The Impact of Perceived Risk on the Intention of Chinese People in Thailand to Use Fintech

by

Lisheng Zhang

International College,
National Institute of Development Administration,
Bangkok, Thailand
E-mail: lynsenbkk@gmail.com



The Impact of Perceived Risk on the Intention of Chinese People in Thailand to Use Fintech

by

Lisheng Zhang

International College,
National Institute of Development Administration,
Bangkok, Thailand
E-mail: lynsenbkk@gmail.com

Abstract

Fintech is widely used in our daily life, Chinese are familiar in using Fintech, and Chinese government also enacts policies to use Fintech to eliminate poverty. Nowadays, Thai government also publishes some benefit policy to help foreign investors to invest in Thailand. This chance and beautiful scene and good service attract more and more Chinese to come to Thailand. But Chinese transaction habit is Fintech, it may cause some problems if they stay in Thailand but not familiar with Thai Fintech. This research main objective is to explore the impact of perceived risk on the intention of Chinese people in Thailand to use Fintech. The theory used in this research is technology acceptance model, researcher use questionnaire to collect data, 65 questionnaires has been distributed and 52 complete responses have been received. The findings show that perceived risk only positively affect perceived usefulness, however both perceived usefulness and perceived ease of use positively influence intention to use. Overall, the results from this research suggest that it is essential for Fintech company to give a guideline of how to use when individuals first time to use, update their products to meet users' requirements and provide third-party platform to reduce perceived risk and increase perceived usefulness and perceived ease of use.

Keywords: Perceived Risk, Perceived Usefulness, Perceived Ease of Use, Intention to Use, Technology Acceptance Model

1. Introduction

1.1 Background and Importance of the Problem

The emergence of information technology (IT), specifically the quick and extensive spread of smartphone and mobile technology, introduces numerous fresh offerings to the market for consumers. It also causes the technology innovation to develop rapidly and widely. One of the newly emerged services is Fintech, the word Fintech, is a term that encompasses two components, "financial" and "technology." Fintech provides numerous advantages, such as reduced transaction fees, equitable business practices, direct customer interaction, and prompt access to financial data (Zavolokina et al., 2016). Fintech companies can be categorized into nine distinct groups, encompassing areas such as financing, asset management, exchange services, insurance, loyalty programs, payment solutions, regulatory technology, risk management, as well as additional sectors like education, as Mention's research conducted in 2019. This wide range of categories expands the scope of financial services, from product design to market accessibility. Fintech's progress leads to inventive payment solutions that can potentially change the way people make payments (Chiu, 2016; DiCaprio, Yao & Simms, 2017).

Over the years, the swift progress of digital finance in China has brought about enhancements in the efficiency of financial services catering to the real economy. Moreover, it has stimulated the transformation, innovation in models, and the upgrading of various industries. With the widespread adoption of mobile devices and the rapid advancements in mobile payment technology, digital finance has started to flourish, driven by the growing demand for financial services in the realm of ecommerce development. As of June 2019, the count of internet users in China reached 854 million, which marked a rise of 25.98 million from the end of 2018. This amounted to an internet penetration rate of 61.2%. Additionally, the number of mobile internet users in China reached 847 million, indicating an increase of 29.84 million compared to the end of 2018 (CAICT, 2019). Currently, the mobile payment business model holds the most significant influence in the advancement of digital finance. It is closely followed by internet banking and the comprehensive financial services offered by prominent technology platforms.

In China, at present, the most influential business model in the development of digital finance is mobile payment, followed by Internet banking and comprehensive financial services provided by large technology platforms. From "IT+ finance" to "Internet finance" and current digital finance, the speed of the combination of finance and technology is constantly upgrading and accelerating. Digital finance has penetrated into every corner of the social development, not only showing a significant rise in mobile payment, but also emerging a variety of new business forms and combinations. From payment settlement to financing, investment management, digital insurance products, etc. the use of digital technology brings the customer flow of mobile terminals, greatly reduces the customer cost of financial services, expands the coverage of services, and improves the consumer experience of users. However, as a result of the fusion of technology and finance, digital finance not only provides consumers with convenient and seamless channels, services, and products but also presents challenges in terms of information selection, self-education, accurate evaluation, and effective decision-making for consumers. Based on the continuous development and change of information technology industry under the influence of Moore's Law, it is of great practical significance for Fintech enterprises and Internet financial enterprises to explore the influencing factors and relationships between digital finance and consumer behavior intention in terms of cultivating customer consumption habits, expanding user groups and increasing user stickiness.

As Fintech is a relatively new field, there is a dearth of research examining consumer adoption of the technology. Financial services entail a high degree of risk control and motivation to maintain continued usage, as they are directly associated with personal wealth and well-being (Higgins, 1997). Consequently, it is imperative to comprehend the factors that encourage consumer adoption of this newly emerged technology that carries a high risk but is anticipated to offer significant value to consumers. On the other hands, for a Fintech company to increase its user base, it is crucial to observe and comprehend users' attitudes and behaviors. Companies must establish trust and mitigate perceived risk factors for users (Listyo, et al., 2018).

1.2 Research Question

Based on these two theories, and to answer the research question, the following specific questions must be answered: 1) what are the factors that influence the perceived risk of using Fintech? and 2) find out the relationship between perceived risk and users' intention to use.

1.3 Research Objective

This research aims to find what factors affect Chinese people to choose Fintech in Thailand rather than Alipay or Wechatpay. This paper explores these primary purposes by using two theories,

one is perceived risk. The theory of perceived risk helps shed light on why consumers often struggle to transition from the stage of desire to taking action. (Dowling, 1986), another one is theory of technology acceptance model (TAM) which proposed by Davis (1985) to explain and predict people's acceptance of information technology. TAM is the basic theory of this research.

2. Literature Review

2.1 Related Concepts and Theories

2.1.1 Fintech

Nowadays, several influential businesses of Fintech are: third-party payment, online lending, online investment, digital insurance, and Internet-based commercial banking (Huang, 2017), Fintech covers information technology, customer insight, financial scenarios, product operation and other aspects. It aims to improve the adaptability between financial institutions and user needs, and can meet and predict user preferences and needs (Jing & Wang, 2019). Research on Fintech can be divided into two categories. The first category primarily centers on Fintech's transformational impact on the established financial industry. This field of research contributes to broadening the comprehension of Fintech platform mechanisms. The other category of research concentrates on examining the determinants that influence the adoption of Fintech platforms. The increased usage of Fintech platforms is contingent on people's accessibility to novel technologies (Gomber et al., 2018; Gomber et al., 2018; Gozman, Liebenau, & Mangan, 2018; Werth et al., 2020). Fintech firms expand their business by transitioning online transactions to mobile devices, such as mobile-based remittances, insurance and equity payments, and bill payments. Remarkably, commercial banks are more amenable to providing financial services linked to Fintech. Such the advent of mobile applications has significantly altered shopping patterns by eliminating the need for customers to be physically present. Fintech's scope extends beyond just financial services, which include financing and developing new business models. It also conducts business operations, delivers products, and offers services as a substitute for conventional financial institutions (Arner, Barberis, & Buckley, 2015). Overall, Fintech represents an innovative and disruptive offering of contemporary nonfinancial organizations in the market (Lee & Teo, 2015).

This study defines Fintech as the utilization of technology by non-financial companies to innovate and disrupt financial services. Fintech enables customers to access a wide range of mobile services, including online payment, fund transfers, loan applications, insurance policy purchases, asset management, stock investments, mobile payments, Insuretech, P2P lending, crowdfunding, cryptocurrency, and other similar services.

Fintech provides various advantages, including fair and transparent dealings that save time and reduce companies' overhead costs (Hwang et al., 2007), offering potential prospects for customers to attain a more transparent and amplified environment, lower costs, eliminate intermediaries, and enhance accessibility to financial information (Zavolokina, Dolata, & Schwabe, 2016). However, there are various risks associated with technology, including legal, financial, and operational risks. At times, technical malfunctions can result in client transactions being blocked, leading to increased uncertainty for users (Lee et al., 2013; Benlian and Hess, 2011; Lee, 2009).

While Fintech has gained considerable attention, consumers' willingness to use it is still deemed unreliable and uncertain, consumers may reject to use Fintech because such risk and

uncertainties are considerable. According to this, this research aims to investigate how perceived risk of consumers influences their intension to use.

2.1.2 Technology Acceptance Model, Perceived Usefulness, Perceived Ease of Use and Intention to Use

Technology acceptance model (TAM) is proposed by Davis (1989) based on the theory of reasoned action (TRA) (Adams, Nelson, & Todd, 1992), Rational behavior theory is a widely studied model, which comes from social psychology and studies the decisive factors of conscious behavior intention. The theory in question has broad applicability, providing insight into a wide range of human behaviors across various domains. It possesses strong predictive and explanatory power, making it a fundamental and influential theory in the study of human behavior. According to the theory of rational behavior, an individual's engagement in a particular behavior is influenced by their behavioral intention, which is influenced by subjective norms and the individual's attitude toward the behavior in question. Based on this theory, TAM presents two main determinations, perceived usefulness and perceived ease of use. Perceived usefulness pertains to an individual's perception of how employing a specific system enhances their work performance. On the other hand, perceived ease of use refers to the level of ease an individual associates with utilizing a particular system. One of the very useful aspects of the theory of rational behavior in terms of information systems is that it argues that everything else that influences behavior indirectly influences behavior by influencing attitudes and subjective norms. In this way, the theory of rational behavior takes into account both uncontrollable environmental factors and controllable factors that affect user behavior, which means both perceived usefulness and perceived ease of use are influenced by external variables, in this paper, the author defined perceived risk as an external variable to influence perceived usefulness and perceived ease of use.

Intention to use refers to the measurable degree to which an individual intends to perform a particular action, according to the TAM which is shown in figure 1 below, both perceived usefulness and ease of use directly influence an individual's intention to use a new technology. It is essential to acknowledge that having the intention to use something does not necessarily guarantee its actual usage. The adoption and utilization of technology can be influenced by various factors, including external influences and individual characteristics. According to TAM theory, the hypotheses are proposed:

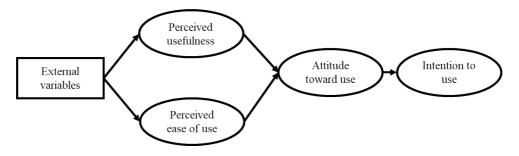


Figure 1 Technology Acceptance Model (TAM)

2.1.3 Perceived risk

Bauer (1960) expanded the concept of perceived risk from the field of psychology. According to his perspective, consumers often lack certainty about the anticipated outcomes of their purchase decisions, and some outcomes may lead to dissatisfaction. Therefore, there is uncertainty about the results in consumer purchasing decisions, and this uncertainty is the initial concept of risk. The theory of perceived risk primarily elucidates consumer buying behavior as an act of risk-taking. This is because consumers face uncertainty regarding the expected outcomes of a product when making a purchase, thus entailing a certain degree of risk on their part. Bauer's definition of perceived risk encompasses two key elements: the uncertainty surrounding the outcomes of a decision and the gravity of the repercussions resulting from an incorrect decision. In other words, it underscores the significance of the potential loss or negative consequences associated with the decision (Taylor, 1974). Cunningham (1967) adopted two factors to define perceived risk: one is the uncertainty that individuals subjectively feel regarding the occurrence of unfavorable consequences, the other one is the harm of the consequences if they were to occur.

According to Peter and Tarpey (1975), perceived risk can be categorized into six dimensions, as outlined by Jacoby and Kaplan (1972). These dimensions include financial risk, functional or performance risk, physical risk, psychological risk, social risk, and time risk.

Perceived risk has a detrimental effect on the adoption of IT or information system services within the context of information systems (Ryu, 2018). Perceived risk is defined as the impression that consumers have about their vulnerability and the potential negative consequences that may be associated with using Fintech. When consumers are trying to use Fintech, perceived risk plays a crucial role to influence final decision, because perceived risk refers to the individual's subjective uncertainty regarding the possibility of gaining or losing some or the entire investment amount. Some of the risk can be perceived by consumers in Fintech context, such as financial risk, legal risk, security and privacy risk and operational risk (Tang, Ooi, & Chong, 2020).

Financial risk pertains to the possibility of incurring financial losses when engaging in financial transactions facilitated by Fintech, as described by Forsythe, Liu, Shannon, and Gardner (2006). Legal risk encompasses the uncertainty arising from vague legal statements and the absence of comprehensive guidelines pertaining to the utilization of Fintech. Security and privacy risk in Fintech refers to the possibility of unauthorized access, misuse, theft, or loss of sensitive financial information such as personal identification data, banking details, and transaction records due to system vulnerabilities, cyberattacks, or human error. Operational risk refers to the function not working as it designed and causes potential harm resulting by internal process of system. The increase of any of the above risks will increase consumers' uncertainties and harmful consequences of trying to use Fintech. Based on these influences of perceived risk, the following hypotheses are proposed:

2.2 Literature Surveys

On the whole, a large number of previous research results have put forward some new research viewpoints on the Perceived risk and intention to use. It also identified what may cause perceived risk to different level in specific financial area to make new researchers to analyze more specific. Among them, the research on perceived risk of Fintech is relatively Financial risk, Leagl risk, Security & privacy risk and Operational risk.

In the research, it found that there is still a gap for research to discovery the users from different country with different culture. Second, how to motivate more customers to use Fintech and improve the Fintech serveices to reduce perceived risk is lack of quantitative support. Third, due to there are many foreigners especially Chinese work and study here, how to design and provide a effective and efficient Fintech platform for Chinese may make something different.

According to the limitations of the research, this article focus on the specific group and indepth analysis in Chinese group who can get long-time VISA and have opportunity to use Fintech in Thailand, to make a contribution to quantitative support for those customers from different countries and culture.

2.3 Conceptual Framework

Based on the theories and research purpose, the conceptual framework of perceived risk and intention to use as shown below has been constructed.

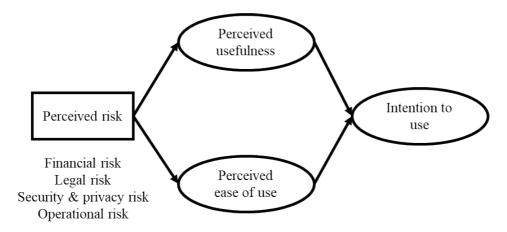


Figure 2 Conceptual Model

2.4 Research Hypothesis

Based on the theory TAM model and perceived risk, this research integrate perceived risk as external variables, which are financial risk, legal risk security & privacy risk and operational risk. This is the first part of conceptual model. On the other hand, according to the TAM theory, there are four hypotheses have been given below:

H1: perceived usefulness positively affects intension to use.

H2: perceived ease of use positively affects intension to use.

H3: perceived risk negatively influences perceived usefulness.

H4: perceived risk negatively influences perceived ease of use.

3. Research Methodology

3.1 Research Design

Different research methods may lead to different results and findings, to make it clearer that what factors and how these factors influence Chinese who live in Thailand to choose to use Fintech, the quantitative research is the optimal choice. We choose the scale from previous research and translate it into Chinese to make the respondent easier to understand. To make sure that this survey can cover different kind of Chinese, we choose online and onsite questionnaire distribution. Finally we choose data analysis to find the relationship between perceived risk and intention to use and try to see whether perceived risk influence more on perceived usefulness or perceived ease of use.

3.2 Population and Sample

To make a clear description of sample basic information, this result comes from SPSS as shown in Table 1:

Table 1 Descriptive Statistics of the Participants

Characteristics	Descriptive	Statistics	
Gender	Male	27(51.9%)	
Gender	Female	25(48.1%)	
	18-25	9(17.3%)	
Age	26-30	32(61.5%)	
	31-40	11(21.2%)	
	less than 3 months	14(26.9%)	
	half a year	16(30.8%)	
Time in Thailand	0.5 year to 1 years	7(13.5%)	
Time in Thanana	1 years to 2 years	8(15.4%)	
	2 years to 3 years	3(5.8%)	
	above 3 years	4(7.7%)	
	Bachelor's degree	17(32.7%)	
Study degree	Master's degree	34(65.4%)	
	Doctoral degree	1(1.9%)	

3.3 Research Instruments

Perceived risk has been separated into four parts, which including financial risk, legal risk, security and privacy risk and operational risk. Each of these factors are measured by the scale development by Ooi, Tang and Chong (2020). The scale consists of 13 questions. These items were rated on a five-point Likert scale that ranged from 1 (quite unlikely) to 5 (quite likely).

Perceived usefulness and perceived ease of use are measured by scale developed by Davis (1989). Davis developed that scale for testing perceived usefulness and erceived ease of about chartmaster. I adjust the scale's subject to Fintech in order to test accurately. All items in this part were using five-point Likert scale from 1 (extremely likely) to 5 (extremely unlikely).

Intention to use is measured by scale developed by Boswell (2004). There are 6 items including in this scale, and each item is from 1 (strongly disagree) to 5 (strongly agree).

3.4 Data Collection

This preliminary study gathered data from Chinese stayed in Thailand. Scale has been translated to Chinese, but questionnaire was bilingual including Chinese and English in order to avoid misunderstanding, questionnaire was distributed to total 65 Chinese who stayed in Thailand. 52 complete and effective questionnaire surveys have returned, the response rate was 80 percent.

3.5 Statistics Used for Data Analysis

This research used IBM SPSS Statistic version 19 to perform the data. Moreover, to establish the relationship between the dependent and independent variables, the study will utilize the Ordinal Least Squares (OLS) regression method. Finally, to confirm the significance of the mediating effect, Sobel test was used, as suggested by Preacher and Hayes (2004).

4. Data Analysis and Findings

4.1 Introduction

Start with analysis, it should be confirmed that each scale's reliability meets the standard requirements. Cronbach's alpha coefficient is used to test reliability. According to Nunnally (1978), it recommended that the minimum value of Cronbach's alpha should be 0.7; Table 2 shows all concepts' reliability coefficient below:

Table 2 Result from Reliability Test

Variables	Perceived Risk	Perceived Usefulness	Perceived Ease of Use	Intention to Use
Cronbach alphas (α) coefficient	0.874	0.648	0.806	0.698
Number of items	13	5	6	4

Later, the correlations among the variables in the model are presented in Table 3 below.

4.2 Data Analysis of the Quantitative Data

Table 3 Correlations among Variables

	Gender	Age	Education	Time in Thailand	PR	PU	PE	IE
Gender	1	0.184	-0.100	-0.109	0.066	0.097	0.079	0.269
Age		1	0.100	0.176	0.034	- 0.087	- 0.029	-0.041
Education			1	0.137	0.002	304*	0.173	- .405**
Time in Thailand				1	0.005	- 0.060	0.062	-0.167
PR					1	.397**	0.015	0.175
PU						1	.460**	.542**
PE							1	.611**
IE								1

Then, the model was estimated by using OLS regression, and the results of hypothesis testing are shown each table.

Table 4 Regression Results between Perceived Usefulness and Intention to Use

Model	C 115 ttt	ndardized fficients	Standardized Coefficients	t	Sig.
	В	Std. Error	Beta		
(Constant)	2.310	0.817		2.826	0.007
Gender	0.251	0.142	0.205	1.764	0.084
Age	0.076	0.116	0.077	0.658	0.514
Education	-0.295	0.147	-0.241	-2.010	0.050
Time in Thailand	-0.039	0.046	-0.098	-0.847	0.401
PU	0.511	0.135	0.450	3.774	< 0.001

Hypothesis 1: The acceptance of the positive relationship between perceived usefulness and intention to use has been acknowledged. There is a positive beta coefficient of perceived usefulness (β =0.511; p<0.001), which means consumers perceive more usefulness, they are willing to use the Fintech, and this is statistically significant supported. The r-square of the regression is 0.41. This can be interpreted that all variables in the regression can explain intention to use by 41 percent.

Table 5 Regression Results between Perceived Ease of Use and Intention to Use

Model	0 110 0001	ndardized ficients	Standardized Coefficients	t	Sig.
	В	Std. Error	Beta		
(Constant)	2.469	0.618		3.994	0.000
Gender	0.236	0.127	0.192	1.853	0.070
Age	0.064	0.103	0.065	0.620	0.539
Education	-0.334	0.128	-0.274	-2.621	0.012
Time in Thailand	-0.062	0.042	-0.155	-1.481	0.145
PE	0.546	0.101	0.560	5.413	< 0.001

Hypothesis 2: The existence of a positive relationship between perceived ease of use and intention to use has been recognized, and this hypothesis has been significantly supported which has a positive beta coefficient (β =0.546 p<0.001). Thus, it can be predicted that let consumers perceive more ease of use will make consumers easier to use. Thus hypothesis 2 is also significantly supported. The r-square of the regression is 0.528. This can be interpreted that all variables in the regression can explain intention to use by 52.8 percent.

Table 6 Regression Results between Perceived Risk and Perceived Usefulness

Model	0 110 1111	ndardized fficients	Standardized Coefficients	t	Sig.
	В	Std. Error	Beta		
(Constant)	3.278	0.675		4.852	0.000
Gender	0.091	0.140	0.084	0.647	0.521
Age	-0.049	0.114	-0.057	-0.432	0.668
Education	-0.311	0.138	-0.289	-2.246	0.030
Time in Thailand	0.000	0.046	0.001	0.007	0.995
PR	0.396	0.125	0.404	3.180	0.003

Hypothesis 3: The proposition of a negative relationship between perceived risk and perceived usefulness has been refuted. Because there is a positive beta coefficient of perceived risk (β =0.396; p=0.003), which prove there is a positive relationship between perceived risk and perceived usefulness and this relationship is statistically significant. The r-square of the regression is 0.261. This can be interpreted that all variables in the regression can explain intention to use by 26.1 percent.

Table 7 Regression Results between Perceived Risk and Perceived Ease of Use

Model		ndardized ficients	Standardized Coefficients	t	Sig.
	В	Std. Error	Beta		
(Constant)	4.022	0.896		4.492	0.000
Gender	0.088	0.186	0.070	0.475	0.637
Age	-0.016	0.151	-0.016	-0.106	0.916
Education	-0.222	0.184	-0.177	-1.211	0.232
Time in Thailand	0.040	0.061	0.096	0.652	0.518
PR	0.023	0.165	0.020	0.141	0.888

Hypotheses 4: The hypothesis of a negative relationship between perceived risk and perceived ease of use has been disproven. Because there is a positive beta coefficient of perceived risk (β =0.023; p=0.888), which means perceived risk somehow affect perceived ease of use because it is not statistically significant. The r-square of the regression is 0.043. This can be interpreted that all variables in the regression can only explain intention to use by 4.3 percent.

All results from OLS regression are summarized in the conceptual model and shown in Figure 3.

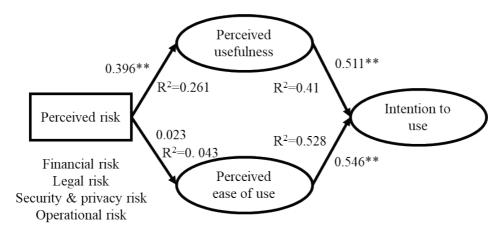


Figure 2 Conceptual model

4.3 Summary of the Results

The findings show that perceived risk only positively affect perceived usefulness, however both perceived usefulness and perceived ease of use positively influence intention to use. Overall, the results from this research suggest that it is essential for Fintech company to give a guideline of how to use when individuals first time to use, update their products to meet users' requirements and

@ Sripatum University Press 2024

provide third-party platform to reduce perceived risk and increase perceived usefulness and perceived ease of use.

5. Conclusion, Discussion, and Recommendation

5.1 Conclusion

This study's objective is to study the perceived risk and its relationship with intention to use. The results from hypothesis 1 and hypothesis 2 are significantly supported, people with higher perceived usefulness and perceived ease of use have more intention to use. This has been predicted by TAM theory for many times, and if we use it to test Fintech, the results are also same. Nowadays Fintech is not as a newly technology as decades before, people are more or less heard or use Fintech in their social life. In China, people are wiling to use Fintech because its convenience and timeliness, and Chinese government carry out Fintech to alleviate poverty in China. Higher income individuals can get benefit from Fintech by obtaining the real-time information of the financial market and make deal immediately via Fintech, this can help them to reduce transaction cost, and take advantage in time. For these people, Fintech is both high perceived usefulness and perceived ease of use to them, because they can improve their financial performance and easy to learn the function of Fintech. For those people with lower income, Fintech is a infrastructure of inclusive finance system. This would help improve the living conditions of the people in poor areas, However, financial services for the poor are very costly and are not widely available in most areas, this is mainly due to the various factors that affect the profitability of such ventures. The rapid development and evolution of internet technology has greatly impacted the financial industry. This is expected to provide new ideas and methods for financial poverty alleviation. Using the internet to provide financial services is an essential step in developing an inclusive finance system. Doing so will break the traditional barriers of traditional finance. Through digital financial inclusion, the poor can access financial services without being limited by their circumstances. This will help them improve their living conditions. Thus, for people who are in poverty, they also can gain such perceived usefulness and perceived ease of use.

Specially, the conclusion of hypothesis 3 and hypothesis 4 is not supported and the result even opposite but it is not statistically significant. This suggests that the perceived risks associated with Fintech, such as financial, legal, security, and operational risks, do not directly impact the perceived usefulness and ease of use of the technology. Users can still find Fintech useful and easy to use despite being aware of these risks. But they will owe this risk to be their cognitive defect rather than Fintech itself risk. Therefore, even if they have perceived risk, it still does not affect their use of Fintech especially in mobile payment, similar results in the mobile payment context have been found by Park et al. (2019).

Lastly, there is something interesting in this research finding, the results show education has a negative relationship between intention to use and perceived usefulness, they are significantly supported, for this part, I could predict that financial literacy may be a key factor to influence the result. The higher education individual has, the more financial literacy they may have and the more information they can get, consider about this reason, it may draw the intention to use and perceived usefulness down to avoid double information cost, which means individuals need to check all information they get and make sure which one is true and correct.

5.2 Discussion

Although this research provided additional contribution about the impact of perceived risk on the intention of Chinese people in Thailand to use Fintech, there are some limitations that must be considered. Firstly, the sample of this research is quite small, and questionnaires are distributed randomly to those Chinese who stay in Thailand, some of them may just stay in Thailand for a really short time, they don't have much time or chance to learn and use Thai Fintech. This may cause some bias. Secondly, this research has not checked whether participants really use Thai Fintech, if they do not use it, but answer the questionnaire with memory of Chinese Fintech, it also causes bias.

5.3 Recommendation

Financial literacy may be a critical variable in future research. Based on the previous results, it shows that education negatively affect intention to use and perceived usefulness as a control variable. Financial literacy may be the hidden factor to cause this result. The higher financial literacy individuals have the more knowledge that they can use to distinguish Fintech. Future research could add financial literacy as a factor in this model.

The findings from this research recommend that perceived risk significantly influence the perceived usefulness in a positively way, and both perceived usefulness and perceived ease of use influence intention to use Fintech in a positively way. Based on these findings, Fintech company should improve their Fintech product by eliminating financial risk, legal risk, security risk and operating risk. Firstly, providing brief illustration when you first time to download the Fintech application and start to use, in order to reduce users perceived risk and increase users' perceived ease of use. Secondly, Fintech company should update their Fintech product to meet the requirements from their uses, give more personalized financial service to make perceived usefulness goes up. Lastly, Fintech company could pay more attention on Chinese users, like reduce the barriers between Chinese Fintech and Thai Fintech, like exchange rate, payment methods, providing third-party platform to guarantee the transaction or the system is secure and protected.

References

- Adams, D. A., Nelson, R. R., & Todd, P. A. (1992). Perceived usefulness, ease of use, and usage of information technology: A replication. *MIS Quarterly*, 16(2), 227-247.
- Arner, D. W., Barberis, J., & Buckley, R. P. (2015). The evolution of Fintech: A new post-crisis paradigm. *Geo. J. Int'l L.*, 47, 1271.
- Benlian, A., & Hess, T. (2011). Opportunities and risks of software-as-a-service: Findings from a survey of IT executives. *Decision Support Systems*, 52(1), 232-246.
- Boswell, K. (2004). The impact of perceived invasiveness and perceived objective on technology acceptance: An extension to the technology acceptance model. *The University of Mississippi*.
- CAICT. (2019). Mobile finance application security white paper.
- Chan, R. (2015). Asian regulators seek Fintech balance. Finance Asia.

- Chiu, I. H. (2016). Fintech and disruptive business models in financial products, intermediation and markets-policy implications for financial regulators. *J. Tech. L. & Pol'y, 21*, 55.
- Cunningham, S. M. (1967). Perceived risk and brand loyalty. In S. Sprott (Ed.), *Risk taking and information handling in consumer behavior* (pp. 507-523). Sage Publications.
- Davis, F. D. (1985). A technology acceptance model for empirically testing new end-user information systems: Theory and results (Doctoral dissertation, Massachusetts Institute of Technology).
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
- DiCaprio, A., Yao, Y., & Simms, R. (2017). Women and trade: Gender's impact on trade finance and Fintech.
- Dowling, G. R. (1986). Perceived risk: The concept and its measurement. *Psychology & Marketing*, 3(3), 193-210.
- Gomber, P., Kauffman, R. J., Parker, C., & Weber, B. W. (2018). Financial information systems and the Fintech revolution. *Journal of Management Information Systems*, 35(1), 12-18.
- Gomber, P., Kauffman, R. J., Parker, C., & Weber, B. W. (2018). On the Fintech revolution: Interpreting the forces of innovation, disruption, and transformation in financial services. *Journal of Management Information Systems*, 35(1), 220-265.
- Gozman, D., Liebenau, J., & Mangan, J. (2018). The innovation mechanisms of Fintech start-ups: Insights from SWIFT's innotribe competition. *Journal of Management Information Systems*, 35(1), 145-179.
- Higgins, E. T. (1997). Beyond pleasure and pain. American Psychologist, 52(12), 1280.
- Huang, G. P. (2017). Opportunities and risks of digital financial inclusion. *Financial Development Review*, (8), 14-19.
- Hwang, R. J., Shiau, S. H., & Jan, D. F. (2007). A new mobile payment scheme for roaming services. *Electronic Commerce Research and Applications*, 6(2), 184-191.
- Jacoby, J., & Kaplan, L. B. (1972). The components of perceived risk. In M. Venkatesan (Ed.), *Acr special volumes*.
- Jing X., & Wang X. T. (2019). Developing digital finance to alleviate financing constraints of SMEs in Heilongjiang Province. *Business Finance*, (1), 14-15.
- Lee, D. K. C., & Teo, E. G. (2015). Emergence of Fintech and the LASIC principles. *Journal of Financial Perspectives*, 3(3).
- Lee, M. C. (2009). Factors influencing the adoption of internet banking: An integration of TAM and TPB with perceived risk and perceived benefit. *Electronic Commerce Research and Applications*, 8(3), 130-141.

- Lee, S. G., Chae, S. H., & Cho, K. M. (2013). Drivers and inhibitors of SaaS adoption in Korea. *International Journal of Information Management*, 33(3), 429-440.
- Listyo, P., Fernando, E., Savina, G., & Tirtamulia, L. M. (2018). Technology risk in financial technology at online transportation systems. In *2018 International Conference on Information Management and Technology (ICIMTech)* (pp. 149-154). IEEE.
- Mention, A. L. (2019). The future of Fintech. Research-Technology Management, 62(4), 59-63.
- Meyliana, M., & Fernando, E. (2019). The influence of perceived risk and trust in adoption of Fintech services in Indonesia. *CommIT (Communication and Information Technology) Journal*, 13(1), 31-37.
- Nunnally, J. C. (1978). An overview of psychological measurement. In R. H. Grinker & R. R. Spiegel (Eds.), *Clinical diagnosis of mental disorders: A handbook* (pp. 97-146). Oxford University Press.
- Park, J., Amendah, E., Lee, Y., & Hyun, H. (2019). M payment service: Interplay of perceived risk, benefit, and trust in service adoption. *Human Factors and Ergonomics in Manufacturing & Service Industries*, 29(1), 31-43.
- Peter, J. P., & Tarpey Sr, L. X. (1975). A comparative analysis of three consumer decision strategies. *Journal of Consumer Research*, 2(1), 29-37.
- Ryu, H. S. (2018). Understanding benefit and risk framework of Fintech adoption: Comparison of early adopters and late adopters.
- Tang, K. L., Ooi, C. K., & Chong, J. B. (2020). Perceived risk factors affect intention to use Fintech. *Journal of Accounting and Finance in Emerging Economies*, 6(2), 453-463.
- Taylor, J. W. (1974). The role of risk in consumer behavior: A comprehensive and operational theory of risk taking in consumer behavior. *Journal of Marketing*, 38(2), 54-60.
- Werth, O., Schwarzbach, C., Rodríguez Cardona, D., Breitner, M. H., & Graf von der Schulenburg, J. M. (2020). Influencing factors for the digital transformation in the financial services sector. *Zeitschrift für die Gesamte Versicherungswissenschaft, 109*, 155-179.
- Zavolokina, L., Dolata, M., & Schwabe, G. (2016). Fintech What's in a name? *Thirty Seventh International Conference on Information Systems*, 3(3), 107-111.
- Zavolokina, L., Dolata, M., & Schwabe, G. (2016). The Fintech phenomenon: Antecedents of financial innovation perceived by the popular press. *Financial Innovation*, 2(1), 1-16.