Ho Chi Minh City University of Technology and Education Students' Satisfaction with E-Wallet Service

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Abstract---Based on the sample survey data of 289 students of Ho Chi Minh City University of Technology and Education (HCMUTE) from February to May 2021, the paper has focused on analyzing the factors affecting the satisfaction of HCMUTE students with e-wallet services. The results show that students of Ho Chi Minh City University of Technology and Education have been using e-wallet services widely, with a high degree of satisfaction. The study also reveals that, a variety of factors influence the satisfaction of HCMUTE students such as convenience (Std. Error 0.050, Sig. =0.000); safety and security (Std. Error =0.055, Sig. =0.000); reliability (Std. Error 0,057, Sig. =0.000); policy to approach customers/employees (Std. Error 0.040, Sig. =0.000; frequency of use (Std. Error 0.043, Sig. =0.000).

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Introduction

E-wallets appeared in Vietnam quite early. In 2009, a number of companies, businesses, and stores piloted a few e-wallet services. Two typical services are Payoo (usually found in Vinmart, Vinmart+ store chains) and VNPAY. In 2010, Momo became the first payment service allowing users to make payments on phones in Viet Nam. Over the years of development, e-wallet services not only focused on payment but also expand to many different aspects. However, many Vietnamese people have not yet formed the habit of using this type of service. There are many reasons for this. Firstly, there are too many types of e-wallets on the market, but they are not linked with one another, just like ATMs situation in the past. If an e-wallet wants to be used, it must be linked and integrated with stores, supermarkets, agents, department stores, and services. Secondly, Vietnamese people often think that: "*Money attached to the intestines*" (it means that cash always shows the security), so it is difficult for them to accept and use a new form of money storage and payment like this. Thirdly, it is not easy to use E-wallets (Krishen et al., 2019; Darmayasa & Yasa, 2021; Widana et al., 2020).

Meanwhile, the State is gradually completing the legal corridor. E-wallet services tend to develop and become more popular. Realizing that the student community of Ho Chi Minh City University of Technology and Education is a dynamic, creative community that has been exposed to numerous scientific and technological advances, this may be thought of as a miniature social mode, the research team hopes to learn and answer three following questions: 1) What type of e-wallet service is most commonly used by HCMUTE students?; 2) How satisfied are HCMUTE students with e-wallet services?; 3) What factors affect the satisfaction of HCMTE students with e-wallet services?.

Research Methods

The main methods used in this article are qualitative research and quantitative research. In qualitative research, the author mainly uses secondary document analysis such as: books, dissertations, articles published in scientific research journals, and articles, statistics on websites, reports of authorities at all levels. The purpose of the literature review is to find the theoretical as well as practical instructions for the author to detect and analyze the research problems. At the same time, the literature review of documents assists the research team in synthesizing the necessary information and data in order to point out the gaps in documentation, the theoretical tools and methods to identify the new research tools and methods.

In quantitative research, the survey method is the online questionnaire, and the data processing is the SPSS statistical method. The survey are conducted with a sample of 289 HCMUTE students. This sample includes 50% female students (n=144) and 50% male students (n=145); the proportion of students of 19th session is 54.3% (n=190); the proportion of students of 18th session is 22.3%

(n=78); the proportion of students of 17th session is 5.4% (n=19), and the proportion of students of 16th session is 0.6% (n=2).

Research results

E-wallet applications

According to results of the survey by multiple-choice questions, the findings reveal that many e-wallet applications are being used in Vietnam in general and by students of Ho Chi Minh City University of Technology and Education in particular. In which, MoMo is currently the most used e-wallet application with an overall rate of 40.8%, and the selected rate in each case is 81.1%. This shows that out of 100 people surveyed with the question "Which e-wallet app are you using?", about 81 people would say "they use MoMo". This result is consistent with previous studies that have shown that MoMo is almost dominating this flourishing e-wallet market. With strong financial capacity, careful investment in the application interface, server, communication as well as the willingness to "burn money" for generous incentives... the number of MoMo users have increased in recent year. Zalo Pay is a payment application on the Zalo social network platform of Viet Nam. When compared to other applications, Zalo Pay takes a little less time to develop, but this application has a high usage rate, accounting for 20.2% of the overall rate, and the selected rate in each case is 40.1%. Thanks to the user-friendly interface for Vietnamese user and the payment and money transfer feature right on the dialog box, Zalo Pay is becoming increasingly popular. AriPay accounts for 16.9% of the total, and the selected rate in each case is 33.5%. AirPay has a high rate of usage, partly due to the fact that this is an electronic wallet favored by Shopee, with many incentive programs when customers pay with AirPay on Shopee. (Source: Survey results, 2021). Other applications such as ViettelPay, Moca, and Bank plus have relatively low usage rates. In addition, the applications such as Mobile Banking, Smart Banking, Internet Banking, ... of banks are also being invested to become more and more perfect. These applications can be seen as e-wallet with great potentials because they come from big banks. The research results have shown diversity in the types of e-wallet applications used by students, a demonstration that the diversity will be even greater when in the outside society This also confirms that the e-wallet market in Vietnam is very dynamic and ever-changing (Kustono et al., 2020; Prasad Yadav & Arora, 2019).

Analyze the reliability of the scale

The study has determined and tested the reliability of the scales: convenience (TL); safety and security (AT); reliability (TC); policy to approach customers/employees (CS); user experience (SD); satisfaction (HL) by Cronbach's Alpha reliability coefficient. Cronbach's Alpha see4 helps to delete the unacceptable observed variables with an item-total correlation less than 0.3 And the criterion for the scale is accepted when Cronbach's Alpha is greater than 0,6 or more (Nguyen Dinh Tho & Nguyen Thi Mai Trang, 2004). The researchers agree that when the value of Cronbach's Alpha is above 0.8 to close 1; then this scale is good; if the value of Cronbach Alpha is within the range of 0.7 to close 0.8, it means that the value of Cronbach Alpha is acceptable. Some researchers believe

that the value of Cronbach's Alpha at 0.6 or greater can be used in a case where the concept of the scale is new, or the scale is totally new to respondents in the research (Amoroso & Magnier-Watanabe, 2012; Aji et al., 2020).

Evaluating the convenience

The results of running the reliability analysis of the scale of the factor "Evaluating the convenience" show that the reliability is 0.854, this value is in the range from 0.8 to 1, this is a good scale, and the value of Corrected item-total Correlation is greater than 0.3, this value is accepted.

Table 1
The results of the reliability analysis of the scale for the factor TL

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
Scale reliability: Cronbach Alpha = 0.854				
TL1	20.57	11.931	0.658	0.827
TL2	20.45	12.426	0.688	0.822
TL3	20.61	12.461	0.652	0.828
TL4	20.43	12.280	0.674	0.824
TL5	20.53	12.215	0.700	0.819
TL6	20.72	13.347	0.483	0.858

(Source: Survey results, 2021)

Safety and security evaluation

The results of the reliability analysis of the scale of the factor "Evaluating the convenience" show that the reliability is 0.752, it is greater than 0.6, it is accepted, and the value of Corrected item-total Correlation is greater than 0.3, this value is accepted.

Table 2
The results of the reliability analysis of the scale for the factor AT

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
Scale reliability: Cronbach Alpha = 0.752				
AT1	15.74	6.376	0.581	0.683
AT2	15.59	6.500	0.591	0.681
AT3	15.83	6.385	0.557	0.693
AT4	15.53	7.149	0.422	0.741
AT5	15.55	7.205	0.440	0.734

(Source: Survey results, 2021)

Reliability evaluation

The results of the reliability analysis of the scale of the factor "Evaluating the convenience" show that the reliability is 0.754, greater than 0.6, accepted, and

the value of Corrected item-total Correlation is greater than 0.3, this value is accepted.

Table 3
The results of the reliability analysis of the scale for the factor TC

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
Scale reliability: Cronbach Alpha = 0.754				
TC1	16.01	7.129	0.505	0.715
TC2	15.98	6.911	0.583	0.687
TC3	16.02	6.807	0.556	0.696
TC4	16.02	7.137	0.519	0.710
TC5	15.97	7.543	0.437	0.739

(Source: Survey results, 2021)

Policy to approach customers/employees

Table 4
The results of the reliability analysis of the scale for the factor CS

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
Scale reliability: Cronbach Alpha = 0.786				
CS1	10.67	5.833	0.582	0.739
CS2	11.11	5.217	0.593	0.735
CS3	10.61	6.027	0.552	0.754
CS4	10.88	5.008	0.655	0.700

(Source: Survey results, 2021)

The results of running the reliability analysis of the scale of the factor "Evaluating the convenience" shows that the reliability reaches 0. 786, it is greater than 0.6, it is accepted, and the value of Corrected item-total Correlation is greater than 0.3, this value is accepted.

Usage experience evaluation

The results of the reliability analysis of the scale of the factor "Evaluating the convenience" show that the reliability is 0.764, it is greater than 0.6, it is accepted, and the value of Corrected item-total Correlation is greater than 0.3, this value is accepted.

Table 5
The results of the reliability analysis of the scale for the factor SD

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
Scale reliability: Cronbach Alpha = 0.746				
SD1	8.23	2.329	0.539	0.710
SD2	8.10	2.478	0.631	0.600

| SD3 | 8.06 | 2.552 | 0.558 | 0.680 |

(Source: Survey results, 2021)

Customer satisfaction

The results of the reliability analysis of the scale of the factor "Evaluating the convenience" show that the reliability is 0.84, it is greater than 0.6, it is accepted, and the value of Corrected item-total Correlation is greater than 0.3, this value is accepted.

Table 6
The results of the reliability analysis of the scale for the factor HL

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
Scale reliability: Cronbach Alpha = 0.854				
HL1	15.83	8.209	0.645	0.798
HL2	15.91	7.932	0.648	0.797
HL3	15.84	8.114	0.660	0.794
HL4	16.21	8.008	0.576	0.818
HL5	15.99	8.017	0.647	0.797

(Source: Survey results, 2021)

Exploratory factor analysis

Exploratory factor analysis (EFA) with independent variables

The standard of the factor analysis method is that the KMO value must be greater than 0.5 (Garson, 2003) and Bartlett's test has a significance level Sig < 0.05 to show that the data used for factor analysis is appropriate, and variables are correlated with each other. Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) value = 0.908.

The factor analysis results show that the KMO value is 0.908 > 0.5, which proves that the data used for factor analysis is completely appropriate. Bartlett's test result is 3020.307 with the significance level Sig. = 0.000 < 0.05, then this rejects hypothesis H0: observed variables are not correlated with each other in overall. Thus, the hypothesis on the correlation matrix between the variables is a rejected homogenous matrix. It means that the variables are correlated with each other and they satisfy the factor analysis conditions. (Source: Survey results, 2021). When performing the factor analysis according to Principal components with Varimax rotation, the results show that 23 observed variables are initially grouped into 5 groups.

The total value of variance extracted = 58.093% > 50%: it is accepted; then it can be said that these 5 factors explain 58.736% of the variation of the data. The Eigenvalues of the factors are all high (>1), the 5th factor has the lowest Eigenvalues of 1,007> 1. Factor matrix with Varimax rotation method:

Table 7
EFA analysis results with independent variables

Measure	Factor				
	1	2	3	4	5
TL3	0.765				
TL1	0.739				
TL2	0.735				
TL4	0.717				
TL5	0.696				
TL6	0.503				
TC2		0.744			
TC3		0.663			
TC1		0.629			
TC5		0.513			
TC4		0.512			
AT1			0.711		
AT2			0.686		
AT3			0.680		
AT5			0.603		
AT4			0.511		
CS2				0.814	
CS4				0.791	
CS1				0.670	
CS3				0.639	
SD2					0.753
SD1					0.724
SD3					0.712
Eigen - value	7,816	2,057	1,341	1,289	1,007
Extracted variance(%)	33,983	42,926	48,755	54,360	58,736
a. Rotation converged in 6 iterations.					

(Source: Survey results, 2021)

The factor loading are all greater than 0.5, and there is no case that any variable uploads both factors at the same time with the factor loading which have almost the same value. Therefore, the factors ensure convergence and discriminant validity when analyzing EFA. In addition, there is no disturbance of factors, it means that the question of one factor is not confused with the question of the other factor. Therefore, after the factor analysis, these independent factors are kept unchanged, not increased or not decreased by factors.

Exploratory factor analysis with (EFA) dependent variables

EFA results of dependent variable scale (satisfaction) by Principal components extraction method and varimax rotation show that: KMO = 0.849 (>0.5), Bartlett's test result is 607.981 and the significance level Sig. = 0.000 (<0.05), exploratory factor analysis (EFA) should be appropriate (Source: exported from SPSS, 2021. 05 variables measuring satisfaction are extracted into the same factor at Eigenvalues = 3.380 (>1) and the extracted variance is 60.368%. Therefore, the EFA results can be used for regression analysis in the next step.

Table 8
Total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.018	60.368	60.368	3.018	60.368	60.368
2	0.621	12.418	72.786			
3	0.507	10.143	82.929			
4	0.439	8.781	91.710			
5	0.415	8.290	100.000			

Extraction Method: Principal Component Analysis
(Source: Survey results, 2021)

Table 9
A group of factors after performing exploratory factor analysis

Factor	Symbol	Item
Convenience	TL	TL1, TL2,TL3, TL4, TL5, TL6
Safety/security	AT	AT1, AT2, AT3, AT4, AT5
Reliability	TC	TC1, TC2, TC3, TC4,TC5
Policy to approach customers	CS	CS1, CS2, CS3, CS4
User experience	SD	SD1, SD2, SD3
Customer satisfaction	HL	HL1, HL2,HL3, Hl4, HL5

(Source: Survey results, 2021)

Correlation coefficient matrix analysis

Correlation coefficient matrix analysis is a very important analytical step before performing regression analysis to consider whether groups of independent variables and groups of dependent variables are eligible for regression analysis. Correlation analysis shows a linear correlation relationship between the pairs of the analyzed variables. The correlation coefficients will range from -1 to 1 and measure the degree of linear correlation among the variables. The Prob value represents the level of statistical significance for the estimated correlation coefficients. The author conducts correlation analysis among the variables in the model.

Table 10
Correlation coefficient matrix

		TL	AT	TC	CS	SD	HL
TL	Pearson Correlation	1	0.533**	0.564**	0.339**	0.472**	0.600**
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000
AT	Pearson Correlation	0.533**	1	0.566**	0.438**	0.359**	0.504**
	Sig. (2-tailed)	0.000		0.000	0.000	0.000	0.000

TC	Pearson Correlation	0.564**	0.566**	1	0.453**	0.504**	0.581**
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.000
CS	Pearson Correlation	0.339**	0.438**	0.453**	1	0.300**	0.420**
	Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.000
SD	Pearson Correlation	0.472**	0.359**	0.504**	0.300**	1	0.530**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		0.000
HL	Pearson Correlation	0.600**	0.504**	0.581**	0.420**	0.530**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	

Note: ** statistical significance level 10%
(Source: Survey results, 2021)

For the correlation among the independent variables, the study is mainly interested in the relationship among the variables with the correlation coefficient of 0.8 or more (relatively close correlation) and the statistical significance of 5% because this relationship can cause the regression model to be biased due to the phenomenon of multicollinearity between the independent variables. The analysis results of Table 10 show that the correlation between the independent variables in the model is not strong (correlation coefficients are all less than 0.6). For the correlation between the independent variables and the dependent variables, the variable of satisfaction has a non-zero correlation coefficient for the independent variable TL, AT, TC, CS, SD at the significance level of 10%. Thus, with the analysis results of the correlation coefficient matrix among the variables in the model, it shows that the independent variables and the dependent variables are eligible to perform the next step of regression analysis. The regression model has the form:

$$HL = \beta_0 + \beta_1 \cdot TL + \beta_2 \cdot AT + \beta_3 \cdot TC + \beta_4 \cdot CS + \beta_5 \cdot SD$$

Regression analysis

After conducting the exploratory factor analysis, grouping the variables according to each factor, the study continued to conduct regression analysis. The regression model that the study applies is a multi-variables regression model to examine the relationship between the dependent variables and the independent variables. When analyzing regression, the results will show the factors affecting customer satisfaction. At the same time, the impact level of the factors and their level of explanation is also indicated. Specifically, regression analysis is performed with 05 independent variables, namely Reliability on the testing service (TC), Responsiveness (DU), Empathy (DC), Service Capability (NLPV), Tangible Means (PTH); and the dependent variable of Satisfaction (SHL). Enter method (simultaneous input method) is used for regression analysis. The values of the factors used to run the regression are the average values of the observed variables. The model is written as follows: SHL = $\beta_0 + \beta_1 \cdot TC + \beta_2 \cdot DU + \beta_3 \cdot DC + \beta_4 \cdot NLPV + \beta_5 \cdot PTHH + e_i$ (β_i: Regression coefficients (i>0); β_0: Constant; e_i: error). Evaluating the model fit:

Adjusted R2 = 0.507 means that the independent variables in the model include: Convenience (TC), Safety/Security (AT), Reliability (TC), Policy to approach customers and employees (CS), User Experience (SD) for Satisfaction of students from Ho Chi Minh City University of Technology and Education with the E-wallet service, explaining 66.3% of the variation in Satisfaction (SHL) and the remaining is a variation of Satisfaction not explained by the independent variables in the model, in other words, due to factors outside the model.

Table 11
R² testing results

Model	R	R²	Adjusted R²	Standard error of the estimate
1	0,712[a]	0.507	0.500	0.49149

(Source: Survey results, 2021)

In addition, testing from ANOVA analysis of variance, F value = 70,889 Sig value. = 0.000 very small (<0.05), these results show that there is at least one statistically significant independent variable that explains the change of the dependent variable.

Table 12
Testing the fit of the regression model

Model	Total variance	Df	Square of total variance	F	Sig.
	85.621	5	17.124	70.889	0,000[b]
Residuals	83.098	344	0.242		
Total	168.719	349			

(Source: Survey results, 2021)

The results of the regression analysis and the impact level of each factor

The results of the regression model are shown in Table 13 specifically as follows:

Table 13
Regression analysis results

Model	Unstandardized regression coefficients		Standardized regression coefficient	Value of Testing	Sig.
	B	Std. Error	Beta		
Constant	0.259	0.203		1.275	0.203
TL	0.289	0.050	0.289	5.808	0.000
AT	0.122	0.055	0.110	2.227	0.027
TC	0.203	0.057	0.189	3.553	0.000
CS	0.111	0.040	0.121	2.751	0.006
SD	0.210	0.043	0.222	4.885	0.000

Dependent variable: HL
(Source: Survey results, 2021)

Testing the statistical significance of the estimated coefficients

Based on the results in Table 13, statistically significant variables include: Convenience (TL), Safety/Security Level (AT), Reliability (TC), Policy to Approach Customer/Employee, User Experience (SD). Because all significance levels (Sig. coefficients) are < 0.05. Standardized regression model on student's satisfaction at Ho Chi Minh City University of Technology and Education with e-wallet service is determined as follows:

$$HL = \beta o + 0.289*HL + 0.11*AT + 0.189*TC + 0.121*CS + 0.222*SD$$

Discussion

The results of regression analysis of factors that affect Ho Chi Minh City University of Technology and Education students' satisfaction with e-wallet services show that there are 05 factors affecting satisfaction (HL) is Convenience (TL), Safety/Security (AT), Reliability (TC), Policy to approach customers/employees (CS), and User Experience (SD). Regression analysis results also show that all initial hypotheses H1, H2, H3, H4, H5 are accepted.

Table 14
Statistical hypothesis testing

Statistical hypothesis	Estimated coefficient	Results
H1: Convenience has an effect on student satisfaction about e-wallet services	0.050 (Sig. = 0.000)	Accepted
H2: Does the level of safety/security affect student satisfaction about e-wallet services?	0.055 (Sig. = 0.027)	Accepted
H3: Reliability has an effect on student satisfaction about e-wallet services	0.057(Sig. = 0.000)	Accepted
H4: Policy to approach customers/employees has an impact on student satisfaction about e-wallet services	0.040 (Sig. = 0.006)	Accepted
H5: User experience affects student satisfaction about e-wallet service	0.043 (Sig. = 0.000)	Accepted

(Source: Survey results, 2021)

The results of the regression analysis show that "Reliability" has a strong influence on the satisfaction of students of Ho Chi Minh City University of Technology and Education with e-wallet services. Reliability represents the ability to perform the service on time. Through the analysis results, it is shown that convenience of payment, transaction, donation, or incentives hunting activities will be the biggest factors affecting the reliability. Moreover, elements such as user interface; free or low-cost of payment, transaction by e-wallet in some services; humanitarian activities and programs organized by e-wallet providers also affect reliability. Reliability is a factor that accounts for a high proportion in choosing to use an e-wallet service, or a comparison criterion between e-wallets.

Therefore, reliability is a factor that needs to be constantly developed (Mihelis et al., 2001; Athanassopoulos, 2000; Nguyen, 2020).

Convenience has a strong influence on customer satisfaction. When using the e-wallet service, students of Ho Chi Minh City University of Technology and Education are always interested in the convenience of this service. They request the service to provide them with certain conveniences such as money transfer; payment of different bills, payment of tourism-entertainment services, the fast money transfer time... Through survey and analysis, the results have been reflected in all conveniences, but students appreciate the convenience in simple operation for payment and transaction services on the e-wallet application platform. The convenience of using e-wallet services in particular and other services, in general, is extremely important. When a service has a high level of convenience, it will help users have a better experience, thereby stimulating the customer's intention to return to use (Gustafsson, 2009; Agnihotri et al., 2016; Le et al., 2020).

Another strong influence on satisfaction with e-wallets is the experience of using e-wallets. The experience of using an e-wallet has a great impact on satisfaction because only after using it, will customers realize the convenience and give their impressions of this service. When using the e-wallet service for the first time, there will be a feeling of a surprise because they are not familiar with the new platform, even a large number of people do not want to experience the e-wallet service due to the habit of using cash or being afraid to learn new things. It is due to the reasons that the demand for using e-wallets has decreased significantly. When there is no need to use it, it means that the satisfaction is very low, because the service does not bring them any expectations.

The next factor affecting customer satisfaction is the policy of approaching customers and laborers of this service. Surveys have shown that the better the approaching policy is, the higher the satisfaction level with the service is. For the service sector, how to approach customers is a very important factor, which determines satisfaction. When approaching customers, it must be the approach with good attitudes and circumstances that will stimulate customers to use the service. The approach is the first step in the path to customer satisfaction.

According to the analysis results from the survey, the safety and security of the service has the least influence when compared to other factors. Although the degree of influence is lower than other factors, its influence is still relatively strong. When using a service, especially an e-wallet service, customers will care about the safety and security of the service, because this is a factor that directly affects customers. No customer wants to use electronic services with a low level of security, because they can lose money at any time. For students of Ho Chi Minh City University of Technology and Education, the use of an advanced security technology system such as two-factor authentication, fingerprint authentication, face recognition of electronic wallets, etc. will directly affect the assessment of the safety of e-wallets. Only when customers realize that the service is safe, will customers feel secure to use the service. Once customers feel secure, their satisfaction is certain to happen (Caldwell, 2012; Octabriyantiningtyas et al., 2019).

Proposing solutions to encourage customers to use e-wallet services

Enhancing the convenience of e-wallet applications

- Create a minimalist interface: in order to serve a variety of users, creating conditions for those with limited knowledge of technology.
- Specialized interface for each user object: E-wallets should create specialized interfaces and features for users with different purposes so that users feel a simple interface, and avoid interface complexity caused by the combination of too many features.
- Expand the trading partners: In order to increase the convenience for customers, e-wallets should find more partners, expand the payment range, and help their customers make more transactions.
- Opening more services help to increase the convenience of life, most specifically opening a service that allows sending money and getting benefits right on the app. In this regard, Momo has launched the product The Magic Bag, which allows deposits with a maximum limit of 20,000,000 VND and a maximum interest rate of 6%/year, but other wallets have not yet offered this service. It is necessary to increase the deposit limit and offer more incentives to increase customer satisfaction.
- Along with the development of technology, it is the development of utilities. To meet the needs of customers, e-wallets must constantly develop their utilities.

Enhancing the safety and security of e-wallet applications

- Businesses that provide e-wallets need to invest more in information technology and strengthen the security layers to prevent attackers. An e-wallet needs to have 2 layers of security, 1 layer to the wallet and 1 layer of OTP (One time password) when making payments and money transfers.
- Businesses that provide e-wallets must meet the strictest standards in the international banking and finance industry: The international security certificate - PCI DSS (Payment Card Industry Data Security Standard) - is a security standard established by the PCI Security Standards Council with members: Visa, MasterCard, American Express, Discover Financial Services, JCB International.
- E-wallet providers must cooperate with reliable strategic partners such as OCB, VPBank, Vietinbank, TPBank, ACB, VIB, Eximbank, Sacombank, BIDV and Shinhan Bank. Thereby, for any arising problems, the business must commit to coordinate with your bank to solve it satisfactorily to ensure the reliability of users.
- In addition, users also need to pay attention to a few small points to actively protect personal information:
  - Set a password on the device where the e-wallet application is installed
  - Use a secure network connection for every transaction
  - Only install apps from trusted sources
  - Do not share data, sensitive information with strangers

- Avoid recording usage information to access e-wallets in conspicuous places or storing them in a file that is not protected or encrypted by password.
- Identify who to contact when problems occur

Enhancing customers' reliability when using e-wallets

Reliability is extremely important in building a successful e-wallet business. Whether an e-wallet provider is newly established or a long-lived one, the way customers place their trust in a business plays an important role in its success. The high reliability of an e-wallet can help for everyone, domestic and foreign banks, customers to put their trust in the e-wallet application. Unfortunately, there is an alarming rate in the reliability of E-wallets. And this causes your customers to abandon the idea of using an e-wallet because of a lack of trust in the provider. Here are some criteria to help businesses increase customer trust (Linh, 2020; Lan et al., 2021; Teng & Khong, 2021; Jackman, 2020).

Diversifying the service types

This is probably the first criterion of an e-wallet. In the past, to top up phones, top-up game cards, and pay utility bills, people had to run to stores or to specific addresses to pay. Now, with just a computer or smartphone connected to the Internet, customers can pay for everything 24/7.

- Save cost and time, E-wallets not only offer fast and convenient service implementation but also have to help users save costs and time. Users just need to sit at home, perform a few simple steps to complete transactions. Moreover, online payment services in banks often offer promotion programs to help customers enjoy the best service at the cheapest price.
- Flexible payment: Users will be provided with many different payment methods such as domestic bank accounts, international cards. As a result, it is more convenient when making online payments according to their needs.

Strengthening and diversifying the policies to approach consumers and employees

Not only MoMo, many other e-wallets such as ZaloPay, AirPay...are also through the bank-linked program to give users vouchers worth up to millions of VND to increase the experience of paying for services on the wallet as well as paying at the wallet's partners. The race for incentives, refunds... of the original e-wallets is to create a habit for consumers to access new payment channels, but after acquiring millions of users, these wallets still promote programs of discounts, money-giveaways, discounts... to "retain" customers (Putra & Yasa, 2021; Setyaningrum, 2021; Tung & Ly, 2021). For example, MoMo, as of September 2020, this wallet has reached 20 million users after 10 years on the market by building an ecosystem that meets most of the essential needs of customers with more than 20,000 business partners in the fields of finance - consumption, insurance, money transfer, payment, entertainment, e-commerce, shopping, transportation and food service, charity donation... But this is also one of the

"generous" wallets in retaining their old customers and attracting new customers. But experts from the Institute of Banking Strategy expressed concern about the massive participation of new businesses in the e-wallet market as well as the fact that active wallets have to spend large sums of money on customer-attracting programs. Businesses providing e-wallets should refer to many other approaches to customers and employees such as:

- Advertising on social networks
- Workshops
- Approach the areas with little or no use of e-wallets through flyers or banners
- Marketing with messages during the current Covid-19 epidemic
- Raise people's awareness about transactions through e-wallets when the epidemic is spreading everywhere.
- Promote communication at job fairs, the multi-professions staff selection fair.
- Create a dynamic, creative, and integrated working environment.

Conclusion

Firstly, in the current Vietnamese market, there are many e-wallet services, customers have various choices for themselves to suit their own conditions. This study reveals that specific customers, especially students from the University of Technology and Education have been using the MOMO e-wallet service the most with the rate of 40.8%. Secondly, regression analysis results of factors affecting customer satisfaction about the testing services at KTAT Accreditation Center - Region 2 show that there are 05 factors affecting customer satisfaction namely: Convenience (TL), Safety/Security (AT), Reliability (TC), Policy to Approach (CS) and User Experience (SD). Regression analysis results also show that all initial hypotheses H1, H2, H3, H4, H5 are accepted. Thirdly, the authors have proposed a number of solutions to encourage users as well as students to use e-wallet services, including:

- Enhance the convenience of e-wallet applications
- Enhance the safety and security of e-wallet applications
- Enhance customer confidence when using e-wallets
- Strengthen and diversify policies to approach consumers and employees

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