

DEVELOPMENT OF AN INTEGRATED THEORETICAL FRAMEWORK: FACTORS THAT INFLUENCE THE WIDESPREAD USE OF E-WALLETS AMONG KEY STAKEHOLDERS IN MALAYSIA

Kunasegaran A/L Kumarasamy

CA(M), MBA(GB), B.ACC, Limkokwing Graduate School (LGS), Limkokwing University of Creative Technology, Cyberjaya, Malaysia, Ph.D. Aspirant, Email: kunarone@gmail.com

Abstract:

This article developed an integrated theoretical framework to study the key stakeholder relationships that influence e-wallet acceptability. Adopting variables and theories from different perspectives is necessary to establish whether widespread acceptance of e-wallets has occurred. Understanding the organization and the factors that drive consumers to use e-wallets requires a holistic assessment that covers both internal dynamics and the external environment. This study concludes by introducing the Perceived E-Readiness Technology Adoption Model (PERTAM) as an integrated theoretical model to examine the impact of key stakeholders on the acceptance of e-wallets. Business and consumers are associated in this study model as an interdependent relationship in the e-wallet payment workflow.

Keywords: Perceived E-Readiness Technology Acceptance Model, Perceived E-Readiness Model, Technology Readiness and Acceptance Model

INTRODUCTION

The rapid development of technology has an impact on the development of payment systems in business transactions, especially in maintaining the continuity of business relationships between parties. The payment system is one of the foundations that underpin the robustness of the modern financial system, which initially accepted only cash and now includes digital payment systems (Chan, K.L. et. al, 2020). Human behaviour has significantly evolved in a more modernist direction in reaction to innovation and technology. According to Mei, Y.C., and Aun, N.B. (2019), human lives have undergone new modifications as a result of this evolution in terms of our behaviour patterns and sense of self. A cashless society is being facilitated by several improvements to the new digital payment system (Norhamiza Ishak, 2020).

According to M.W. Karim et al. (2020), one of the trends among smartphone users is the adoption of e-wallet applications or digital wallets for payment services. The e-wallet can be accessed using a smartphone with a QR scan or online platform (network-based) and electronic data capture terminal (EDC) (card-based) payment facilities. According to Ming et al., (2020), due to the increasing number of internet users, FinTech sector is growing enormously. FinTech refers to cutting-edge technological developments that streamline and improve conventional financial services supply (Taasim, S.I. and Yusoff, R., 2018). The adoption of e-wallets is significantly interdependent on the stakeholder relationship shown in Figure 1.1. This illustrates the cycle of e-wallet usage and engagement between various interested stakeholders.

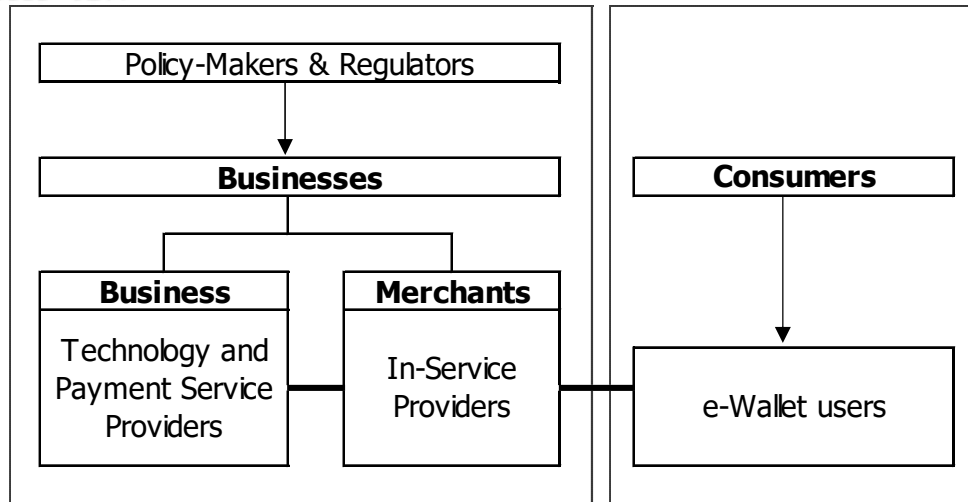


Figure 1: Key Stakeholders of E-Wallet (Author, 2022)

Figure 1.1 shows how stakeholder relationships influence e-wallet acceptability. Technology service providers that design e-wallet applications and technical assistance play a key role in serving the customer (Chan, K.L. et. al, 2020). New technology makes customers' experience better. This digital technique enables merchants to optimize cost-benefit. E-wallets include consumers, merchants, entrepreneurs, issuers, and acquirers (Peterson & Howard, 2012). Policymakers and regulators are the key drivers to govern and regulate the financial sector. The government, through the Central Bank, developed and modified the financial system. In addition to regulating the financial sector, policymakers supported the legislation to ensure e-wallets function effectively.

2.0 Literature Review

2.1 Insight into the Development of Digital Payment Systems

The growth of Malaysia's economy can be directly linked to the maturation of the country's monetary system through time. The creation of a formal banking system in Malaysia in the 19th century is perhaps credited for facilitating this. The development of technology in the 1960s brought about substantial changes to the banking sector in Malaysia, mostly in the form of a shift away from manually processed transactions and toward computer-based financial services (Guru, B.K., et. al, 2001). Kwong Yik (Selangor) Banking Corporation was the first local bank established in Kuala Lumpur. In 1981, Malayan Banking introduced Malaysia's first automated teller machine (ATM), followed by the Cash Deposit Machine (CDM) and Cheque Deposit Machine (CDM), which were made feasible by Malaysia's rapidly expanding computer technology (UKEssays, 2018). As time progresses, monetary transactions in Malaysia have evolved. Consumers in Malaysia had their first experience with online banking services in the year 2000, when Malayan Banking, Malaysia's largest local bank, launched the country's first internet banking platform. According to Sockalingam R.Ramasamy (2014), the initial phase of Malaysia's adoption of e-Money began in 1999 with the introduction of "MEPS Cash". Progression in today's technical sphere is happening at a lightning pace. The advantages of technical progress extend to every country, including Malaysia. This is shown by the fact that e-wallet software has significantly increased the convenience of financial transactions in

Malaysia. In lieu of traditional payment methods including cash, bank transfers, and checks, consumers may now use e-wallets (Ming et al., 2020).

Malaysia has more e-wallet providers than China (Ganeshwaran, 2019). This compares the two nations where Malaysia needs to consolidate e-wallet service providers. E-wallets have seen explosive expansion over the last several years, as shown by the fact that Bank Negara Malaysia has issued a total of 48 e-Money licenses to entities that are not financial institutions and 6 to financial institutions (BNM, 2022). This is one of the steps being undertaken to transform Malaysia into a cashless society using e-payment systems. The use of e-wallets is still relatively low, as reported by Teo et al. (2020). A payment platform that encompasses the eco-system lends credence to the claim that Malaysia needs to move forward toward achieving its objective of becoming a cashless society (Ahmad, R.B. et al., 2019). In the first three months of 2022, according to the findings of a survey on digital payments that was conducted by Statista (2022), 68 percent of respondents from Malaysia claimed that they had made payments using e-wallets. For e-money, the transaction value in 2019 increased to RM13.9 billion. The volume of transactions of 1.72 billion, based on Central Bank statistics, surpassed the RM11 billion figure reported for 2018 (Tan, 2020). The data indicated that although e-payment and e-wallet usage are on the rise, they are still relatively new phenomena in Malaysia. Tan (2020) estimates that 48.2% of Malaysia's total population of 32.6 million people utilize digital wallets. This equates to nearly 15.7 million people.

2.2 Background of Theoretical Development

Researchers and academics have characterized the theoretical use of technology in their studies, particularly for e-wallets. Researchers have been interested in studying a number of topics, and one of them is the motivation behind people's decisions to implement or embrace new technologies and systems. Models and theories concerning the adoption of systems and technologies, and the intent to use them include the Technology Acceptance Model (1995), the Innovation Diffusion Theory (1995) by Rogers, the Expected Behavior Theory (1991) by Ajzen, and the Integrated Technology Acceptance and Use Theory (Venkatesh et al. 2003). Intention and behaviour may be defined and explained with the use of the Theory of Planned Behavior (Ajzen, 1991). Technology Acceptance Model (TAM) by Davis et al. (1989) and Technology Readiness Index (TRI) by Parasuraman (2000) are commonly used by researchers in the study related to technology acceptance and readiness.

This study aims to develop a theoretical research framework by integrating two models namely the Perceived E-Readiness Model (PERM) (Molla & Licker 2005a) and Technology Readiness and Acceptance Model (TRAM) (Lin et al. in 2007) to determine and understand the factors that influence the acceptance of e-wallets by stakeholders in the Malaysian context. The internal and external determinants for business and consumer on technology readiness are strengthened with a new theoretical framework introduced in this study. In order to provide a comprehensive conclusion of whether e-wallets have achieved widespread acceptance, it is necessary to integrate concepts from several different variables and theories. In a conclusion, this study presents the Perceived E-Readiness Technology Acceptance Model (PERTAM) as an integrated theoretical model to examine the influence of key stakeholders on the acceptance of

e-wallets. Figure 2.1 depicts the proposed model for a new integrated theoretical framework.

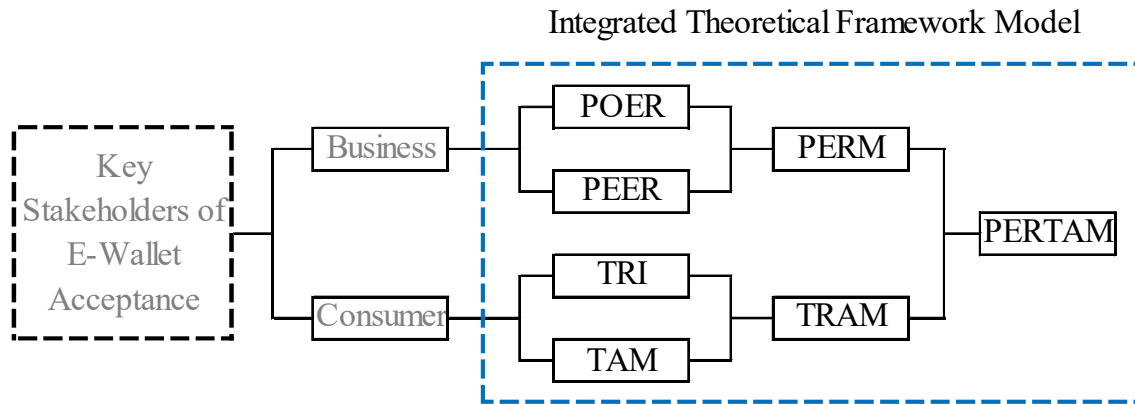


Figure 2: Integrated Theoretical Framework Model (Author, 2022)

2.3 Integrated Theoretical Framework

The purpose of this study is to analyze the integrated theoretical framework model shown in Figure 3 and determine the key variables in the widespread use of e-wallets driven by technological innovations (Cohen, 1995). The author developed the PERTAM model to obtain a comprehensive understanding of the objectives of e-wallet acceptance research project.

PERTAM (Author, 2022)

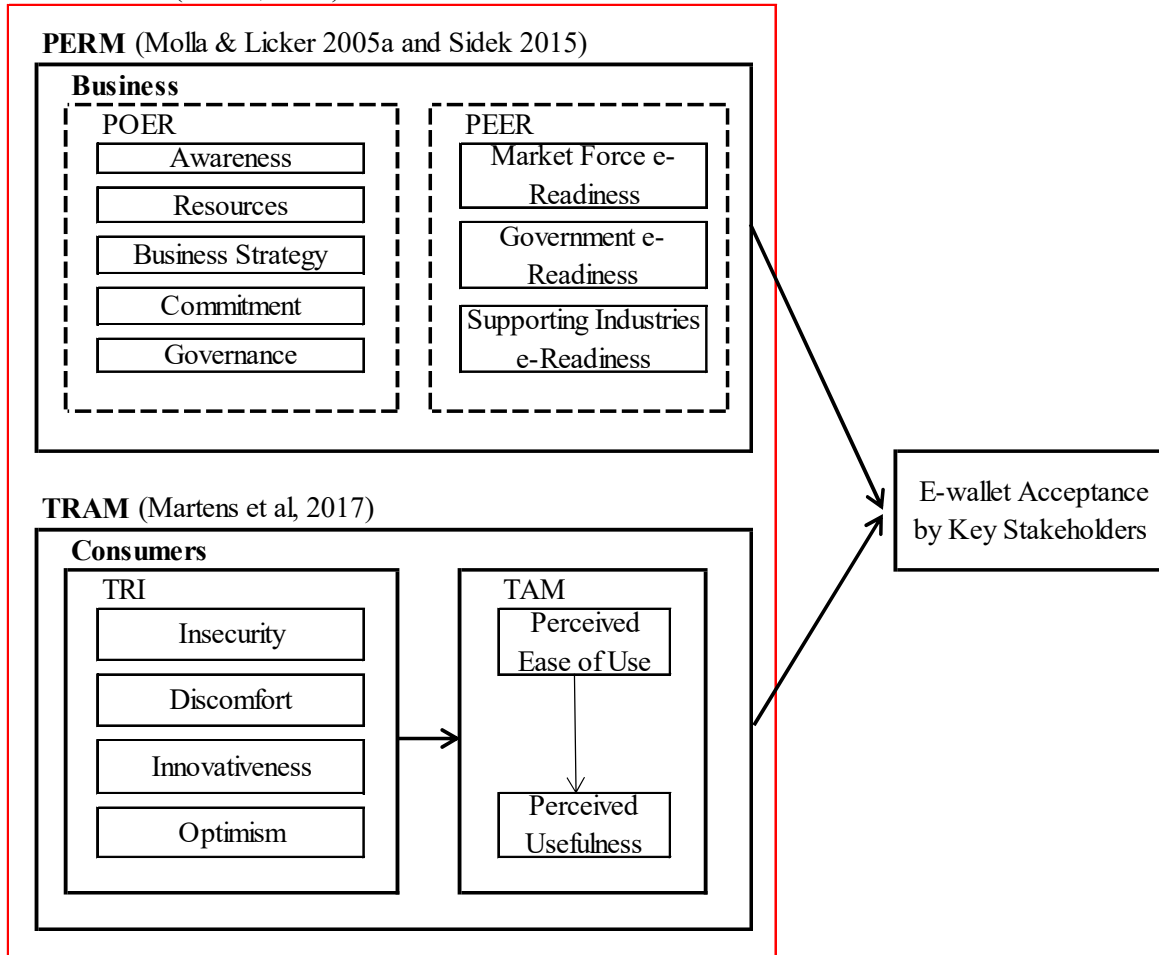


Figure 2.1: Integrated Theoretical Framework of E-Wallet Acceptance (Author, 2022)

2.3.1 Perceived e-Readiness Model (PERM)

Molla and Licker (2005a) developed PERM as a combination of Perceived Organizational E-Readiness (POER) and Perceived External E-Readiness (PEER) that includes both internal and external factors for business. This study used a concept developed by Molla and Licker (2005) that included seven internal factors of organizational readiness and external readiness. The resources factor is further extended with business resources, human resources, and technology resources. The study has used Sidek's (2015) additional contract of business strategy for further internal factor analysis.

2.3.1.1 Perceived Organizational e-Readiness (POER)

This internal e-readiness model measures levels of readiness by using the following variables. In conclusion, this study presents a hypothesis on the contributing aspects.

- i. Awareness: A comprehensive understanding of the infrastructure, technology, needs, benefits, and risks of the service, as well as an assessment of future trends and their potential impact, are factors used in determining the level of awareness

H1: Awareness has a positive effect to e-wallet acceptance among main stakeholders.

- ii. Resources: The resources are the combination of business, humans, and technology. Business resources comprise communication, project finance, and risk-taking. Human resources define individuals with IT skills and e-commerce understanding. Technological resources explain e-commerce access techniques and digitalization levels generate an online experience for the organization.

H2: Resources have a positive effect to e-wallet acceptance among main stakeholders

- iii. Business strategy: Business strategy is an organization's readiness to understand its micro and macro environment, formulate strategies, execute plans to accomplish objectives, and evaluate results for future strategy formation.

H3: Business strategy has a positive effect to e-wallet acceptance among main stakeholders

- iv. Commitment: The term "commitment" is used to express the strategic and organizational support of e-business, and the members' willingness to embrace and support the concept of eco-technology.

H4: Commitment has a positive effect to e-wallet acceptance among main stakeholders

- v. Governance: To supervise an organization's operations and e-commerce endeavors, governance is an institution that is part of its tactical and strategic model.

H5: Governance has a positive effect to e-wallet acceptance among main stakeholders

2.3.1.2 Perceived External e-Readiness (PEER)

PEER measures three primary external sources: government, industry support, and market considerations that greatly impact early adoption (Molla and Licker, 2005a).

- i. Market Forces e-readiness; stresses the trust's organizational engagement to market forces that impact its choice to adopt e-platforms (Molla and Licker, 2005a).

H6: Market Forces e-readiness has a positive effect to e-wallet acceptance among main stakeholders.

- ii. Government e-readiness; is an interactive system for communicating and coordinating with consumers, businesses, and other government departments (J. A. Farooque, 2011). According to Molla and Licker (2005a), organisation's desire to employ electronic transactions affects government legislation guiding industry practices that safeguard consumers. Organizations are employing legal and regulatory mechanisms to regulate the market.

H7: Government e-readiness has a positive effect to e-wallet acceptance among main stakeholders.

- iii. In the supporting industries e-readiness; the banking sector, technical development and communication support may influence electronic platform intentions and decision making.

H7: Supporting industries e-readiness; has a positive effect to e-wallet acceptance

among main stakeholders.

2.3.2 Technology Readiness and Acceptance Model (TRAM)

The Technology Readiness Index (TRI) and Technology Acceptance Model (TAM) models have been combined to create the Technology Readiness and Acceptance Model (TRAM) by Lin et al. (2005) as the initial version of TRAM. TRAM is a model that attempts to describe how preparedness in a person might impact individual interactions, experiences, and usage of new technology. This is achieved by combining the general dimensions of TRI with the specific dimensions of the TAM model. (Khadka and Kohsuwan, 2018).

2.3.2.1 Technology Readiness Index (TRI)

One of the models developed by Parasuraman in 2000 is the Technology Readiness Index (TRI). According to Parasuraman (2000), the TRI model describes a person's propensity to support and make use of emerging technologies in order to meet the objective. The majority of academics currently use the TRI approach to measure the extent to which individuals are prepared to use digital technology effectively. Optimism, innovativeness, insecurity, and discomfort are the four fundamental dimensions of this theory. In TRI, optimism and innovativeness are the components that are motivating (positive), while insecurity and discomfort are the components that are obstructing (negative). In conclusion, this study presents a hypothesis on the contributing aspects.

- i. Insecurity indicator measures scepticism about the reliability and validity of technology-based transactions (Martens et al., 2017, Parasuraman, 2000).

H8b: Insecurity has a positive effect on perceived ease of use of an e-wallet acceptance.

H8b: Insecurity has a positive effect on perceived usefulness of an e-wallet acceptance

- ii. Discomfort suggests incompetence in adopting cutting-edge technology and an absence of technical knowledge. Discomfort, as defined by Parasuraman (2000) and Martens et al. (2017), results from a sense of helplessness in the face of technological complexity.

H9a: Discomfort has a positive effect on perceived ease of use of an e-wallet acceptance.

H9b: Discomfort has a positive effect on perceived usefulness of an e-wallet acceptance.

- iii. Innovativeness can be defined as the degree to which a person is interested in trying different technologies and being at the cutting edge of those technologies (Parasuraman & Colby, 2001).

H10a: Innovativeness has a positive effect on perceived ease of use of an e-wallet acceptance.

H10b: Innovativeness has a positive effect on perceived usefulness of an e-wallet acceptance.

- iv. Optimism is a confident expectation that technological advancements will lead to greater productivity and satisfaction in user's personal and professional life (Parasuraman, 2000).

H11a: Optimism has a positive effect on perceived ease of use of an e-wallet acceptance.

H11b: Optimism has a positive effect on perceived usefulness of an e-wallet acceptance.

2.3.2.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was developed by Davis et al. (1989) to describe the factors that influence customer decisions and actions. A person's confidence that adopting new technology would improve their productivity on the job represents their acknowledged expertise in this concept (Siti Nur Liyana et al., 2020). The TAM theory was first proposed by Fishbein and Ajzen in 1975, and it has been primarily focused on the Theory of Planned Behavior (TPB) and Theory of Reasoned Action (TRA). TAM is a modification of the original TRA that was developed expressly to simulate the user's acceptance of the system (Davis et al., 1989). In conclusion, this study presents a hypothesis on the contributing aspects.

- i. The degree of consumer trust in using information technology is characterized as "ease of use," and the process of utilizing it does not involve a great deal of exertion on the user's end (Davis, 1989)

H12: Perceived ease of use and acceptance of e-wallet will have a positive relationship.

- ii. Perceived usefulness was described by Davis (1989) as the degree to which an individual feels that the availability of information technology would increase the efficiency of consumer interactions.

H13: Perceived usefulness and acceptance of e-wallet will have a positive relationship

- iii. The two TAM factors, perceived ease of use and perceived usefulness, cannot be separated. Perceived usefulness, compared to perceived ease of use, is more concerned with whether users think the system can work effectively and support user requests (Trivedi, 2017).

H14: Perceived ease of use has a positive relationship on perceived usefulness of acceptance of e-wallet

3.0 Discussion and Conclusion

The notions that make up the theoretical framework generally represent an abstraction of thought or a frame of reference that, in essence, and tries to reach conclusions about the dimensions of the subject. The proposed integrated theoretical framework formulated in this study includes theories applied to service providers in the business community and consumers from previous literature as a separate theory and model. The PERTAM model is the recommended conclusion for comprehending how digital technologies are influencing the

dynamic between businesses and their customers. This paper explains the importance of the use of proposed integrated theoretical model that covers the business and consumers that can lead to overall results in the use of e-wallets and the ultimate success of achieving the use of technology. This paper will assist both businesses and consumers make the best options possible based on the many elements that were taken into consideration in the model that was provided. This model will contribute to the preferred option for academics to study e-readiness and technology acceptance with the combination of business communities and consumers in their research.

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