Research Article

PEOPLE'S BEHAVIOURAL INTENTION TOWARDS USING EMERGING E-WALLET IN VIETNAM: THE CASE OF ZALOPAY IN HO CHI MINH CITY

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ABSTRACT

This study hopes to determine factors that affect people's behavioural intention to use ZaloPay, an emerging e-wallet in Vietnam. In details, by using the upgraded 'Unified Theory on Acceptance and Use of Technology model' (UTAUT-2), this paper aims to examinte the new factor (i.e.: 'trust'), alongside with the others, including' performance expectancy', 'effort expectancy', 'social influence', 'facilitating conditions', 'hedonic motivation', 'price value', and 'habit'. The data is obtained from 263 respondents of all ages (ranging from below 22 to above 46 years old) in Ho Chi Minh City, the largest city in Vietnam. Regarding the findings, it turns out that there are only six variables, namely 'performance expectancy', 'effort expectancy', 'facilitating condition', 'hedonic motivation', 'price value', and 'trust', are found to have significant impact on people's behavioral intention to use this e-wallet, whereas 'social 'influence' and 'habit' do not. In details, 'facilitation condition' and 'hedonic motivation' are seen as the two most determinant factors in this case.

Keywords: emerging e-wallet, intention to use, UTAUT-2, Vietnam.

INTRODUCTION

Nowadays, internet and devices such as computers, laptops, mobiles, etc. are indispensable parts of our lives, especially in the current 4ᵗʰ industrial revolution context. As one of the emerging economies in Southeast Asia, Vietnam has great potential for strong development of mobile payment. There are nearly 72.10 million internet users, corresponding to a penetration rate of 73.2% - an increase of 4.9% compared to the same period in 2021. Statistical data from the State Bank of Vietnam stated that in the 4ᵗʰ quarter of 2021, there was approximately 712 million transactions made via mobile banking, which are equivalent to 8.1 million in terms of transaction value. These data have already proven the fact that Vietnam is no doubt the potential market for mobile payment service providers. According to PWC (2021), there have been more than 40 electronic wallets in the domestic market, of which the ones gaining most popularities are Momo, ShopeePay, Zalopay, Grabpay by Moca, and Viettelpay. Vietnam's economy has been growing strongly and at a fast rate, with 4.66 billion people having access to the internet, and nearly 5.22 billion mobile phone users in Vietnam, thus raising the demand for finance services (Iris Marketing Agency, 2021). Especially, 2021 was the year which had witnessed strong policies from the government, such as city lockdown, social distancing, physical distancing, etc as methods to respond to the dangerous spread of the Covid-19 pandemic. This situation has accelerated the growth of using non-cash payment via internet banking, mobile banking, and electronic wallet, as these are strongly encouraged to reduce health risks, avoid physical contact between people, thus also contribute to the development of a cashless society in near future. In 2021 the State Bank of Vietnam has licensed nearly 43 non-banking organizations to provide intermediary payment service; of which 37 organizations have provided e-wallet services to the market, with a total number of active e-wallet users of 16.39 million (an increase of 2.75 million wallets

compared to the end of 2020). Also, with the government's intention to promote making cashless payment in society, a lot of e-wallet companies have cooperated with retailers to add their e-wallet as an option of making payment when purchasing products, therefore those companies can broaden their payment network. ZaloPay is a domestic e-wallet application which is developed by ZION joint stock company; it has been officially licensed by the State Bank of Vietnam to provide payment intermediary service since January 2016. With many unique selling points, ZaloPay not only provides with the smoothest and consistent experience, but also ensure security and privacy of its customers by protecting from unwanted information leakage and data breach issues. So far, ZaloPay has directly linked and supported deposit/withdraw money activities to 39 domestic banks and 3 international card organizations. ZaloPay provides many services on the app for free, such as link to a bank account, transfer money to others, pay electricity and water bills, buy movie tickets, phone top-ups, and many other outstanding utilities. This study is carried out to determine the factors which can positively impact on consumer's behavioral intention to use ZaloPay e-wallet, specifically in Ho Chi Minh city, the largest city of Vietnam. In general, factors affecting customer's behavioral intention to use e-wallet has been conducted by various studies before, yet the context of specific e-wallet analysis, especially those which are still gaining reputation and not yet gained huge market share like ZaloPay haven't been studied clearly.

LITERATURE REVIEW

The 'Unified Theory on Acceptance and Use of Technology (UTAUT) Model' was commonly used to strengthen the Technology Acceptance Model by providing deeper understanding about customer intention to use information system and behavior (Venkatesh, 2003). As UTAUT is an upgrade of 'Technology Acceptance Model' (TAM), it had been analyzed in different studies to see whereas there is a link between its variables and platform system acceptance. It had been clear that the factors in UTAUT model have significant influence on technology adoption in different context, such as in tablet and mobile device (Magsamen-Conrad *et al.,* 2015),

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banking service (Martins *et al.,* 2014), and mobile wallet (Chawla& Joshi, 2019). UTAUT Model has four main factors which have impact on behavioral intention to use, namely 'performance expectancy', 'effort expectancy', 'social influence', and 'facilitating condition'. However, the UTAUT model has its limitation mainly on the connection between behavioral intention to use and the real action. Therefore, researchers have decided to expand the model by having three new factors, namely 'hedonic motivation', 'price value' and 'habit' to become the UTAUT-2. UTAUT-2 has proven itself to be suitable when applying for the research because this model is formed by using consumer context rather than from the sources of the organization (Venkatesh *et al.,* 2012). Moreover, along with the four existing factors from UTAUT – 'performance expectancy', 'effort expectancy', 'social influence' and 'facilitating conditions', 3 new factors that UTAUT-2 adds in – 'hedonic motivation', 'price value' and 'habit' will help to clarify information technology acknowledgement and use of customer (Venkatesh *et al.,* 2012). In Taiwan,Yah&Tseng (2017) did the research at university in Hsingchu, Taiwan to investigate college student's behavioral intention of using mobile payment. A questionnaire was built using UTAUT-2 model to collect data from 212 respondents and analyze the data. The outcomes showed that 'performance expectancy', 'facilitating conditions', and 'habit' were proved to positively influence behavioral intention to use, in which 'facilitating conditions' factor was the most important one that can impact on consumers' intention. In addition, the respondents did not think that 'social influence' and 'effort expectancy' may affect their behavioral intention of using mobile payment services. Moreover, the results also found out that 'hedonic motivation' had negative influence on college student's behavioral intention, which was explained by the reason that the pleasures of using e-payment may let customers feel risky and uncertainty regarding financial facilities. In addition to variables suggested from the existing models such as TAM, UTAUT, UTAUT-2 and other studies, there are many factors that have already been proven to affect on customer's behavioral intention to use e-wallet, such as 'perceived reliability', 'demonetization', 'promotional offers' (Prajod & Ajimon, 2018). In this research, the author will apply UTAUT-2 model and academically contribute a new factor, which is'trust'. This factor has been proven to significantly influence on behavioral intention (Gao *et al.,* 2015). 'Performance expectancy': The impression of clients on the benefits and advantages of using modern services and technology have been proven to impact on behavioral intention (Alalwan *et al.,* 2017). In UTAUT-2 model, 'performance expectancy' is adopted based on the 'perceived usefulness' of TAM model and 'relative advantage' of IDT model. This factor focuses on how the system or technology may support customers to achieve what they want in the most beneficial way (Venkatesh *et al.,* 2003). If a user realizes that the system can support him or her to save more time, effort and gain more achievements, he or she would likely to have a good attitude toward using that system (Rana *et al.,* 2017; Tamilmani *et al.,* 2019; Venkatesh *et al.,* 2003). Regarding this research, performance expectancy showed what consumers think or perceive that using ZaloPay e-wallet can bring many benefits in payment of services and will positively influence on behavioral intention to use. Hence, the following hypothesis is formed as H1: 'Performance expectancy' has a positive effect on behavioral intention to use ZaloPay e-wallet. 'Effort expectancy': Customers have been studied by many papers in order to analyze and figure out whether the system is simple and do not require so much effort in order to use it (Alalwan *et al.,* 2017). The term 'effort expectancy' is defined as 'the extent to which using a particular system will be free from effort' (Venkatesh *et al.,* (2003). If a system is straightforward and can be used easily, it will have a major influence on its acceptance to use (Moore & Benbasat, 1991). Any technology that is simple to learn and handle will please users, increasing their desire to use and recommend the system (Childers *et*

al., 2001). 'Effort expectancy' has been used to analyze in many studies in different technology context. This factor has been proven to have a positive impact on behavioral intention to online shopping (Lin, 2007). When customers can perform activities on ecommerce website without much effort, they would be more likely to use that website to shop online again (Wen *et al.,* 2011). Regarding this research, 'effort expectancy' is conceptualized as the belief of the consumers that using ZaloPay e-wallet would be free of effort and will positively affect behavioral intention to use. Hence, the following hypothesis is formed asH2: 'Effort expectancy' has a positive effect on behavioral intention to use ZaloPay e-wallet. 'Social influence' is known as an individual believes to follow advice from their close relationship that they need to use the technology (Venkatesh *et al.,* 2003). Those people having close relationship with could be their parents, sisters in their family, relatives, friends, or from influencers who make that person believe he or she should adopt the system (Venkatesh *et al.,* 2003). Moreover, it is believed that individuals who are lack of knowledge and experience would be strongly influenced by people around. Many studies have been carried out and prove that 'social influence' impacts positively on intention to use mobile technology (Slade *et al.,* 2015; Yang*et al.,* 2012). In various countries, researchers have found out that social influence has big impact on using Mobile Suica – an e-wallet in Japan, whereas in India 'social influence' was discovered to be a key factor in determining behavioral intentions to use mobile wallets (Madan & Yadav, 2016). Hence, the following hypothesis is formed asH3: 'Social influence' has a positive effect on behavioral intention to use ZaloPay e-wallet. 'Facilitating condition' refers to the impression of customers to the help and support of the technology that are accessible to perform a certain task; it can be seen as the mirror that reflects the command of customers over their conduct. In the UTAUT-2 model, it had already been stated the facilitating condition has connection with behavioral intention to use, and this has been proven in the context of tour guides apps (Lai& Zainal, 2015). Moreover, many studies have been carried out to prove that 'facilitating condition' factor affects positively on intention to use mobile technology in contexts of mobile banking, mobile applications, and mobile payment (Venkatesh *et al.,* 2003; Venkatesh *et al.,* 2012; Singh & Srivastava, 2018; Sivathanu, 2018; Tak & Panwar, 2017). In this research, 'facilitating condition' is conceptualized as the belief of the consumers that the resources are available (e.g.: internet banking, e-commerce, SMS banking, etc.) in mobile phone and domestic cards to easily activate ZaloPay e-wallet and will positively affect behavioral intention to use. Hence, the following hypothesis is formed as H4: 'Facilitating condition' has a positive effect on behavioral intention to use ZaloPay e-wallet. 'Hedonic motivation': In addition to outward inspirations, it has been proven that natural inspiration has significant impact on the expectation of users and readiness to use new technologies (Alalwan, 2018; Venkatesh *et al.,* 2012; Brown & Venkatesh, 2005). 'Hedonic motivation' factor is defined as the 'inherent inspiration' (e.g.: fun, enjoyment, happiness, etc.) that an individual may have from the act of using advanced products, services, and mobile applications; which as a result can help users to enhance productivity and good feeling in using that technology (Van der Heijden, 2004; Venkatesh *et al.,* 2012). In previous papers related to technology, 'hedonic motivation' has been found to influence on behavioral intention and adopt technology (Van der Heijden, 2004; Brown and Venkatesh, 2005). In the context of mobile payment, many researchers have use 'hedonic motivation' to prove the connection between this factor and behavioral intention to use (Lin *et al.,* 2020; Wu *et al.,* 2021). In this research, 'hedonic motivation' is conceptualized as the belief of the consumers that using ZaloPay would create fun and happiness feeling to users, including features such as rewards, discounts, voucher, etc and will positively affect behavioral intention to use. Hence, the following hypothesis is formed as H5: 'Hedonic motivation' has a positive effect

on behavioral intention to use ZaloPay e-wallet. 'Price value' can be defined as the consumer's perception to consider between the value of the technology may bring to users and the cost that customers have to pay for that service (Venkatesh *et al.,* 2012). One major difference between the context of individual and organization use is that consumers usually care about the price whereas employees in organizations do not, therefore it can result in different behavioral intention to use. There have been various research explaining that 'price value' will significantly impact on behavioral intention. (Venkatesh *et al.,* 2012; Manaf and Ariyanti, 2017). For this research, 'price value' is conceptualized as the belief of the consumers that using ZaloPay would provide valuable promotional programs as well as let them save more money, and these will positively affect 'behavioral intention to use'. Hence, the following hypothesis is formed as H6: 'Price value' has a positive effect on behavioral intention to use ZaloPay e-wallet. 'Habit' can be measured as a person believe that he acts automatically through learning, and it can be seen as a prediction tool in terms of technology use (Venkatesh, 2012). In this study, it reflects the impact of prior mobile payment usage experience which one already had in the past. 'Habit' has been proven by many studies which used UTAUT as its main model to conduct analysis. Hence, the following hypotheses is formed as H7: 'Habit' has a positive effect on behavioral intention to use ZaloPay e-wallet. 'Trust' is the willingness to put faith in one service provider and continue to remain loyalty no matter how the service provider's behavior will be changed in the future (Zhou, 2013). Customers have to give their personal information when using Smartphone, which may let them feel unsure about the level of security. It has been stated that 'trust' could lead to better outcomes, while suspicion could lead to fewer failures (Linck *et al.,*2006). Previous studies have proven that the 'trust' factor has significant impact on behavioral intention (Gao *et al.,* 2015). Hence, the following hypotheses is formedas H8: 'Trust' has a positive effect on behavioral intention to use ZaloPay e-wallet.'Behavioral intention' to use: 'Behavior intention' is 'the best factor to predict a correct behavior' (Fishbein & Ajzen, 1975). Accordingly, 'behavioral intention' is defined as status whether the user is ready to use that kind of service or product (Venkatesh *et al.,* 2003). According to Won and Kim (2020), attitude of customer toward goods and service influence positively on purchase intention. In addition, there is a link between intention to use technology and customer behavior (Fishbein & Ajzen, 1975).

RESEARCH METHODOLOGY

Based on abovementioned literature review, a relevant conceptual model and hypotheses have been developed. The purpose of this study is to figure out, explain and forecast the connection between the proposed variables which are: 'performance expectancy', 'effort expectancy', 'social influence', 'facilitating conditions', 'hedonic motivation', 'price value', 'habit', and 'trust' toward behavioral intention to use ZaloPay e-wallet. A quantitative method has been used to analyze and represent the relationship numerically and mathematically, as well as to finalize the findings and reach to the conclusion. Accordingly, a questionnaire is formed and utilized to collect data related to customer experience toward ZaloPay e-wallet using this method. Regarding the measurement scale, this study adopts questionnaires from (Venkatest *et al.,* 2003). For this section structure, a 5-point Likert scale is employed, with point scales ranging from 1 to 5, as

1 = 'Strongly Disagree',
2 = 'Disagree',
3 = 'Neutral',
4 = 'Agree', and
5 = 'Strongly Agree'.

Table 1: Measurement scale

Construct	Item	Measurement
Performance Expectancy (PE)	PE1	Using ZaloPay e-wallet helps to increase my productivity
	PE2	I find ZaloPay e-wallet useful in my daily life
	PE3	I can save time when using ZaloPay e-wallet in payment process
	PE4	Using ZaloPay e-wallet helps me to done payment more quickly than cash
Effort Expectancy (EE)	EE1	It is easy to learn using ZaloPay e-wallet
	EE2	Using ZaloPay e-wallet is easy
	EE3	It is no difficult to become skillful in using ZaloPay e-wallet
Social Influence (SI)	SI1	People who are important to me recommend me to use ZaloPay e-wallet
	SI2	People who influence my behavior recommend me to use ZaloPay e-wallet
	SI3	People whose opinions that I value prefer me to use ZaloPay e-wallet
	SI4	Most people around me are using ZaloPay e-wallet
Facilitating Condition (FC)	FC1	I have necessary resources (mobile phone with Wifi connection, Internet Banking, etc) to activate ZaloPay e-wallet
	FC2	I have necessary knowledge to use ZaloPay e-wallet
	FC3	ZaloPay e-wallet is similar with other e-wallets I used before
	FC4	People around can help and support me whenever I have difficulties in using ZaloPay e-wallet
Hedonic Motivation (HM)	HM1	Using ZaloPay e-wallet is a fun experience for me
	HM2	Features of ZaloPay e-wallet (discount, voucher, gift, etc) entertain me
	HM3	I will prioritize using ZaloPay e-wallet if I receive gifts, points, and vouchers from the program
	HM4	I prefer to make payment transactions via ZaloPay e-wallet instead of cash
	HM5	I feel excited when using ZaloPay e-wallet
Price Value (PV)	PV1	I can save money by using ZaloPay e-wallet
	PV2	ZaloPay e-wallet helps me use money more effectively
	PV3	ZaloPay e-wallet offer valuable promotions for me
Habit (HT)	HT1	Using ZaloPay e-wallet has become a habit for me
	HT2	Using ZaloPay e-wallet is something that I do without thinking when paying for services like convenience stores, phone top-ups, and so on
	HT3	Using ZaloPay e-wallet has become a necessity
	HT4	I am addicted to using ZaloPay e-wallet
Trust (TT)	TT1	I believe ZaloPay e-wallet is trustful
	TT2	ZaloPay e-wallet is competent and effective in handling my transactions
	TT3	ZaloPay e-wallet always provides reliable services
Behavioral Intention (BI)	BI1	I intent to use ZaloPay e-wallet in the future
	BI2	I will always try to use ZaloPay e-wallet in my daily life
	BI3	I plan to use ZaloPay e-wallet frequently
	BI4	I will recommend others to use ZaloPay e-wallet

Source: Authors

Convenience sampling is chosen as the method to choose the sample. It has been proven that convenience sampling was a beneficial and appropriate strategy for this research condition due to the limited of time, cost, and sample availability. The research sample size is expected to be around 300 respondents. People who have used ZaloPay e-wallet application and live in Ho Chi Minh City were the target respondents for this study. Respondents are different in terms of age, educational and occupational backgrounds, including university students, office workers, and unskilled workers.

Research objectives: In order to seek effective solutions in attracting new users for ZaloPay, this research aims to analyze customer's behavioral intention to use e-wallet. Specifically, the purpose of this research includes: (1) Identifying factors that affecting behavioral intention to use ZaloPay e-wallet; and (2) Determining potential impacts of these factors on user's behavioral intention to use ZaloPay e-wallet. Therefore, the research questions are: (1) What are the factors affecting behavioral intention to use ZaloPay e-wallet; (2) How do these factors influence on behavioral intention to use ZaloPay e-wallet? Although there have been various studies related to intention to use new technology, however, previous studies have been based on old models such as TAM and UTAUT; in this study, the author uses the new model, UTAUT-2, and hopes to academically contribute to the exploration of a new factor –'trust' toward behavioral intention to use ZaloPay e-wallet.

RESEARCH FINDINGS AND DISCUSSION

The number of responses filling in and completing the survey is 297. After eliminating 34 invalid sample, the exact remain valid forms are 263, accounting for 88.6% of total respondents. Therefore, the 263 final sample will be used for analyzing data. Therein, there are 101 male and 162 female respondents, accounted for 38.4% and 61.6% respectively. Thus, concerning the context of this study, women tent to use the ZaloPay e-wallet more than men. In other words, women are more willing to use and purchase online services on e-commerce and delivery platforms, which can be paid these transactions by using ZaloPay e-wallet. However, due to different objective reasons such as the difference in males and females in the chosen location, these rates do not precisely reflect the actual trend of gender factor in using ZaloPay e-wallet. The 263 participants are of all ages, ranging from below 22 to above 46 years old. According to the data, 29.7% of respondents are below 22 years old, 14.1% of respondents belongs to 'from 35 to below 46' age group, and 4.9% respondents are from 46 years old and above. Especially, the 'from 22 to below 34' age group receives largest number of respondents, which has 135 participants and accounts for 51.3%. This indicates that ZaloPay e-wallet's most popular customer segment is the young generation, specifically from 22 to below 34 years old. Many people in this group have a steady income and mobile device is an essential part of their life. Young people can quickly become accustomed to new technology services and adapt them to their needs in the future.52.1% of respondents (137 people) are students who are studying at schools/universities, 31.2% of respondents (82 people) are office workers, 6.8% of participants (18 people) are managers, and 9.9% (26 people) do other careers. respondents' monthly income is separated into four ranges: less than 10 million VND, from 10 to below 20 million VND, from 20 to below 30 million VND, and more than 30 million VND. The result shows that the income below 10 million VND receives highest number of responses, with 142 people and accounts for 54% of all respondents. The percentage of people having 'from 10 to below 20 million VND', and 'from 20 to below 30 million VND' monthly income, are 31.6% and 10.3%, with 83 and 27 respondents respectively. 11 people are having their monthly income more than 30 million VND, which accounts for 4.2% of total respondents. Descriptive statistics of 'performance expectancy' factor: The mean value of all 4 items (PE1, PE2, PE3, PE4) ranges from 3.77 to 2.88, in which PE1 has the highest mean value and PE2 has the lowest mean value, with 3.88 and 3.77 respectively. This shows that many people show their opinions to agree with these 4 items of 'performance expectancy', which means they tend to agree that ZaloPay e-wallet brings benefits and usefulness to users. Furthermore, concerning the standard deviation ranges from 0.821 to 0.913 which is not high. These coefficients indicate that there are not many differences between the answers. With 'effort expectancy',

user's attitude toward 'effort expectancy' factor is measured and accessed using 3 items (EE1, EE2, EE3). Mean values of these items range from 3.63 to 3.69. EE1 and EE3 have the highest mean of 3.68 and 3.69 respectively, whereas EE2 has the lowest mean of 3.63. This also suggests that users do not need to spend a lot of effort learning and using ZaloPay e-wallet. Furthermore, these items' standard deviations are not high (0.876, 0.818, 0.767), meaning that the differences in the responses are minor. Regarding descriptive statistics of 'social influence' factor, the mean values of these 4 below items range from 3.65 to 3.72. Specifically, SI1 has the highest mean value of 3.72, which indicates that many participants are recommended to use ZaloPay e-wallet by those who are important to them. In addition, as the mean values of the remaining items are between 3.65 and 3.67 (with standard deviation range from 0.819 to 0.842), they indicate that participants generally agree with the views expressed in these items' questions. With 'facilitation conditions', the mean value of 4 items (FC1, FC2, FC3, FC4) range from 3.71 to 3.89. These are relatively high mean values which indicate that users have strong impression on the availability of help and support of technology when using ZaloPay e-wallet. Specifically, FC2 receives the highest mean value with 3.89, hence it demonstrates that most of the participants have necessary knowledge to use ZaloPay. Besides, the standard deviations of the 4 items range from 0.869 to 0.973 indicating that the answers responded to each item just slightly differ. With 'hedonic motivation', five items (HM1, HM2, HM3, HM4, HM5) are used to measure and access user's attitude toward hedonic motivation factor. Mean values of 5 items range from 3.60 to 3.82, and the ranging of standard deviation is from 0.799 to 0.906. It implies that most respondents are relatively enjoy using ZaloPay e-wallet, and there is not much difference between responses of each item. Specifically, with HM2 item receives the highest mean value of 3.82, it is high to conclude that most people are interested with promotional features of ZaloPay e-wallet, such as discount, voucher, gift, etc. However, as HM5 item receives the lowest mean value of 3.60, it indicates that ZaloPay should improve its marketing strategy and technology to attract more users and make them feel excited when using ZaloPay e-wallet. Regarding 'price value', the mean values of 3 items (PV1, PV2, PV3) range from 3.65 to 3.84, these are all high value which indicate customers perceive that value which ZaloPay brings to users are more than what they must pay for the services and technology of the e-wallet. In addition, with standard deviation ranging from 0.757 to 0.939, it can be concluded that most of users agree with the opinion expressed in the item's questions. Looking into detail of each item, item PV3 receives the highest mean value of 3.84, it determines that users are highly enjoy valuable promotion from ZaloPay e-wallet, and this also proves the fact that ZaloPay has already invested a lot in terms of promotion to acquire new users and expand its market share. However, PV2 receives lowest mean value, which means that some people are still doubted that they can use money more effectively by using ZaloPay e-wallet. Regarding 'habit', four items(HT1, HT2, HT3, HT4) are used to measure and access user's habit in using ZaloPay e-wallet. The mean values of the 4 items are from 3.40 to 3.80, which indicate that most people are relatively more neutral to agree that they regularly use ZaloPay e-wallet. Besides, the standard deviation of 4 items ranging from 0.824 to 0.866 show that there is not much difference among the answers. Item HT2 receives the highest mean value of 3.80 indicates that most people prefer to use ZaloPay e-wallet when paying for services and products in stores. This also relates to the huge investment of ZaloPay which people can earn discount and voucher when using this e-wallet in payment. With 'trust' factor, the mean value of 3 items (TT1, TT2, TT3) range from 3.64 to 3.72, with TT1 item receives the highest mean value of 3.73. This implies that most respondents generally have trust on services and technology of ZaloPay e-wallet. Besides, as standard deviation of 3 items is from

0.864 to 0.921, it ascertains that the answers of respondents regarding each question do not differ greatly. Finally, regarding 'behavioral intention', four items(BI1, BI2, BI3, BI4) are collected to analyze behavioral intention to use ZaloPay e-wallet. The mean values of 4 items range from 3.65 as the lowest (BI1 and BI4) to 3.83 as the highest (BI3). Hence, it can be realized that respondents show their intention to agree with using ZaloPay e-wallet, and respondents tent to agree with the ideas proposed in the questions of these items. Concerning reliability statistics of 'performance expectancy', the Cronbach's Alpha of 'Performance expectancy' is 0.751, larger than 0.6. Regarding the 'corrected item-total correlation' of all 4 items, they are greater than 0.3, which mean that these items have strong relationship with each other. Moreover, as none of the 'Cronbach's Alpha if item deleted' value of any 4 items mentioned is higher than the total value 0.751, as a result, no items are needed to eliminate. Concerning the reliability test for 'effort expectancy' factor, all the 3 items have correlation value which are greater than 0.3, and none of the 'Cronbach's Alpha if Item Deleted' value is higher than the total value of 0.757, and Cronbach's Alpha value is higher than 0.6 Therefore, it can be concluded that these items have strong relationship with each other, as well as none of the items are needed to eliminate. Regarding 'social influence' factor, the 'Cronbach's Alpha' value of this variable is 0.838, which is higher compared to 0.6. In addition, there will be no case which result in higher CA value when deleting any items, and the value of all 4 items are greater than 0.3. Therefore, we can conclude that these items have strong relationship with each other, and all items are qualified for the next test. With reliability test for 'facilitating conditions' factors, all the items mentioned are greater than 0.3, and the 'Cronbach's Alpha' value is 0.781 which is higher than 0.6. As it will not result in higher Cronbach's Alpha value when eliminating any of the items (as all the 'Cronbach's Alpha if Item Deleted' values are lower than total value of 0.781), we can proceed all items in next analysis. Regarding reliability test for the 'hedonic motivation' factor, there is one item which is lower than 0.3 (HM1). Therefore, item HM1 should be eliminated, and we conduct the reliability test for the second time without this item. When conducting reliability test for 'hedonic motivation' for the second time after removing HM1 item, the Cronbach's Alpha value is higher than the first time – with 0.883 and is higher than 0.6. All the items in the variable are higher than 0.3 in terms of 'Corrected Item-Total Correlation', and none of the items having 'Cronbach's Alpha if Item Deleted' value higher than the total value of 0.833. Therefore, it is concluded that all remaining items are qualified for further analysis.

In the reliability test for 'price value' factor, Cronbach's Alpha value is 0.786 which is very reliable because it is higher than 0.6. As all 'Corrected Item-Total Correlation' values of all items are more than 0.3 and it will not result in higher Cronbach's Alpha value when deleting any of the items, hence we can conclude that none of the items should be eliminate in this test. With reliability test for 'habit' factor, we have got the "nearly good" result for Cronbach's Alpha value (0.792 which is nearly reach to 0.8) as well as the strong relationship between all items (as all "Corrected Item-Total Correlation" value are higher than 0.3). Moreover, since it would not result in any higher Cronbach's Alpha value when deleting any items, hence all items are kept for further analysis. Regarding reliability test for 'trust' factor, the Cronbach's Alpha can be viewed as an acceptable value (with 0.780 and in the range of 0.7 < α < 0.8). It can be concluded that none of the items would be eliminated due to the fact that the total value is more than 0.6, as well as cannot result in higher value if delete any item, plus all items are having value higher than 0.3. Finally, with the reliability test for 'behavioral intention', the 'Cronbach's Alpha' value of this factor is the highest among others and is also considered in a good range with 0.876. Moreover, as we will not result in any higher value when removing any of below items, and all correlation values are greater than 0.3, hence they can be

proceeded for next analysis. 'Exploratory Factor Analysis' (EFA) is the following test. In this regard, EFA is the statistical study that divides large number of variables into smaller groups or topics. The analysis results show that the 'Kaiser-Meyer-Olkin Measure of Sampling Adequacy'(KMO) equals 0.773 which is greater than 0.5, meaning that this data is acceptable. The significance value equals 0.000 which is lower than 0.05, then we can conclude that the variables have correlation together and fit with the requirement of analysis. When performing factor analysis, the result shows that 29 proposed variables are divided into 8 groups for observation. The result of total variance explained is 66.609%, which is higher than 50%; hence, it is acceptable. Regarding the result, it is concluded that 8 factors describe 66.609% of the data's variation. Moreover, as all 'Eigen value' are more than 1, factor 8 has 'Eigen values' of 1.418, hence we keep all variables to continue with the test. Regarding the rotated component matrix, most of the variables have satisfied the condition of factor loading must be larger than 0.5. However, factor loading of PE2 are in different groups which make it violate EFA discrimination rule. As a result, item PE2 is eliminated. A second round of the EFA test was conducted to re-test again the items. The KMO equals 0.765, a slight fall in terms of value from 0.773 in the first round to 0.765 in the second round. However, as it is still higher than 0.5, this value proves that the data is acceptable. In addition, the significance level is 0.000 which is lower than 0.05, then we conclude that the variables have correlation together and fit with the requirement of analysis. On a different note, 'Eigen value' equals 1.418 which is higher than 1, hence these 8 factors have the best information summary meaning of 28 observed items. Regarding the Rotated Component Matrix table as above, the factor loadings are all greater compared to 0.5, so no variables need to be eliminated. In addition, Extraction Sums of Squared Loadings (Cumulative %) equals to 67.230% which is higher than 50%, meaning that 8 independent factors explain 67.230% of the research model. The next EFA test is for 'behavioral intention': The analysis results show that the value of KMO is 0.812, which can be indicated as a good range. As this value is higher than 0.5, this value proves that the data is acceptable for use. In addition, the significance level is 0.000 which is lower than 0.05, then we conclude that the variables have correlation together and fit with the requirement of analysis. The cumulative percentage equals to 72.975% which is higher than 50%, meaning that this 'behavioral intention' factor explains 67.230% of the variation of data. Regarding component matrix for 'behavioral intention', none of factor loadings are lower compared to 0.5. In addition, there is component 1 which has 'Eigen values' higher than 1 (3.125) when observing at the previous table. From these data, we can conclude that this dependent variable is acceptable. Then Multiple Regression Analysis is applied to predict the significance the factors analyzed as above and the behavioral intention toward using ZaloPay e-wallet. This section provides an overview of two of the most commonly utilized research methods that are correlation and regression analysis. Despite the fact that regression is built on correlation, the two approaches are still distinct. The result shows that all significant between each variable are less than 0.05. Therefore, we can conclude that 'behavioral intention to use' and the remaining variables are positively correlated together, and it is qualified to conduct regression analysis. Regarding regression analysis, according to the result, the coefficient R = 0.760 shows that the variables in the model have correlation relationship with each other. 'R Square' value equals 0.578, so this value represents the goodness of fit of the model. In order to be considered as a good model, the adjusted 'R Square' value are suggested to be higher than 0.5 (50%). Regarding this model, the adjusted 'R Square' equals to 0.564, which is acceptable. The adjusted 'R Square' value = 0.564 means that the factors vary 56.4% in affecting the user's intention to use ZaloPay e-wallet, the remaining 43.6% is indicating those further variable which we do not

include in this model. Table ANOVA presents that since Significance equals 0.000 which is lower than 0.05, it means that there is regression connection between the independents and the variable 'behavioral intention to use'. Hence, the constructed linear regression model is acceptable. Furthermore, it can be seen that SI and HT variables are deleted from the model because of their Sig are higher than 0.05, meaning that these two variables do not significantly affect on the behavioral intention to use ZaloPay e-wallet. In addition, all of the 6 remaining independent variables with significance level Sig are lower than 0.05, respectively PE (0.004), EE (0.000), FC (0.000), HM (0.000), PV (0.000), TT (0.016), which mean that these factors significantly predict the customer toward intention to use ZaloPay e-wallet. In addition, as the 'Standardized Coefficients' – 'Beta' of all independent variables are greater than zero, we can conclude that independent and dependent variable has positive effect on each other. The variable 'hedonic motivation' has the highest Beta coefficient (0.289), meaning that it will have the strongest positive influence on customer's intention toward using ZaloPay e-wallet. On the other hand, 'trust' factor has the lowest Beta coefficient (0.108), meaning that it will result in the lowest influence on using intention toward ZaloPay e-wallet. In addition, the result of VIF is very small, ranging from 1,041 to 1,259 which is also lower than 2, hence it is acceptable. As a result, we can conclude that there is no multicollinearity, so the factors in the model are accepted. In overall, after completing reliability test, EFA test, and regression analysis, it is concluded that the six variables PE, EE, FC, HM, PV, TT have significantly influence for the model whereas 'habit' and 'social influence' factors have been taken out as they do not affect the dependent variable.

As a result, this relationship shall be stated as the following: BI = -1.443 + 0.135*PE + 0.211*EE + 0.226*FC + 0.310*HM + 0.276*PV+ 0.108*TT (i.e.: Behavioral intention to use ZaloPay e-wallet: = **-1.443 + 0.135***'performance expectancy' + **0.211***'effort expectancy' + **0.226***'facilitating conditions' + **0.310***'hedonic motivation' + **0.276***'price value' + **0.108***'trust').

Table 2: Hypothesis testing result

Hypothesis	Description	Conclusion
H1	Performance expectancy has positive influence on behavioral intention to use ZaloPay e-wallet	Support
H2	Effort expectancy has positive influence behavioral intention to use ZaloPay e-wallet	Support
H3	Social influence has positive influence behavioral intention to use ZaloPay e-wallet	Reject
H4	Facilitating condition has positive influence on behavioral intention to use ZaloPay e-wallet	Support
H5	Hedonic motivation has positive influence on behavioral intention to use ZaloPay e-wallet	Support
H6	Price value has positive influence behavioral intention to use ZaloPay e-wallet	Support
H7	Habit has positive influence on behavioral intention to use ZaloPay e-wallet	Reject
H8	Trust has positive influence on behavioral intention to use ZaloPay e-wallet	Support

Source: Authors

HM1 is removed after the Reliability Test is completed to verify that all variables are qualified for the next study. Accordingly, the EFA Test is then performed with all variables still be kept for next step analysis. Following that, the correlation test examines the relationship between independent variables and dependent variables, and it is discovered that all variables have strong relationship with each other, specifically 'performance expectancy', 'effort expectancy, 'social influence',

facilitating conditions', 'hedonic motivation', 'price value', 'habit', 'trust' and intention to use positively correlate with each other. Multiple Linear Regression is used to determine whether these factors influence the behavioral using intention toward ZaloPay e-wallet. It turns out that there are only six variables, namely 'performance expectancy', 'effort expectancy', 'facilitating conditions', 'hedonic motivation', 'price value', 'trust', are found to have significant impact on behavioral intention to use ZaloPay e-wallet, whereas 'social influence' and 'habit' do not.

Figure 1: Final result
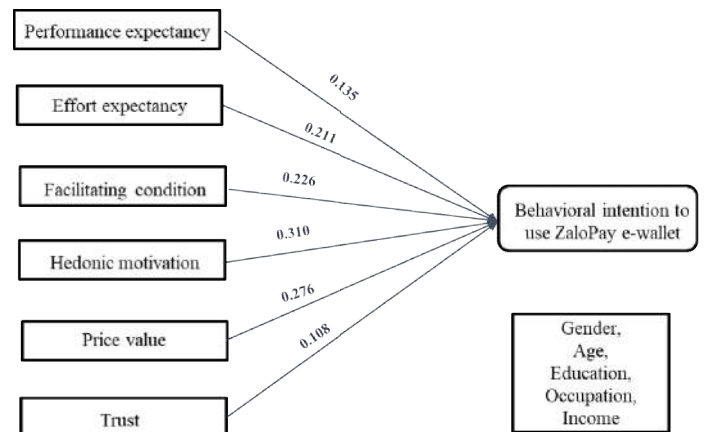
Source: Authors

CONCLUSION:

In summary, along with using the updated model, which is UTAUT-2 model, this study academically contributes to a new factor – 'trust'. Secondly, it turns out that there are only six variables, namely 'performance expectancy', 'effort expectancy', 'facilitating condition', 'hedonic motivation', 'price value', 'trust', are found to have significant impact on behavioral intention to use ZaloPay e-wallet, whereas 'social 'influence' and 'habit' do not. In details, 'facilitation condition' and 'hedonic motivation' are found to the two most determinant factors in this case. Nevertheless, regarding the limitation of the study,263 respondents cannot be seen as large enough as it just represents and focuses on Ho Chi Minh area (i.e.: the results cannot be applied to the whole Vietnam market. Finally, the hypotheses only explain for 56.4% of the variance in behavioral intention, leaving 43.9% of uncovered components that need to be considered in further studies.

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