

Research Articles

An Empirical Analysis of Factors Affecting The Intention of Using Digital Wallet in Yogyakarta

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ABSTRACT

This research aims to analyze the factors affecting the intention to use digital wallets in Yogyakarta. By employing the Unified Theory of Acceptance and Use of Technology (UTAUT) model, the study examines the impact of performance expectancy, effort expectancy, social influence, and perceived risks on consumers' behavioral intentions. Data were collected from a sample of digital wallet users in Yogyakarta through surveys, and multiple linear regression analysis was used to test the hypotheses. The findings reveal that performance expectancy, effort expectancy, social influence, and perceived risks positively influence the intention to use digital wallets. The results provide valuable insights for digital wallet service providers to enhance user adoption and satisfaction.

Keywords: performance expectancy, effort expectancy, social influence, perceived risk, behavioural intention

INTRODUCTION

The internet at its basic form is a medium used to increase the efficiency of communication processes related to several uses, such as the Web, VoIP, and E-mail (Hidayat and Saputra, 2018). Along with the growth of the internet over the course of this century, innovations in technology and efficiency have brought about a different way to enact commerce electronically, which is called E-Commerce. The method of commerce uses the internet to access a marketplace where customers may shop, order food, and use transportation services straight from a facilitating medium such as gadgets. Due to the nature of its efficiency, E-Commerce has exponentially increased in demand especially in countries that are known to be mobile-first, such as Indonesia.

Nowadays, the rapid evolution of finance technology has continued to influence the widespread adoption of digital wallets, which represents a shift in the way users interact with monetary transactions. This study is a comprehensive way to dive into the details that involves the adoption of digital wallets in the traditional and vibrant cultural and economic context of Yogyakarta.



With growing numbers of usage, innovation upon E-commerce has grown in parallel with technology that supports its features. An example of said innovation is providing different ways to approach payment systems such as ATMs, credit cards, debit cards and most traditionally cash (Widodo, Irawan and Sukmono, 2019). Today, a new form of payment has emerged, which uses electronic money which is more widely known as E-Money. E-money is stored in a digital wallet, which uses software applications that send information about one or more deposit accounts' payment authorization. Like physical wallets, most information, types of cards and payments are stored in digital wallets to transmit payment authorization data (Levitin, 2017).

According to Oktora *et al.* (2022), there are four methods of transaction that are frequently used in E-Commerce in Indonesia. The transactions and usage are Cash on Delivery (82,11%), Transfer Bank (12,57%), E-Wallet (2,24%), Card (2,08%). Considering E-Wallet is a recent innovation, it shows that around 2,24% of e-commerce businesses by frequently used payment methods E-Wallet.

According to existing studies such as a study conducted by Hau, Nhung and Trang (2021) there are several factors affecting customers in using one transaction over the other, on which they have mentioned what the factors affecting behavioural intent in using digital wallets are. The study was conducted in Vietnam where it investigates factors affecting consumer's behavioural intention upon application on using digital wallets. It was conducted by using a research model that contains 5 independent variables which are Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions and Perceived Risks. The dependent variable, behavioural intention was utilized to figure out if the independent variables positively affect behavioural intention.

In addition to Hau, Nhung and Trang (2021) research, studies mentioned by the author have used various models and theories for examining behavioural Intent such as Unified Theory of Acceptance and Use of Technology (UTAUT) model (Bùi and Bùi, 2018), Technology Acceptance Model (TAM) Model (Liu and Tai, 2016), and the Theory of reasoned Action (TRA) (Nguyen, Dinh and Doan, 2018). Amongst the models mentioned, Hau, Nhung dan Trang (2021) states that UTAUT model is more comprehensive at analysing the determinants and factors of Behavioural Intention. However, some studies only utilize parts of the actual model to fit the criteria of the research, with an example being Bùi and Bùi (2018), who does not include facilitating conditions from their research. Similarly, Hau, Nhung and Trang (2021) has modelled a different set of criteria for utilizing the UTAUT model by adding an additional factor of Perceived Risks which allows the examination of Vietnamese consumer's behavioural intention of using digital wallets that models failed to include.

Understanding the reasons and determinants on why consumers use digital wallets serves as valuable data and information for service providers. On which, this study would use the modified version of UTAUT which was presented by (Venkatesh *et al.*, 2003). The main sample for this research would be Yogyakarta, where it has a sizable sample of E-Wallet usage across the demographic. The list of digital wallet usage would not limit to a specific company, as the research is conducted with the intention of digital wallet use in general. Indonesian consumers in mind, consumer risk adverse attitudes when related to e-payment methods, perceived risks tend to contain inside the UTAUT model. This research would try to find 4 main factors, which are: performance expectancy, effort expectancy, social influence, and perceived risks by customers. This research aims to analyze the factors affecting the intention to use digital wallets in Yogyakarta.

LITREATURE REVIEW AND HYPOTHESIS

Behaviour Intention

Behavioural intention is the best predictor of correct behaviour (Fishbein and Ajzen, 1975). The intention is therefore explained by the consumers willingness to utilize the product/service. In examining the intention to use e-wallets for payments, the content was centred on statistics, including the intention to use, usage plans, as well as system utilisation forecasts (Venkatesh *et al.*, 2003). As in prior research, sentiments of consumers are strong and positively influence purchase intent. Furthermore, Won and Kim (2020) agree that consumer attitudes towards products and services have had a statistically significant impact on purchase intention. The intention to use a technical system has a lot to do with user behaviour (Fishbein and Ajzen, 1975). This means that the more likely the consumer's intention is, the greater the actual action, and vice versa.

Performance Expectancy

Performance expectancy is defined as the degree to which an individual believes that using the system will help attain gains in job performance (Venkatesh *et al.*, 2003). Handayani and Novitasari (2020) believes that Performance Expectancy is where an individual will use information technology when the system helps improve performance. In many studies, it is believed that performance expectancy has an important role in determining a consumer's behavioural intention; however, the evidence of said statement remains mixed.

An example of this is when digital payments offer simple and easy to use tools and utilities. For example, smooth transactions on paying Utility bills online, transferring money, online shopping, ticket booking, and food deliveries are primary indicators to show system usefulness (Ali, Nair and Hussain, 2016). Because of the features mentioned, users can efficiently manage their transactions by knowing their in-flows and out-flows and could serve a lot of time management by simply managing their transactions in a digital wallet. This results in the proposed hypothesis of performance expectancy.

H₁: Performance expectancy (PE) positively affects consumer's behavioural intention (BI) of using digital wallets.

Effort Expectancy

Effort expectancy is a level of usability of the system, a reduction in the effort (work and time) that an individual must complete a task (Venkatesh *et al.*, 2003). The system creates a sense of utility from the human system and gives a sense of comfort to its operation. The impact of the anticipated efforts on behavioural intent has been demonstrated in several studies on the behavioural intent of digital payments and mobile wallets (Widodo, Irawan and Sukmono, 2019).

Hau, Nhung and Trang (2021) argues that Vietnamese consumers claim to refrain conservative from using digital for lack of understanding of how to use the system. This indicates a positive association between effort expectations and behavioural intentions. Numerous prior research has also assessed the advantages of and significant effects of Efforts expected from people's intentions for the adoption of new technologies. Therefore, the following assumption is:

H₂: Effort expectancy (EE) positively affects consumer's behavioural intention (BI) of using digital wallets.

Social Influence

Social influence is a reflection of the effects of surrounding circumstances, including advice and viewpoints from friends, family, and relatives. that encourage the use of technology. According to Parrett (no date), social impact can be defined as the effect on people and communities that happens as a result of an action or inaction, an activity, project, programme or policy. During this research, the users they observe perform the activities of other people and the ads adapt to the behaviour and behaviour around them.

Social impact is an important component that pushes consumers to shop from mobile devices. In addition, the positive views of others on the use of mobile shopping will motivate consumers to shop from mobile devices (Yang and Forney, 2013). Social impact is the perceptual effect of others that motivates customers to transact using mobile technology. The groups of people that affect Those that utilise mobile wallets include neighbours, relatives, coworkers, and friends. The opinion of people who are involved in imposing adoption is known as social effect. Social influence has a positive impact on people's intentions to embrace cutting-edge technology (Venkatesh *et al.*, 2003). Thus, social influence might positively impact consumers' intentions regarding their conduct with regard to digital wallets in Yogyakarta, which proposes the hypothesis:

H₃: *Social influence (SI) positively affects consumer's behavioural intention (BI) of using digital wallets.*

Perceived Risks

According to this study, perceived risk refers to how consumers view the possible losses that could result from utilising a digital wallet as a payment method due to ambiguity. All negative effects on consumers are included in these losses, including monetary losses, invasions of privacy, security lapses, performance complaints, worry or psychological discomfort, and lost time (Taiwo, Mahmood and Downe, 2012).

In most studies like (Hille, Walsh and Cleveland, 2015; Zou *et al.*, 2018), the risks come in the form of consumers fearful of losing money due to information breaches and/or other criminal activity that occurs through data. It shows that payment safety and security versus traditional payments is the main factor in determining whether a customer is more likely to use digital wallets. The intention to utilise the e-wallet decreases as danger increases. This aligns with what (Davis, 1989) said. noted Perceived risks in TAM may contribute to the "attitude towards use" that is linked to acceptance and rejection behaviours in the use of technology; once a consumer chooses to use a technology, they have agreed to assume the risks involved.

H₄: *Perceived risks (PR) negatively affect consumer's behavioural intention (BI) of using digital wallets.*

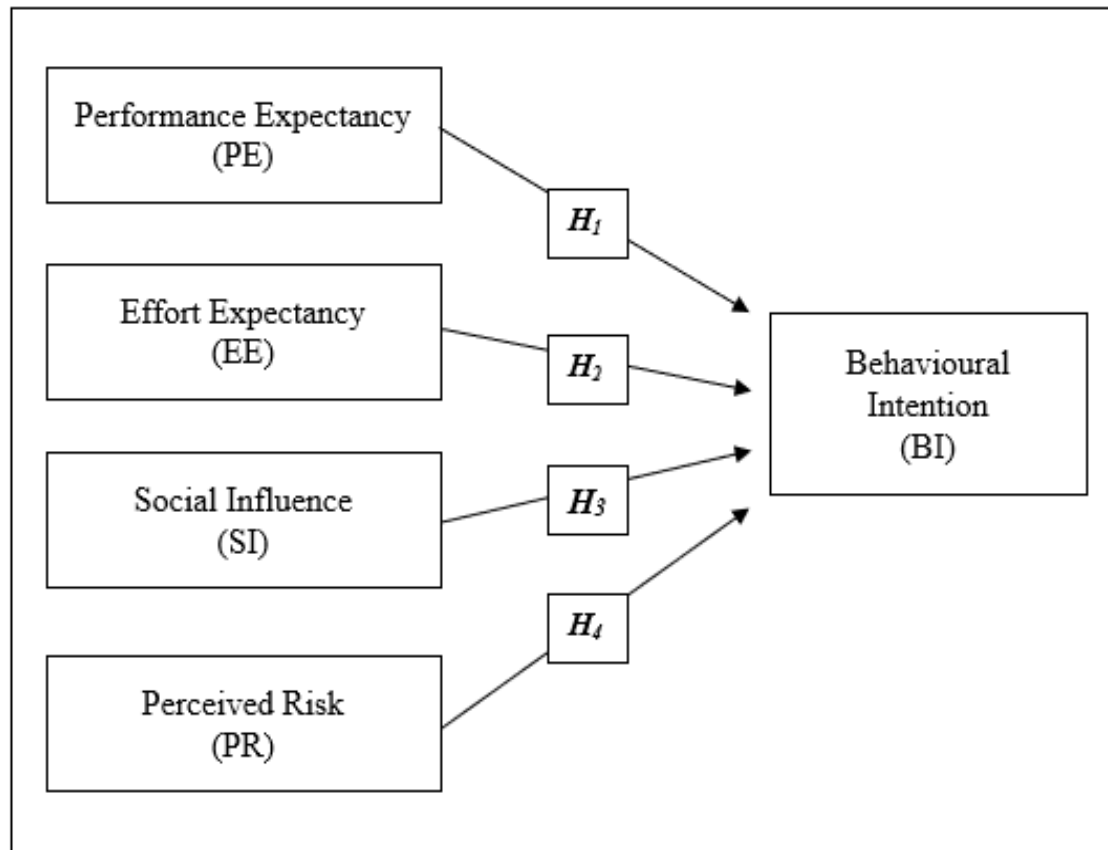


Figure 1. Hypothesis Framework

METODE

The research methodology of this study adopts a causal quantitative approach, focusing on investigating the relationships between specific variables through the use of statistical methods. The research design is grounded in the Unified Theory of Acceptance and Use of Technology (UTAUT) model, with independent variables including Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), and Perceived Risk (PR), while the dependent variable is Behavioral Intention (BI) to use digital wallets. The study's population comprises customers in Indonesia who have used digital wallets at least once, with data collected using a survey method through questionnaires. The sampling technique employed is non-probability purposive sampling, targeting individuals aged 18 and above who have experience with digital wallets.

The data analysis techniques involve descriptive statistical analysis using SPSS version 16 to calculate measures such as mean, standard deviation, and distribution shape. Validity and reliability tests are conducted to ensure the accuracy and consistency of the questionnaire, utilizing cronbach's Alpha, respectively. Classical assumption tests, including multicollinearity and normality tests, are performed to validate the regression model. The study's methodology is designed to systematically investigate the factors influencing the intention to use digital wallets in Yogyakarta, providing empirical evidence through a structured and rigorous quantitative approach (Ghozali, 2016; Sugiyono, 2019, 2022).

Tabel 1. Characteristics of Respondent

Characteristic	N	%
<i>Gender</i>		
Male	61	54
Female	51	46
<i>Job</i>		
Student	35	31.3
Employed	51	45.5
Self-Employed	14	12.5
Un-Employed	12	10.7
<i>Age</i>		
< 18	2	1.8
18-24	30	26.8
25-34	64	57.1
35-44	15	13.4
45-54	1	0.9

Source: Processed Data (2023)

RESULTS AND DISCUSSION

Validity and Reliability Test

A questionnaire's validity is assessed using validation testing. If the answers to the questionnaire indicate what is being measured, then it is deemed valid. SPSS Version 26 was used to process the validity test in this investigation. The validity test in the study is used to evaluate the validity of a questionnaire with total scores at a significance level of 5%, using a sample size of 110 respondents. The researcher analyses each item's Pearson correlation with the product-moment correlation table to assess the validity of the findings. The statement item is deemed valid if the computed correlation (r) is higher than the table value (r table). The validity test results are displayed in the table below with $n = 110$, resulting in df (degrees of freedom) of $110-2 = 108$, and $\alpha = 5\%$, so the table value (r table) is 0.1874.

Table 2. Validity Testing Results

Variable	Item	R Count	R Table	Conclusion
Performance Expectancy (X1)	1	0.748	0.1874	Valid
	2	0.749	0.1874	Valid
	3	0.686	0.1874	Valid
	4	0.745	0.1874	Valid
Effort Expectancy (X2)	1	0.571	0.1874	Valid
	2	0.653	0.1874	Valid
	3	0.634	0.1874	Valid
	4	0.682	0.1874	Valid
	5	0.674	0.1874	Valid
Social Influence (X3)	6	0.643	0.1874	Valid
	1	0.834	0.1874	Valid
	2	0.744	0.1874	Valid

Variable	Item	R Count	R Table	Conclusion
Perceived Risks (X4)	3	0.800	0.1874	Valid
	1	0.699	0.1874	Valid
	2	0.720	0.1874	Valid
	3	0.756	0.1874	Valid
Behavioral Intention of Using Digital Wallet (Y)	4	0.729	0.1874	Valid
	1	0.755	0.1874	Valid
	2	0.690	0.1874	Valid
	3	0.791	0.1874	Valid
	4	0.725	0.1874	Valid

Source: Processed Data (2023)

Every question item in the above table has a correlation coefficient that is determined by the validity test findings. was examined. The data that was gathered and processed indicates that all question items in each variable have r values greater than the corresponding r table values. From the results given, it can be concluded Assuming every question in the research is legitimate, then the reliability test may start.

Table 3. Reliability Test Results

Variable	Cronbach's Alpha	Conclusion
Performance Expectancy	0.705	Reliable
Effort Expectancy	0.714	Reliable
Social Influence	0.701	Reliable
Perceived Risks	0.701	Reliable
Behavioural Intention of Using Digital Wallet	0.722	Reliable

Source: Processed Data (2023)

Every variable in the reliability test has a cronbach's alpha value more than 0.70, according to the data shown in the above table. This leads one to the conclusion that each of these factors is trustworthy.

Normality Test

Table 4. Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		110
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	1.06204378
Most Extreme Differences	Absolute	.041
	Positive	.041
	Negative	-.036
Test Statistic		.041
Asymp. Sig. (2-tailed)		.200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Source: Processed Data (2023)

In the table above, the results of the Kolmogorov-Smirnov normality test yielded a value of 0.200 for the probability (p) or Asymp. Sig. (2-tailed). This means that the normality assumption is met because the p-value of 0.200 is greater than the significance level of 0.05. In addition to statistical analysis, graphical analysis, such as the use of histograms and normal P-Plots, can also be used to examine normality testing. The results of the graphical analysis are shown below.

Multicollinearity Test

Table 5. Multicollinearity Test Results

Variable	Tolerance	VIF
Performance Expectancy	0.689	1.451
Effort Expectancy	0.653	1.531
Social Influence	0.831	1.203
Perceived Risks	0.822	1.216

Source: Processed Data (2023)

In this study, the multicollinearity test data pertains to the independent variables. The results indicate that all variables are free from multicollinearity issues. The Performance Expectancy variable has a VIF value of 1.451 and a Tolerance value of 0.689, the Effort Expectancy variable has a VIF value of 1.531 and a Tolerance value of 0.653, the Social Influence variable has a VIF value of 1.203 and a Tolerance value of 0.831, and the Perceived Risks variable has a VIF value of 1.216 and a Tolerance value of 0.822. All VIF values are less than 10, and all Tolerance values are greater than 0.10, indicating that none of the independent variables exhibit multicollinearity.

Multiple Linear Regression Analysis

Table 6. Multiple Linear Regression Result

Model	Coefficients ^a				t	Sig.
	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. Error	Beta			
(Constant)	1.810	1.374		1.317	0.191	
1	Performance Expectancy	0.225	0.090	0.231	2.502	0.014
	Effort Expectancy	0.146	0.072	0.191	2.020	0.046
	Social Influence	0.193	0.096	0.169	2.012	0.047
	Perceived Risks	0.255	0.081	0.267	3.157	0.002

a. Dependent Variable: Behavioural Intention of Using Digital Wallet

Source: Processed Data (2023)

Based on the results of the multiple linear regression analysis in the table above, the regression model obtained is as follows:

$$Y = 1.810 + 0.225X_1 + 0.146X_2 + 0.193X_3 + 0.255X_4$$

Based on the multiple linear regression model above, the following information is obtained:

1. The constant term of 1.810 indicates that if there are no changes in the values of the independent variables (Performance Expectancy, Effort Expectancy, Social Influence, and Perceived Risks), then the value of the dependent variable (Behavioural Intention of Using Digital Wallet) is 1.810.
2. The regression coefficient for the Performance Expectancy variable (X₁) is 0.225, and it is positive. This means that if the Performance Expectancy variable increases by 1 point significantly, with the other independent variables held constant, the Behavioural Intention of Using Digital Wallet will increase by 0.225.
3. The regression coefficient for the Effort Expectancy variable (X₂) is 0.146, and it is positive. This indicates that if the Effort Expectancy variable increases by 1 point significantly, with the other independent variables held constant, the Behavioural Intention of Using Digital Wallet will increase by 0.146.
4. The regression coefficient for the Social Influence variable (X₃) is 0.193, and it is positive. If the Social Influence variable increases by 1 point significantly, with the other independent variables held constant, the Behavioural Intention of Using Digital Wallet will increase by 0.193.
5. The regression coefficient for the Perceived Risks variable (X₄) is 0.255, and it is positive. If the Perceived Risks variable increases by 1 point significantly, with the other independent variables held constant, the Perceived Risks of Using Digital Wallet will increase by 0.255.

Coefficient Determination

Table 7. Coefficient Determination Result

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.620 ^a	.384	.361	1.08208

Source: Processed Data (2023)

Based on the results of the coefficient of determination test above, the value of R² (Adjusted R Square) from the regression model is used to determine how well the independent variable explains the dependent variable. According to the table above, the R² value is 0.384, meaning that 38.4% of the variation in the dependent variable, Behavioural Intention of Using Digital Wallet, can be explained by the variation in the four independent variables: Performance Expectancy, Effort Expectancy, Social Influence, and Perceived Risks. The remaining portion, which is 61.6% (100%-38.4%), is influenced by other variables outside the scope of this study.

Discussions

The Influence of Performance Expectancy on Behavioral Intention

The hypothesis testing results demonstrate that Performance Expectancy has a positive and significant effect on the Behavioral Intention of using digital wallets in Yogyakarta. This is evidenced by a positive regression coefficient of 0.225 and a significance value of 0.014, which is less than 0.05. This indicates that higher expectations of performance lead to a greater intention to use digital wallets. According to Venkatesh *et al.* (2003), performance expectancy is the degree to which an individual believes that using the system will help them attain gains in job performance. High performance expectancy is crucial for the acceptance and usage of new technologies. This finding aligns with previous studies, such as those conducted by Hau, Nhung and Trang (2021), which found that performance expectancy significantly influences behavioral intention (BI) of using digital wallets.

The Influence of Effort Expectancy on Behavioral Intention

The study also found that Effort Expectancy significantly impacts Behavioral Intention, with a regression coefficient of 0.146 and a significance value of 0.046. This suggests that the easier individuals perceive the use of digital wallets to be, the more likely they are to use them. Effort expectancy reflects the ease of use associated with the technology, and as Davis (1989) highlighted in the Technology Acceptance Model (TAM), perceived ease of use is a fundamental determinant of technology acceptance. This result is consistent with previous research conducted by Hau, Nhung and Trang (2021), which found that effort expectancy significantly influences behavioral intention (BI) of using digital wallets.

The Influence of Social Influence on Behavioral Intention

Social Influence was found to have a significant positive effect on Behavioral Intention, as indicated by a regression coefficient of 0.193 and a significance value of 0.047. This implies that social factors, such as the opinions of friends, family, and colleagues, play a vital role in influencing an individual's intention to use digital wallets. Social influence pertains to the extent to which individuals perceive that important others believe they should use the new system (Venkatesh *et al.*, 2003). This finding is in line with the studies of Hau, Nhung and Trang (2021), which found that social influence significantly influences behavioral intention (BI) of using digital wallets.

The Influence of Perceived Risks on Behavioral Intention

Interestingly, Perceived Risks also showed a significant positive effect on Behavioral Intention, with a regression coefficient of 0.255 and a significance value of 0.002. This indicates that despite the risks associated with using digital wallets, such as security and privacy concerns, individuals are still inclined to use them. This finding suggests that users may weigh the benefits of using digital wallets more heavily than the potential risks. According to Featherman and Pavlou (2003), perceived risk is a crucial factor affecting the adoption of online services. However, the positive relationship found in this study might indicate that users are becoming more confident in the security measures of digital wallets or are driven by other strong motivating factors.

Overall Model and Implications

The overall model explains 38.4% of the variance in Behavioral Intention, indicating that the independent variables—Performance Expectancy, Effort Expectancy, Social Influence, and Perceived Risks—are significant predictors of the intention to use digital wallets. The remaining 61.6% of the variance is influenced by other factors not included in this study, suggesting that future research should explore additional variables such as trust, facilitating conditions, and user experience to provide a more comprehensive understanding of the factors influencing digital wallet adoption.

In conclusion, the study highlights the importance of enhancing performance expectancy, effort expectancy, social influence, and addressing perceived risks to increase the adoption of digital wallets in Yogyakarta. These insights can help digital wallet providers and policymakers design strategies to promote the use of digital wallets, thereby advancing financial inclusion and the digital economy in the region.

RESEARCH LIMITATIONS

This study is limited to users in Yogyakarta, which may not represent the broader population. It only considers four variables: Performance Expectancy, Effort Expectancy, Social Influence, and Perceived Risks, excluding other influential factors like trust and user experience. Additionally, the cross-sectional design limits the ability to infer causality.

MANAGERIAL IMPLICATIONS

The researcher recommends that companies enhance digital wallet security by implementing robust encryption and biometric authentication, or alternatively, two-factor authentication to ensure consumer safety. They should also offer clear information about data handling practices and security breaches. Additionally, providing resources such as tutorials can help users navigate digital wallets safely and mitigate potential risks.

CONCLUSION

Based on the research findings, it can be concluded that performance expectancy positively influences consumers' behavioral intention to use digital wallets. This means that higher performance expectations increase the likelihood of consumers using digital wallets. Effort expectancy also positively affects consumers' behavioral intention, indicating that ease of use contributes to the intention to use digital wallets. Social influence has a positive impact on consumers' behavioral intention, showing that encouragement from social circles enhances the desire to use digital wallets. Additionally, perceived risks positively influence consumers' behavioral intention, suggesting that effective risk management can strengthen the intention to use digital wallets.

DAFTAR PUSTAKA

- Ali, F., Nair, P.K. and Hussain, K. (2016) "An assessment of students' acceptance and usage of computer supported collaborative classrooms in hospitality and tourism schools," *Journal of Hospitality, Leisure, Sport & Tourism Education*, 18, pp. 51–60. Available at: <https://doi.org/10.1016/j.jhlste.2016.03.002>.
- Bùi, T.T.H. and Bùi, H.T. (2018) "GAMIFICATION IMPACT ON THE ACCEPTANCE OF MOBILE PAYMENT IN HO CHI MINH CITY, VIETNAM," *International*

- Journal of Social Science and Economic Research*, 3(9), pp. 4822–4837. Available at: https://ijsser.org/2018files/ijsser_03__334.pdf.
- Davis, F.D. (1989) “Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology,” *MIS Quarterly*, 13(3), pp. 319–340. Available at: <https://doi.org/10.2307/249008>.
- Featherman, M.S. and Pavlou, P.A. (2003) “Predicting e-services adoption: a perceived risk facets perspective,” *International Journal of Human-Computer Studies*, 59(4), pp. 451–474. Available at: [https://doi.org/10.1016/S1071-5819\(03\)00111-3](https://doi.org/10.1016/S1071-5819(03)00111-3).
- Fishbein, M. and Ajzen, I. (1975) *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.
- Ghozali, I. (2016) *Aplikasi Analisis Multivariete Dengan Program IBM SPSS 23*. 8th ed. Semarang: Badan Penerbit Universitas Diponegoro Semarang.
- Handayani, T. and Novitasari, A. (2020) “Digital Wallet as a Transaction Media in The Community,” in *IOP Conference Series: Materials Science and Engineering, Volume 879, 3rd International Conference on Informatics, Engineering, Science, and Technology (INCITEST 2020) 11 June 2020, Bandung, Indonesia*. Bandung: IOP Publishing Ltd, p. 012001. Available at: <https://doi.org/10.1088/1757-899X/879/1/012001>.
- Hau, H.T., Nhung, D.T.H. and Trang, P.H. (2021) “An empirical analysis of factors affecting the intention of using digital wallets in Vietnam,” *Journal of International Economics and Management*, 21(1), pp. 86–107. Available at: https://www.researchgate.net/publication/350396014_An_empirical_analysis_of_factors_affecting_the_intention_of_using_digital_wallets_in_Vietnam.
- Hidayat, A. and Saputra, I.P. (2018) “IMPLEMENTATION VOICE OVER INTERNET PROTOCOL (VOIP) AS A COMMUNICATION MEDIA BETWEEN UNIT AT UNIVERSITY MUHAMMADIYAH METRO,” *International Journal Information System and Computer Science (IJISCS)*, 2(2), pp. 59–66. Available at: <https://jurnal.ftikomibn.ac.id/index.php/ijiscs/article/view/603>.
- Hille, P., Walsh, G. and Cleveland, M. (2015) “Consumer Fear of Online Identity Theft: Scale Development and Validation,” *Journal of Interactive Marketing*, 30(1), pp. 1–19. Available at: <https://doi.org/10.1016/j.intmar.2014.10.001>.
- Levitin, A.J. (2017) “Pandora’s Digital Box: The Promise and Perils of Digital Wallets,” *University of Pennsylvania Law Review*, 166(2), pp. 1–90. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2899104.
- Liu, G.-S. and Tai, P.T. (2016) “A Study of Factors Affecting the Intention to Use Mobile Payment Services in Vietnam,” *Economics World*, 4(6), pp. 249–273. Available at: <https://doi.org/10.17265/2328-7144/2016.06.001>.
- Nguyen, C., Dinh, D. and Doan, T. (2018) “The Determinants of the Choices of Payment Methods for Goods and Services Transaction in Vietnam,” *International Journal of Applied Science*, 1(2), pp. 84–92. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3906109.
- Oktora, R. *et al.* (2022) *Statistik eCommerce 2022*. Edited by L. Anggraini. Badan Pusat Statistik.
- Parrett, E. (no date) *What is Social Impact and How Do I Measure It?*, *Good Finance*. Available at:

- <https://www.goodfinance.org.uk/latest/post/what-social-impact-and-how-do-i-measure-it> (Accessed: July 1, 2024).
- Sugiyono (2019) *Metode Penelitian Pendidikan (Kuantitatif, Kualitatif, Kombinasi, R&D dan Penelitian Tindakan)*. 3rd ed. Edited by A. Nuryanto. Bandung: Alfabeta.
- Sugiyono (2022) *Metode Penelitian Bisnis, Pendekatan Kuantitatif, Kualitatif, Kombinasi, dan R&D*. Bandung: CV Alfabeta.
- Taiwo, A.A., Mahmood, A.K. and Downe, A.G. (2012) “User acceptance of eGovernment: Integrating risk and trust dimensions with UTAUT model,” in *2012 International Conference on Computer & Information Science (ICCIS)*. Kuala Lumpur: IEEE, pp. 109–113. Available at: <https://doi.org/10.1109/ICCISci.2012.6297222>.
- Venkatesh, V. *et al.* (2003) “User Acceptance of Information Technology: Toward a Unified View,” *MIS Quarterly*, 27(3), pp. 425–478. Available at: <https://doi.org/10.2307/30036540>.
- Widodo, M., Irawan, M.I. and Sukmono, R.A. (2019) “Extending UTAUT2 to Explore Digital Wallet Adoption in Indonesia,” in *2019 International Conference on Information and Communications Technology (ICOI ACT)*. Yogyakarta: IEEE, pp. 878–883. Available at: <https://doi.org/10.1109/ICOI ACT46704.2019.8938415>.
- Won, J. and Kim, B.-Y. (2020) “The Effect of Consumer Motivations on Purchase Intention of Online Fashion - Sharing Platform,” *Journal of Asian Finance, Economics and Business*, 7(6), pp. 197–207. Available at: <https://doi.org/10.13106/jafeb.2020.vol7.no6.197>.
- Yang, K. and Forney, J.C. (2013) “The Moderating Role Of Consumer Technology Anxiety In Mobile Shopping Adoption: Differential Effects Of Facilitating Conditions And Social Influences,” *Journal of Electronic Commerce Research*, 14(4), pp. 334–347. Available at: http://www.jecr.org/sites/default/files/14_4_p04.pdf.
- Zou, Y. *et al.* (2018) “‘I’ve Got Nothing to Lose’: Consumers’ Risk Perceptions and Protective Actions after the Equifax Data Breach,” in *Proceedings of the Fourteenth Symposium on Usable Privacy and Security*. Baltimore: USENIX Association, pp. 197–216. Available at: <https://www.usenix.org/conference/soups2018/presentation/zou>.