The Influence of Perceived Severity and Self-Efficacy Towards Adaptive Behaviour on Digital Wallets in Vietnam: A Conceptual Study

Khairunnisa' Binti Yussof[1*], Maisarah Binti Yaacob[2], Siti Musliha Mohd Idris[3]

Faculty of Business and Management, University Technology MARA Melaka, 78000 Alor Gajah, Melaka123

[*]Corresponding author

DOI: https://dx.doi.org/10.47772/IJRISS.2025.915EC00736

Received: 05 September 2025; Accepted: 08 September 2025; Published: 08 October 2025

ABSTRACT

This research explores the usage of digital wallets in Vietnam, focusing on the drivers of self-efficacy and perceived severity. The rapid development of e-commerce and digital payment systems has been pushing Vietnam toward a cashless economy from its earlier cash-dependent one. However, some key issues such as low user confidence and security threats like fraud and data theft still hinder further adoption of digital wallet. From these psychological perspectives, the study has been able to show how necessary the handling of risk perceptions, establishment of trust for the right adoption towards digital wallet. These findings offer practical valuable insight for researchers, governments and service providers on how to enhance access to digital financial services, build user confidence, and further drive Vietnam's ongoing transition toward a robust digital economy.

Keyword: Digital Wallet, Perceived Severity, Self-Efficacy, Digital Payments, Digital Wallet Security, Cashless Economy

INTRODUCTION

Vietnam, a Southeast Asian country with a population of over 98 million, is noted for its extensive coastline and tropical monsoon weather. Vietnam boasts one of the highest rates of smartphone and internet usage in the world, as well as a rapidly expanding e-commerce business. Regarding economic standing, Vietnam is not considered poor among Southeast Asian nations. Its rapid economic development has elevated it to a middle-income status, and it continues to be one of the fastest-growing economies in the region. The country's strategic location, young labour force, and favourable investment policies have attracted significant foreign investment, further strengthening its economic position. Digital payments are one of the numerous digital fronts that have experienced increased growth in the nation as a result. Vietnam, formerly one of Asia's most cash-dependent nations, has seen a sharp increase in the use of cashless payments. Digital wallets are offered by up to two-thirds of authorised non-bank payment intermediary firms in Vietnam, according to the State Bank of Vietnam. a staggering 56% of Vietnamese respondents reported carrying fewer physical cash than they did a year prior, indicative of a growing inclination towards digital payment methods. Notably, the younger demographic is leading the charge in this transition, with a striking 89% having seamlessly adopted cashless payment solutions.

There are reportedly over 30 service providers in the digital wallet business, but just four of them hold a dominant market share. Among the leading firms in the digital wallet market are MoMo, ViettelPay, ZaloPay, and Moca. With roughly 10 million users, MoMo has unquestionably become the market leader (Fintechnews Vietnam, 2019). Numerous researches have examined the behavioural intention of digital wallet users in industrialised nations where utilising this type of payment mechanism has grown widespread. A number of research on the behavioural intention of Vietnamese customers to use digital wallets have been conducted, considering that these wallets have just recently been introduced in Vietnam. (Hau et al., 2021).

Problem Statement

According to World Bank survey in 2020, electronic payments are becoming increasingly common as a preferred method of payment worldwide. Peer-to-peer exchanges account for more than 90% of all daily financial transactions. In ASEAN countries, non-cash payment alternatives are also gaining significant traction. Research conducted by Bain & Company in collaboration with Facebook examined approximately 16,500 digital users across six ASEAN nations—Vietnam, Philippines, Thailand, Singapore, and Malaysia. Despite this shift towards digital payments, cash remains widely used in Southeast Asia. The study Bain & Company (2020) revealed that while the proportion of individuals preferring cash dropped from 40% in 2019 to 34% in 2020, it still represents a substantial part of the region's payment landscape. In Vietnam, the "king" position of cash is the most significant challenge to promoting digital wallet payments. In Vietnam, cash accounts for 99% of transactions worth less than VND100,000 (about US$4.30) (Vietnam News (2019); Do, 2020). Despite cash preference, digital wallet in Vietnam is still encouraging. However, the implementation of digital wallet could not be holistic among them because of the threat or risk on it. Threat or risk such as security, knowledge and location that will shape the belief and perception toward digital wallet. These perils could hinder them in using the digital wallet.

Based on Figure 1.0, which highlights data retrieved from the Scopus database (using keyword digital wallet), India ranks as the leading country in publications related to digital wallets. Within Southeast Asia, countries such as Indonesia and Malaysia are also prominent contributors to research in this field. This underscores the importance of scholarly efforts to further review these countries, providing valuable insights and recommendations to support their digital wallet development and overall economic growth. There are limited studies on how threat and risk affect consumers' protection motivation towards digital wallets adoption especially in Vietnam, the majority of the literature currently in publication concentrates on consumer perspectives on behavioural intention.

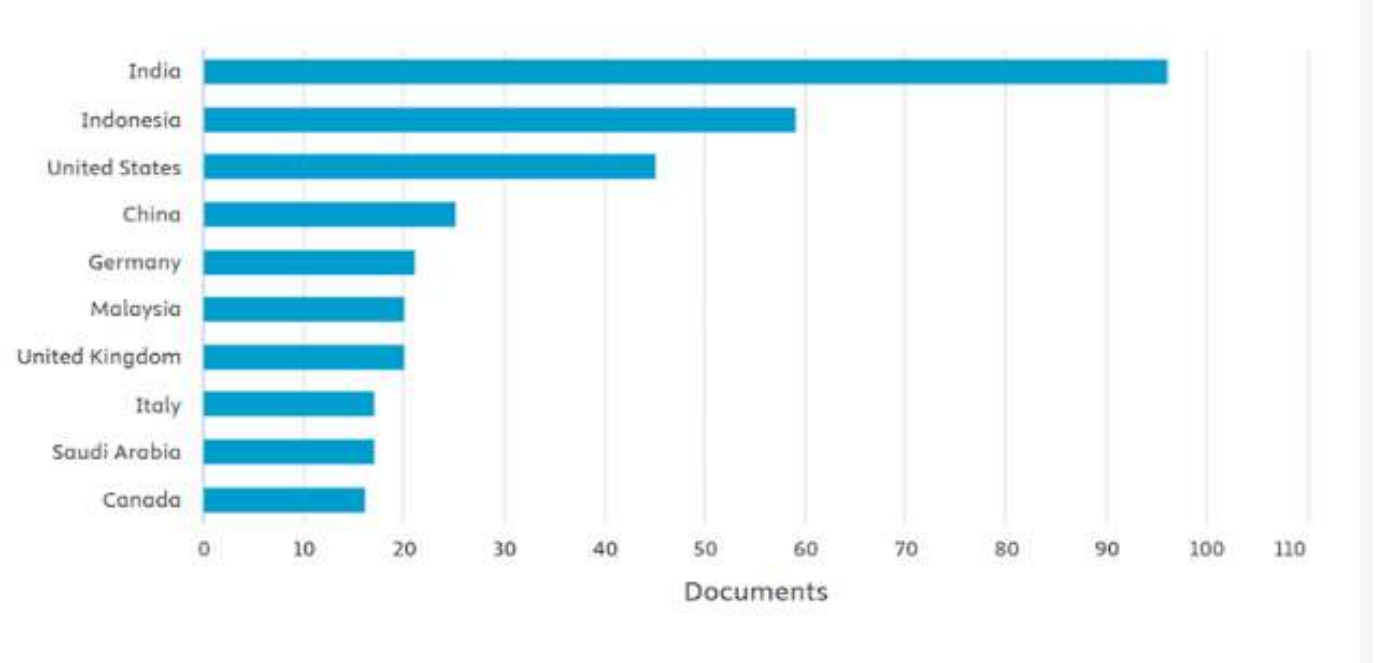


Figure: Document by country by Scopus (2024)

Technology often comes with inherent risks and threats, and e-wallets are no exception. According to Van Bavel et al. (2019) and Boerman et al. (2021), digital wallet usage has increased the risk of cybercrime for users. Numerous reports have highlighted a growing number of online scams and fraud cases associated with e-wallet platforms in recent years.

According to a study by Vuong (2021), Consumers' inclination to use digital wallets is influenced by perceived severity. However, the current focus on information security and electronic platforms in transitional economies can be blamed for the dearth of comprehensive studies. Other than that, the individual self-efficacy also plays main role in adopt digital wallet. Individuals with high self-efficacy are more likely to view challenges or

setbacks as temporary and manageable. Their confidence in their ability to overcome obstacles enhances both their motivation and resilience, significantly increasing the likelihood of sustained and successful adoption of e-wallets.

Besides, the difference acceptance among generation alos vary such baby boomers are generally unfamiliar with digital payment systems and often avoid using them due to low confidence and established habits (Fatokun et al., 2019). In contrast, younger users, despite being more active online, are more exposed to cybercrime due to limited knowledge and experience (Medeiros et al., 2020; Fatokun et al., 2019).

Vietnam's ad(Fatokun et al., 2019)option towards digital wallets and cybercrime have been the subject of recent studies (Pham et al., 2024). The threats that are most prevalent include phishing, hacking, and skimming, and Vietnam is one of the top nations that experiences cyber-attacks, especially in the banking industry (Tam et al., 2020). Digital wallets are convenient, but they also put the security of personal data at risk (Bodhi & Tan, 2022). Young Vietnamese users' attitudes towards digital wallets have also been examined (Minh Anh et al., 2020) which could give significant towards the implementation of digital wallet (Nguyen & Luong, 2020). These studies highlight the growing importance of digital financial services in Vietnam and the need for enhanced security measures and user awareness to combat associated risks.

Therefore, this study is important due to the increasing trend of digital wallets in Vietnam, which is moving from a cash-dominated economy to a highly digitally paid economy. While there has been a significant rise in the use of digital wallets, low confidence (self-efficacy) among users and perceived severity that could restrain the widespread adaptation. Understanding these behavioural variables will be key to addressing user concerns, building trust, and devising practical tactics that quicken the pace of adoption. The research is critical in reinforcing the rapid growth of Vietnam's digital economy by driving the use of safe and efficient means of payments.

Research objectives

Research Objectives 1: To identify the relationship between self-efficacy and the adoption of digital wallets in Vietnam.

Research Objectives 2: To identify the relationship between perceived severity of risks and users' intentions to adopt digital wallets in Vietnam.global firms.

LITERATURE REVIEW

Overview Of Digital Wallets Adoption

The phenomenon by which individuals and entities recognize and adopt digital mechanisms of making payments to bring efficiency and security is known as "digital wallet adoption." This calls for a diversion from traditional means of payments into electronic ones supporting online transactions while storing records on these transactions. The ability of e-wallets to revolutionize financial management, improve security, and meet the growing needs of e-commerce has increased their popularity tremendously. Other factors, such as perceived severity, security features, self-efficacy, and the ability of the technology to reduce consumers' fears about risks, have a considerable influence on acceptance and continued usage**.**

Definitions Of Digital Wallets Adoption (Dependent Variable)

Digital wallets, also known as mobile wallets, have been one of the biggest developments in the world of both retail and fintech. A digital wallet is an electronic device or software-based program that lets users securely store their log-in information and payment details so they can execute various transactions. It enables online electronic commerce and electronic payment without relying on physical cash or checks, acting like a secure and convenient option for traditional modes of payments. With the growth in e-commerce, digital wallets play a vital role in modern-day digital banking, therefore finding wide acceptance in metamorphosing how people and businesses handle money. The table below shows the definitions of digital wallet adoption from various sources.

No.	Authors and Year	Definitions of Digital Wallet Adoption
1	Kanhekar & Mane (2015).	A digital wallet is a type of electronic gadget that enables people to conduct transactions through electronic commerce. Buying things from a store is one way to do this.
2	Jokić (2018)	A digital wallet are electronic gadgets or programs that help customers conduct a variety of transactions while emphasising security and emerging trends.
3	Aljaradat, Sarkar & Shukla (2024)	A digital payment system, often known as an electronic payment (e-payment), is a means of conducting transactions that substitutes digital currency or checks for actual money.
4	Kumari & Biswas (2023)	A Digital wallet are transforming digital finance by changing how individuals and businesses manage their finances.
5	Khan & Abideen (2023).	Digital wallets are becoming more widely accepted as online payment options. As e-commerce has grown, digital wallets have emerged as a competitive alternative to conventional payment methods.
6	Hau, H. T., Nhung, D. T. H., & Trang, (2021).	A digital wallet is a software-based system that safely saves users' login information and payment details for a variety of websites and payment methods.

Definitions Of Perceived Severity (Independent Variable)

In the context of digital wallet adoption, perceived severity refers to consumers' perceptions of possible risks and adverse consequences when using them, such as fraud, data theft, unauthorized access, or health problems. These perceptions about the risks involved may really weigh heavily on users as they balance the benefits versus the potential risks in choosing whether to adopt or keep using digital wallets. Addressing these risks is very important in order to build confidence and encourage wider adoption of digital wallet technology. The table below shows the definitions of perceived severity from various sources.

No.	**Authors and Year**	**Definitions of Perceived Severity**
1	Daragmeh, Sági, & Zéman (2021).	Beliefs regarding the extent of harm that will arise from a specific BEHAVIOUR 's unfavourable outcome.
2	Jina, Joudeh, Ali., Zamil & Hashem, (2023)	Perceived severity is a function of how people perceive the dangers of not utilising mobile wallets, framing their use as a safeguard against possible health hazards.
3	Zamil, Ali, Poulova, & Akbar (2022)	Perceived severity refers to the potential undesirable outcomes associated with digital wallet use, such as fraud, data theft, and unauthorised access, which can prevent usage.
4	Claudel Mombeuil (2020)	The perceived severity of threats linked to mobile wallets can have a substantial impact on users' decisions to embrace or renew their use of these technologies, emphasising the need of addressing these issues.
5	Truc (2024).	Perceived severity is defined as the level to which customers perceive they would face risks that related with digital wallet use,

		including health problems.
6	Khan & Abideen (2023)	Perceived severity relates to how strongly consumers believe that the potential negative effects of utilising digital wallets (such as fraud, data theft, or unauthorised transactions) will have a substantial impact on them.

Relationship Between Perceived Severity (Independent Variable) And Digital Wallets Adoption (Dependent Variable)

Perceived severity highlights risk such as financial loss, fraud, or health issues with great impact on adoption and continued use of digital wallets. A greater perception of risk severity would make users increase the adoption of digital payments to reduce the risks, while concerns over security can demolish trust and long-term use. The relationship is, therefore, characteristic of how customers weigh the benefit of digital wallet systems with potential risks. The table below shows the relationship between perceived severity and digital wallet adoption.

No	Author and Year	Relationship Between Perceived Severity and Digital Wallet Adoption
1	Rahi, Alghizzawi,, & Ngah (2024).	Therefore, it is presumed that people will prefer to use an e-wallet if they believe that perceived severity, vulnerability, and reaction efficacy increase their confidence to face the COVID-19 danger.
2	Upadhyay, Upadhyay, Abed, & Dwivedi (2022).	Perceived severity was found to be an important indicator of attitude towards using mobile health services by Zhao et al. (2018). According to Gao et al. (2015), customers' views towards embracing wearable technology solutions with a healthcare focus are significantly influenced by perceived severity. It is argued that people's attitudes are influenced by how seriously they view the COVID-19 pandemic situation to be a threat.
3	Neha Upadhyay, Upadhyay, Abed, & Dwivedi,. (2022). and Abhijeet Biswas, 2023	The perceived severity is believed have a significant relationship associated with mobile payment systems.
4	Daragmeh Sági, & Zéman (2021)	During the Covid-19 outbreak, Indian consumers had significant levels of perceived severity and vulnerability, which had a direct impact on mobile payment acceptance and perceived usefulness.
5	Jegerson & Hussain, (2023).	The study discovered that the acceptance and confirmation of mobile-based payment services were highly impacted by the perceived severity and self-efficacy.
6	Chauhan (2024)	Severity in the context of digital wallet and banking relates to the consequences of experiencing a possible risk, including financial loss, personal information fraud, and the use of identities for illegal purposes. People act more cautiously when they perceive a threat to be more serious. People are more likely to take precautions when they perceive a potential threat to be greater. On the other hand, people behave less cautiously when they think that a threat has decreased.

Definitions Of Self Efficacy (Independent Variable)

Self-efficacy in adopting a digital wallet refers to the belief in one's capability to efficiently use the technologies in transaction execution. It is a reflection of confidence in one's ability to carry out duties that are important for

effective use, influenced by ideas, emotions, motivation, and BEHAVIOUR . A key factor in encouraging adoption, the higher the self-efficacy, the more enhanced the views on the usefulness and usability of e wallets, which then affects attitudes and intentions to adopt. The table below shows the definitions of self-efficacy from various sources.

No.	Authors and Year	Definitions of Self Efficacy
1	Daragmeh, Sági & Zéman,. (2021)	The trust of an individual that they can effectively execute a specific behaviour.
2	James. Maddux, Evan. Kleiman (2016)	Beliefs about one's capacity to carry out the tasks required to achieve targets are known as self-efficacy.
3	Tsang, Hui & Law, (2012	Self-efficacy describes people's ideas about their ability to perform in various situations, which are influenced by a variety of factors, including their thoughts, feelings, motivation, and behaviour.
4	Prastara Rangga Dito Baliawan, Latifah Putranti, Hapsari Dyah Herdiany (2024)	In the context of technology and digital payment apps, self-efficacy refers to how confidently users use them to complete transactions.
5	Nur & Joviando,. (2021)	Self-efficacy influences attitudes and intentions to use e-wallets by influencing perceived utility and simplicity of usage.

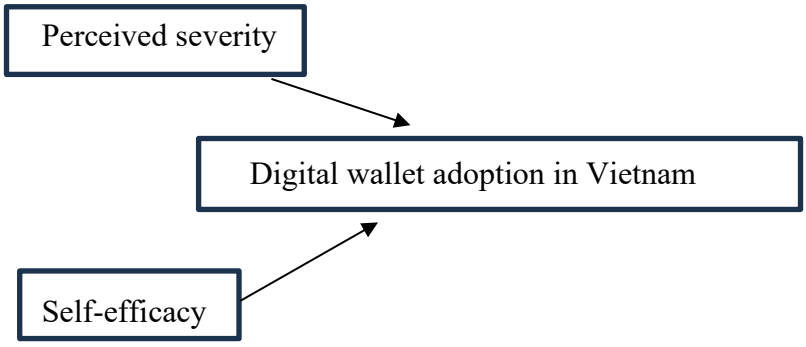
Relationship Between Self-Efficacy (Independent Variable) And Digital Wallets Adoption (Dependent Variable)

Self-efficacy strongly influences the adoption of digital wallets because those with greater belief in their knowledge concerning technology will more easily adopt and adhere to digital wallets. Those that likely to engage with e-wallet is Individuals with high self-efficacy. Anything that relates to the application, they are more likely to invest time and effort in learning how to use e-wallets, seek assistance or guidance when needed, and proactively address it. While low self-efficacy may inhibit the desire to adopt due to the perception of the technology as being difficult, high self-efficacy enhances pleasure and ease of use. The table below shows the relationship between self-efficacy and digital wallet adoption.

No	Author and Year	Relationship Between Self Efficacy and Digital Wallet Adoption
1.	Daragmeh, Sági, & Zéman, (2021)	Self-efficacy to positively influence the continuance intention and adoption of e-wallets, were also supported by Hettiarachchi's (2014) investigation into consumer adoption of Sri Lanka Internet banking services, which also found that confidence in using ICT services (self-efficacy) impacted the adoption of Internet banking.
2	Gbongli, Xu., & Amedjonekou, (2019).	This suggests that e-wallet users are significantly more likely to act in ways that are within their perceived skill set, which is a crucial factor in influencing how people adjust to different technologies. The use of e-wallets and self-efficacy are significantly correlated in the context of information technology adoption. Thus, self-efficacy has a major impact on the adoption of mobile applications.
3	Mater, Matar, Alismaiel, Al Moteri, Al Youssef, & Al-Rahmi, (2021)	As a result, self-efficacy influences the willingness of customers to embrace and utilise technologies such as mobile wallets. Few research has examined the factors bringing about university students' usage of mobile wallets in developing nations to date.

4	Esawe, (2022).	Furthermore, mobile self-efficacy is thought to be prior to perceived enjoyment and has been demonstrated to influence it. Mobile self-efficacy directly affects reported satisfaction.
5	Jusoh & Jing,. (2019).	Self-efficacy is when an individual has the knowledge, competence, and skills needed to complete digital payments transactions.
6	Chong, Lui., & Go. (2024)	A person with low self-efficacy will find a digital wallet challenging to use and will not make the switch. According to Kumar and Krishnan (2020), digital wallets are more common among tech-savvy consumers than non-tech-savvy ones. According to the report, Malaysians who believe they can use a mobile wallet effectively are deemed proficient in doing so.

Proposed Theoretical Framework



Thus, from the above-mentioned relationship, the hypothesis for this study can be derived as follows:

Thus, from the above-mentioned relationship, the hypothesis for this study can be derived as follows:

H1: There will be a significant relationship between perceived severity and digital wallet adoption in Vietnam.

H2 : There will be a significant relationship between self-efficacy and digital wallet adoption in Vietnam.

DISCUSSION AND CONCLUSION

In Vietnam, the adoption of digital wallets is affected by perceived severity and self-efficacy. Perceived severity reflects the concern of users regarding possible risks such as fraud or data theft. In this scenario, it either leads to adoption reluctance due to fear or encouragement of its use as a safer option against cash transactions. However, self-efficacy is the confidence in one's capability to utilize a digital wallet- plays a main factor in adoption. Such visible persons, therefore, are likely to view digital wallets as very useful while not forgetting about them being practical. It should be emphasized that the wide adoption of digital wallets in Vietnam relies on security related issues being resolved and user confidence being increased through education and improved user experience.

From an economic standpoint, the extensive utilisation of digital wallets fosters the advancement of a cashless society, diminishing the expenses related to the production and management of physical currency. This transformation can improve financial openness, reduce the informal economy, and increase government revenue through enhanced tax collection. Furthermore, digital wallets enable expedited and more effective financial transactions, enhancing corporate expansion and encouraging innovation within the fintech industry. Further study needs to investigate the enduring economic effects of e-wallet implementation in Vietnam, especially its influence on consumer behaviour and the promotion of financial innovation. Furthermore, comparative analyses of digital wallets usage across various demographics and locations might yield profound insights for customising strategies for distinct groups.

The advantages transcend individuals and enterprises, influencing the wider community. E-wallets promote financial inclusion by allowing unbanked and underbanked individuals access to vital financial services. Rural regions, frequently encountering obstacles to conventional banking, might substantially benefit from mobile payment systems, facilitating enhanced economic involvement. Moreover, the utilisation of e-wallets promotes a transition towards digital literacy, cultivating a more technologically adept populace capable of adapting to future innovations. The research elucidates the impact of community influence on e-wallet adoption. Peer endorsements and social networks foster trust in these systems, particularly among users who may be initially doubtful. By employing community-driven tactics, providers can enhance favourable opinions and mitigate concerns regarding security and usability.

Nonetheless, obstacles exist. Implementing stringent cybersecurity protocols and managing data privacy issues are essential for preserving consumer confidence. Furthermore, addressing the digital gap and ensuring sufficient technological infrastructure in rural regions are crucial for facilitating wider adoption. In Vietnam, the level of adoption to digital wallets depends on perceived security threats and confidence in technology. Misjudgement of dangers and low self-efficacy, especially among less tech-savvy or country groups, still remain a great barrier to adoption.

For future research, this study suggests adding more variables that could provide an overview related to digital wallet in Vietnam. For example, perceived ease of use, perceived risk, convenience and social influence. Other than that, researchers may enlarge their respondent by choosing the unit of analysis in Southern Asean. Other than that, enhance the originality and contextual relevance of the study, future research could integrate Vietnam specific cultural dimensions, such as collectivism, power distance, or trust in governmental and institutional bodies. These factors may significantly influence user attitudes and behaviours in digital environments and could provide deeper insights when embedded into the existing theoretical framework.

In conclusion, although digital wallets offer advantages in terms of efficiency, cost savings, and convenience, various risks and limitations have a large impact on customers' intents to adopt. The purpose of this study was to find out the effects of self-efficacy and perceived severity on the adoption of digital wallets in Vietnam. The results are useful for service providers in the creation of comprehensive solutions with the ability to solve users' worries, foster users' confidence in digital wallets, and motivate adoption-something beneficial for customers and providers of services alike.

Declaration of Generative AI and AI-assisted technologies

This work was prepared using Turnitin for fulfil the requirement of university. This tool/service allowed the author(s) to examine and edit the content and accept full responsibility for the publication.

ACKNOWLEDGEMENTS

The authors would like to express a great acknowledgment of the funding from UniversitiTeknologi MARA Melaka.

REFERENCES

1. Ajina, A. S., Joudeh, J. M., Ali, N. N., Zamil, A. M., & Hashem, T. N. (2023). The effect of mobile-wallet service dimensions on customer satisfaction and loyalty: An empirical study. Cogent Business & Management, 10(2), 2229544.
2. Aljaradat, A., Sarkar, G., & Shukla, S. K. (2024). Modelling cybersecurity impacts on digital payment adoption: A game theoretic approach. Journal of Economic Criminology, 5, 100089.
3. Baliawan, P. R. D., Putranti, L., & Herdiany, H. D. (2024). Analysis of the influence of self-efficacy, perceived ease to use, perceived benefits, and perceived risk, on intention to use digital payment applications in yogyakarta. Business Management Analysis Journal (BMAJ), 7(1), 64-82.
4. Bodhi, S., & Tan, D. (2022). Keamanan Data Pribadi dalam Sistem Pembayaran E-Wallet Terhadap Ancaman Penipuan dan Pengelabuan (Cybercrime). UNES Law Review, 4(3), 297-308.
5. Chauhan, V. (2024). Understanding users' protective BEHAVIOUR and its suppressor effect on the

perceived risk in M-wallet/banking use: An Indian urban-rural comparison. Technological Forecasting and Social Change, 201, 123255.
6. Chong, Y. L., Lui, T. K., & Go, Y. H. (2024). Exploring the mediating effect of perceived ease of use and perceived usefulness on actual adoption of mobile wallets in Malaysia. Malaysian Journal of Business and Economics (MJBE), 11(1), 73-89.
7. Daragmeh, A., Sági, J., & Zéman, Z. (2021). Continuous intention to use e-wallet in the context of the covid-19 pandemic: Integrating the health belief model (hbm) and technology continuous theory (tct). Journal of open innovation: technology, market, and complexity, 7(2), 132.
8. Do, V. A. (2020). Market Research on Digital Payment Methods in Vietnam-The Opportunities and Challenges of Vietnam Going Cashless.
9. Esawe, A. T. (2022). Understanding mobile e-wallet consumers' intentions and user BEHAVIOUR . Spanish Journal of Marketing-ESIC, 26(3), 363-384.
10. Gan, E. H., Yeap, J. A., Li, C., & Ooi, S. K. (2023). Sustained Interest in E-Wallet Adoption among Malaysian Consumers. International Journal of Academic Research in Business & Social Sciences, 13, 12.
11. Gbongli, K., Xu, Y., & Amedjonekou, K. M. (2019). Extended technology acceptance model to predict mobile-based money acceptance and sustainability: A multi-analytical structural equation modeling and neural network approach. Sustainability, 11(13), 3639.
12. Hau, H. T., Nhung, D. T. H., & 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), 86-107.
13. Hoang, T. T. H., Vu, H. N., & Nguyen, T. K. C. (2023). The impact of data security on the intention of vietnamese consumers to use e-wallets. Dalat University Journal of Science, 3-29.
14. Jegerson, D., & Hussain, M. (2023). A framework for measuring the adoption factors in digital mobile payments in the COVID-19 era. International Journal of Pervasive Computing and Communications, 19(4), 596-623.
15. Jokić, S. (2018). Analysis and security of crypto currency wallets.
16. Jusoh, Z. M., & Jing, T. Y. (2019). Perceived security, subjective norm, self-efficacy, intention, and actual usage towards e-payment among UPM students. Journal of Education and Social Sciences, 12(2), 8-22.
17. Kanhekar, H. R., & Mane, S. N. (2015). Digital wallet. IJ Wireless and Microwave Technologies, 4(4), 62-68.
18. Khairunnisa', Y., Noraznira, A. R., & Siti Musliha, M. I. (2023, September). Individual Attitudes Towards E-Wallet Adoption Behaviour in Malaysia. Business and Management Horizons, 11(2).
19. Khan, W. A., & Abideen, Z. U. (2023). Effects of behavioural intention on usage behaviour of digital wallet: the mediating role of perceived risk and moderating role of perceived service quality and perceived trust. Future Business Journal, 9(1), 73
20. Kim, O. T. T., Nguyen, D. V., & Pham, V. N. (2023). The Intentions To Use E-Wallet Services During The Covid-19 Pandemic: Lessons From Vietnam. Quality-Access to Success, 24(194).
21. Kumari, N., & Biswas, A. (2023). Does M-payment service quality and perceived value co-creation participation magnify M-payment continuance usage intention? Moderation of usefulness and severity. International Journal of Bank Marketing, 41(6), 1330-1359.
22. Maddux, J. E., & Kleiman, E. M. (2016). Self-efficacy: A foundational concept for positive clinical psychology. The Wiley handbook of positive clinical psychology, 89-101.
23. Mater, W., Matar, N., Alismaiel, O. A., Al Moteri, M. A., Al Youssef, I. Y., & Al-Rahmi, W. M. (2021). Factors influencing the intention behind mobile wallet adoption: Perceptions of university students. Entrepreneurship and Sustainability Issues, 9(1), 447.
24. Mombeuil, C. (2020). An exploratory investigation of factors affecting and best predicting the renewed adoption of mobile wallets. Journal of Retailing and Consumer Services, 55, 102127.
25. Nguyen, T., & Luong, H. T. (2021). The structure of cybercrime networks: transnational computer fraud in Vietnam. Journal of Crime and Justice, 44(4), 419-440.
26. Nur, T., & Joviando, J. (2021, October). Determination of E-wallet usage intention: extending the TAM model with self-efficacy. International Conference on Cybernetics and Intelligent System (ICORIS) (pp. 1-7). IEEE.

27. Pham, K. L., Le, T. D., Tran, A. D., Tran, M. T., & Dang-Nguyen, D. T. (2024, July). Vietnamese User Awareness Against Scams in Cyberspace: An Empirical Survey. In Proceedings of the 1st Workshop on Security-Centric Strategies for Combating Information Disorder (pp. 1-6).
28. Phan, L. (2024). Factors affecting Vietnamese people's intention to use E-wallet.
29. Rahi, S., Alghizzawi, M., & Ngah, A. H. (2024). Understanding consumer BEHAVIOUR toward adoption of e-wallet with the moderating role of pandemic risk: an integrative perspective. Kybernetes, 53(11), 4818-4839.
30. Tam, L. T., Chau, N. M., Mai, P. N., Phuong, N. H., Tran, V. K. H., & Hanh, P. H. (2020). Cybercrimes in the banking sector: case study of Vietnam. Int. J. Soc. Sci. Econ. Invention, 6(5), 272-277.
31. Tran, M. A. D., & Duong, T. N. The adoption of e-wallet among youngsters in Vietnam: an exploratory study. RCISS-1020-01.
32. Truc, L. T. (2024). Empowering tomorrow: Unleashing the power of e-wallets with adoption readiness, personal innovativeness, and perceived risk to client's intention. Journal of Open Innovation Technology Market and Complexity, 10(3), 100322.
33. Tsang, S. K., Hui, E. K., & Law, B. C. (2012). Self-efficacy as a positive youth development construct: a conceptual review. The Scientific World Journal, 2012(1), 452327.
34. Upadhyay, N., Upadhyay, S., Abed, S. S., & Dwivedi, Y. K. (2022). Consumer adoption of mobile payment services during COVID-19: Extending meta-UTAUT with perceived severity and self-efficacy. International Journal of Bank Marketing, 40(5), 960-991.
35. Yang, M., Mamun, A. A., Mohiuddin, M., Nawi, N. C., & Zainol, N. R. (2021). Cashless transactions: A study on intention and adoption of e-wallets. Sustainability, 13(2), 831.
36. Zamil, A. M., Ali, S., Poulova, P., & Akbar, M. (2022). An ounce of prevention or a pound of cure? Multi-level modelling on the antecedents of mobile-wallet adoption and the moderating role of e-WoM during COVID-19. Frontiers in Psychology, 13, 1002958.
37. Hadi, R., & Valenzuela, A. (2020). Good vibrations: Consumer responses to technology-mediated haptic feedback. Journal of Consumer Research, 47(3), 362–378. https://doi.org/10.1093/jcr/ucz039
38. Mooij, M. de, & Hofstede, G. (2010). The Hofstede model: Applications to global branding and advertising strategy and research. International Journal of Advertising, 29(1), 85–110. https://doi.org/10.2501/S026504870920104X
39. Hassan, S. S., & Craft, S. (2012). Examining world market segmentation and brand positioning strategies. Journal of Consumer Marketing, 29(5), 344–356. https://doi.org/10.1108/07363761211247457
40. Nguyen, L. D., & Tran, P. T. (2022). The role of cultural adaptation in international marketing: Evidence from emerging markets. Journal of International Marketing Research, 35(2), 89–110. https://doi.org/10.1234/jimr.2022.005
41. Sung, E. T., & Lee, J. (2019). Linking cultural intelligence and marketing performance in global markets. Journal of Business and Marketing Insights, 7(3), 78–92. https://doi.org/10.5678/jbmi.2019.