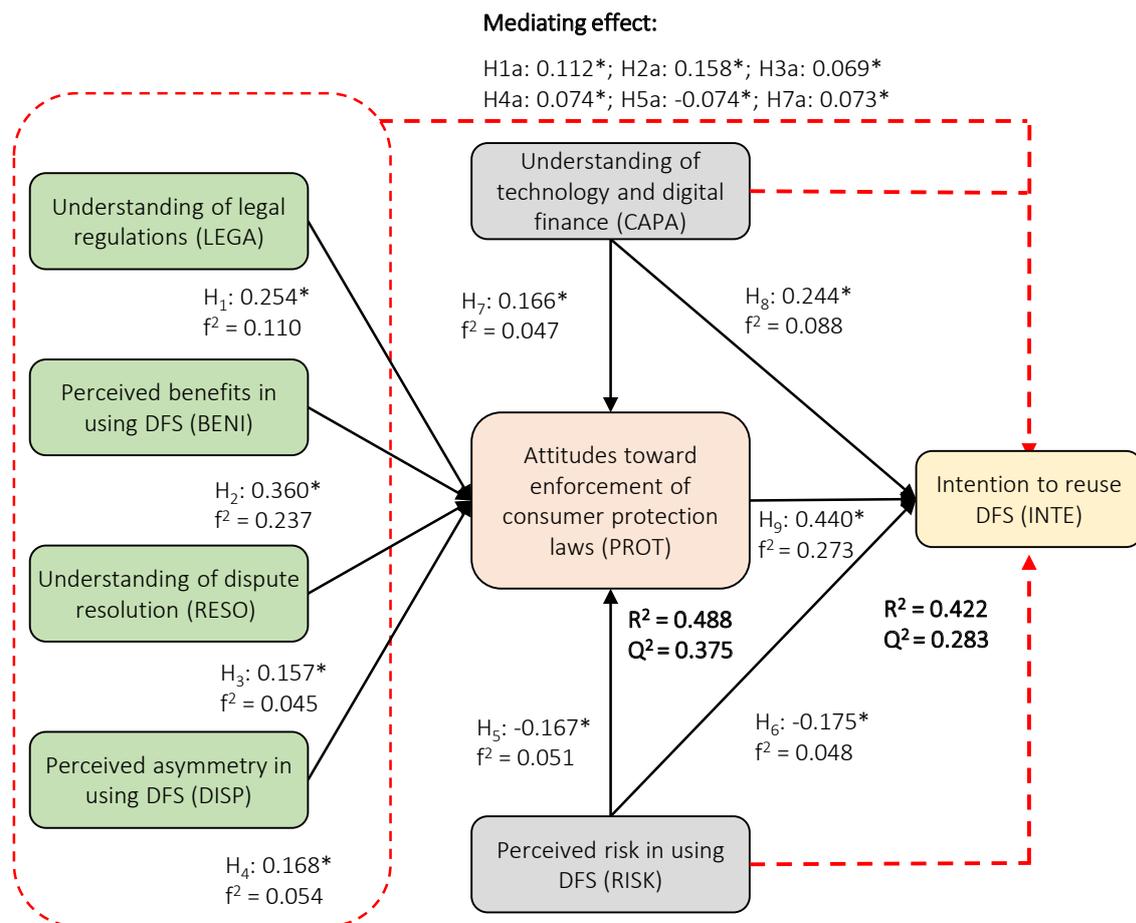
Source: SmartPLS output, 2024.

Relationship	Original sample	Standard deviation	P values	Bias	f ²	VIF	Hypotheses	Conclusion
BENI → PROT	0.360	0.027	0.000	-0.001	0.237	1.075	H2	Accept
CAPA → INTE	0.244	0.030	0.000	0.001	0.088	1.171	H8	Accept
CAPA → PROT	0.166	0.028	0.000	0.000	0.047	1.151	H7	Accept
DISP → PROT	0.168	0.027	0.000	0.001	0.054	1.027	H4	Accept
LEGA → PROT	0.254	0.026	0.000	-0.001	0.110	1.155	H1	Accept
PROT → INTE	0.440	0.027	0.000	-0.001	0.273	1.232	H9	Accept
RESO → PROT	0.157	0.029	0.000	0.002	0.045	1.081	H3	Accept
RISK → INTE	-0.175	0.031	0.000	-0.001	0.048	1.106	H6	Accept
RISK → PROT	-0.167	0.031	0.000	0.000	0.051	1.079	H5	Accept

Table 6. Results of testing the hypotheses with indirect effects

Source: SmartPLS output, 2024.

Relationship	Original sample	Standard deviation	P values	Bias	Hypotheses	Conclusion
DISP → PROT → INTE	0.074	0.012	0.000	-0.001	H4a	Accept
CAPA → PROT → INTE	0.073	0.013	0.000	0.000	H7a	Accept
RESO → PROT → INTE	0.069	0.013	0.000	0.000	H3a	Accept
BENI → PROT → INTE	0.158	0.015	0.000	0.000	H2a	Accept
LEGA → PROT → INTE	0.112	0.015	0.000	0.001	H1a	Accept
RISK → PROT → INTE	-0.074	0.015	0.000	0.000	H5a	Accept



Note: Direct relationship: Black line; Moderating relationship: Red dotted line; Significance level: * p < 0.05.

Figure 2. PLS-SEM results

forcement of consumer protection laws for DFS), with p -values < 0.000 . Consequently, the initially proposed hypotheses *H1a* to *H5a* and *H7a* are all accepted.

4. DISCUSSION

The results of the study, as presented in the results section above, indicate that there are six factors influencing the attitude towards enforcement of consumer protection laws for DFS among Gen Z consumers in Vietnam. These factors, listed in descending order of their impact, are: perceived benefits, understanding of legal regulations, perceived asymmetry between consumers and DFS providers, understanding of technology and digital finance, and understanding of dispute resolution. These factors positively influence attitudes toward legal enforcement, whereas the factor “perceived risks of usage” negatively affects these attitudes. Furthermore, the empirical study reveals a positive and direct relationship between attitudes toward legal enforcement and comprehension of technology and digital finance, which impacts the intention to continue using DFS. Conversely, perceived risk directly negatively affects the intention to continue using DFS. Additionally, all six independent factors affect the intention to reuse DFS through the mediating role of attitudes toward legal enforcement.

The results of this study show notable similarities with several previous research efforts, including those by Kornacka and Monkiewicz (2022) in G20 countries, Lobozyńska et al. (2020), Lusoli and Miltgen (2009) in Ukraine, Musau et al. (2022) in Kenya, and Abu Daqar et al. (2020) in India. The study highlights that, from the perspective of DFS consumers, enforcing consumer protection laws is essential. Given the rapid advancement of digital technology, the emergence of new products and distribution channels, the growing variety of service providers, and the rise of sophisticated crimes and fraud, DFS consumers face increasing risks and vulnerabilities. In this context, it is crucial to enhance the legal system and the enforcement of consumer protection laws in countries – particularly in emerging and developing nations with economic and financial conditions similar to Vietnam. This will help reduce consumer vul-

nerability, foster the growth of DFS, and support broader financial inclusion at both national and regional levels.

The factor exerting the greatest influence on attitudes toward the enforcement of consumer protection laws is the perceived benefits of using DFS and the understanding of legal regulations related to DFS. This indicates that Generation Z has become proficient with digital devices (such as smartphones and multimedia communication) and has quickly adopted DFS through the formation of shopping habits on e-commerce platforms with various online payment methods, including credit/ATM cards, QR-code payments, or digital wallets. As a result, they perceive and appreciate the benefits of DFS much more compared to traditional financial services, and they have a good understanding of DFS, having received structured education during secondary school and higher education (college, university, and postgraduate levels). This leads to a positive attitude towards compliance and enforcement of laws related to DFS, especially regarding adherence to contracts and transactions with service providers. This also demonstrates that for younger consumers, disseminating information, educating financial management skills, and enhancing awareness and appreciation of DFS benefits are crucial for product development and service quality improvement. This is an important implication for managers at DFS providers and consumer protection agencies such as associations and national competition committees.

The research results also show that among the factors with the lowest impact on attitudes and intentions to continue using DFS is the understanding of dispute resolution mechanisms when issues of violations or conflicts of interest arise. This indicates that even though Generation Z consumers may have good knowledge and motivation to use DFS, not everyone is fully aware of the mechanisms and methods for resolving disputes to protect their interests or seek third-party assistance. In emerging countries like Vietnam, there is currently no specialized agency for overseeing the enforcement of consumer protection. The existing organizational model is still a shared management model with multiple consumer protection agencies handling different service sectors (banking, insur-

ance, telecommunications, finance, etc.). However, according to the World Bank, this model is not common globally (only 9% of countries choose it). The reason is that this model has the drawback of overlapping legal duties among different financial consumer protection agencies, which can lead to inconsistent and ineffective oversight and requires minimization, or at least coordination (World Bank Group, 2017).

Therefore, considering and selecting an organizational model for supervising and protecting DFS consumer rights to mitigate their disadvantages in disputes and complaints is a matter that legal regulatory agencies need to seriously research and address in the near future.

The results of this study also indicate that the perception of risks associated with using DFS is always a hindrance (negative impact) to attitudes towards enforcement of laws and the intention to reuse DFS in the future. The reason

is apparent: DFS is still a relatively new field in the Vietnamese market, so the legal framework is incomplete and has not kept up with practical developments. The management and oversight of entities within the digital financial ecosystem have significant limitations. Therefore, protecting the rights of DFS consumers cannot rely solely on financial organizations' voluntary and proactive measures. The responsibility for risk reduction must lie with policymakers, relevant regulatory agencies, civil organizations representing consumers, and, ultimately, each individual consumer.

This study also has limitations, such as selecting factors for the research model primarily based on the TPB and TAM without considering the influence of additional factors and other foundational theories. Additionally, the survey was limited to Gen Z consumers born between 1997 and 2005 who used DFS without extending the scope to a more diverse range of respondents.

CONCLUSIONS

This study was designed to measure the factors affecting attitudes towards enforcement of consumer protection laws and the intention to reuse DFS among Generation Z in Vietnam – a rising Asian market. In this context, the attitude toward the enforcement of consumer protection laws functions both as an independent variable and as a mediating variable. The research model was developed and tested based on TPB, TAM, and data collected from a survey of 689 DFS consumers who provided feedback, complaints, and service quality opinions to the Vietnam Consumer Protection Association. The results show that perceptions (regarding benefits, risks, and asymmetry between consumers and service providers) and understanding (about legal regulations, technology and digital finance, and dispute resolution) influence the intention to reuse DFS through the mediating role of attitudes towards enforcement of consumer protection laws. This study makes a significant contribution by developing a 7-point scale and offering empirical evidence for the PLS-SEM model in research on consumer perceptions and understanding of DFS. It establishes a solid scientific foundation for further theoretical and empirical research in other emerging markets with similar economic conditions and financial market contexts as Vietnam in the future.

AUTHOR CONTRIBUTIONS

Conceptualization: Lanh Cao Dinh, Hai Phan Thanh.

Data curation: Lanh Cao Dinh, Hai Phan Thanh.

Formal analysis: Lanh Cao Dinh, Hai Phan Thanh.

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Visualization: Lanh Cao Dinh, Hai Phan Thanh.

Writing – original draft: Lanh Cao Dinh, Hai Phan Thanh.

Writing – reviewing & editing: Lanh Cao Dinh, Hai Phan Thanh.

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APPENDIX A

Table A1. Descriptive statistics about the samples

Source: Author's survey, 2024.

Characteristics	Frequency	Percentage
Gender	689	100
Male	241	35.0
Female	448	65.0
Education level	689	100
To high school	38	5.6
Secondary and college	136	19.7
Bachelor, engineering or graduate programs	515	74.7
Average Monthly Income (million VND)	689	100
Under 10	95	13.9
From 10 to under 15	254	36.8
From 15 to under 25	195	28.3
Over 25	145	21.0
Duration of DFS Usage	689	100
Under 1 year	65	9.4
From 1 to under 2 years	126	18.2
From 2 to under 3 years	175	25.3
From 3 to under 4 years	189	27.4
Over 4 years	134	19.7

APPENDIX B

Table B1. Measurement summary

Symbol	Scales	Sources
Understanding of legal regulations (LEGA)		
LEGA1	I believe that the regulations and policies in the digital financial sector are well-defined and thorough	Wardhani (2023), Schneider and Kokshagina (2021), Ngo and Nguyen (2024), Development by the authors
LEGA2	I believe that the regulatory framework is regularly updated to tackle new challenges in the digital landscape	
LEGA3	I believe that regulatory guidelines place a strong emphasis on consumer rights and data protection	
LEGA4	I believe that adherence to regulatory standards promotes fair competition and ethical business practices	
Perceived risk in using DFS (RISK)		
RISK1	Digital fraud and high-tech crime	Khuong et al. (2022), Lusoli and Miltgen (2009), Abu Daqar et al. (2020), Development by the authors
RISK2	Abuse or unauthorized use of personal financial data for other purposes by the DFS provider or third parties	
RISK3	Lack of transparency and incomplete information about products from the DFS provider	
RISK4	Data privacy is violated or stolen	
Perceived benefits in using DFS (BENI)		
BENI1	Conduct transactions anytime and anywhere, transcending spatial and temporal limitations compared to traditional financial services	Khuong et al. (2022), Lusoli and Miltgen (2009), Abu Daqar et al. (2020), Development by the authors
BENI2	Cost savings compared to traditional financial services	
BENI3	Enhanced security of information and data for consumers compared to traditional financial services	
BENI4	Reduced transaction time and increased control over financial management	

Table B1 (cont.). Measurement summary

Symbol	Scales	Sources
Understanding of dispute resolution (RESO)		
RESO1	I am aware of the information and hotline for regulatory and consumer protection agencies	Le and Tran (2024), Experts' opinions, Development by the authors
RESO2	I believe that specialized consumer protection agencies have the necessary resources and capabilities to effectively address disputes related to DFS	
RESO3	I believe that the process for handling disputes related to DFS has been transparently published by stakeholders such as providers and regulatory agencies	
RESO4	I understand that regulatory agencies cannot provide absolute protection and resolve all disputes related to financial market risks, and that consumers need to be able to protect themselves.	
Understanding of technology and digital finance (CAPA)		
CAPA1	I am proficient in using current smart technology devices such as smartphones, tablets, etc.	Dinh et al. (2023), Abu Daqar et al. (2020), Huston (2010), Experts' opinions, Development by the authors
CAPA2	I make it a point to stay informed about the latest trends in digital devices and technology	
CAPA3	I have the knowledge to clearly understand the nature, lifecycle, and use of products related to DFS.	
CAPA4	I am fully aware of my rights and responsibilities when using DFS.	
CAPA5	I always ensure the security of my personal information and manage my personal finances effectively	
Perceived asymmetry in using DFS (DISP)		
DISP1	Providers of DFS have a much clearer understanding of the features, attributes, benefits, and limitations of their products and related information compared to consumers (information asymmetry regarding DFS products between consumers and providers)	Graupner et al. (2015), Experts' opinions, Development by the authors
DISP2	DFS providers possess greater financial product usage skills and financial management capabilities compared to consumers (financial literacy asymmetry)	
DISP3	Consumers have limited capacity to implement self-protection measures against violations when using DFS (asymmetry in self-protection methods).	
DISP4	Consumers face constraints in their ability to employ methods for safeguarding their rights when disputes or legal issues occur with DFS providers (asymmetry in dispute resolution methods)	
Attitudes toward enforcement of consumer protection laws (PROT)		
PROT1	I think that in the signed transaction agreements, my rights have been respected and protected by the DFS providers	Normawati et al. (2021), Frolova and Ermakova (2022), Experts' opinions, Development by the authors
PROT2	I find that the relevant authority overseeing consumer protection in DFS has handled my complaint swiftly	
PROT3	I think that consumer protection in DFS needs to be more clearly and specifically regulated in certain legal documents	
PROT4	I believe that DFS consumers must always be proactive in protecting their legitimate rights in accordance with the law	
Intention to reuse DFS (REIN)		
INTE1	I will continue to learn more about new DFS products to use them more in the future	Khuong et al. (2022), Lusoli and Miltgen (2009), Experts' opinions, Development by the authors
INTE2	I believe that DFS is more suitable compared to traditional financial services, so I am very willing to use it	
INTE3	I think that using DFS will help me manage my finances more effectively and save money.	
INTE4	I think using DFS is the right choice and aligns with today's technological era	
INTE5	I will recommend DFS to my friends and family in the near future	