IMPACT OF SELF-EFFICACY AND MEDIATING FACTORS ON FINTECH ADOPTION IN THE VUCA ERA

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ABSTRACT

This paper aims to understand the impact of factors affecting the relationship between intention and using Fintech in the VUCA era, which stands for volatility, uncertainty, complexity, and ambiguity. A cross-sectional design was employed in this study. The data was collected via questionnaires, with 1,411 usable responses received through the survey. Partial least squares structural equation modeling (PLS-SEM) was employed to assess the process with SmartPLS 4. Our research did figure out the positive impact of Perceived Usefulness and Perceived Ease of use on behavioral intention and the positive impact of Intention on Using Fintech behavior. Simultaneously, we indicated that Financial literacy could moderate the relationship between Intention and Using Fintech behavior, and Financial self-efficacy would be a mediator of the association between Financial literacy and Using Fintech behavior. Based on the results, we make some recommendations for Fintech developers in Vietnam.

Keywords: facilitating conditions; financial literacy; financial self-efficacy, Fintech

INTRODUCTION

Since the difficulties of different sectors such as

finance, manufacturing, commercial, or real estate have been recognized all over the world,

they detrimentally impact the financial well-being at the individual level in different countries (Anakpo et al., 2023). Several researchers coined this phenomenon as VUCA, a combination of four statuses, which are volatility, uncertainty, complexity, and ambiguity, which could negatively affect society aspects; not only are economic terms but many other facets of human life have been badly influenced. Moreover, this definition is used to describe dynamic changes in the external environment (Šimková & Hoffmannová, 2021). Besides, VUCA affects and creates disruptions in society, including technology and changes in adoption behavior. In the rapidly evolving world characterized by VUCA, the financial sector is undergoing a significant transformation (Iryani & Yulianto, 2023).

In the context of VUCA, Fintech plays an important role in enabling people to access banking services, receive/send currency more frequently, and accumulate more savings (Morawczynski, 2009). Digital payments, internet, and mobile communication payments are now the focus of Fintech and a driving force, especially in developing countries, including Vietnam (Arner et al., 2015). In the VUCA era, Fintech has become more and more important as it helps users access banking and financial services more easily at lower costs and faster speeds.

The availability of financial services is connected to the potential for economic growth, and it's particularly crucial for those in poverty as it offers them the opportunity to accumulate savings, make investments, and access lending options (Nguyen, 2020). Fintech is growing stronger and faster through the application of technologies in the VUCA world (Iryani & Yulianto, 2023). Along with the development of Fintech globally, many studies have been conducted and contributed significantly to the aspect of intention of adopting; nonetheless, the factors affecting the association between intention and using Fintech behavior are believed Fintech to have not received the attention they deserve. Besides, there is still no specific research that has identified **the factors that might affect the** relationship between intention and behavior of using Fintech (Singh et al., 2020). This study focuses on the following questions:

RQ1: *Does financial literacy moderate the relationship between intention and using Fintech behavior?*

RQ2: *Does financial self-efficacy mediate the association between financial literacy and using Fintech behavior?*

RQ3: *Does the facilitating condition moderate the relationship between intention and using Fintech behavior?*

To answer the research questions below, after the introduction, the structure of our research paper consists of the following parts: **Part 2** presents the literature review and hypothesis development; **Part 3** presents the methodology of this study; **Part 4** presents findings that include the following sections: descriptive statistics of the sample, results of hypothesis testing, discussion of research results and policy implications; the final part is **Conclusion**.

LITERATURE REVIEW

Grand Theories

In this study, we use the theories UTAUT2 (Venkatesh et al., 2012) and Social Cognitive Theory (Bandura, 1986) as the hinge theory for the relationships in our research. First, for relationships related to behavioral intentions and human perception, including relationships between the variables Perceived Risk, Perceived Usefulness, Perceived Ease of use, Intention to use, and using Fintech services, we apply UTAUT2 theory as the root theory for these relationships. Second, Social Cognitive theory is applied as the original theory for relationships related to the variables of financial literacy, financial self-efficacy, and fintech-using behaviors.

VUCA

VUCA is described as the chaos experienced in this modern society. Simultaneous and intense changes at the macro level of the global, economic, social, environmental, regulatory, and political sectors have become a permanent predicament accelerated by Digital disruption, and the pandemic has redefined the concept of work (Noonan et al., 2017). The effect of dynamic and chaotic changes violates the micro level, which might detrimentally affect the business environment (Obrenovic et al., 2020). The rapid thriving of technology and information has led to fierce competition and innovative development

in the market (Aribowo & Wirapraja, 2018). Innovation in VUCA is associated with digital media, specifically the numerous digital applications that apply to develop financial services (Rahayu et al., 2022). This disruption greatly affects human life in all aspects, including personal finances (Iryani & Yulianto, 2023).

Fintech

Fintech refers to the innovative financial services that have surfaced in conjunction with technological advancements (Lim & Cham, 2015). The term Fintech, or Financial Technology, is a recent addition to the lexicon, denoting companies that employ information technology to deliver financial services. Nguyen et al. (2020) use the term Fintech to encapsulate the technological application in financial services. Furthermore, Cornelli et al. (2023) state that Fintech signifies novel business models that predominantly offer financial services via technologically supported mobile and online platforms. In this study, we define Fintech according to the most popular and accessible service groups including Credit, Payment and Saving.

Hypothesis Development

Perceived Usefulness to Intention to use Fintech

Perceived Usefulness must be interpreted in terms of the extent to which users think a particular system will have a direct effect on their performance (Venkatesh & Davis, 2000). Users of Fintech services, as well as Internet banking, are likely to embrace using the system if they consider it would increase efficiency and provide certain advantages. Perceived Usefulness in this research refers to the fact that if consumers strongly believe that a Fintech application might have a good effect, they choose to utilise the services (Ryu, 2018).

Perceived Usefulness was considered a key construct in the original presentation of the Technology Acceptance Model (TAM) (Davis, 1989). Perception of Usefulness is said to significantly positively affect the Intention to use services under the lens of TAM (Armanditya & Rahmiati, 2021). Thus, our hypothesis is:

H1 Perceived Usefulness positively affects the Intention to Use Fintech.

Perceived risks to Intention to use Fintech

Perceived risk pertains to a user's perceptions and beliefs about the potential for negative outcomes and undesirable consequences in online transactions (Im et al., 2008). This paper identifies financial risk and privacy risk as the common risks perceived by users when utilizing Fintech services (Hu et al., 2019).

An individual's attitude toward using certain technical goods or services is significantly impacted negatively by the perceived risk factor (Lee, 2009). Perceived risk is believed to have a significant adverse effect on users' attitudes towards Fintech's products and services (Lim & Cham, 2015). As a result, we provide the following hypothesis:

H2 Perceived risks negatively affect the Intention to use Fintech.

Perceived Ease of Use to Intention to use Fintech

The perceived Ease of use, a significant factor in TAM, is characterized by the level of effort necessary to adopt this novel technology (Davis, 1989). Perceived Ease of Use was coined by Davis (1989) as "the degree to which a person believes that using a particular system would be free of effort," and this definition was adopted in this research.

Perceived Ease of use under the lens of TAM was believed to strongly positively affect technology-adopting intention (Akturan & Tezcan, 2012). Fintech services enhance the quality of services and customer experiences for banking clients, effectively compensating for the bank's inadequacies in addressing the unique demands of its users, and Fintech's perceived Ease of use is the essential factor that affects its adoption by customers (Barakat & Hussainey, 2013). We believed that:

H3: Perceived Ease of Use positively affects the Intention to Use Fintech.

Intention and Using Fintech Behavior

Gupta et al. (2023) defined Intention to use FinTech as a concept that refers to the willingness and intention of users to use FinTech services, and Using Fintech behavior is defined as how users use and interact with Fintech services.

Davis (1989), in the TAM model, argued that technology use behavior is the result of the

intention to participate in using technology products or services. Intention to use technology has attracted the attention of many researchers and is believed to lead to technology use behavior (Slade et al., 2015). In the context of research on Fintech services, intention to use Fintech is considered a direct result of the behavior of using Fintech products and services (Ndassi et al., 2023; Sharma & Pandey, 2020). Hence, the hypothesis is proposed:

H4 Intention has a positive relationship with Using Fintech behavior (Saving, Payment, Credit).

H4a Intention has a positive relationship with Using Credit services.

H4b Intention has a positive relationship with Using Payment services.

H4c Intention has a positive relationship with Using Saving services.

Moderating role of Facilitating conditions

The degree to which a personal feeling that technical infrastructure is in place to enable system usage is known as the "facilitating condition" (Venkatesh et al., 2003). In this research, facilitating conditions for Fintech services is the level of readiness of technological equipment and technical support of Fintech organizations for customer use. Facilitating conditions are said to have a strong influence on the relationship between intention and actual using behavior (Hossain et al., 2017; Rai & Biswas, 2022)or have a significant impact on using behavior and compete with other variables in determining behavior (Rai & Biswas, 2022). Additionally, facilitating conditions are suggested to moderate the relationship between intention and behavior (Limayem & Hirt, 2003). Thus, our hypothesis is:

H5: Facilitating conditions moderate the relationship between the Intention and Using Fintech Behavior (Saving, Payment, Credit).

H5a Facilitating conditions moderate the relationship between the Intention and Using Credit services.

H5b Facilitating conditions moderate the relationship between the Intention and Using Payment services.

H5c Facilitating conditions moderate the relationship between the Intention and Using Saving services.

Moderating the Role of Financial Literacy

Financial literacy is a set of critical thinking skills to weigh the benefits and disadvantages of a specific decision related to the individual (Kozup & Hogarth, 2008; Widiastuti, 2021). In research, this financial literacy involves understanding financial concepts and the ability and confidence to make effective financial decisions (Khuc et al., 2022; Mutlu & Özer, 2021). Financial literacy lays the foundation for financial behavior and personal money management, playing an important role in financial stability (Huston, 2010).

Financial literacy plays a vital role in enhancing capabilities and expanding access to financial goods, demonstrated through the adoption and use of such products when required (Sumantri et al., 2024). The use of digital financial services also poses a number of new risks, including fraud, phishing, malware, and swaps. We have:

H6: Financial Literacy moderates the relationship between the intention and Fintech using behavior (Saving, Payment, Credit).

H6a Financial Literacy moderates the relationship between the Intention and Using Credit services.

H6b Financial Literacy moderates the relationship between the Intention and Using Payment services.

H6c Financial Literacy moderates the relationship between the Intention and Using Saving services.

The mediating role of Financial Self–efficacy

In this study, financial self-efficacy was conceptualized as an individual's confidence in their ability to gather information to make effective financial decisions (Netemeyer et al., 2018). Furthermore, the primary sources of a person's self-efficacy in terms of their financial capabilities are information, experience, and emotional state. Therefore, financial literacy plays a beneficial role in the decision-making process (Atlas et al., 2019).

According to Social Cognitive Theory, self-efficacy has been shown to have a major influence on an individual's personal financial behavior and could even be used to predict the financial literacy level of an individual (Noor et al., 2020). However, financial behaviors are still limited and have not been exploited much, especially in the context of comprehensive

financial development in developing countries. In particular, beliefs about one's financial capabilities are an intermediary variable in behavioral prediction and behavior change studies (Zhao et al., 2005). Our hypothesis is:

H7 Financial self–efficacy mediates the relationship between Financial literacy and Using Fintech behavior(Saving, Payment, Credit).

H7a Financial self–efficacy mediates the relationship between Financial literacy and Using Credit services.

H7b Financial self–efficacy mediates the relationship between financial literacy and the use of payment services.

H7c Financial self–efficacy mediates the relationship between Financial literacy and Using Saving services.
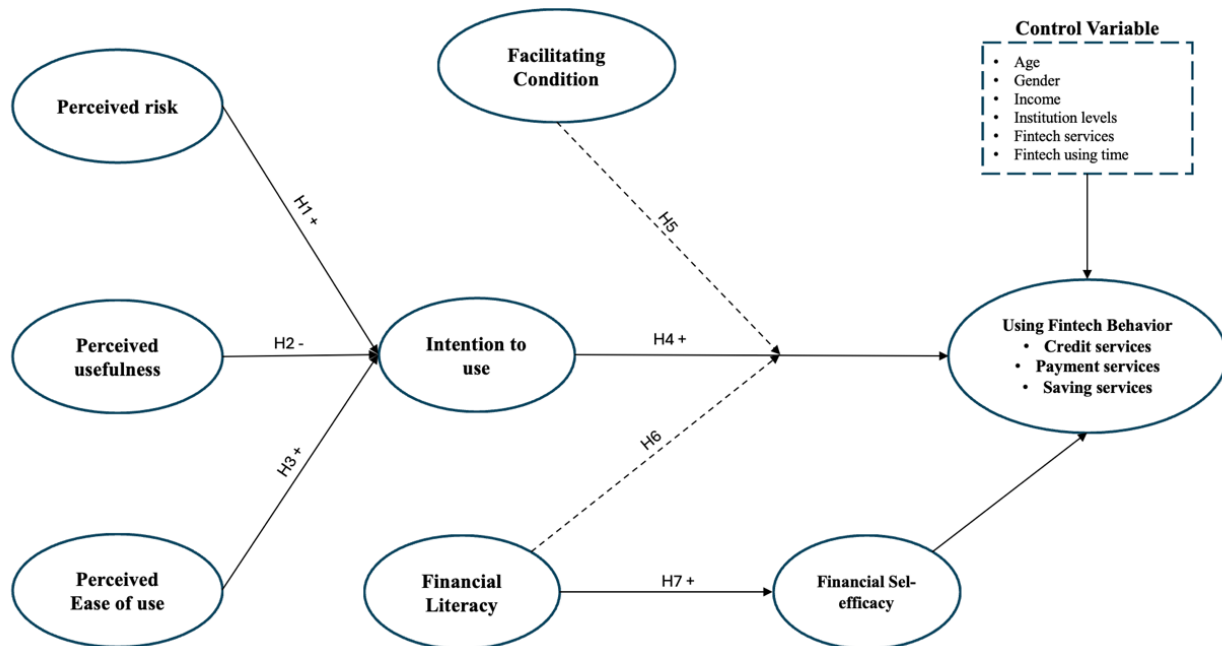
Figure 1. Conceptual Framework
Source: Authors' data process

METHODOLOGY

Measurement

Regarding our questionnaire, we asked domestic and foreign scholars related to research to make comments and adjust it appropriately according to the characteristics of Fintech services in Vietnam. Perceived Usefulness and Perceived Ease of use both include 5 items (Perwitasari, 2022); Perceived risks include 6 items (Lee, 2009); Intention to use Fintech and Facilitating conditions consists of 3 items (Venkatesh et al., 2012); Financial literacy includes 7 items (Widiastuti, 2021), Financial self-efficacy consists of 8 items (Lazić et al., 2021); Using Fintech behavior (which consists of 3 dimensions: Using Credit services, Using Payment services and Using Saving services) includes 9 items and 3 items per dimension (Ndassi et al., 2023). The team developed the

remaining demographic variables in the study based on suggestions from the demographic variables. Besides, this study uses a 5-point Likert scale with number one representing completely disagree, number two imitating disagree, number three illustrating neutral, number four agree, and number five representing completely agree, to measure all external variables except for demographic variables.

Sample and Sampling Method

In terms of quantitative research, we distribute surveys to Fintech users mainly through social networks and various groups. Convenience sampling is used to pick respondents at random who are using Fintech services to ensure that the sample size is appropriate with a total number of variables of this research PLS-SEM data analyzing method based on the suggestion of Green (1991);

thus, the sample size must be higher than 200 observations. Regarding survey distribution, Google Forms was chosen as a platform to prepare, collect, and send the questionnaire/survey to users via Facebook, Instagram, and Gmail.

Data collection

A total of 1,729 were collected in this study. After preliminary screening, invalid, uniform, or spammy responses, and random filling were rejected; 1,411 valid responses were used and presented in Table 1.

Table 1. Demographic characteristics of a sample

Categories	Frequency	Percentage
Age		
15-30	731	51.81
31–46	438	31.04
47-52	174	12.33
>52	68	4.82
Gender		
Male	803	56.91
Female	608	43.09
Education level		
<High school	202	14.32
Vocation	508	36.00
Bachelor or higher	701	49.68
Income		
<410 USD	794	56.27
410 – 815 USD	371	26.29
816 – 1.260 USD	223	15.80
>1.260 USD	23	1.63
Fintech Using Time		
< 1 year	92	6.52
2 years	503	37.77
3 years	576	40.82
4 years	163	11.55
> 5 years	77	3.33

Source: authors' calculation

The majority of our interview participants were Gen Z, from 15 to 30 years old, occupying 51.81%. On the contrary, only 4.82% of this research's participants are 47 years old and above. The number of male participants in the survey was significantly higher than the number of female respondents, with 803 men and 608 women responding to the survey. The educational level of survey participants is distributed between two groups who have not completed high school (14.32%) and have completed university or postgraduate programs (49.68%). The income of the participants is concentrated in the range of under 815 USD per month, with up to 83.1% in this group. The time of accessing/using Fintech of the survey varied from new users (less than 1 year) to long-time users (over 5 years), and most of the participants used Fintech for two to four years.

Data analysis

After collecting data, we compiled the data into Excel and used SmartPLS 4.0 software to perform data analysis based on the results of Hair Jr et al. (2020). Analysis methods and analysis results are presented in the next sections.

Measurement model evaluation

To evaluate the measurement model thoroughly, we consider the following methods: indicator reliability, internal consistency reliability, convergent validity, and discriminant validity (Hair Jr et al., 2020). First, we test

indicator reliability with Outer Loading > 0.708 and accessing parallelly VIF < 5 to predict the

multicollinearity phenomenon. The results of this test are listed in Table 2.

Table 2. Outer Loading and VIF Result

Variables	Items	Outer loading	VIF
Financial Literacy (FL)	FL1	0.833	1.626
	FL2	0.838	1.422
	FL3	0.806	1.498
	FL4	0.797	1.525
	FL5	0.794	1.490
	FL6	0.834	1.458
	FL7	0.791	1.616
Facilitating Conditions (FC)	FC1	0.797	1.410
	FC2	0.805	1.512
	FC3	0.872	1.525
Financial Self-Efficacy (FSE)	FSE1	0.755	1.496
	FSE2	0.81	1.752
	FSE3	0.768	2.428
	FSE4	0.834	2.559
	FSE5	0.727	2.167
	FSE6	0.792	2.121
	FSE8	0.745	2.127
Perceived Ease of Use	PEU1	0.813	2.484
	PEU2	0.798	2.057
	PEU3	0.814	1.936
	PEU4	0.759	2.153
	PEU5	0.842	1.901
Perceived Risk	PR1	0.816	2.403
	PR2	0.861	1.705
	PR3	0.827	2.078
	PR4	0.840	1.876
	PR5	0.812	1.988
	PR6	0.851	1.894
Perceived Usefulness	PU1	0.854	1.612
	PU2	0.873	1.995
	PU3	0.880	1.863
	PU4	0.879	1.991
	PU5	0.878	1.659
Intention to Use (IT)	IT1	0.877	2.130
	IT2	0.870	2.296
	IT3	0.811	2.722
Using Credit Services (UCS)	UCS1	0.855	2.069
	UCS2	0.777	2.471
	UCS3	0.813	2.341
Using Payment Services (UPS)	UPS1	0.824	2.564
	UPS2	0.831	2.462
	UPS3	0.787	2.790
Using Saving Services (USS)	USS1	0.817	2.773
	USS2	0.835	2.960
	USS3	0.787	2.894

Source: authors' calculation

According to **Table 2**, all the data involved in the study show that the measurement model has a satisfactory level of indicator reliability with the Outer loading coefficient (ranging from 0.727 to 0.880). Besides, the VIF coefficient shows that the model does not have multicollinearity with VIF < 5.

After assessing the reliability indicator, our research continued to perform construct validity, which consists of internal consistency reliability and concurrent validity analysis through the Cronbach alpha, Composite reliability, and Average extracted variable systems to assess the level of validity of data. The test results are listed in **Table 3**.

Table 3. The constructs' validity and reliability

Items	Variable code	Cronbach's alpha	Composite reliability	Average extracted variable
Intention to use Fintech	IT	0.831	0.843	0.646
Using Fintech Behavior	UFB			
Using credit services	UCS	0.748	0.855	0.662
Using payment services	UPS	0.747	0.855	0.663
Using saving services	USC	0.748	0.856	0.665
Perceived Usefulness	PU	0.822	0.841	0.662
Perceived Ease of Use	PEU	0.865	0.902	0.649
Perceived Risks	PR	0.814	0.932	0.597
Financial Literacy	FL	0.815	0.932	0.662
Facilitating Conditions	FC	0.765	0.865	0.681
FinancialSelf–efficacy	FSE	0,890	0.914	0.604

Source: Authors' calculations

In Table 3, regarding internal consistency reliability, all the Cronbach's alpha coefficients of all structures are above 0.7, specifically from 0.748 to 0.890. In addition, the composite reliability is above 0.7, ranging from 0.860 to 0.943. In addition, in terms of convergent validity, the Average extracted variable coefficient is also greater than 0.5, ranging from 0.597 to 0.681. Therefore, these results indicate good overall reliability (Hair Jr et al., 2020).

Hypotheses testing

Based on the above testing results, it can be confirmed that the model is highly reliable, but the multicollinearity problem is not presented. The hypothesis testing result is presented in Table 4 and Figure 2.

Table 4. Summary of PLS-SEM results

Hypothesis	Original Sample (O)	T Statistics	P Values	Significance (p<0,05)
H1. PU -> IT	0.248	3.345	0.001	Supported
H2. PR -> IT	0.035	0.658	0.510	Unsupported
H3. PEU -> IT	0.458	6.776	0.000	Supported
H4a. IT-> UCS	0.333	5.082	0.000	Supported

Table 4. Continued

H4b. IT-> UPS	0.341	5.363	0.000	Supported
H4c. IT-> USS	0.292	4.804	0.000	Supported
H5a. IT X FC -> UCS	-0.027	0.519	0.604	Unsupported
H5b. IT X FC -> UPS	-0.005	0.101	0.919	Unsupported
H5c. IT X FC -> USS	-0.040	0.869	0.385	Unsupported
H6a. IT X FL -> UCS	-0.092	1.601	0.110	Unsupported
H6b. IT X FL -> UPS	-0.171	2.931	0.003	Supported
H6c. IT X FL -> USS	-0.155	2.708	0.007	Supported
H7a. FL-> FSE->UCS	0.072	1.963	0.050	Supported (Partial Mediator)
H7b. FL-> FSE->UPS	0.078	2.204	0.028	Supported (Partial Mediator)
H7c. FL-> FSE->USS	0.083	2.323	0.020	Supported (Partial Mediator)

Source: Authors' calculations

Figure 2. The result of bootstrapping
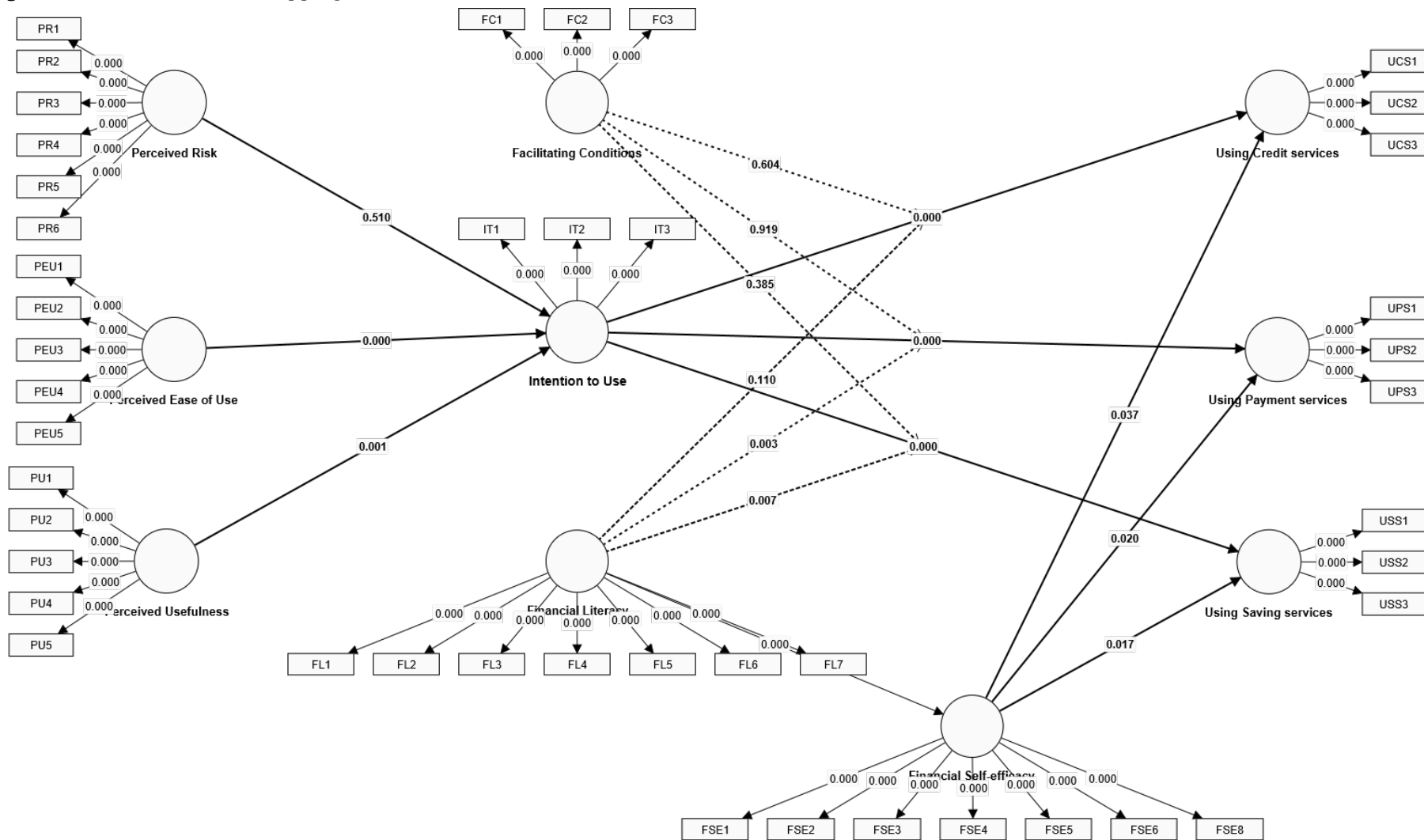
Source: Authors' data process

According to **Table 4 and Figure 2**, regarding H1 was supported (pc=0,248 at P=0.001); H2, was rejected (pc=0.035 at P=0.510); H3 was supported (pc=0.458 at P=0.000); H4 is supported because all H4a; H4b and H4c are supported with P =0.000; H5a, H5b, H5c, were not supported with all P > 0.05. H6a is rejected with a P-value > 0.05, and H6b and H6c were supported with a P-value lower than 0.05. H7a was supported (pc=0.072 at P=0.050) and H7b (pc=0.078 at P=0.028), H7c (pc=0.083 at P=0.020) were supported.

Furthermore, all hypotheses belonging to H7 are only considered partial mediators because the research results also show that FL has a positive impact on all dimensions belonging to the variable "Using Fintech Behavior" **(Appendix)**.

DISCUSSION

In relation to the novelty of this study, we investigated several issues. Firstly, we validate the moderating role of variables, including financial literacy and facilitating conditions, on the relationship between intention and using fintech behavior. In this, we have clearly divided using fintech behavior into dimensions to suit better the market we are studying, including behaviors using savings, credit, and payment services. This is the first novelty in this study; previous studies, such as Shaikh et al. (2020) and Lim et al. (2019), only focused on evaluating using fintech behavior in the most general way without recognizing each type of service offered. In addition, they have not recognized and evaluated whether financial literacy and facilitating conditions can moderate the relationship between intention and using fintech behavior. Previous studies mainly consider the moderator effect of financial literacy in the relationship of locus of control and financial behavior (Mutlu & Özer, 2021) or the role of financial literacy in the relationship between cognitive variables affecting Intention to use Fintech (Mansyur & Ali, 2022) or the relationship between Intention to use Fintech to financial inclusion (Martini et al., 2022); however, they overlook the research direction between Intention and Using Fintech behavior. In addition, for the new point is the moderating role of facilitating conditions. According to the UTAUT2 theory of Venkatesh et al. (2012), the facilitating condition is a conditional variable, affecting both Intention and Using Fintech behavior, in terms of theoretical mechanism, it can be explained that when there are large facilitating conditions, a large intention

to use which will be formed leading to more usage behavior, but if not supported by facilitating conditions then the above impact mechanism will not occur. Some studies, such as Rai and Biswas (2022) and Hossain et al. (2017) agree with our view; however, most previous studies still adhere to the view of Venkatesh et al. (2003) and believe that this variable is independent. Therefore, we conduct this study to clarify that. In addition, considering the mediating role of financial self-efficacy in the relationship between financial literacy and using fintech behaviors is also considered a novelty of this topic. Previous scholar Noor et al. (2020) agree with this finding; however, the study has not yet measured user behaviors when using Fintech. Corresponding to the comprehensive financial context in developing countries, the importance of financial self-efficacy in predicting financial behavior (Zhao et al., 2005).

Based on the results of the hypothesis testing, our research answered the first research question (RQ1), which is that financial literacy is shown to be a moderate variable in the relationship between intention and using fintech behavior. This result is in contrast to the study of Widiastuti (2021). To be more specific, our research shows a contrary mechanism, shown through the impact coefficient of "-0.148". Thus, when users have financial knowledge, they tend to reduce their use of services—saving through Fintech. To explain this difference, it can be seen that this research was conducted in the context of Fintech booming in Vietnam, and it is not only the playground of banks or large businesses but has become a startup trend (Nathan et al., 2022; Ngo & Nguyen, 2022). Although the market is growing strongly, the laws and management mechanisms of the Fintech market are still unclear, and there are many loopholes (Phung, 2023). For the above reason, users in general, and people with high financial literacy in particular, do not have trust in digital financial services. Ha et al. (2023) also showed that, in financially educated subjects in Vietnam, the "trust" factor does not make them intend to use Fintech (mobile money). Thus, improving the usefulness of Fintech services and thoroughly preventing security holes are really necessary in the Vietnamese market so that users can trust and use Fintech more.

In addition, our result adequately satisfied **the second research question (RQ2)** that financial self-efficacy is supported to have a partial mediator role in the association of financial

literacy and Fintech using behavior. Specifically, under the impact of financial self-efficacy, financially literate users will use credit and payment services. This view is shared by Khan et al. (2022). Thus, when applied to the research context in Vietnam, the finding of this study accurately reflects, by comparing with the argument in Nguyen et al. (2023) 's study, that individuals having a bachelor's degree or higher will easily use Fintech and have more comprehensive financial access based on their confidence in their financial abilities and knowledge. Furthermore, the above research also shows that the majority of this target group belongs to Gen Z, a group of customers who dare to take risks and dare to invest. Therefore, to better exploit user needs, businesses should consider expanding additional types of loans and investments at the individual level to attract diverse groups more strongly confidence in financial ability and financial knowledge.

Nonetheless, the results failed to answer **the third research question (RQ3)** by showing that facilitating conditions cannot moderate the relationship between intention and Using Fintech behavior generally. This result is contrary to suggestions about this relationship in the studies of Limayem and Hirt (2003), and Oliveira et al. (2014). To explain this contradiction, our research wants to address the issue that although users of all ages have mobile devices or computers and have the means to access Fintech applications, factors like age have affected users' attitudes, giving rise to an unwillingness to change and loyalty to using paper money or known services. It can be clearly seen that as users get older, especially in Gen Y and X, they will tend not to want to change personal habits and update technology (Hwang & Kim, 2018).

Besides, we found that perceived Usefulness and perceived Ease of use positively and significantly effect the intention to use Fintech services. This result is supported by Barakat and Hussainey (2013). Comparing and applying to the case of Vietnam, Lien et al. (2020) proposed a similar result, which could be said that to develop Fintech applications in Vietnam and help users easily access Fintech services, users' perception of the Usefulness and Ease of use of Fintech services should be demonstrated not only in young people and those who experienced Fintech services but also needs to be shown in the elderly group.

Furthermore, the results show that the intention to use Fintech positively and significantly impacts Using Fintech behavior. This means that consumers with Fintech intentions will be more inclined to utilize it. This result is supported by prior studies conducted by Hossain et al. (2017) performed. This result reflects the current situation in Vietnam, along with the strong development of the digitalization trend in all industries, the expansion of Fintech has spread, and therefore, financial institutions should focus on implementation through education and awareness campaigns as well as implementing risk mitigation measures (Morgan & Long, 2020; Puschmann, 2017)

Additionally, this study has not supported the relationship between perceived risks and the intention to use Fintech. Our finding aligns with the study by Nguyen et al. (2021) in Vietnam. Based on our research, this can be explained by Ngoc Bich and Hai Ninh Thi (2020) report. A cashless society is only considered a new habit that appears in Gen Z in Asia, and they do not have a huge knowledge of risk through Fintech. Moreover, in this research, the number of people in this generation is the majority (51.81%), which leads to the unsupported hypothesis.

CONCLUSION AND RECOMMENDATION

Based on the research result, we have made several academic contributions to research on Fintech and financial inclusion in Vietnam by supporting 5 out of 7 hypotheses, as follows: (1) proving the moderator role of Financial Literacy in the relation of intention and using Fintech behavior; (2) prove that financial self-efficacy could mediate the relationship between Financial Knowledge and Fintech Using Behavior. These are new discoveries in Vietnam that we contributed.

In addition, we also contribute some practical suggestions for Fintech investors and developers, including (1) affirming the urgency of handling security holes and expanding the types of service, (2) pointing out the necessity of financial education for users, (3) promoting the digitalization of the bank industry as well as creating more digital financial services and increasing the coverage of comprehensive finance in particular.

Besides, we admit that this study has not proven the moderating role of facilitating conditions on the relationship between intention and Using Fintech behavior and how perceived risks could

impact intention. These limitations are encountered due to a number of contextual issues discussed in the discussion section of the study. Therefore, to fill these limitations, future research should choose a more economically stable period or when the Fintech market in Vietnam has had a certain maturity.

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APPENDIX

	Original sample (O)	T statistics	P-values
Financial Literacy -> Using Credit services	0.072	1.963	0.050
Financial Literacy -> Using Payment services	0.078	2.204	0.028
Financial Literacy -> Using Saving services	0.083	2.323	0.020

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