

A Study on Users' Intention to Accept and Use the Mobile Wallet in Vietnam

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Abstract

Research users' intention to use mobile wallets and use the UTAUT2 model and add other factors such as Innovation Belief, Government Policy to investigate the use of mobile wallets in Vietnam. This study shows that behavioral intention to use mobile wallets of users in Vietnam is positively influenced by Social Influence, Effort Expectancy, Transaction Control, Hedonic Motivation, Mobile Wallet Policy dynamic. Usage behavior is positively affected by Favorable Conditions and Behavioral Intentions, and negatively affected by User Habits in Vietnam. These findings help managers and providers identify factors that influence the adoption of mobile wallets by Vietnamese users.

Keywords: Behavioral, Behavioral intention, Effort expectancy, Government policy, Innovation Beliefs, Mobile wallet, Performance expectancy, UTAUT

JEL Code: D90, E70, G40, O30, O38, O39

Introduction

According to Ha Van Duong (2022a), Mobile wallets are often called transaction accounts based on technology platforms and smart devices. These accounts usually allow deposits and withdrawals. Credit card or debit card can act as trading accounts in some payment transactions. Mobile wallets bring many benefits to users, use encryption and tokenization for secure transactions and can be faster than using a chip card for a payment. With security and complex encryption features, mobile wallets can actually be safer than using a physical card.

Future opportunities for using mobile wallets in Vietnam have four motives, which are the internet usage rates in Vietnam are increasing day by day; the rate of smartphone use by adults aged 15 and over reaches over 85% of the population. Government policies promote payment and commerce based on developed technology platforms in Vietnam. These services are truly exploding and consumers are shopping online more and more. Users find it difficult to switch to technology-based payment methods because this is a new payment method for them (Cimigo, 2021). Thus, this research is really necessary and aims to explore behavioral

intentions and behavior when using mobile wallets of Vietnamese users.

Literature Review

Behavioral intention, behavior of using mobile wallet and The UTAUT2 Model

A study by Ke et al. (2018) showed that customers' behaviors are often shaped by instinctual, social, hidden psychological, emotional and cognitive forces and biases. Thus, behavior-based strategies can be used to drive consumers towards the habit of using mobile wallets. Yucha et al. (2020) has shown that mobile wallets have an influence on consumer purchasing behavior and the many conveniences provided through smart applications will contribute to the attraction to the use of mobile wallets. Aditya and Ekyawan (2021) argue that the use of mobile wallets is a new habit in the community by analyzing consumer behavior in using wallets. Verma and Farooqi (2021) discovered factors influencing behavioral intentions that influence consumer adoption of mobile wallets. Ha Van Duong (2022a) described mobile wallets as entities that provide transactions that do not involve the exchange of physical money, via mobile devices. The main goal of behavioral intent and mobile wallet usage behavior is to enhance the ease of conducting online transactions. The study by Najib and Karima (2022), through UTAUT 2 to determine performance expectations, facilitation conditions, hedonic motives, values, habits influence the users' behavioral intentions in accepting mobile wallets. Hence, the users' behavioral intentions represent each user's willingness to perform behavior towards the use of mobile wallets.

The UTAUT 2 model is an extension of the UTAUT developed by Venkatesh et al. (2012) and combines eight theories of technology acceptance. The UTAUT2 model explains users' acceptance and use of technology platforms with moderating variables and dependent variables as shown in Figure 1.

Hypothesis Development

On a theoretical basis as well as based on actual conditions of using mobile wallets in Vietnam. This study inherits some elements from previous research models to propose a

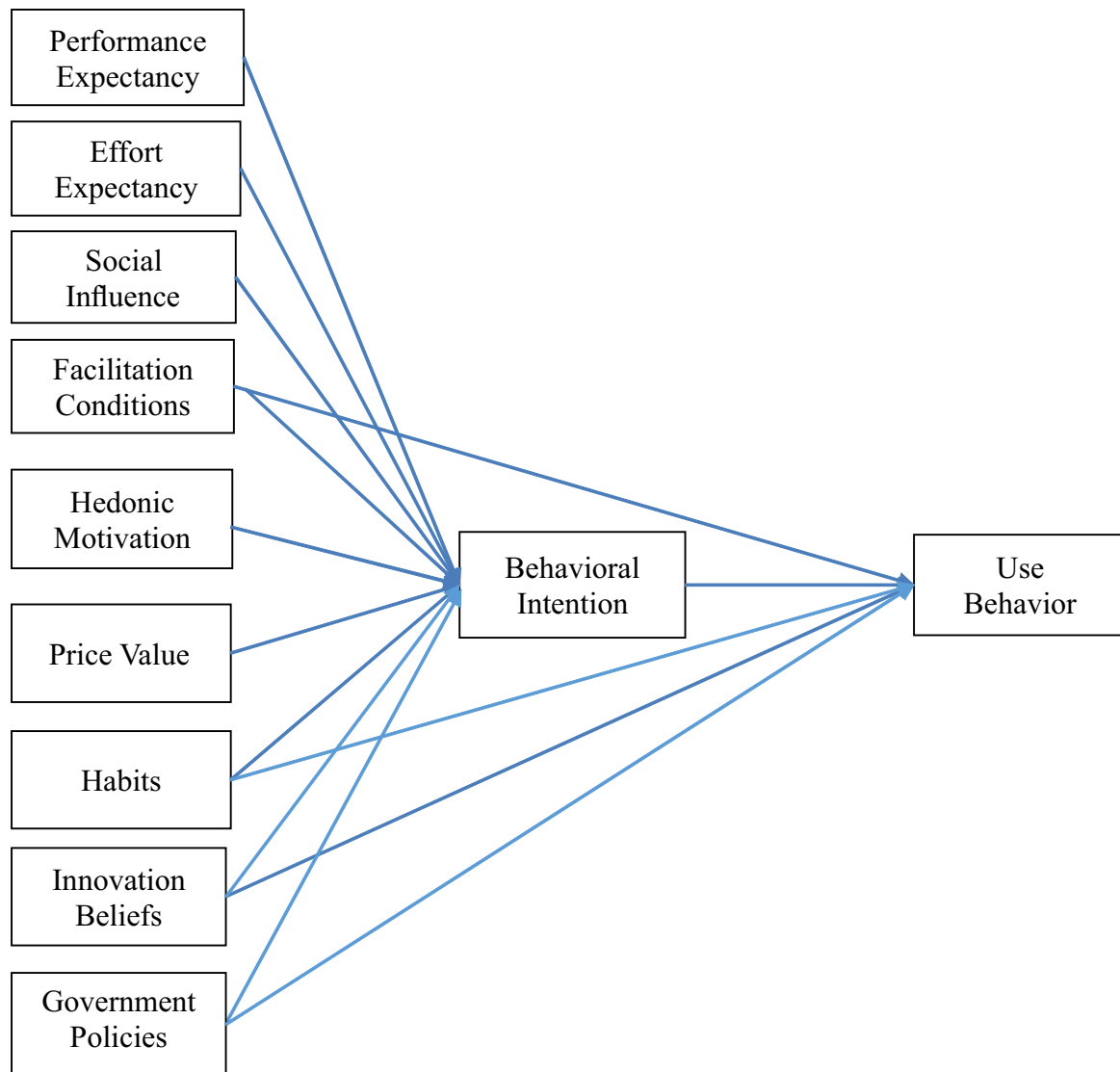
research model on behavioral intention and mobile wallet usage behavior of users in Vietnam as shown in Figure 1.

Expected Performance (PE): Performance Expectancy (PE): This is the use of technology or methods that will make an individual enhance performance from performing certain activities known as performance expectancy (Venkatesh et al., 2012). Performance expectancy is the level where users receive more benefits than traditional trading methods. Because the mobile wallet improves transaction productivity, convenience and speed in payments as well as increases and accelerates transaction performance (Ha Van Duong, 2022a). Ha and Nguyen (2022) argued that the scalability and efficiency of mobile wallet usage is considered as an alternative for performing banking and financial transactions. Therefore, the performance expectation for user adoption of mobile wallets is that users think that using mobile wallets will help them achieve higher performance. Hypothesis H1 is as follows:

H1: Performance expectations are a factor that positively influences mobile wallet adoption intention.

Effort Expectancy (EE): This includes user interaction with technology in a way that is clear and understandable (Venkatesh et al., 2012). When mobile wallets are used for transactions, it makes to speed up the transactions and contribute to ensuring the correct information transactions as well as all parties to the transaction can see the information transactions (Ha Van Duong, 2022b). The high complexity of the mobile wallet technologies will restrict customer interest in adopting them. Therefore, the easier the mobile wallet technologies understand, the more users can adopt the technology in their banking and finance transactions (Ha and Nguyen, 2022). Mobile wallets contribute to innovation, providing new transaction methods and more choices in transactions (Ha Van Duong, 2022c). Ease of use is important for the using of mobile wallet financial transactions. At the same time, this also demonstrates the ease of integrating financial transactions with e-commerce transactions (Ha, 2023). Hypothesis H2 is presented as follows:

H2: Effort expectancy is a factor that positively influences mobile wallet adoption intention.

Figure 1: The proposed model

Source: Venkatesh et al. (2012), Ha and Nguyen (2022), Ha (2023)

Social influence (SI): According to Venkatesh et al. (2012), people are influenced by important people in using technology for work. Submitter et al. (2021) illustrated that important people impact on the behavioral intention users, including mobile wallet services. For social influence, reputation and effect, mobile wallet services are seen by many users as interesting financial and banking services. Users tend to use mobile wallets because of the novelty of mobile wallets and social influence (Ha Van Duong, 2022d). Social influence is an important aspect in

influencing user behavior in using a new technology and accepting mobile wallet resolutions (Ha and Nguyen, 2022). The hypothesis H3 is proposed:

H3: Social influence is a factor that positively influences mobile wallet adoption intention.

Facilitating conditions (FC): This is considered the belief of individuals that they will always be supported in using technology. It also shows that individuals understand the technology available to carry out their activities (Venkatesh

et al., 2012). Latifah et al. (2021) argue that favorable conditions help users believe that using mobile wallets will be convenient. The level of technological readiness or technical support for the use of mobile wallets is a favorable condition that promotes the use of mobile wallets by users (Ha and Nguyen, 2022). Hypotheses H4a and H4b are stated as follows:

H4a: Facilitating conditions are a factor that positively influences mobile wallet adoption intention.

H4b: Facilitating conditions are a factor that positively influences mobile wallet adoption behavior.

Hedonic motivation (HM): The feeling of enjoyment of individuals using products and services through technology application is considered hedonic motivation (Venkatesh et al., 2012). Hedonic motivation and intention of service users, including mobile wallet services have a positive relationship (Al Rubaia and Pria, 2022). In the context of mobile wallets, the development of mobile wallets is very fast and motivation is the source to attract users to use mobile wallets (Ha Van Duong, 2022a). At the same time, users' motivation to accept and use mobile wallets is comfort, joy, and happiness when users use mobile wallets (Ha and Nguyen, 2022). Therefore, hypothesis H5 is stated as follows:

H5: Hedonic motivation is a factor that positively influences mobile wallet adoption intention.

Price value (PV): The comparison of benefits and effectiveness when using technology for users is price value and this is a factor that positively affects the user's intention to use technology (Venkatesh et al., 2012). Ha and Nguyen (2022) found that users' intention to use mobile wallets is influenced by price value. Especially in cross-border payments, mobile wallets contribute to reducing fees and can be an attractive alternative for many users (Ha Van Duong, 2022a). Therefore, hypothesis H6 is described as follows:

H6: Price value is a factor that positively influences mobile wallet adoption intention.

Habits (HA): They are considered to be behaviors of individuals acquired by frequent repetition or a tendency to perform behaviors continuously due to exposure and

learning. There are many studies on the habits in technology use showing that behavioral intentions are influenced by users' habits of using technology (Venkatesh et al., 2012). Latifah et al. (2021) showed that behavior intention is influenced by users' habits of using mobile wallets. Mobile wallet services create habits for users based on financial and banking transactions and various transaction options (Ha Van Duong, 2022d). Users' mobile wallet habits directly affect usage, and habits also affect the intention to use mobile wallets (Ha and Nguyen, 2022). Therefore, we propose hypotheses H7a and H7b as follows:

H7a: Habits are a factor that positively influences mobile wallet adoption intention.

H7b: Habits are a factor that positively influences mobile wallet adoption behavior.

Innovation Beliefs (IB): They have been widely regarded as a powerful tool for stimulating economic development and increasing the quality of human life. This is the degree to which an individual displays personality traits and absorbs new ideas. Hu et al. (2019) show that technological innovations give users the intention to use new technology or new products and services. Kim et al. (2010) found that users lack expertise in mobile wallet payments. Innovation beliefs play an important role between users' desire to make positive changes and their desired intention to use mobile wallets in the digital age. It concerns the effectiveness of management practices during the digital transformation of financial transactions (Ha, 2023). Innovations in banking and financial transactions through mobile wallets will contribute to increasing user demand. This is one of the strong driving forces, positively impacting the intention and behavior of using mobile wallets of many users, especially young people and millennials (Ha Van Duong, 2022a). From there, the hypothesis is developed as follows:

H8a: Innovation beliefs are a factor that positively influences mobile wallet adoption intention.

H8b: Innovation beliefs are a factor that positively influences mobile wallet adoption behavior.

Government Policy (GP): This is the set of decisions and declarations of government programs and plans that express the objectives of political, economic and social

management in a nation (Hassel, 2015). According to Kukreja et al. (2021), government policies play an important part in attracting users in online banking and financial transactions. They exploit new untapped opportunities in mobile wallet services. The Government's policy will focus on the development of mobile wallets, which will contribute to attracting many customers. These policies also actively contribute to promoting behavioral intentions and mobile wallet usage behavior of many users (Ha and Nguyen, 2022). Therefore, the following hypotheses H9 are stated:

H9a: Government policies are a factor that positively influences mobile wallet adoption intention.

H9b: Government policies are a factor that positively influences mobile wallet adoption behavior.

Research Methodology

Research Design

This study finds the components that constitute the intention to accept and use mobile wallets of users in Vietnam, adding, editing or removing, adjusting observed variables in the research model through preliminary research. Qualitative research was conducted to help interviewed mobile wallet users understand the content.

Quantitative research is used in formal research, which is the process of analyzing digital data that has been collected. Data collected from users is used to evaluate the scale of research concepts through Cronbach's Alpha reliability coefficient and EFA, CFA and SEM analysis to research on users' acceptance and use the mobile wallet in Vietnam.

Sample and Data

The first part of the questionnaire describes the user's personal characteristics. Part two describes the measurement factors of users' intention to accept and use the mobile wallet in Vietnam. This study selects purported sampling techniques based on criteria such as user knowledge of mobile wallets and understanding of mobile wallets. An increasing 5-point Likert scale with 5 meaning strongly agree. This scale measures the variables that were used in this study.

According to Kline (2011), the most used fit index (GFI, AGFI, NFI, NNFI, CFI and IFI) must be ≥ 0.85 in the CFA and SEM methods. Hu and Bentler (1999) showed the value of RMSEA of 0.06 or less is good, a value of RMSEA of 0.08 or less is acceptable. The value of P value of Close fit (PCLOSE) of 0.05 and above is good, a value of PCLOSE of 0.01 and above is acceptable. Hair et al. (2010) argued a value of CMIN/df of 2 or less is fine, a value of CMIN/df of 5 or less is acceptable. A CFI value of 0.8 or higher is acceptable for a model that has a good fit (CFA ranges from 0 to 1).

According to Byrne and Campbell (1999), the GFI value must be ≥ 0.80 and Shadfar and Malekmohammadi (2013) said that TLI ≥ 0.85 shows that this is a good value level and > 0.8 is an average value level.

Results and Discussion

Demographic Statistics

The demographic statistics from 652 users who completed the entire survey are as follows:

Table 1: Demographic profile

Item	Optional	Frequency	Percentage
Age	22- 45 years old	378	57.97
	46-55 years old	115	17.64
	56-65 years old	92	14.11
	65 years old and up	67	10.28
Gender	Male	316	48.47
	Female	336	51.53
Experience	0-1 year	265	40.64
	Over 1 year - 5 years	215	32.98
	Over 5 years	172	26.38

Item	Optional	Frequency	Percentage
Education level	Graduated from college and university	640	98.16
	Postgraduate level	12	1.84
Income level	800 USD –1,000 USD/Month	352	53.99
	Over 1,000 USD - 1,500 USD/Month	137	21.01
	Over 1,500 USD - 2,000 USD/Month	72	11.05
	Over 2,000 USD - 2,500 USD/Month	66	10.12
	Over 2,500 USD/Month	25	3.83

Source: Primary data, processed in 2023

The age of respondents ranged from 22 to 45 years old, accounting for the highest proportion of 57.97% of respondents and 48.47% of them are male. Examining users' experience of using mobile wallets shows that the period from 1 year to 5 years, equivalent to about 32.98%, accounts for the highest proportion of respondents. The respondents' education showed that 98.16% are a graduate from college and university and the rest are a postgraduate

level. The survey on income level shows that an income level from 800 USD to 1,000 USD or more per month is the income level with the highest proportion among respondents.

Cronbach's Alpha Reliability

The measuring scales of all constructs are deemed reliable and Cronbach's Alpha of the data meets the requirements as seen in Table 2.

Table 2 : Cronbach's Alpha coefficients of the scales

No.	Code	Observed variables	Corrected Item-Total Correlation
PE: Cronbach's alpha = 0.872			
1	PE1	Mobile wallets help me easily access banking services.	0.718
2	PE2	Mobile wallet helps me understand banking services.	0.681
3	PE3	Mobile wallets bring efficiency to my banking transactions.	0.593
4	PE4	Mobile wallets help me make banking transactions more secure.	0.579
5	PE5	Mobile wallets contribute to my work success.	0.623
6	PE6	Mobile wallets help me feel more comfortable in banking transactions.	0.775
7	PE7	Mobile wallets help me conveniently do banking transactions.	0.604
EE: Cronbach's alpha = 0.826			
8	EE1	Mobile wallet helps me make transactions faster.	0.689
9	EE2	Mobile wallets contribute to improving my banking transactions.	0.536
10	EE3	Mobile wallets help me make transactions more efficiently.	0.635
11	EE4	Mobile wallet helps me have timely transaction information.	0.581
12	EE5	Mobile wallets help me to receive my full transaction information.	0.593
13	EE6	Mobile wallets contribute to my work efficiency.	0.557
SI: Cronbach's alpha = 0.838			
14	SI1	People who influence me advised me to use mobile wallets.	0.669
15	SI2	Many people help me to use many mobile wallets.	0.606
16	SI3	Many people encouraged me to use many mobile wallets.	0.599
17	SI4	I use the mobile wallets because my coworkers use them.	0.584
18	SI5	Many neighbours support me by using mobile wallets.	0.576
19	SI6	My leader and my family helped me with using mobile wallets.	0.662

No.	Code	Observed variables	Corrected Item-Total Correlation
FC: Cronbach's alpha = 0.830			
20	FC1	Mobile wallets help me to control banking transactions.	0.677
21	FC2	Mobile wallets help me to increase my financial and banking transaction productivity.	0.581
22	FC3	Mobile wallets contribute to completing my transactions and it is clear proof of the mobile wallets in each banking transaction.	0.605
23	FC4	Mobile wallets help me trust that my transactions are secure.	0.586
24	FC5	Mobile wallets help me trust that my transactions are safe.	0.604
25	FC6	I have a lot of support from the banks when I use mobile wallets.	0.550
HM: Cronbach's alpha = 0.815			
26	HM1	Mobile wallets give me a comfortable feeling when doing banking transactions.	0.543
27	HM2	Mobile wallets help me feel excited about banking transactions.	0.523
28	HM3	Mobile wallets make me feel lucky in banking transactions.	0.667
29	HM4	Mobile wallets give me a sense of comfort when doing banking.	0.574
30	HM5	Mobile wallets help me feel entertained during banking transactions.	0.728
PV: Cronbach's alpha = 0.778			
31	PV1	Mobile wallets help me to save time on banking transactions.	0.557
32	PV2	Mobile wallets help me to reduce a lot of payment costs.	0.630
33	PV3	Mobile wallet allows me to make expense payments.	0.666
34	PV4	Mobile wallets help me avoid paying increased transaction fees.	0.514
35	PV5	Mobile wallets help me not to pay any additional costs.	0.516
HA: Cronbach's alpha = 0.676			
36	HA1	Mobile wallets make me know how to use the mobile wallets in my financial and banking transactions.	0.583
37	HA2	Mobile wallets help me always control my financial and banking transactions well.	0.577
38	HA3	I have guidance from the banks to use mobile wallets.	0.501
39	HA4	There are instructions on using the mobile wallets on the websites of mobile wallet suppliers.	0.506
40	HA5	I can use a mobile wallet when no one is simulating it.	0.508
IB: Cronbach's alpha = 0.659			
41	IB1	I hope there will be many new mobile wallet services to help users have choices .	0.509
42	IB2	I will use the new mobile wallet services.	0.431
43	IB3	I'm often the first to use new mobile wallet services in my family.	0.464
44	IB4	I think banks always plan to develop new mobile wallets	0.462
45	IB5	I expect that mobile wallets will develop on the basis of modern technology applications.	0.461
46	IB6	I hope that there will be many research results and successful applications of new mobile wallets.	0.432
GP: Cronbach's alpha = 0.662			
47	GP1	Mobile wallets are an area supported by the government for development.	0.407
48	GP2	Mobile wallet services are issued by the government with policies beneficial to users.	0.427
49	GP3	Mobile wallets are directed by the government to develop application programs to create good things for users.	0.467
50	GP4	Mobile wallets are encouraged by the government for everyone to use.	0.460
51	GP5	Mobile wallets are promoted by the government through policies.	0.562
52	GP6	Mobile wallets are facilitated by the government in association with information technology and e-commerce for development.	0.447

No.	Code	Observed variables	Corrected Item-Total Correlation
Behavioral Intention (BI): Cronbach's alpha = 0.759			
58	BI1	I will use mobile wallets for banking transactions.	0.592
59	BI2	I will use mobile wallets for e-commerce payments.	0.578
60	BI3	I will recommend others to use mobile wallets.	0.602
Use Behavior (UB): Cronbach's alpha = 0.701			
61	UB1	Many people will help me with using mobile wallets.	0.486
62	UB2	I can use mobile wallets without help from relatives.	0.531
63	UB3	I can use mobile wallets even though I have just started using them.	0.537

Source: Venkatesh et al. (2012), Ha and Nguyen (2022), Ha (2023), author's suggestions and author's calculation.

EFA For Study Model

The model fit test by Kaiser-Meyer-Olkin (KMO) for the independent variables and the EFA results showed that the KMO coefficient reached 0.806, greater than 0.05. The

Bartlett test result is 12077.920 and this test has statistical significance (Sig. < 0.05). The variables meet the requirements for factor analysis. EFA results for the independent variables show that there are 12 factors presented in Table 3.

Table 3: EFA for independent variables

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings	
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	Cumulative %
1	6.444	12.393	12.393	6.444	12.393	12.393	4.080	7.846
2	3.553	6.833	19.226	3.553	6.833	19.226	3.468	14.514
3	3.340	6.422	25.648	3.340	6.422	25.648	3.327	20.912
4	2.927	5.628	31.276	2.927	5.628	31.276	3.309	27.274
5	2.584	4.968	36.245	2.584	4.968	36.245	2.989	33.022
6	2.526	4.857	41.102	2.526	4.857	41.102	2.746	38.303
7	2.423	4.660	45.762	2.423	4.660	45.762	2.317	42.758
8	2.080	4.001	49.762	2.080	4.001	49.762	2.246	47.077
9	1.660	3.192	52.954	1.660	3.192	52.954	2.140	51.192
10	1.290	2.481	55.435	1.290	2.481	55.435	1.514	54.104
11	1.165	2.241	57.676	1.165	2.241	57.676	1.505	56.998
12	1.140	2.193	59.869	1.140	2.193	59.869	1.493	59.869
13	.944	1.816	61.685					

Source: Authors' calculation

The rotation results show that there are 12 factors and the factor loading coefficients are all greater than 0.5 and 4 new factors arise. With the characteristics of two variables, IB5 and IB6 are associated with digital conversion. Therefore, this factor is called Digital Transformation (DT). With the characteristics of two variables, GP5 and GP6 are associated with mobile wallet policies. Thus, this element is

named Mobile Wallet Policy or M-Wallet Policy (MP). With the characteristics of two variables, HA1 and HA2 are associated with transaction control. Hence, this factor is identified as Transaction Control (TC).

Table 4 : Rotated Matrix for Independent Variables

Variables	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
PE6	.834											
PE1	.782											
PE7	.723											
PE2	.717											
PE3	.711											
PE5	.705											
PE4	.637											
SI6		.772										
SI1		.757										
SI3		.718										
SI2		.684										
SI4		.680										
SI5		.651										
EE1			.799									
EE3			.771									
EE5			.711									
EE4			.708									
EE6			.702									
EE2			.635									
FC1				.789								
FC3				.741								
FC5				.732								
FC2				.708								
FC4				.706								
FC6				.683								
HM5					.853							
HM3					.807							
HM4					.727							
HM1					.702							
HM2					.680							
PV3						.817						
PV2						.777						
PV1						.729						
PV5						.687						
PV4						.594						
GP2							.780					
GP4							.744					
GP3							.732					
GP1							.626					
IB2								.778				
IB3								.746				
IB4								.737				
IB1								.643				
HA5									.839			
HA4									.807			
HA3									.755			
IB6										.822		
IB5										.807		
GP6											.759	
GP5											.703	
HA1												.819
HA2												.776

Source: Author's calculation from SPSS 25.0

The model fit test by KMO for the dependent variables and the EFA results showed that the KMO coefficient reached 0.677, greater than 0.05. The Bartlett test result is 889.005

and this test has statistical significance (Sig. < 0.05). EFA results for independent variables showed there are two factors presented in Table 5.

Table 5: EFA for Dependent Variables

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings	
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	Cumulative %
1	2.335	38.914	38.914	2.335	38.914	38.914	2.025	33.870
2	1.578	26.308	65.222	1.578	26.308	65.222	1.881	65.222
3	.655	10.915	76.136					

Source: The authors' calculation

The results of the rotation show that there are 2 factors factors presented in Table 6.

Table 6: Rotated Matrix for Dependent Variables

Variable	Component	
	1	2
BI3	.830	
BI1	.815	
BI2	.809	
UB3		.810
UB2		.789
UB1		.764

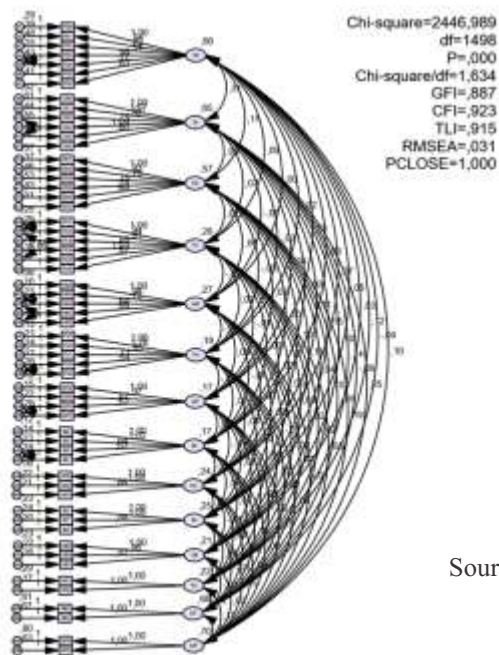
Source: Authors' calculation

CFA for Study Model

The CFA analysis and testing the model's fit using KMO show that the KMO coefficient reaches 0.796, greater than 0.05. Bartlett's result is 13541.784 and this result is statistically significant (Sig. < 0.05) presented in Figure 2.

This study linked the components and Chi-square = Chi-square = 2446,989, df = 1498, Chi-square/df = 1634 < 3, p value = 0.000; RMSEA = 0.031 < 0.06; PCLOSE = 1,000 > 0.05; CFI = 0.923; TLI = 0.915; GFI = 0.887 and the factors are convergent values.

Figure 2

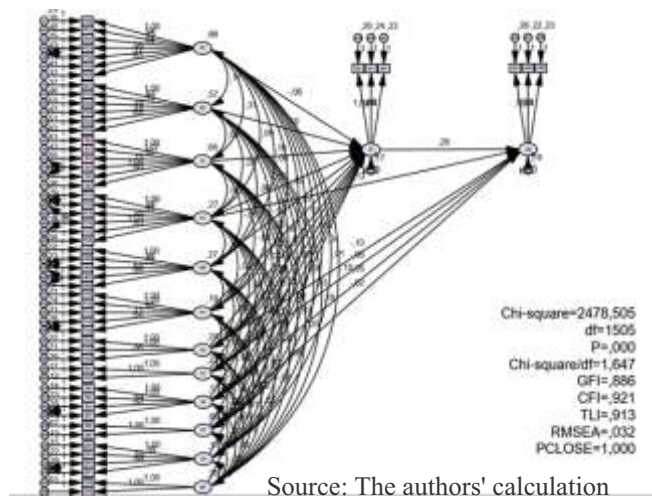


Source: The authors' calculation

SEM For Study Model

The SEM and testing the fit of the model show Chi-square = 2478,505; df = 1505; p = 0.000; Chi-square/df = 1,647; CFI = 0.921; TLI = 0.913; GFI = 0.886; RMSEA = 0.032; PCLOSE = 1,000.

Figure 3. SEM For Study Model



The sig of PE on BI is 0.070 > 0.05, the sig of FC on BI is 0.126 > 0.05, the sig of PV on BI is 0.140 > 0.05, the sig of HA on BI is 0.117 > 0.05, sig of IB on BI is 0.430 > 0.05, sig of DT on BI is 0.929 > 0.05, the sig of GP on BI is 0.555 > 0.05. The variables PE, FC, PV, HA, IB, DT and GP have no effect on BI. At the same time, the sig of TC on UB is 0.324 > 0.05, the sig of IB on UB is 0.509 > 0.05, the sig of DT on UB is 0.604 > 0.05. The variables TC, IB, and DT have no effect on UB. The remaining variables are significant with sig < 0.05, as can be shown in Table 6. There are five variables that have a positive effect on BI: SI, TC, EE, HM and MP. There are two variables that have a positive effect on UB, respectively, such as: BI and FC. The variable HA has a negative effect on UB as can shown in Table 6.

Table 6: Regression Weights

			Unstandardized Coefficients				Standardized Coefficients
			Estimate	S.E.	C.R.	P	Estimate
BI	<---	PE	-,060	,033	-1,815	,070	-,097
BI	<---	EE	,100	,035	2,879	,004	,152
BI	<---	SI	,161	,038	4,235	***	,259
BI	<---	FC	-,070	,046	-1,531	,126	-,073
BI	<---	HM	,121	,043	2,817	,005	,125
BI	<---	PV	-,083	,056	-1,477	,140	-,073
BI	<---	HA	,084	,053	1,566	,117	,082
BI	<---	TC	,209	,069	3,044	,002	,195
BI	<---	IB	,055	,070	,789	,430	,045
BI	<---	DT	-,003	,037	-,089	,929	-,005
BI	<---	GP	-,043	,073	-,591	,555	-,036
BI	<---	MP	,120	,044	2,695	,007	,200
UB	<---	FC	,130	,045	2,856	,004	,147
UB	<---	HA	-,098	,054	-1,817	,039	-,104
UB	<---	TC	-,063	,063	-,986	,324	-,063
UB	<---	IB	,046	,070	,660	,509	,041
UB	<---	DT	-,020	,038	-,518	,604	-,035
UB	<---	BI	,293	,059	5,007	***	,316

Source: The authors' calculation

With the number of repeated samples $N=100$, this study implemented the Bootstrap method and selected repeated samples $N=1000$. The result of $C.R < 1.96$, inferring p value

$> 5\%$, from these results as seen in Table 7, this study shows that the research model is reliable.

Table 7: Bootstrap on SEM

Parameter	SE	SE-SE	Mean	Bias	SE-Bias	C.R = Bias / SE-Bias
BI <--- PE	,060	,001	-,100	-,003	,002	-1.5
BI <--- EE	,061	,001	,149	-,003	,002	-1.5
BI <--- SI	,073	,002	,262	,003	,002	1.5
BI <--- FC	,054	,001	-,072	,002	,002	1.0
BI <--- HM	,048	,001	,124	,000	,002	0
BI <--- PV	,053	,001	-,070	,003	,002	1.5
BI <--- HA	,051	,001	,083	,001	,002	0.5
BI <--- TC	,072	,002	,198	,003	,002	1.5
BI <--- IB	,064	,001	,049	,002	,002	1.0
BI <--- DT	,062	,001	-,007	-,002	,002	-1.0
BI <--- GP	,064	,001	-,037	-,002	,002	-1.0
BI <--- MP	,075	,002	,204	,003	,002	1.5
UB <--- FC	,050	,001	,147	,001	,002	0.5
UB <--- HA	,060	,001	-,106	-,002	,002	-1.0
UB <--- TC	,069	,002	-,059	,003	,002	1.5
UB <--- IB	,070	,002	,043	,001	,002	0.5
UB <--- DT	,074	,002	-,035	-,001	,002	-0.5
UB <--- BI	,066	,001	,315	,000	,002	0

Source: The authors' calculation

Discussion on The Factors Affecting BI

SI is a factor that positively affects BI ($\beta=0.259$; p value <0.001). This is consistent with the observations of Venkatesh et al. (2012), Sender et al. (2021), (Ha Van Duong, 2022d), Ha and Nguyen (2022). This also shows that mobile wallet users are influenced by relatives and previous users.

TC and BI have a positive relationship ($\beta=0.195$; p-value $=0.002$). This is similar to the opinion of Venkatesh et al. (2012), Latifah et al. (2021), Ha and Nguyen (2022). This result describes the mobile wallets that help users to go cashless and cardless, as well as to help users with transaction habits and choice of different transactions to pay money from one person to another and the ability to control their transactions securely.

EE was the positively influential factor on BI ($\beta=0.152$; p-value $=0.004$). This matches well with the study of Venkatesh et al. (2012), Ha Van Duong (2022b), Ha and Nguyen (2022), Ha Van Duong (2022c), (Ha (2023). Users want mobile wallets to benefit them in banking transactions. This shows that the easier it is to use applications, the higher the user's acceptance of using mobile wallets.

HM was the positively influential factor on BI ($\beta=0.125$; p-value $=0.005$). This is similar to the study of Venkatesh et al. (2012), Al Rubaia and Pria (2022), Ha Van Duong (2022a), Ha and Nguyen (2022). This finding indicates that people experience excitement when using mobile wallets.

MP and BI have a positive relationship ($\beta=0.200$; p-value $=0.007$). This finding agreed the idea of Kukreja et al. (2021), Ha and Nguyen (2022). The results show that

government policies on mobile wallets contribute to increasing the number of mobile wallet users. These policies help mobile wallet providers exploit new untapped services through mobile wallets. Besides, thanks to the orientation of priority areas and development potential of mobile wallets, it creates favorable conditions to attract many users, contributing to promoting the intention and behavior of using mobile wallets of many users.

Discussion on The Factors Affecting UB

BI and UB have a positive relationship ($\beta=0.316$; $p\text{-value}<.001$). This is similar to the opinion of Ke et al. (2018), Yucha et al. (2020), Aditya and Ekyawan (2021), Verma and Farooqi (2021) (Ha Van Duong, 2022a), Najib and Karima (2022). This shows that good behavioral intentions can promote mobile wallet usage behavior among Vietnamese users.

FC was the positively influential factor on UB ($\beta=.118$; $p\text{-value}=.021$). This finding agreed with the findings of hypotheses and agree with the idea of Venkatesh et al. (2012), Latifah et al. (2021), Ha and Nguyen (2022), Ha Van Duong (2022d). This shows that facilitating conditions help users use mobile wallets conveniently.

HA was the negatively influential factor on UB ($\beta=-0.104$; $p\text{-value}=0.039$). This matches well with the study of Venkatesh et al. (2012), Latifah et al. (2021), Ha and Nguyen (2022). This shows that there have been many policies to encourage non-cash payment by the Vietnamese Government, but the rate of cash use in Vietnam is still high and this is one of the reasons affecting mobile wallet development.

Conclusions and Recommendations

This study inherits the UTAUT2 model and adds and explores new elements such as Innovation Beliefs, Government Policy into the UTAUT2 model. Research results on users' intention to accept and use the mobile wallet in Vietnam show that these study results show Social Influence, Transaction Control, Effort Expectancy, Hedonic Motivation, Mobile wallet Policy. The two factors that positively affect users' Use Behavior are Facilitating Conditions and Behavioral Intention and habits are a factor that negatively affect users' Use Behavior of using the

mobile wallets in Vietnam. These findings have several regulatory implications and help regulators develop mobile wallets in Vietnam, providing valuable insights for digital wallet providers in Vietnam, and can be diagnostically useful for user intent and behavior in using mobile wallets in Vietnam. At the same time, this study makes recommendations to contribute to using and developing mobile wallets in Vietnam as follows.

First, behavioral intention to use mobile wallets is positively affected by social influence. Therefore, mobile wallet providers need to update the mobile wallet application platform promptly, promote brand building, use modern means to advertise the brand, and promote the provider's image, levels, professional customer care, etc. This will help mobile wallets become more widely known and used. used by many users, maintain and attract a larger user base.

Second, mobile wallet providers quickly deploy the application of emerging technology projects as well as promote innovation, enhance security, and create novelty, uniqueness and convenience for mobile wallets. At the same time, providers need to pay attention to developing mobile wallet solutions compatible with the development of the mobile wallet market in Vietnam.

Thirdly, mobile wallet providers should develop a mobile wallet platform that is highly compatible with many devices, diversifying utilities, and bringing benefits to users in the choice of online banking and develop the mobile wallet platform in the future. These can help users achieve greater efficiency and contribute to increased mobile wallet usage among users in Vietnam.

Fourth, mobile wallet providers need to realize that hedonic motivation affects the behavioral intentions of users using mobile wallets in Vietnam. They should develop mobile wallet application platforms so that users find mobile wallets not only useful but also bring enjoyable experiences. These providers immediately handle problems that arise in any transactions, as well as respond to all user needs and are ready to provide support when needed. Ensuring fast and accurate transactions by mobile wallet providers gives users a sense of enjoyment in encouraging positive enjoyment and certainly inspires mobile wallet users in Vietnam.

Fifth, the government needs to promote innovation and strengthen management and supervision of the development process of the mobile wallet market and issue a number of regulations and guidelines related to the design of convenient and scalable mobile wallets. Mobile wallet policies need to have strict regulations to ensure privacy protection and data security when using mobile wallets, as well as to support and guide priority and potential areas for the development of mobile wallets.

Sixthly, use behavior to use mobile wallets is positively affected by behavioral Intention. In order to motivate users to use mobile wallets, the mobile wallet providers should improve the usefulness of the digital wallets, focus on the mobile wallet features, and have increasingly expanded the mobile wallet portfolio. On the other hand, maintaining a smooth mobile wallet transaction system, ensuring that users' transactions are not interrupted, transactions are recorded quickly, synchronously, and easily checked. Transactions of users are responded to continuously in 24 hours, providing more convenience when users use mobile wallets. These results contribute to improving the user's mobile wallet usage behavior in Vietnam.

Seventhly, use behavior to use mobile wallets is also positively affected by facilitating conditions. Mobile wallet availability and mobile wallet provider technical support should regularly ensure the safety and security of users. Mobile wallet providers need to ensure the conditions of using mobile wallets in financial and banking transactions of users. In addition, providers need to design mobile wallet software that can be used on different mobile devices, to help users easily install them when there is a need to use mobile wallets in Vietnam.

Eighthly, the mobile wallet is modern financial and banking services. Different mobile wallet needs of users can be conveniently met by mobile wallet providers by improving usage conditions, meeting transaction needs and creating a habit of using mobile wallets for users.

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