A MODEL OF FACTORS INFLUENCING ADULTS’ INTENTION TO USE E-WALLET DURING COVID-19 PANDEMIC IN MALAYSIA: A CONCEPTUAL FRAMEWORK

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Abstract: Currently, an e-wallet is a revolutionary type of payment system in the development of financial technology (Fintech). Prior e-wallet research has concentrated on factors such as perceived risk and variables from the Technology Acceptance Model (TAM) that influence e-wallet usage. During the COVID-19 epidemic, however, the impact of government support and perceived risk on individual behaviour was not well studied yet. Hence, the purpose of this study is to look at the impacts of perceived risk, perceived usefulness, behavioural intention, and government support as potential mediators on the intention to use an e-wallet amongst adults in Malaysia during the COVID-19 epidemic. The participants in this study were individuals aged 25 to 60 years old from Peninsular Malaysia, Sabah, and Sarawak who planned to engage in e-wallet transactions. The partial least square SEM was used to analyse the data (SmartPLS). The study investigates the causes at play as well as a number of difficulties that have arisen as a result of past research findings that have been inconsistent. It also compares the integrated TAM model to other aspects and determines whether TAM is the dominating model in research on adaptation to changing technologies like e-wallets. The outcomes of this study are crucial in establishing which determinants influence e-wallet usage.
application in Malaysia during COVID 19. Additionally, e-wallet marketers will learn more about consumer behaviour and the challenges of e-wallet adoption among Malaysian youth. The ministry may indeed help e-wallet companies develop global e-commerce sales.

**Keywords:** E-Wallet, Perceived Usefulness, Government Support, Perceived Risk, Behavioural Intention

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**Introduction**

E-commerce is a new way of dealing with transactions in commercial operations due to the fast expansion of the internet and online technology. Previously, customers and business owners exchanged cash. Some restrictions apply, such as a one-time transaction limit and no product advertising for subsequent purchases (Bakar et al., 2020). Due to this constraint, most firms have turned to E-commerce to compete in the worldwide market. In this sense, clients are increasingly using E-commerce to do worldwide business. Coronavirus disease 2019 (COVID-19) which swept the globe has urged the Malaysian government to issue an MCO on March 18th, 2020. Consequently, the public and private sectors are working together to enhance the coordination and the reducing of service gaps (Ab Malik et al., 2020). The epidemic has caused a substantial change in customer spending and boosted e-commerce sales in Malaysia (Bhatti et al., 2020). Online ordering is preferred over traditional ordering methods because it is simple, accident-free, rapid, and visible. E-wallet transactions also include digital cash, and the use of internet banking via smartphone applications, making them more accessible at any time and any place (Sohail et al., 2018).

Fintech emerged around 1990, coinciding with the rise of the internet and E-commerce. All banks are able to provide mobile banking services using cell phones as the quickest online payments (Bakar et al., 2020). As the usage of e-wallets grows globally, Malaysia has begun adopting them in 2019 by encouraging Malaysians to use them. According to the Fintech Malaysian report (2021), 53 e-money issuers had online and mobile banking penetration rates of 112.5 percent and 61.8 percent, respectively. To promote digital money, Malaysian shops have embraced the domain e-wallet services like Touch ‘n Go, Grab, and Boost. The interoperable credit transfer framework (ICTF) was established by Bank Negara Malaysia with the invention of the interoperable QR Code to promote the adoption of e-wallets in Malaysia (The Star, 2018). Many studies have shown that customers’ perception of risk affects criminal behaviours including theft, data breaches, fraudulent transactions and account takeovers when using payment systems and online banking (Marafon et al., 2018).

The government support has been proven to greatly impact the customers’ intention to use mobile payment in contexts including online banking, mobile commerce and government service (Rambocas & Arjoon, 2012; Dawi, 2019; Mandari et al., 2017). In Malaysia and Indonesia, perceived risk and the government have influenced the e-wallet usage (Aji et al., 2020). E-wallet studies in Malaysia revealed that the business is still in its infancy compared to other emerging nations. Food and beverage are the most popular e-wallet industry, followed by retail and e-commerce (PWC, 2018). The survey also revealed that people under the age of 35 use e-wallets, with the majority being youthful and tech-savvy. Unfortunately, the acceptance remains low, particularly among those over 35 who have had to adapt to the new payment method. The younger generation is less likely to use an e-wallet owing to perceived danger, lack of expertise, and exposure to new technologies. Thus, this study has two goals. Firstly, it assesses the impact of perceived risk and government support on adult e-wallet use during the
COVID-19 epidemic in Malaysia. Second, it evaluates perceived usefulness as a mediator between government support and perceived risk in e-wallet adoption.

**Literature Review**

In general, numerous theories can be researched in relation to user intention to use products or services. This study used Technology Acceptance Model (TAM) because this model has been well-established throughout the decades. This section discusses the model in details and the variables used in this research.

**Technology Acceptance Model (TAM)**

Davis (1989) states that Technology Acceptance Model (TAM) is based on the Theory of Reasoned Action (TRA). TRA investigates the link between perception and technology (Fishbein & Ajzen, 1975). To anticipate individual adoption of new technology, Davis et al. (1989) created TAM. The concept states that perceived ease of use and perceived usefulness are two characteristics of an innovative information system. Figure 2.1 displays the Technology Acceptance Model (TAM).

![Figure 1: Model of Technology Acceptance Model (TAM)](source: Adopted from Davis, 1989)

TRA defines behavioural intention as an attitude towards behaviour and a subjective standard. Other dimensions in TAM include attitude toward using and behavioural intention to use. Perceived usefulness is the degree to which a person feels a system or technology is valuable, therefore, it is more likely to be employed. Davis (1989) defines perceived ease of use as whether a person believes a technology will improve their performance or is it simple to use. Individual attitudes towards new technology are impacted by perceived utility and ease of use, which is another element that makes up the model. Behavioral intention is a concept that relies on the users’ attitudes and determines their utilisation of new technology (Davis, 1989). The TAM model is the most prevalent model and the most important theory in empirical investigations connected to new technologies such as e-wallet. The TAM model is not obsolete, and most researchers have adopted TAM model and extended it with other variables (Singh & Ghatak, 2021; Yaakop et al., 2021; Ming et al., 2020; Taufan & Yuwono, 2019; Lonare et al., 2018; Seetharaman et al., 2017).

**Behavioural Intention**

Behavioural intention is the intensity of one's desire to undertake a given behaviour (Amoroso & Magnier-Watanabe, 2012). Leong et al., (2013) found that e-wallet adoption directly influences behavioural intention. Consumers are switching to contactless payment systems; secure alternatives to physical touch with surfaces include e-wallets, contactless cards, and
electronic payment channels. Due to the notion that contactless payments are more hygienic than other traditional payment methods, contactless payments have increased quickly during the COVID-19 outbreak (Jesuthasan & Umakanth, 2021). Thus, streamlined e-wallet acceptance processes has given impact on perceived usefulness, which influences the behavioural intention (Mcmillan, 2018).

Young generations in Malaysia had a substantial positive link with behavioural intention e-Wallet (Karim et al., 2020). The stakeholders in the mobile wallet ecosystem will benefit from the identification of factors that affect consumers' inclination to accept mobile wallets in Malaysia. In fact, it was strongly encouraged by the medical authorities to reduce the use of currency given the safety precautions made to avoid the infection. Therefore, a circumstance like this pandemic is appropriate for a mobile e-wallet (Alwi et al., 2021). Last but not least, the related study discovered that respondents' behavioural intentions and perceived utility have a positive association because they believe the mobile wallet service will live up to their expectations (Jin et al., 2020).

**Government Support**

Numerous governments promote e-wallets, particularly during a pandemic, and this may have an impact on people's decisions to use them. The World Health Organization (WHO) recommends that the government encourage its citizens to use e-wallets for payment (Huang et al., 2020). Government assistance is an agenda or strategy that influences how people and businesses make choices. Moreover, businesses need help from the government to become more competitive and grow the economy over the long term (Khan et al., 2022). Similar study highlight that although customer demand and governmental assistance both make it easier to adopt a circular economy, only governmental support directly adds to technology adoption (Rodríguez-Espíndola et al., 2022).

In Malaysia, government support has a substantial impact on e-wallet usage behaviour. This conclusion is in accordance with Aji et al., (2020) and Victoria and Amir (2018), who stated that Malaysians passionately support their government and actively participate in its COVID-19 efforts. To aid Malaysians during the COVID-19 epidemic, the Malaysian government regularly offers an "Economic Stimulus Package Concerning the People" and has scheduled 29 packages under the "PRIHATIN" programme. According to Aji et al., (2020), perceived usefulness mediates between government support, perceived risk, and behavioural intention. To put it another way, customers feel that utilising an e-wallet is a highly effective approach to assist them purchase items and services during the COVID-19 epidemic. Thus, the government support impacts Malaysian customers' views and the usage of e-wallet.

**Perceived Risk**

Generally, customers choose to use an e-wallet for online purchases because of security. Users that feel secure using an e-wallet will be more inclined to utilize it (Krisnawati et al., 2021). A feeling of uncertainty over the drawbacks of using a good or service is perceived risk. It demonstrates how the perception of risk affects behavioral intentions to utilize the e-wallet payment mechanism. Perceived risk is the level of risk a customer perceives while making a buying choice (Cox & Rich, 1964). Using acquired data for commercial interests for advertising might be considered as a violation of trust or exploitation of personal data (Mcmillan, 2018). Moreover, the digital business environment is characterised by frequent data breaches, fraud, and persistent monitoring (Morosan & DeFranco, 2016). For example, it may urge the customer to safeguard their personal information or avoid behaviours required to adopt the technology.
Besides that, a previous study found among young adult customers, perceived risk positively influences the adoption of e-wallet platforms (Razif et al., 2020). However, some study on the aforementioned perceived risk indicates that behavioral intentions to use the e-wallet payment method are not significantly impacted by perceived risk (Jesuthasan & Umakanth, 2021). As a result, e-wallet providers should not overlook perceived risk as an opportunity to learn customer requirements and wants. So, considerable effort is made to boost e-wallet usage by banks or online transaction providers. To ensure complete system security, customers must have faith in e-wallet providers, policymakers, and financial institutions.

**Perceived Usefulness**

As defined by Davis (1989), perceived usefulness is the degree to which customer feel a system will improve their work performance. Perceived usefulness refers to the possible acceptability of utilisation of particular systems that boost e-wallet platform performance (Davis, Bagozzi, & Warshaw, 1989). People are more inclined to adopt a practice if it improves the effectiveness and productivity of the overall work. Venkatesh and Davis (2003) found that usability characteristics like database structures are important signs of contentment. The page evolution is linked to the scheme's usability. Providers should make the platform more user-friendly and navigable for users. According to Davis et al., (1989), e-payment users find value in the e-payment system. The perceived value of substantial research influences user acceptance of e-payment.

The perceived usefulness components and the behavioural intention of using e-wallet platform exhibit a favourable link (Razif et al., 2020). The design of the website should prioritize usability and ease of usage. It can assess the impact on perceived usefulness and boost customer motivation. A marketing campaign using an e-wallet platform is emphasised by banks and financial organisations. Furthermore, a study by Yang et al., (2021), perceived usefulness had a substantial beneficial impact on Malaysian consumers' e-wallet adoption as well as their behavioural intention to use them. Their information was gathered throughout the COVID-19 epidemic. Previous studies in Vietnam and India looked at people's intentions to adopt QR code payment technology during the COVID-19 outbreak and highlighted perceived usefulness as a key indicator of continuance intention using e-wallets (Sreelakshmi & Prathap, 2020; Ngo & Nguyen, 2021).

**Hypothesis Development**

H1: Government support positively affects behavioural intention to use e-wallets  
H2: Government support positively affects perceived usefulness  
H3: Perceived risk negatively affects behavioural intention to use e-wallets  
H4: Perceived risk negatively affects perceived usefulness  
H5: Perceived usefulness positively affects behavioural intention to use e-wallets  
H6: Government support positively affects perceived usefulness on behavioural intention to use e-wallets  
H7: Perceived risk negatively affects perceived usefulness on behavioural intention to use e-wallets

**Methodology**

Prior to the participation in this study, all participants obtained the consent form and were brief about the objective of the study. Each participant was required to sign a consent form and was asked to participate in this survey voluntarily without coercion. The instruction on how to answer the questionnaire was recorded and sent through WhatsApp application. Questionnaires were distributed to respondents aged between 25 to 60 in all states in Malaysia using
convenience sampling technique. The respondents were Malaysian working adults and they were chosen because they have jobs, incomes, in which their cost of living and cash flows are contributing to the society. A cross-sectional analysis was utilised, in which all of the study variables being evaluated at the same time. In line with the movement control order implemented by the government to keep social distancing due to the COVID-19 pandemic, an online survey form was used as an instrument to obtain the primary data.

The survey form was created using google form and the Google Form link was shared to all respondents via email, WhatsApp and Facebook. Besides, this link provides a standardized general description of the social media postings and WhatsApp messages. The survey included two sections: demographic information and the factors of e-wallet implementation (behavioural intention, government support, perceived usefulness, perceived risk). The rating ranged from (1) strongly disagree to (5) strongly agree. The questionnaire was used both in Malay and English versions which allows a better understanding of the question requirements and provides an accurate response. This study used snowball sampling method and convenience sample approach to find potential subjects among their contacts (adults aged 25 to 60 years old). To evaluate this model and hypothesis, researcher applied partial least square SEM (SmartPLS).

Conclusion
This finding of the study will be beneficial to the customers and the Malaysian government. The government support has given a huge impact to the economy and varieties of packages that had been issued to reduce hardship among customers due to the COVID-19 pandemic. Since perceived risk is the main reason to adopt e-wallet, the Malaysian government should provide clear-cut policies for e-wallets. From the expected result, researchers have better understanding on the adults' desire to use e-wallets during the COVID-19 epidemic in Malaysia. Besides, the result also will be as added value on the TAM model theoretical viability in examining customer perception and technology utilisation such as e-wallet. Last but not least, e-wallet providers should create user-friendly applications to make e-wallet payments easy for users.

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