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A THEORETICAL FRAMEWORK OF E-WALLET ADOPTION AMONG SMALL-SIZED MUSLIM MERCHANTS: AN APPLICATION AND EXTENSION OF TECHNOLOGY ACCEPTANCE MODEL

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Abstract:

The use of wallets is increasing rapidly, especially during the covid-19 pandemic due to movement control orders. E-wallets is a favourable choice of e-money transfer among younger and tech-savvy people and those who are at an advanced level in their lives influenced by the internet. Current research trends on e-wallet adoption emphasized on the customer side but dearth of academic work on merchant's perspective. From literature, there is no thorough framework for e-wallet adoption. It is also worthy to highlight that the adoption rate amongst small merchants especially among Muslims is still low compared to numbers of established small business. The factors that influence the use of e-wallets among merchant users may differ from customer users due to the different purposes of using e-wallets. Furthermore, there is another religious factor, which is related to Islamic principles that are exclusively for Muslims where this might influence Muslim's decision in adopting e-wallet. Thus, it is essential to address this issue since small-sized Muslim merchants representing the majority businesses in Malaysia. Their adoption of e-wallets will contribute to the world aim in achieving a cashless society. This study proposes a conceptual framework grounded from Technology Acceptance Model with extensions of other variables such as trust, technology efficacy, government support, and structural assurance as to explore the factors that influence merchants e-wallet adoption. This paper has made an initial effort to propose a comprehensive theoretical framework as a basis for a future research agenda. This also calls for empirical testing on the suggested variables in the context of small-sized Muslim merchants.

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Keywords:

E-wallet, Adoption, Merchant Perspective, Small-Sized Merchants, Islamic Principles

Introduction

The use of e-wallets showed a trend of more than doubling during the peak of COVID-19 compared to pre-COVID 19 which is also driven by technological developments in the FinTech industry (Oppotus, 2023). This exhibit customers nowadays tend to choose contactless payments, even for small value items especially among youths who are IT savvy and enthusiastic on online platforms (Izwan, 2021; Mohamad Shafi & Misman, 2021). Despite the level of e-wallet adoption rate amongst Malaysian businesses, in particular small-sized merchants are low especially among Muslim (Mohd Shafeei, 2020; Lee, 2019; PricewaterhouseCoopers Advisory, 2018). The acceptance of e-wallet among small business in neighbouring country such as Indonesia also found as low (Apriani & Wuyandari, 2023). One of the reasons for low e-wallet adoption is lack of awareness on e-wallet development (The BorneoPost, 2021). It is important to create awareness and encourage more small-sized merchants' interest to adopt e-wallet to fulfil this demand from customers. Merchants also have a significant role where the insistence by merchants for e-payments is identified as one of the motivations for customers to adopt e-wallet (Oppotus,2023; Bagla & Sancheti, 2018). When more small-sized merchants adopt e-wallet in their sales and transactions, this will encourage other customers who are not yet users of e-wallet to participate in e-payment technology, which invigorates the e-wallet industry.

Academically, previous research on e-wallet adoption have focused on consumers as payers or buyers, but there have been few studies on the cash receiver side, particularly for small merchants (Tikku & Singh,2023; Alam et al., 2021; Singh & Sinha, 2020; Rana et al., 2019; Li, 2018; Mozdzynski, 2018). The scarcity of studies emphasises the adoption factors that lead to difficulties in understanding the antecedents that influence merchants to adopt e-wallet (Li, 2018) which affects the process towards a cashless society.

In Malaysia, there are over 900,000 micro entrepreneurs, accounting for 78.4 percent of Micro, Small and Medium Enterprises (MSMEs) as reported by the Department of Statistics, Malaysia (2022) in the Malaysia Statistical Business Register (SME Corporation Malaysia, 2022). Since Muslims dominate the Malaysian population, it is reasonable to assume that small-sized merchants are formed by Muslims. Thus, it is important to identify the antecedents for e-wallet adoptions among small-sized Muslim merchants. It is generally known that Islam has specific rules and considerations that can be a preventative factor in terms of the use of conventional generic frameworks. By identifying the factors which cater to the Muslims' needs, it can increase the Muslim merchants' willingness to adopt e-wallets in their daily business transactions. Therefore, this paper aims to identify the antecedents that influence the adoption of e-wallet among small-sized Muslim merchants.

This study is based on Technology Acceptance Model, which emphasized causal factors for e-wallet adoption. This theory explains user acceptance is determinant for the success of information system or information technology implementation (Davis, 1989). The TAM model was found as the most frequently used model of information technology/information

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system (IT/IS) in relation to e-payment adoption studies (Kabir et al., 2015). The original TAM model highlighted two variables which are perceived ease of use and perceived usefulness as IT/IS's acceptance. This study noticed there were increasing numbers of variables that influenced adoption of IT/IS. Thus, this study enhances the TAM with inclusions of variables such as trust, technology efficacy and government support considering those mentioned variables have been tested by scholars which might complement the original TAM. Besides, this study brings in a structural assurance variable to meet Islamic religious principles. This study proposes a first framework which includes all possible variables that influence e-wallet adoption among merchants.

This study provides input to e-wallet stakeholders such as e-wallet providers and the government to understand the antecedents for e-wallet adoption intention and formulate better strategies to increase the use and utilisation of e-wallets among small-sized Muslim businesses, thus accelerating the achievement of Malaysia's goal to develop a cashless society by 2050 (Ying et al., 2020; Sario & Kumar, 2018).

Literature Review

E-wallet adoption Among Muslim Merchants

E-wallets have been introduced to replace cash and credit cards, turning people into a smart, digital, and cashless community. An e-wallet is conceptually similar to a physical wallet where an amount of e-money is kept in digital form and will be used to make imbursement to other parties via online transfer (Chawla & Joshi, 2019; Bagla & Sancheti, 2018). E-wallets are expected to benefit small businesses and SMEs as well in ways such as increased efficiency, solving cash leakage issues, being more secure and increasing sales (Mallat & Tuunainen, 2008; Sario & Kumar, 2018). One of the most remarkable features of the e-wallet is that it captures all transactions automatically and digitally (Izwan, 2021), and the transactions are processed on a real-time basis. As a result, merchants receive high-quality information that is timely and error-free, allowing them to make better business decisions (Romney et al., 2021).

Adoption is the main concern facing e-wallet service providers (Ying et al., 2020; Andrew et al., 2019; Noordin & Subramaniam, 2019; PricewaterhouseCoopers Advisory, 2018; Zhi Wei & Khaw Peng Tsu, 2018). Till February 2019, about 70,000 merchants registered with Boost (e-wallet provider), where 65% of them are amongst small businesses such as food hawkers, food trucks, and night market vendors. Lee (2019) clarified that these numbers are still low compared to the registered businesses in Malaysia. Slow growth in e-wallet usage among businesses in Malaysia is contributed by low usage rates among small-sized merchants (Lee, 2019; PricewaterhouseCoopers Advisory, 2018). Additionally, the adoption of e-wallets among Muslims is also low (Mohd Shafeei, 2020). This suggests that small-sized Muslim merchants, especially in rural areas, may not yet be exposed to e-wallet. Nevertheless, Malaysia has a broad potential to increase its e-wallet adoption rate if issues such as having adequate infrastructure, complexity of using e-wallets, cyber security, privacy risk, and fintech regulations are tackled (Alam et al., 2021).

Theoretically, studies on e-wallet adoption are at the early phase (Mohamad Shafi & Misman, 2021). Previous literature showed that studies on e-wallet adoption among consumers are growing, but studies focusing on e-wallet adoption among merchants are still limited (Kasirye et al., 2021; Singh & Sinha, 2020; Andrew et al., 2019; Rana et al., 2019; Li, 2018;

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Mozdzynski, 2018). The scarcity of studies emphasises the adoption factors that lead to difficulties in understanding the antecedents that influence merchants to adopt e-wallet (Li, 2018). To encourage small-sized Muslim merchants to use e-wallets, factors that influence their acceptance must be identified. A review of the literature revealed five potential antecedents to e-wallet adoption among users such as perceived usefulness, perceived ease of use, trust, technology self-efficacy and government support (Mohd Shafeei, 2020; Singh & Sinha, 2020; Andrew et al., 2019; Li, 2018; Mozdzynski, 2018; Mallat & Tuunainen, 2008).

From the Islamic view, a business is nine out of the ten main sources of livelihood that lead to the accumulation of wealth. This is one of the categories of the *Maqasid of Al-Syariah*, namely the accumulation of wealth or *Hifz Mal*, where Islam encourages its people to seek wealth in a permissible way (Swadjaja et al., 2019). The use of e-wallets is permissible as long as it complies with shariah principles (Razali et. al, 2021; Iskandar Mirza, 2019). This means that e-wallet must free from *riba* (interest), *gharar* (uncertainty) and *maisir* (gambling). The use of e-wallet enable small-sized Muslim merchant to receive updates on their business account, particularly on cash inflows which allows them to make important decisions faster and more accurately which leading to better business performance. The *Hifz Mal* also prioritises wealth protection. The e-wallet support this objective as money could be transferred safely and confidentially, hence safeguard small-sized Muslim Merchant from risk and harm (Rashid et. al, 2023; Razali et. al, 2021). Nevertheless, some issues are highlighted from a shariah perspective, such as an unclear position on the liability of the board directors of e-wallet operators, breach of mandate and exclusion of liability of e-wallet operators (Md. Nor, 2021), which may make Muslim business owners refuse to adopt e-wallets. Previous studies found shariah compliance (halal) has a significant impact on business performance (Othman et al., 2019; Rashid et al., 2019; Ullah & Khanam, 2018 Saindal, 2015). Also, technology adoption has a positive impact on business performance (Anjum, 2018; Mustafa & Yaakub, 2018; Ong et al., 2016).

Shariah compliance can be said to be a part of structure assurance. McKnight et al. (2002) defined structural assurance as the degree to which consumers believe that institutional structures like guarantees, regulations, promises, legal recourse, or other procedures are in place to promote success. Structural assurance explains consumers' beliefs about the available protection from institutional structures and mechanisms (Sha, 2009). Structural assurance was found to influence consumers' intention to use online payment technology (Aji et al., 2020; Wang et al., 2019; Al-Amri et al., 2018).

The Technology Acceptance Model (TAM)

This study is grounded on the Technology Acceptance Model (TAM) introduced by Davis (1989). The TAM is amongst the most classical theory that used to explain how users are influenced to adopt IT/IS (Chawla & Joshi, 2019; Shin, 2009). In particular, the TAM model also was found as the most frequently model of IT/IS used in relation to e-payment adoption studies (Kabir et al., 2015; Yan & Yang, 2014)). The applicability of the TAM has been demonstrated in various context of IT/IS such as mobile payment and e-payment (Coskun et al., 2022; Huang & Cheng, 2012; Jusoh & Jing, 2019; Mozdzynski, 2018; Yan & Yang, 2014), mobile wallet (Chawla & Joshi, 2019; Al-Amri et al., 2018; Shin, 2009), e-wallet (Lee Yong Ming & Jais, 2022; Lim et al., 2019), social media and network (Di Pietro & Pantano, 2012; Rauniar et al., 2014), e-commerce (Bansal et al., 2011; Rose et al., 2011; Hassanein & Head, 2007), internet banking (Suh & Han, 2002) and mobile service (Lopez-Nicolas et al., 2008).

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The TAM explains the factors that influence user intention and actual usage of IT/is adoption (Chawla & Joshi, 2019). The TAM was inspired by the theory of reasoned action (TRA), whereas TRA postulates that both the attitude and subjective norms have an impact on behavioural intention, later on turn in individual's act (Shin, 2009). Attitudes has been numerously tested as to have strongest effect on intention to use IT/IS (Jardat as cited in Lee Yong Ming & Jais, 2022; Shin 2009). The original TAM version was focused on two fundamental variables in determination IT/IS adoption, named as perceived ease of use and perceived usefulness. The TAM assumes only one kind technology available for customers which limited its applicability in various IT/IS products (Lee Yong Ming & Jais, 2022; Shin, 2009) particularly e-payment. Meanwhile, there are many new intricate technologies related to e-payment which might need to extend the existing factors for adoption e-payment.

There were a vast of studies that enhanced the original TAM with extension of other variables which have shown the validity of the framework in explaining technology acceptance (Shin, 2009). Such variables has been proposed in the different context of IT/IS research for instance performance expectancy, effort expectancy, social influence, facilitating conditions, security, trust, social influence and self-efficacy and lifestyle compatibility, social influence and self-efficacy (Chawla & Joshi, 2019; Coskun et al., 2022; Shin, 2009; Venkatesh et al., 2003).

Specifically, this study noted that trust, technology self-efficacy, government support and structural assurance (see Aji et al., 2020; Mohd Shafeei, 2020; Singh & Sinha, 2020; Andrew et al., 2019; Al-Amri et al., 2018; Mozdzynski, 2018; Wang et al., 2019; Li, 2018; Mallat & Tuunainen, 2008;) are often used to make hypotheses in connection to the intention, acceptance and adoption of financial technology field such as e-payments, e-banking and mobile payments from customer's view. Trough literature, this study found ignorance of religious factors in TAM and also existing variables. As such, this study had probed the above-mentioned variables as use's intention to adopt the e-wallet through the lens of TAM and Islamic view to provide better explanation on e-wallet adoption among small-sized Muslim merchants.

Research Methodology

The objective of this study is to identify the factors that potentially influence the adoption of e-wallets among Muslim, particularly small-sized merchants. The study conducted a literature search using various electronic databases, including Web of Science, Scopus, Science Direct, and Google Scholar. Appropriate domains and keywords were identified to set the parameters for this study (Bandara et al., 2011; Baker, 2004). The study searched for documents using several terms, such as "e-wallet", "e-payment", "adoption", "intention","acceptance", "merchant", "Muslim", and "Islam". The study reviewed all relevant document types, including articles in journal, conference papers, and books written in English and *Bahasa Melayu*. The factors highlighted from these documents were then used to develop a theoretical framework for e-wallet adoption among small-sized Muslim merchants.

Theoretical Framework

This study proposed the following theoretical framework which highlights antecedents for e-wallet adoption among small-sized Muslim merchants (see Figure 1). The framework proposed perceived usefulness, perceived ease of use, trust, technology self-efficacy and government support as the influencing factors towards small-sized Muslims merchants' intention to use e-wallet. As research on e-wallet is still at the early stage, this study brings in the same variables

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used by scholars who studied on e-wallet adoption or intention from the customer's context and turning it into the merchant's context. The above-mentioned variables are amongst the most widely adopted in the e-payment literature (Singh & Sinha, 2020). What distinguishes this framework from the available framework is the inclusion of structural assurance as this study seeks to identify the variables that uniquely fit small-sized Muslims merchants. Explanation on each factor is provided as well.

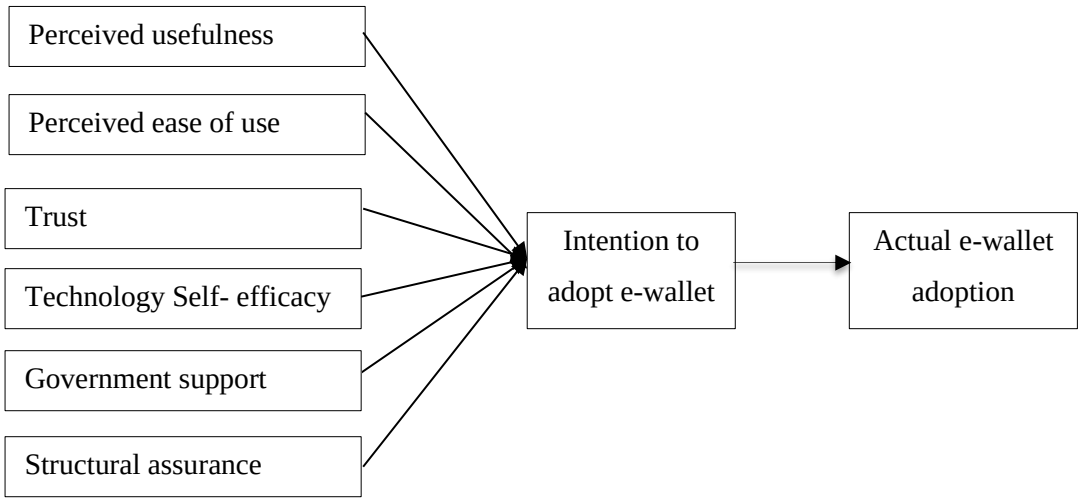

Figure 1: Theoretical Framework For E-Wallet Adoption Among Small-Sized Muslim Merchants

E-Wallet Intention and Adoption

Attitude is the one's cognitive stance on willingness to use a specific IT/IS product (Shin, 2009; Lederer et al., 2000). Its describe one's feelings (which might be positive or negative) in relation to performing the targeted behavior (Davis, 1989). Attitudes such as perceived usefulness, perceived ease of use, trust was found influenced behavioral intention (Coskun et al., 2022; Shin, 2009; Lopez-Nicolas et al., 2008). Behavioral intention simply explains as an individual's probability to use specific IT/IS product (Azjen, 2000; Venkatesh et al.,2003) and works as determinant of actual behavior or adoption of a system (Coskun et al., 2022; Ajzen,1991) . Behavior intention and usage are dependent variables which been widely used by scholars to understand why and how individuals accept IT/IS (Venkatesh et al., 2003). Behavioral intention was found significant corelated with actual usage Jusoh & Jing, 2019; Shin, 2009; Davis, 1989). This posit that, when an individual has intention this will lead that person to actual use the e-payment (Jusoh & Jing, 2019). Additionally, the stronger an individual exhibits intention behavior will result the higher possibility to perform actual behavior (Ajzen, 1991). Study by Saleh et al. (2010) revealed that Islamic religious values tend to influence the acceptance of technological product innovation. According to TAM, the dependent variable often uses terms such as actual usage, acceptance, and adoption to represent actual behavioral which can be used interchangeably.

Perceived Usefulness

Perceived usefulness is used interchangeably with "perceived benefit" (Jusoh & Jing, 2019). According to Davis (1989), perceived usefulness refers to the degree of user's belief that using a specific system would increase his/her task performance. A system is perceived as useful if

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there is a positive relationship between IS/IT use and performance. In other words, perceived usefulness is denoted as the extent a person believes that a system is competent to facilitate job execution to be more easy, rapid, efficient, and effective while at the same time maintain the quality (Lopez-Nicolas et al., 2008). It can be concluded that perceived usefulness is a positive consequence users would enjoy from the use of e-payment system (Huang & Cheng, 2012). This paper defines perceived usefulness as the extent a small-sized Muslim merchant believes that adopting the e-wallet application will facilitate customer's payment, hence help to boost up business performance. Utilizing e-payment technology is in line with surah Al Hadid verse 25, which means "And We created iron that has great strength and many benefits for humans, and so that God knows who helps His (religion) and His messengers even though (Allah) does not see. This verse explains that Muslims need to take advantage of technology for daily life including generating wealth. There were mixed results on the perceived usefulness and e-wallet acceptance from previous studies. The perceived usefulness was found to positively influence consumer attitude on adopting e-wallet (Coskun et al., 2022; Lee Yong Ming et al., 2022; Aji et al., 2020; Mohd Shafeei, 2020; Chawla & Joshi, 2019; Yan & Yang, 2014), while the results are contradictory with Yin & Chen's (2022) study.

Perceived Ease Of Use

Davis (1989) referred to perceived ease of use as the degree of user's belief that using a specific system is effortless. This reflects user's believes that learning and adopting e-wallets would requires very minimal effort due to low level of system difficulties (Chawla & Joshi, 2019; Yan & Yang, 2014). This can be viewed from two perspectives. The first one refers to the business operating procedure and second, on the system technical. In terms of business operating procedure, it emphasised on the set of instructions to perform e-wallet transaction. The system or application provides just a few instructions (Pan, 2020) that enable users easily to understand and follow the instructions. While for system technical, an easy e-payment system is characterised by user-friendly interfaces and powerful navigation (Amri, 2018; Yan & Yang, 2014). Users require minimal learning time without difficulties in understanding e-wallet since the application is simple (Yin & Chen, 2022). A merchant needs to initiate a simple setup and then wait for the payment to be approved once the customer taps the card on the device or key in the security code. This paper defines perceived ease of use as the extent a small-sized Muslim merchant believes that adopting e-wallet application requires minimal effort as the e-wallet is simple and has minimal instructions but meaningful in handling the payment process. Ease of use is a feature that is very much in line with Islamic value as said by the honourable Prophet "*Religion is very easy and whoever overburdens himself in his religion will not be able to continue in that way." (Bukhari, Hadith 39).* The perceived ease of use was empirically tested as having a positive relationship with customer's attitude towards e-wallet (Coskun et al., 2022; Yin & Chen, 2022; Mohd Shafeei, 2020; Chawla & Joshi, 2019; Al-Amri et al., 2018;); however, Aji et al. (2020) revealed an insignificant relationship.

Trust

McNight et al. (2002) defined trust as individual's beliefs in his/her inclination to rely on others. In the online environment, trust could reduce perceived risk and minimise people's worries on the cash asset towards e-wallet transaction (Coskun et al., 2022; Yousafzai et al., 2003). Trust could be established when a person perceives that their confidential information's privacy and security are guaranteed Yousafzai et al., 2003). This paper defines trust as the degree of merchant's beliefs that they can rely on e-wallet when performing transactions related to cash. Trough Kitab al-Qamus al-Muhith, trust important as it could remove doubt about

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something. Technically, when e-wallets can provide their services (the transfer of money between the payer and recipient) efficiently without security threats, it can build trust among merchants and further encourages these merchants to use e-wallets in their transactions. Trust was empirically tested to have influences on e-payment adoption among customers (Abdullah et al., 2020; Al-Amri et al., 2018; Chawla & Joshi, 2019; Coskun et al., 2022; Kulathunga & Ekanayake, 2019; Wang et al., 2019).

Technology Self-Efficacy

The term self-efficacy defines the degree of a person's belief that he/she possesses the capability to perform a particular act (Roberts & Candi, 2014). Meanwhile, technology self-efficacy refers to an individual's perception on his/her capabilities to employ technology applications so as to achieve the intended result (Pan, 2020). A person with high technology self-efficacy is perceived as having the self-confidence and technology know-how to use e-commerce tools and apps (Carter & Christian Schaupp, 2008; Kulathunga & Ekanayake, 2019; Li, 2018). In the online environment, self-efficacy is referred to as an individual's assessment of his or her ability to use digital payment (Coskun et al., 2022). This study refers to technology self-efficacy as a merchant's belief that he/she would be able to execute e-wallet transaction independently. Technology self-efficacy makes the person certain that he/she has the necessary knowledge, skill, and competence to perform e-payment transactions (Jusoh & Jing, 2019). The need to learn and master technology is very important to Muslims from the aspect of Hifz Mal as stated in surah Al Anbiya verse 80 which means "We have taught him the art of making armour to protect you in battle. So will you be grateful?". There were mixed results on technology self-efficacy and e-wallet adoption from previous studies. Technology self-efficacy was found to positively influence consumer attitude on adopting e-wallet from studies by Coskun et al. (2022) and Jusoh and Jing (2019) while the result is contradictory with Kulathunga and Ekanayake (2019).

Government Support

This study refers government support as government endorsement and incentives that encourage user keen to use e-wallet application. In addition, the Government can also influence fintech industry players in providing e-wallets based on Islamic principles to meet the needs of Muslims. Government plays an important role in promoting e-wallet adoption but there is a dearth of empirical studies testing the relationship between government support and e-wallet adoption. Lee Yong Ming et al. (2022) found government support has influence on the adoption of e-wallet among the citizens.

Among incentives introduced to the Malaysian citizens are e-Tunai Rakyat and e-Penjana. Through these programmes, the government offers e-money (RM30 in e-Tunai Rakyat and RM50 in e-Penjana) that will be transferred electronically to the Malaysians' e-wallets which is a two-pronged strategy; to help the people in need and to encourage people to use e-wallet. This kind of incentives event provided to customers at first but, directly impact merchants in using e-wallets. These incentives cannot be converted into cash, thus customers can only redeem them via purchase with a merchant that use e-payments, i.e. e-wallets. This prompts merchants to use e-wallets, otherwise customers make purchases with other merchants who use e-wallets. The effectiveness of these programs could be seen where small scale merchant's sales increased 86% for the 6 months period ended October 2020 (Editor,2020). In addition, the introduction of national QR standard, DuitNow QR also significant initiative by the government. The DuitNow QR, enable merchants received payment from customers who use

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banks app or major e-wallet with just one standard QR code (Izwan, 2021). Meanwhile, through the the National Digital Network (JENDELA) program that aim to expand broadband coverage and improvised cyber security mater may bring significant changes in virtual business landscape where people can transact securely at high internet speed (Editor,2020), resulted more people adopt e-wallet.

Last but not least, from the legal perspective, relevant regulations and policy to protect customers and merchant should be established to govern e-payment system (Yee, 2019). A Payment Systems Act (PSA) 2003 (Act 627) is primary legislation on electronic payment system in Malaysia, but the provision of this acts should be revised where as e-payment technology growing rapidly (Zulhuda, 2012), so that could effectively protect all parties. As reported Nielsen Payment Landscape Report, security is the main barrier for adoption e-wallet among non-users (Yee, 2019). In the rise of cybercrime cases, financial institutions, small business and customers are the major targeted victims (Murugiah, 2022; Segal,2022). Thus, improvised cyber security should be government's agenda in providing secure environment e-payment (Editor, 2020) to protect these three parties which also shows government support to e-wallet development.

Structural Assurance

As mentioned before, structural assurance refers to the extent the user is confident with the availability of protection from institutional structures and systems (McNight et al. 2002; Sha 2009). Structural assurances provide warranty there are availability of technological infrastructure and legal structures to protect e-wallet (Yan & Yang, 2014). In general, when a technology and legal warranty tools such as data encryption and statement of data policy are available, people's fear towards e-payment could be reduced (Wang et al., 2019). Wang et al. (2019) found that structural assurance influenced customer's intention to use FinTech. Meanwhile, from the Islamic point of view, structural assurance explains to what extent the business activities adhere to shariah compliance such as clean from elements of *riba* (interest), *gharar* (uncertainty) and *maisir* (gambling), as well as have clear *aqad* (contract). Aji et al. (2020) found that Muslim customers' awareness and knowledge about *riba* weaken the relationship between perceived usefulness and e-wallet intention adoption. In this study, we define structural assurance as the level of a merchant's belief that the e-wallet system is permissible by Islamic principles. Till date, we noticed that no studies have empirically tested the direct relationship between structural assurance (other than riba) from shariah perspective and e-wallet adoption.

Conclusion

E-wallet is a new but promising tool in FinTech which provides essential support for IR4.0. This study found that academic work in relation to e-wallet usage is increasing but mostly focusing on customer's perspective while there is a dearth of study on small-sized merchants, particularly for Muslims which subjected to Islamic principles. It is noteworthy to highlight that structural assurance (i.e.; shariah compliance) is not yet available in the studies, neither focusing on customer nor merchant. Hence, shows e-wallet adoption framework yet to be comprehensive in both types of users particularly for Islamic setting. This study proposes a conceptual framework grounded from Technology Acceptance Model with extensions of other variables such as trust, technology efficacy, government support, and structural assurance as to explore the factors that influence merchants e-wallet adoption among small-sized Muslim merchants. Though most of the factors were from the customer's perspective, the results may

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differ since these two parties have their own opinions and reasons in adopting e-wallet. Thus, this suggests the need for conducting an empirical test to identify the applicability of the proposed framework. This study is hoped to provide input to relevant parties such as the government and financial institutions in shaping e-wallet development that fits the Muslim citizens' needs and also to enhance current literature in fin-tech study particularly on merchants and Islamic perspective.

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