

Conference Paper

Determinants Affecting Intention to Use E-Wallets in Vietnam: An Empirical Case of Momo

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This research endeavors to identify and assess the determinants influencing the intention to use Momo e-wallet in Ho Chi Minh City, establishing connections between these factors. The research methodology involved the design of a questionnaire based on the UTAUT model, tailored to evaluate the determinants affecting the intention to use e-wallets in Vietnam, with a specific focus on Momo. A total of 388 respondents, all Momo users, participated in the study. The results of the regression analysis revealed that all four determinants significantly impact the intention to use the Momo e-wallet, with varying levels of significance: Effort Expectancy ($\beta=0.45$), Promotional Benefits ($\beta=0.379$), Performance Expectancy ($\beta=0.13$), and Facilitating Conditions ($\beta=0.072$). Understanding these factors that influence usage intention and gaining insights into user preferences can facilitate the development of e-wallet systems that support e-wallet providers in penetrating the market and retaining their existing user base.

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1. INTRODUCTION

Momo is the most popular e-wallet in Vietnam, now one of two fintech businesses in Vietnam, bringing the total number of Tech Unicorns in Southeast Asia to 36. Theoretically, current researchers are interested in researching the use of mobile wallets, particularly in Asian nations where this technology is exploding. Investigations of the relationships between promotional benefits and the intention to use e-wallets were made in several earlier papers (Li and Shen, 2019; Deka, 2020). However, it is shown that researchers pay little attention to promotional factors impacting on customers' choices. Practically, in addition, many users utilize e-wallets to pay their utility bills due to its convenience and marketing strategy (Teng and Khong, 2021) which aims to attract

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new users by offering attractive promotions. The customer loyalty for current users is essential to the growth of e-wallet payment services and the expansion of their market penetration (Alam et al., 2021). The study would determine factors influencing usage intention and comprehend user insights of their requirements and expectations which aims to contribute to the practical e-wallet system. E-wallet corporations can utilize the findings to create efficient marketing campaigns to recruit new users and retain their customers.

2. LITERATURE

2.1. The Technology Acceptance Model (TAM)

A typical technique for evaluating a specific technology's adoption is the TAM model which was invented by Davis (1989). The TAM model categorizes Perceived Usefulness and Perceived Ease Of Use as two critical factors that influence the Intention to Use in a new system. It is widely used to evaluate the invention of diverse new technologies and to determine new factors of the acceptability of a particular technology (Jeong, 2009; Schierz, 2010). To explain how people embrace technology in organizational settings, Venkatesh et al., (2008; 2020) presented theoretical expansions known as TAM2 and TAM3, respectively. When attempting to understand the adoption of numerous new systems, such as online shopping, fintech services, and digital banking, the previous TAM and its enhanced versions that include components like Trust, Security, and Social influence are applied (Chuang et al., 2016; Riza, 2019; Kalina and Marina, 2017).

2.2. The Unified Theory of Acceptance and Use of Technology (UTAUT) and the extended UTAUT (UTAUT2)

UTAUT model was created by Venkatesh et al. (2003) to explain the intention to use an information management system and behavior patterns. UTAUT combines four primary constructs: Effort Expectancy equivalent to Perceived Ease Of Use and Performance Expectancy equivalent to Perceived Usefulness, Facilitating Conditions and Social Influence. When considered together, the factors explained up to 70% of the variation in assessing intention to use a new system (Khalilzadeh et al., 2017).

The UTAUT and its variants have been used to explain why diverse data technologies are being utilized, such as mobile banking (Bhatiasevi, 2016), mobile payment (Escobar-Rodriguez & Carvajal-Trujillo, 2014), and online ticket purchases (Slade et al., 2015).

Thus, by expanding the original UTAUT to UTAUT2, Venkatesh et al. (2012) increased its consistency and robustness and added three variants besides four basic ones, including habit, hedonic motivation and perceived value. Despite being suitable models for displaying intention to use new technology, they have limitations in terms of culture diverse (Yadav, 2016).

2.3. Intention to Use (IU)

Davis (1985) claims Intention to Use refers to how strongly a person feels they will perform a particular activity. The attitude of someone toward utilizing a specific product in the future is known as their intention to use it (Khatimah and Halim, 2014). Several variables

have been applied to define the intention to use an e-wallet in UTAUT2 (Venkatesh et al., 2012). Previous studies were carried out in order to discover the significant factors of mobile wallet usage intention (Chawla and Joshi, 2019, 2020; Deka, 2020). This research will estimate the Intention to Use as the dependent variable influenced by four independent variables: Effort Expectancy, Performance Expectancy, Facilitating Conditions, and Promotional Benefits.

2.4. Effort Expectancy (EE)

Effort Expectancy measures the effectiveness of ICTs. It is simple to use and involves people engaging with the system in a way that is both obvious and comprehensible (Venkatesh et al., 2003). In addition, Junadi and Sfenrianto (2015) employed the Effort Expectancy scales, which included (i) simple payment systems, (ii) flexible transactions, and (iii) simple payment systems to research, are thought to be pretty suitable for study. Also, many research have included Effort Expectancy as a significant component in evaluating Intention to Use in various information systems, especially e-wallets (Ejjobih et al., 2019; Agarwal, R., 2020; Cuong, D.T., 2021; Tusyanah et al., 2021; Moorthy et al., 2021).

2.5. H1: Effort Expectancy positively influences on Intention to Use e-wallets.

2.5.1. Performance Expectancy (PE)

Performance Expectancy measures the user's perceived improvement in work performance as a result of using technology (Venkatesh et al., 2003). Five sub-facets help compensate for performance expectation in general: **(i)** perceived usefulness: users believe that adopting new technology increases work efficiency; **(ii)** extrinsic motivation: people thinks adopting new technology has added value; **(iii)** job-fit: consumers think adopting this technology improves job performance; **(iv)** relative advantage: users believe adopting this new technology is superior to the previous one; and **(v)** outcome expectation: users believe adopting this technology will lead to the desired results. From that, three observed variables in this research would cover the total mentioned sub-facets, including productivity in the transaction, convenience in the transaction, and transactional control. Several academics have assessed how this variable predicts whether people would use mobile wallets (Syifa and Tohang., 2020; Tusyanah et al., 2021; Abushamleh et al., 2021).

2.6. H2: Performance Expectancy positively influences on Intention to Use e-wallets.

2.6.1. Facilitating Conditions (FC)

Facilitating Conditions is defined as the user's confidence level in the availability of service units offered by service providers for extra services including technical infrastructure, user experience, and customer support services (Madan and Yadav, 2016). The availability of electronic money payment services, the suitability of devices for accessing digital wallets, internet networks, and consumer services are that Chawla and Joshi (2019) found to have an impact on mobile wallet usage in India. According to Peñarroj et al. (2019), Facilitating Conditions positively impacted how people used technology to share information in this digital age. Moreover, Gupta and Arora (2019) and Tedja et al. (2021) also accepted that Facilitating Conditions have a significant effect on the intention to use ICTs such as e- wallets.

2.7. H3: Facilitating Conditions positively influence on Intention to Use e-wallets.

2.7.1. Promotional Benefits (PB)

Promotion is temporarily lowering prices to increase the effectiveness of efforts to sell goods to cost-conscious people (Sunny and George, 2018). There are two categories of promotion: monetary and non-monetary. Hedonic and utilitarian values are included in Promotional Benefits, according to Chandon et al. (2000). According to research by Kim and Han (2014), customers often exert effort to obtain concrete rewards, and advertising that includes incentives is typically noticed. It is proven that the Promotional Benefits influences Intention to Use (Yadav, 2016; Li and Shen, 2019; Deka, 2020; Al-Herwi et al., 2021). In the Vietnamese e-wallet context, Hoang and Le's research model (2020) proved that Promotional Benefits was shown to have the most significant influence on Intention to Use ($\beta = 0.439$; p -value 0.001) among the components. Based on the justification mentioned above, the following assumptions are made since the promotional advantage is thought to be a significant factor in determining whether or not someone would use a mobile wallet.

2.8. H4: Promotional Benefits positively influence on Intention to Use e-wallets.

2.8.1. Social Influence (SI) H5

Social influence has been specifically developed to estimate the intention to use mobile payment (Peng et al., 2017). Family members, relatives, coworkers, and neighbors are possible influences for using e-wallets (Sarika and Vasantha, 2019). In recent years, individuals are significantly impacted by organizations and communities as technology and digital media, as well as social networks, continue to evolve (Nguyen et al., 2014; Han, 2020). Venkatesh et al. (2003) also demonstrate that Social Influence is one of four elements that directly and positively impact the usage intention. Phan et al. (2020) have proven that Social Influence affect intention to use e-wallets in Vietnam. The following is hypothesized based on the previous depiction:

2.9. H5: Social Influence positively influences on Intention to Use e-wallets.

3. METHODOLOGY

Qualitative and quantitative methodology are used in the research. A questionnaire is used to collect examined data thanks to the qualitative and quantitative approaches. The author uses qualitative questionnaires for the interviews to develop a conceptual framework with high-level marketing experts in fintech and then quantitative questionnaires for collecting primary data and analysis.

In the current study, simple random sampling would be used to distribute questionnaires and gather data (Singh, 2003). The representative sample of the population is then selected using the snowball and convenience sampling approach, which are a quick and low-cost approach to collecting primary data (Farrokhi and Mahmoudi-Hamidabad, 2012). The majority of participants reside in Ho Chi Minh City, one of Vietnam's key financial areas in Vietnam, focusing on both local and global corporations. The questionnaires were first distributed by sending the survey to fintech and e-wallet officers and asking them for support by sending it to their friends and family who are using Momo. Meanwhile, the survey was spread on social media or at coffee shops by applying convenience sampling to acquire more participants. Furthermore, an exclusion question is used to choose appropriate and purposed data who are Momo users.

To assess appropriate variables out of 5 variables within Effort Expectancy, Performance Expectancy, Facilitating Conditions, Promotional Benefits and Social Influence, high-level marketing managers and the Head of Grab Financial Group Vietnam are interviewed by qualitative questionnaires. After the qualitative interviews, the final framework excludes Social Influence variable due to being inappropriate within the Momo case and the Vietnam context. In specific, Vietnamese users do not use Momo through their family or friends' recommendation, they are also not influenced by social influences. Then more than 20 people participated in a pilot survey to pre-test and fine-tune the survey's questionnaire. Based on the results received during the pilot testing phase, the questionnaire underwent a number of revisions before being put into final use.

The proposed research model is adjusted after interviewing:

The research instrument has two sections. The first section contained data on the respondents' age, income and usage status. In the second part, the researcher tested the respondents' degrees of agreement or disagreement with the four factors and observed variables. The representative sample of the population is then selected using the snowball and convenience sampling approach. The researcher distributed the questionnaires by sending the survey to fintech and e-wallet officers and asking them for support by sending it to their friends and family who are using Momo. While the author

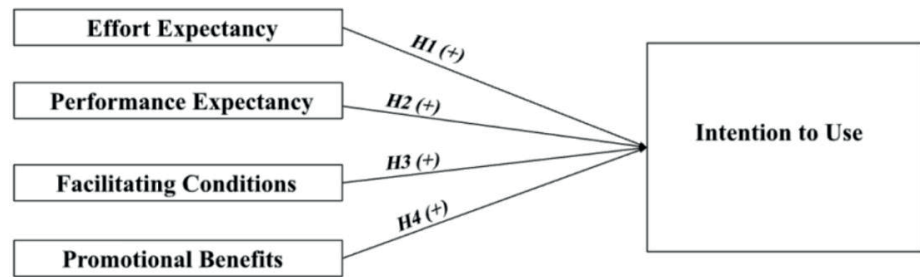


Figure 1: The research model (Authors, 2022).

also sends the survey on social media or at coffee shops by applying convenience sampling to acquire more participants. Most participants are gen Z and gen Y, who have greater digital awareness than the older cohorts. The Google form was used to generate the online survey with a total of 18 questions, which were then shared on Facebook, Instagram, and by word-of-mouth to encourage participants to complete it. Besides, the survey tested Momo e-wallet usage status, then 20 samples that hadn't used or didn't know Momo e-wallet was stopped during the survey as a screening data process. Therefore, the remaining 388 samples were utilized for the analysis in the study.

4. ANALYSIS

The Cronbach's alpha coefficient was used to examine and all components passed the reliability testing requirements (see **Appendix 1**). There are 4 out of 5 variables whose

Cronbach's Alpha index greater than 0.8 so it proves that the measurement scales meet the reliability and validity requirements (Hoang, T. and Chu, N.M.N., 2008).

The KMO Measure of Sampling Adequacy of the Bartlett's Test equals 0.766 (> 0.5) and Sig. value equals 0.000 (< 0.05). It is said that the exploratory factors are consistent with the research model (Fabrigar and Wegener, 2011). The EFA results show that there are four factors extracted at the eigenvalue of $1.377 > 1$. All factor loadings in the rotated component matrix ≥ 0.7 and Total variance explains 76.396% ($> 50\%$) indicating that all statistical variables have strong significant impact.

The regression analysis shows that the independent variables (Effort Expectancy, Performance Expectancy, Facilitating Conditions, Promotional Benefits) influence 57.1% (R Square =0.571) of the variation of the dependent variable. The remaining 42.9% are due to out-of-model variables and random error (Table 2)

TABLE 1: Coefficients.

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-0.353	0.246		-1.439	0.151		
	EE	0.542	0.045	0.45	12.111	0	0.812	1.231
	PE	0.15	0.041	0.13	3.707	0	0.906	1.104
	FC	0.057	0.027	0.072	2.136	0.033	0.99	1.01
	PB	0.325	0.032	0.379	10.169	0	0.806	1.24
^a Dependent Variable: IU								

The four proposed hypotheses H1, H2, H3, and H4 are accepted and the regression equation reflecting the influence of four determinants on the intention to use e-wallets is made:

$$\text{Intention to Use} = 0.45 \text{ Effort Expectancy} + 0.379 \text{ Promotional Benefit} + 0.13 \text{ Performance Expectancy} + 0.072 \text{ Facilitating Conditions} + \epsilon_i$$

5. DISCUSSION

First, the findings show that Effort Expectancy ($\beta=0.45$) has the most positive and significant effect on the Intention to Use e-wallets (H1). The result is consistent with previous studies (Ejiobih et al., 2019; Agarwal, R., 2020; Cuong, D.T., 2021; Tusyanah et al., 2021; Moorthy et al., 2021). These findings suggest that e-wallet providers should prioritize cutting-edge solutions that enable consumers to conduct transactions efficiently. These time, cost, and ease-of-use advantages will assist in enhancing benefits, as the user

perceives e-wallets to be simple to use. The successful thing helping Momo recruit and retain its massive number of users is the all-in-one mobile application. In specific, the mobile app successfully provides genuine consumer value at every stage to generate and foster loyalty. The e-wallet should give users clear and detailed instructions both before and throughout the financial transaction process, enhance its approaches and technologies to minimize installation, registration and verification stages in order to boost the degree of usability. Lastly, user experience plays an essential aspect in application success, and a key component is “less is more”. The better and more successful the application will be if the functionality is simpler.

Second, Promotional Benefits ($\beta=0.379$) have a significantly positive influence on the Intention to Use (H4). The result is consistent with previous studies (Yadav, 2016; Li and

Shen, 2019; Deka, 2020; Al-Herwi et al., 2021; Hoang and Le, 2020). Indeed, a majority of users utilized Momo for the first time due to attractive promotions. However, the result contrasts with the detection of Nguyen (2021) about the intention to use e-wallets in Vietnam. In specific, Nguyen's finding (2021) shows that the effect of Promotional Benefits on the Intention to Use a mobile wallet is mediated by Compatibility and Social Influence. In order to attract customers and increase MoMo's competitiveness over other methods of e-payment including Internet banking, mobile banking and cards, it is necessary to develop and maintain a low-cost policy, as well as to offer a variety of promotional programs to users. According to Cimigo (2019), attractive promotions are required for mobile wallet adoption in Vietnam. Vietnamese people are drawn to monetary promotions that enable them to save money on financial transactions (Nguyen, 2021). Momo should aggressively collaborate with product or service partnerships to offer competitive promotional campaigns to users. With technological advancement, some competitors have started to provide "stackable promotions", offering users the best discounts. Regarding marketing strategy, attractive promotions are a competitive advantage to recruit new users and retain existing users as competitors try to provide various types of promotions such as vouchers, gifts, money and rewards.

Third, Performance Expectancy ($\beta=0.13$) has a positive influence on Intention to Use e-wallets in Vietnam (H2). The result is consistent with previous studies (Tusyanah et al., 2021; Abushamleh et al., 2021; Syifa and Tohang., 2020) that Performance Expectancy influences the usage intention of e-wallets. The more individuals hope for positive outcomes in their performance, the more they intend to do it. It is crucial to comprehend and catch up on users' expanding e-payment needs as well as various integrated payment utilities in many fields such as living payments, e-ticket payments, travel booking, tuition fees, and even international money transfers or international payments in order to bring the highest efficiency and convenience for users. One prominent thing is that Momo is one of the pioneers in Vietnam to provide users with several financial services in fintech sectors, including buy now pay later service, fund certificates, Vi Than Tai with profit up to 7% a year, and insurance services. Therefore, to offer users a time-saving and money-saving payment method, MoMo could integrate the system into automatically search and pricing suggestion devices thanks to personalized features, which may help advise consumers on the most preferential rates of products/services that they wish to purchase.

Finally, Facilitating Conditions ($\beta=0.072$) positively affect the Intention to Use e-wallets (H3). The result is consistent with previous studies (Kwateng et al., 2019; Gupta and Arora, 2019; Peñarroja et al., 2019; Tedja et al., 2021). Otherwise, the finding is the

opposite of the study of Yang et al. (2021). Due to the fact that Facilitating Conditions in certain cultures and environments cannot have a significant effect, the existing infrastructure does not support such services. Overall, it is believed that technical and information support should be readily available and easily accessible to guarantee that users may acquire assistance when needed. In fact, Momo payment acceptance in a wide range of services and platforms is one of the most critical factors contributing to facilitating conditions for users. Momo has successfully launched various financial services with the aim of an all-in-one super app; this facilitates Momo users to utilize unique features in their experience. In the future, Momo should advance its existence in both online and offline platforms, services and shops to increase total payment value and monthly transaction users in terms of the business aspect. Greater Facilitating Conditions increases users' retention as well as continuance usage intention in the technology era (Purohit et al., 2022).

6. RECOMMENDATION AND CONCLUSION

The research model explains just 57.1% of dependent variables on the intention to use e-wallets due to the fewer testing variables compared to the extended UATAUT model and previous studies. Therefore, a more thorough qualitative examination is required to increase the model's explanatory level in the future research approach. At the same time, it is crucial to do more qualitative and quantitative research in order to fully comprehend how distinct factors influence the adoption of mobile wallets in Vietnam and to confirm the association between promotional benefits and intention to use. Moreover, the developed model of the research just applied to the Momo e-wallet. The author suggests future research may expand and apply to the overall sector of e-wallets.

This paper attempted to identify the determinants that influence users' intention to use Momo e-wallet in Vietnam. With the perfect combination of using the qualitative questionnaire method for the interview in the first stage to finalize the appropriate research model and the quantitative methodology with 388 samples for primary data, the findings of this study revealed that the four developed hypotheses are important predictors of the intention to use e-wallets. Although there were some barriers within the literature and the proposed model, the findings provided substantial pieces of evidence to support this idea. From that, e-wallet providers, IT and marketer experts could build the strongest system and service providing competitive advances for potential users.

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7. Appendix

7.1. Appendix 1. Factor analysis

TABLE 2

Rotated Component Matrix ^a					
Component					
1	2	3	4	% of Variance	Cronbach's Alpha
FC1	0.918			30.691	0.892
FC2	0.917				
FC3	0.882				
PB1	0.866			20.214	0.858
PB2	0.864				
PB3	0.839				
EE1		0.866		14.016	0.830
EE2		0.833			
EE3		0.823			
PE1			0.849	11.475	0.774
PE2			0.831		
PE3			0.778		

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.