

FACTORS AFFECTING THE INTENTION OF CONSUMERS TO USE MOBILE PAYMENT SERVICES IN HO CHI MINH CITY

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ABSTRACT:

This study is to identify the factors affecting the intention of consumers to use mobile payment services (MPS) in Ho Chi Minh City. The study finds out that there are five factors affecting consumers' intention to use MPS in Ho Chi Minh City, including: Risk awareness, Social influences, Awareness of usefulness, Awareness of ease of use and Awareness of security safety. Based on the study's results, some policy implications are made to help businesses in Ho Chi Minh City attract more consumers to use MPS.

Keywords: mobile payments, intention to use mobile payments, mobile payment services.

1. Introduction

The Fourth Industrial Revolution (4.0 Industry) along with the impact of the Covid-19 pandemic has greatly affected the payment habits of Vietnamese consumers. Specifically, the number of consumers using MP is increasing rapidly, according to Le Anh Dung - Deputy Director of the Payment Department (SBV): "By April 2022, non-cash payment transactions have increased by 69.7% in quantity, 27.5% in value; transactions via Internet channels also increased by 48.39% and 32.76%, respectively; via mobile increased by 97.65% and 86.68%, respectively; via QR code increased by 56.52% and 111.62% respectively over the same period in 2021. The total number of activated e-wallets increased by 10.37% compared to the end of 2021." Through the above data, it can be seen that the potential to develop MPS is huge in the Vietnamese market, especially in Ho Chi Minh City (HCMC). In recent years, the change in payment habits of consumers has created great

pressure for businesses, they have encountered many difficulties and obstacles in devising appropriate strategies to quickly adapt and promptly meet the needs of consumers. Therefore, the study of factors affecting the intention to use mobile payment services (MPS) for consumers in HCMC is necessary to identify the concerns of customers as well as the factors affecting their ability to receive this service, thereby having appropriate orientations and solutions, close to customers to improve the number of customers who decide to use the service and move towards long-term use.

2. Literature Review

2.1. Mobile payments

According to Au & Kauffman, 2008, a mobile payment is any payment made on a mobile device to initiate and confirm a commercial transaction. According to Deloitte, 2012 MP are forms of payment where users use mobile devices to exchange information and make money transfers

from payers to beneficiaries for payment purposes by accessing network connections or using short-range technology.

Mobile payment access has 4 approaches: (1) Pay by text or by phone browser; (2) App-based payments; (3) Contactless payments and (4) hybrid payments. For approaches 1 and 2 users use remote payment techniques to implement. Remote payment means using the internet to pay via bank or other payment services, can use a phone, laptop or computer with an internet connection to make payments. Particularly for approaches 3 and 4, users will use proximity payment technology, which means using interactive payment by frequent wave confirmation (RFD) or near field transfer technology (NFCT).

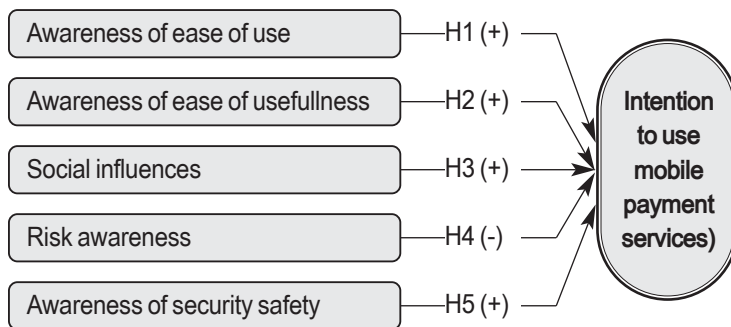
2.2. *Intention to use*

Ajzen (1985) suggests that intention is a factor used to assess the likelihood of future behavior. Tirtiroglu and Elbeck (2008), the intention of use is the willingness of the customer to use a certain product. Ajzen et al. (1975) argues that intention to use is a measurement of an individual's intention to perform a particular behavior, the intention to use is the positive or negative feelings towards the performance of a target behavior. Here the intention to use is the inclination an individual expresses, it indicates whether they use a new technology or not. A person will exhibit behavior if they intend it (Latupeirissa et al., 2020). The level of technology use can be predicted by the very behavior involved in technology (Davis, 1989). The results of the study by Peña-García et al. (2020) indicate that the intention to use has a positive effect on the use of technology.

The Theory of Reasoned Action (TRA) holds that intention determines a person's true behavior, where his or her subjective attitudes and norms will influence their behavioral tendencies (Fishbein & Ajzen, 1975). The Theory of Planned Behavior (TPB) was developed by Icek Ajzen (1991) from the TRA model when adding the element of controlling perceived behavior. This factor explains the relationship between a person's beliefs and behaviors. Evolving from the TRA

theoretical model, in 1989, Davis et al. formulated the Technology Acceptance Model (TAM), which argues that measuring individuals' attitudes toward technology use is absolutely necessary to be able to predict user behavior intentions and thereby shape their usage decisions. This theory points to two factors that directly impact users' attitudes towards technology use: Perceived ease of use and perceived usefulness. In particular, the perception of ease of use is understood as the degree to which an individual expects the use of technology to be effortless (Liu & Li, 2010), which will be easy to learn to use and use proficiently. The perceived usefulness factor is understood as the degree to which an individual perceives that the use of technology enhances their performance (Liu & Li, 2010). By 2003, Venkatesh, Morris, Davis, & Davis had merged from previous models and formulated a unified theory of acceptance and use of technology, the UTAUT model focused on four factors: expected efficiency; expected effort; social influence, and favorable conditions. Finally, the Theory of Perceived Risk (TPR) developed by Bauer in 1960, which holds that a person's behavior is influenced by the perception of risk associated with online trading and the perception of risk associated with a product or service. Perceptions related to online transactions include the risks that can occur when consumers make transactions on electronic means such as: confidentiality, safety and overall risk awareness of transactions. Awareness of the risks associated with a product or service expresses the customer's concern for things such as loss of features, loss of finance, loss of time, loss of opportunity when using an information technology product or service (Bauer, 1960).

Based on theoretical models, related previous studies (Abraño et al., 2016, Dao My Hang & ctg, 2018) and the results of discussions, this study proposes factors affecting the intention to use MPS, including: (1) Awareness of ease of use (SD); (2) Awareness of usefulness (HI); (3) Social influences (XH); (4) Risk Awareness (RR); (5) Awareness of security safety (AT) (Fig.1).

Figure 1: Research model proposed by the author

3. Hypotheses

Awareness of ease of use: According to Davis (1989), ease of use awareness is the degree to which users believe that they do not need to spend too much effort to use a new service. Previous studies on the intention to use MPS showed results when users' judgments about using MP are easier to do, do not take much time and effort, the more the intention to use the service increases (Dao My Hang & ctg, 2018, Abrahão et al., 2016)

H1: Awareness of ease of use will have a positive effect on consumers' intention to use MPS.

Awareness of usefulness: According to Mathwick, 2001 perception of usefulness refers to the user's perception of the potential value it brings, thanks to the use of services that users can improve the efficiency of their work. In the context of mobile payments, some empirical evidence has demonstrated that awareness of usefulness relates to people's intention to use MPS, specifically people will use MPS when they find the system useful for their problems as well as meet transaction needs. their finances (Dao My Hang, 2018); Abrahão et al., 2016).

H2: Perceived usefulness will have a positive effect on consumers' intention to use MPS.

Social influences: According to Ajzen & Fishbein, 1975, social influence is people's perception of social pressure to express or not express behavior. Factors from outside family, friends, colleagues, and the media have created social pressure on the users themselves. An individual's choice to use a MPS is influenced by

the people around them (Dao My Hang, 2018; Abrahão et al., 2016)

H3: Social influences will have a positive effect on consumers' intention to use MPS.

Risk awareness: Perceived risk in MPS is the level of financial loss risk that users feel when using the service. Bauer's TPR theory, 1960 refers to the perception that the risks of use will affect user behavior when users feel financially and financially lost (Bauer,

1960). Previous studies on the intention to use a mobile payment service show that themore users see the risk of using it, the more likely they are to use a MPS (Abrahão, 2016).

H4: Risk awareness will have a profound effect on consumers' intention to use MPS.

Awareness of security safety: According to Vuong et al. (2020) awareness of security safety is the degree to which an individual believes in using technology systems by reliability and security. The more reliable and secure a technology system is, the more secure users will be to use that system. In addition, security awareness is reflected in providing users with reliable security ways to avoid being compromised. Besides, there are forms of support for users who can get their accounts back in case of being compromised. Results from previous studies show that the higher the security of a MPS, the more likely they are to choose to use this service (Dao My Hang, 2018).

H5: Perceptions of safety and security will have a positive impact on consumers' intention to use MPS.

4. Research methods

Qualitative research method, the author uses group discussion technique with the participation of 10 subjects in HCMC has an understanding of MPS in order to appraise the model of factors affecting the intention to use mobile payment proposed in Figure 1 and the scale of these factors.

Quantitative research methods are carried out to assess the reliability and value of the scale of research studies, and to verify research models and research hypotheses. Research data is collected

Table 1. Variables used in the model

Model	Number of observed variables		Source
Awareness of ease of use - SD	SD1	It's easy to learn how to use MP.	Dao My Hang (2018), Abrahão, R. et. al. (2016)
	SD2	I have easy access to mobile payments apps.	
	SD3	I found MP operations simple and easy to do.	
	SD4	I easily make payment transactions, transfer money, receive money... by MP.	
	SD5	Overall, I find using MP very easy, simple.	
Awareness of ease of usefulness - HI	HI1	I can make many trades in a short time when use MP.	
	HI2	Transactions (payment, money transfer, receipt of funds, etc.) in obile payment is completed quickly is completed quickly.	
	HI3	Mobile payments help me understand my persomal financial situation multiplication (revenue and expenditure).	
	HI4	Overall, I find the use of MP very effective.	
Social influence - XH	XH1	I should use a MPS because many people around me use that MPS.	
	XH2	I will use MP when my relatives and friends use them.	
	XH3	I will use a MPS when relatives and friends advise me to use them.	
	XH4	I use a MPS when my influencers encourage me to use them.	
	XH5	Using MP is increasingly popular in today's society.	
Risk awareness - RR	RR1	I see a risk of losing money when using MP instead of other forms of payment.	Abrahão, R. et. al. (2016)
	RR2	Using MP causes my money to be stolen.	
	RR3	The likelihood of errors with a MP system is very high.	
	RR4	In general, using MP is riskier than other types of payments.	
Awareness of security safety - AT	AT1	I believe the app has enough security controls to keep my data secure	Dao My Hang (2018)
	AT2	I feel that the app is full of privacy protection.	
	AT3	The app's payment service is secure enough for me to make my transactions.	
	AT4	I feel that the application is full of security features.	
Intendtion to use - YD	YD1	I am likely to use MPS in the near future.	Abrahão, R. et. al. (2016)
	YD2	I am willing to use MPS in the near future.	
	YD3	I intend to use MPS when the opportunity arises.	

through the online questionnaire survey method on the Google Form platform. The questionnaire is based on the Likert scale with questions related to personal information and information about MPS. The study sample focused on individuals currently living in HCMC. The author uses a non-probability sample selection method, namely a convenient sample selection method. The author's survey

reached 250 individuals. However, 16 surveys were invalid due to incomplete answers, so only 234 were included in the study data.

Table 2 illustrates that the sample comprised 49 percent male respondents, and around 64 percent were aged between 30 and 50 years old, whereas only 19 percent were older than 50, and the rest were under 30.

Table 2. Characteristics of respondents

Indicators	Category	Percentages
Gender	Male	49
	Female	51
Age	Less than 20 years	3
	20-30	14
	30-40	28
	40-50	36
	More than 50	19

5. Research results and discussions

According to Cronbach's alpha results, all observed variables consisting of 22 observed variables of 05 independent variables and 03 observation variables expressing dependencies of use are satisfactory and valid, when Cronbach's Alpha coefficient is above 0.7 (mainly above 0.8), the scale of the study is appropriate, continues to be used for further analyses.

The results of exploratory factor analysis (EFA) of independent and dependent variables by Principal components extraction method and Varimax rotation show that: 2-2 observed variables measuring 5 factors affecting the intention of using MP are extracted into 05 original factors with KMO = 0.919 and Sig. = 0.000; extract variance = 63.146%, at Eigenvalue = 1.112, and all variables have a satisfactory factor load factor (> 0.5). In addition, 3 observed variables of the dependent variable scale (meaning to use mobile payment services) were

drawn to the same factor with coefficients KMO = 0.8 and Sig = 0.000; extracted variance = 70.896%, at Eigenvalue = 2.996, and all variables had a satisfactory factor load factor (> 0.5). It is proved that the EFA of the independent and dependent variables are suitable and this result can be used for regression analysis in the next step. Regression analysis results obtained adjusted $R^2 = 0.616$; test value $F = 90.733$ with Sig = 0.000; the regression coefficients B and Beta are both > 0 , the t-test values are statistically significant (Table 3); The test results of the regression model's assumption violations are not violated. Demonstrate:

- The regression model is predicted to be consistent with market data and explains 61.6% of the variation in MPS intentions of consumers in HCMC.

- At the same time, the degree of influence of factors (in the condition that other factors remain constant) on the intention to use MPS of HCMC consumers are arranged in order from highest to lowest: Awareness of usefulness (HI); Social influences (XH); Awareness of security safety (AT); Awareness of Ease of Use (SD) where Risk Awareness (RR) has a negative impact on consumers' intention to use MPS.

From the obtained results, the following research implications can be considered to contribute to promoting mobile payment for people in HCMC as follows:

First, maintain social influence on users. The factors family and friends, people around or famous

Table 3. Regression analysis results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Itself.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	BRIGHT
1	(Constant.)	1.172	.237		4.941	.000		
	XH	.171***	.049	.184	3.517	.001	.609	1.641
	HI	.474***	.050	.485	9.436	.000	.629	1.589
	RR	-.096**	.042	-.095	-2.298	.022	.978	1.023
	SD	.084*	.046	.090	1.804	.042	.663	1.509
	AT	.067**	.030	.103	2.261	.025	.794	1.260

people have a strong impact on the intention to use mobile payment of consumers in HCMC. Because the Vietnamese national tradition is often associated with neighborliness, when a person has a good view, a good experience about a certain service such as mobile payment, they will communicate to other people. Therefore, businesses need to diversify forms of approaching customers, promote mass communication activities, invite famous and influential people to their target customers to be brand representatives. or promote MP products and services.

Second, improve the ease of use of MPS for users. The payment process needs to be designed in a simple and understandable way, making it easy for users to use. Currently, the majority of people in HCMC use smartphones, so businesses need to design mobile applications with intuitive and easy-to-use interfaces so that people can make payments. with a few simple steps.

Third, enhance the benefits for mobile payment users based on the development of technical features. When users are aware of the benefits in making mobile payment transactions, they will intend to use it. Therefore, businesses need to deeply research the features most used by customers in MPS, from which there are solutions

to improve the efficiency of their MP applications.

Finally, businesses also need to pay attention to minimizing perceived risks by strengthening security policies, avoiding information disclosure customers, quickly implement solutions to overcome and protect customers' interests when problems occur in payment.

6. Conclusion

The results show that all 5 factors in the model have an influence on the intention of consumers to use mobile payment in HCMC: Awareness of usefulness (HI); Social influences (XH); Awareness of security safety (AT); Awareness of Ease of Use (SD) and Risk Awareness (RR).

The drawback of this study is that it has not examined the interaction relationship between factors affecting the intention of consumers to use MPS in HCMC. To verify the relationship between elements in the research model, it is recommended to use the SEM linear structure model validation tool that will give more accurate research results. Moreover, the study time is relatively short, so the number of study samples is not really large, so the overall representation is limited. Future studies may increase the observed sample size as well as further consider the barrier factors that hinder the consumption intentions of HCMC consumers ■

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CÁC YẾU TỐ TÁC ĐỘNG ĐẾN Ý ĐỊNH SỬ DỤNG DỊCH VỤ THANH TOÁN DI ĐỘNG CỦA NGƯỜI TIÊU DÙNG TẠI THÀNH PHỐ HỒ CHÍ MINH

● NGUYỄN THỊ BÍCH LIÊN

Khoa Quản trị Kinh doanh, Đại học Nguyễn Tất Thành

TÓM TẮT:

Nghiên cứu này nhằm xác định các yếu tố ảnh hưởng đến ý định sử dụng dịch vụ thanh toán di động của người tiêu dùng tại Thành phố Hồ Chí Minh. Kết quả nghiên cứu cho thấy có 5 yếu tố ảnh hưởng đến ý định sử dụng dịch vụ thanh toán di động tại khu vực Thành phố Hồ Chí Minh, gồm: nhận thức rủi ro, ảnh hưởng xã hội, nhận thức về sự hữu ích, nhận thức về tính dễ sử dụng, và nhận thức về an toàn bảo mật. Dựa trên những kết quả này, nghiên cứu đưa ra các gợi ý chính sách phù hợp, nhằm giúp các doanh nghiệp tại Thành phố Hồ Chí Minh thu hút nhiều người dùng sử dụng dịch vụ thanh toán di động hơn nữa.

Từ khoá: thanh toán di động, ý định sử dụng dịch vụ thanh toán di động, dịch vụ thanh toán di động.