A Conceptual Framework of Mobile Payment System Adoption and Use in Southeast Asia

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Abstract

The research aims to investigate the factors affecting consumers' adoption and use of Mobile Payment Systems (MPS) in Southeast Asia. Extant theoretical models need to be extended to cover the unique features of mobile payment technology. A Systematic Literature Review (SLR) is conducted to analyse theoretical models utilized to predict the adoption and use of mobile payment. A total of 60 studies about adoption and use of MPS is analysed. The results of the investigations employ the Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), and Diffusion of Innovation model (IDT). It reveals that there are inconsistencies in determinants of behavioral intention to adopt and use MPS. Among them are performance expectancy, effort expectancy, and social influence. The review also unveils the use of other determinants to predict behavioral intention to adopt and use MPS, such as perceived security, perceived risks, perceived trust, attitude, and financial incentives to lure new users. The researchers propose a conceptual framework for MPS adoption and use that includes four moderators: gender, age, educational level, and income level. The research contributes to the theory and practice by explicating relevant factors predicting behavioral intention to adopt and use mobile payment in the ASEAN region. Moreover, the SLR offers opportunities for future investigations.

Keywords: mobile payment, security, risk, trust, attitude, financial incentives

Introduction

The use of Mobile Payment Systems (MPS) in daily transactions keeps increasing due to the proliferation of mobile phones in many countries. Using smartphones, people may compare the pricing of products and services (Kim, 2022) and purchase and pay with a simple click. Therefore, there were 326.3 million smartphone users by 2022, or 88% of Internet users in Southeast Asia (Cheung, 2022). Mobile wallets have revolutionized the payment industry in Southeast Asia (Chaudhuri et al., 2022). According to Techwire Asia, e-commerce expenditure will increase by 162% to reach US$179.8 billion, with 91% of transactions involving digital payments by 2025. The three biggest markets for e-commerce payments are Indonesia, Vietnam, and Thailand (Kaur, 2021). The use of MPS is expected to increase due to the bilateral Cross-Border QR Code Payment Linkages initiative among ASEAN member nations (Karim et al., 2022).

Despite the proliferation of the adoption and use of MPS, only very few MPS providers have been successful. In Indonesia, for example, out of 41 providers registered at Bank Indonesia in 2020, only a few of them have been successful, like GoPay, OVO, Dana, and LinkAja (International Trade Administration, 2020).

For many users, the adoption and use of e-wallet depends largely on instant cashback offers and additional points. Merchants claim that cashback promos, which range between 20% to 40%, help to increase their sales (Jakarta Post, 2019). Leading MPS offers gimmicks like free delivery or pay later to attract more users to use the apps (Tani, 2019). Indonesian consumers take full advantage of the situation, raking in every cashback, discount, and promo that GoPay and OVO have to offer, such as a cab ride for Rp 1.00 (one rupiah = US$0.000071) (Syahputera, 2019).

However, a survey conducted by PwC in 2019 and found that more than 47% of the people surveyed cited usefulness as one of the key factors to the adoption and use of technology (Beutin & Harmsen, 2019). According to the same survey, the second factor was practicality. Around 47% to 86 % of the people surveyed mentioned that they were able to transact more quickly, and 59% to 86% enjoyed the less complicated financial transaction of using MPS (Beutin & Harmsen, 2019). The third factor was the accompanying conditions in the ecosystem of the MPS (Mitra & Mittal, 2020). In the fourth factor, the PwC's survey identified that about 50% to 87% of the respondents trust Financial Technologies (FinTechs) in general (Beutin & Harmsen, 2019). For the fifth factor, the survey also showed that respondents' attitudes might play a significant role in adopting and using MPS. More than 49% of the respondents indicated that they liked FinTechs and used FinTechs' products and services. Of the respondents in Turkey, for example, 75% of them liked FinTechs, and 77% liked using FinTechs' products and services (Beutin & Harmsen, 2019). Despite the trend, users of MPS were concerned with security and risk. Around 77% of the people surveyed in Germany worried their mobile phones might be stolen and misused. Then, 69% worried about identity theft, and 64% worried about mobile payment, encouraging them to buy more quickly (Beutin & Harmsen, 2019).

Literature Review

Mobile Payment in Southeast Asia

Mobile payment or M-payment is a particular form of E-payment that utilizes communication technology by enabling mobile users to make payments using Internet-connected mobile devices. Mobile payment refers to products, services, and billing based on mobile devices and allows users the convenience of wireless infrastructure and other communication technologies (Dahlberg et al., 2008). In fact, mobile payment can be made using any type of mobile device, such as a mobile phone, tablet, digital watch, or any device capable of connecting to mobile communication networks to initiate, authorize, and confirm a commercial transaction (Au & Kauffman, 2008; Gomber et al., 2017; Ting et al., 2016). MPS combines payment with mobile devices and services to provide users with the ability to initiate, authorize, and complete a financial transaction. The money is transferred over a mobile network or wireless communication technologies to the receiver through the use of a mobile device (Chandra et al., 2010).

Southeast Asia is the region with the fastest rate of global mobile wallet growth. By 2025, there will be 439.7 million active wallets in Southeast Asia, up 311% from 141.1 million in 2020. (The Asian Business Review, 2021). In addition to local mobile payment apps, the region has benefited from more bilateral and regional cross-border partnerships, such as the ASEAN Cross-Border Payments Interoperability Network project that encourages member nations to install QR and Real-time Payment Systems (RTPs) (Cheh, 2022). The growth is led by Indonesia, which will have more than 100 million new mobile wallet users by 2025. This rise is also supported by the proliferation of super apps like Gojek and Grab in Indonesia (The Asian Business Review, 2021). Cited Boku's survey, it reports that the top five mobile payment apps are OVO, DANA, ShopeePay, LinkAja, and GoPay. Meanwhile, Singapore's market is dominated by GrabPay, FavePay, and DBS PayLah! GrabPay also tops Malaysia's market, followed by Touch' N Go and Boost (The Asian Business Review, 2021). Visa notes that 65% of Southeast Asian customers prefer mobile wallets to cards. Consumers in Indonesia (81%), Vietnam (75 %), and the Philippines (73%) favor mobile wallets, while those in Singapore (68%) and Cambodia (68%) prefer to pay with their cards (VISA, 2022).

Adoption and Use of Mobile Payment

A review of current literature proves that the variables used to predict behavioral intention and use actions do not produce the expected results consistently. These findings substantiate the research conducted by Slade et al. (2013). Various theoretical models have been used to examine the acceptance and use of MPS. For example, they are the Diffusion of Innovation theory (DOI), Decomposed Theory of Planned Behavior (D-TPB), Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), Valence framework, and IS success model. It has revealed that perceived usefulness, perceived ease of use, perceived risks, compatibility, attitude, perceived financial cost, and

social influence are inconsistent in predicting behavioral intention. On the other hand, trust, performance expectancy, and relative advantage are found to predict behavioral intention (Slade et al., 2013). Similarly, investigating key factors affecting mobile payment adoption in Indonesia reveals that 75.7% of behavioral intention is affected by effort expectancy, facilitating conditions, habit, hedonic motivation, performance expectancy, price value, social influence, and trust. It leaves 24.3% of behavioral intention affected by other factors. About 73.1% of use behavior is affected by facilitating conditions, habit, intention to use, and trust (Manaf & Ariyanti, 2017). On the contrary, effort expectancy and trust do not affect behavioral intention. Constructs found to determine behavioral intention are performance expectancy, social influence, habit, and social risk (Limantara et al., 2018). It corroborates with (Manaf & Ariyanti, 2017) that trust and behavioral intention predict the use behavior. However, habits do not affect use behavior significantly (Limantara et al., 2018).

Additionally, strictly technology-focused studies offer limited contributions to acknowledging other causes, such as marketing aspects and other actors in the m-payment ecosystem (Yeh, 2020). Hence, constructs from other models may be needed to explore the factors predicting behavioral intention and use behavior of mobile payment, such as security, trust, risk, and promotional offer. Security has a direct relationship with consumers' intention to use by examining the relations between consumers' intention to use a single platform e-payment (Lai, 2017). Likewise, trust affects user adoption of mobile payment through perceived usefulness and ease of use (Chandra et al., 2010). Moreover, perceived risks significantly and negatively affect behavioral intention to adopt mobile payment in China (Yang et al., 2012). Next, perceived risk establishes a negative relationship with the intention to use due to the uncertainty in the new tool inspiring the new user or the eventual negative consequences of the purchase. Similarly, attitude establishes a quasi-significant relationship with the intention to use (Liébana-Cabanillas et al., 2014). Due to the uniqueness of MPS, extant models of technology acceptance may not explain and predict the adoption and use of MPS. Hence, the research attempts to propose a framework for adopting and using MPS.

Various models have been utilized to investigate the adoption and use of a technology. The earliest of these models is TAM (Davis, 1989). Another model developed to investigate a technology specifically is the Model of PC Utilization (MPCU) (Thompson et al., 1991). Next, eight models are unified and named UTAUT to predict the adoption of online meeting applications, database applications, portfolio analyzers, and proprietary accounting systems (Venkatesh et al., 2003). The latest model for predicting technology adoption is UTAUT2. UTAUT2 is developed to investigate the adoption of mobile Internet technology in Hong Kong (Venkatesh et al., 2012).

Methodology

To elucidate the theoretical models utilized in the contemporary literature to study the factors affecting the adoption and use of MPS, the authors conduct SLR. A SLR is a method for identifying, evaluating, and summarizing the state-of-the-art in the literature for a given

subject. SLR restricts the compilation of literature data, allowing for a more comprehensive methodological analysis with less bias than conventional reviews (Kitchenham et al., 2009).

The following are some of the benefits of SLR. First, the well-defined approach reduces the likelihood of skewed literature findings but does not protect against publication bias in primary studies. Second, they can provide data on the results of a phenomenon in a variety of settings using a variety of observational methods. Systematic reviews provide proof that the phenomenon is stable and transferable if studies produce reliable results. If the findings of the studies are contradictory, the causes of variance may be investigated. Third, in the case of quantitative research, meta-analytic methods may be used to combine data. It increases the chances of identifying real results that individual smaller studies may miss (Kitchenham, 2007).

The systematic review consists of two stages. The first stage is preliminary. At this point, the research begins to look for research publications in the following databases: Science Direct, Emerald Insight, ACM Digital Library, Springer Link, Taylor & Francis, and SAGE Journals. The aim of this research is on mobile payment, which is part of payment in Fintechs to get the main elements in the adoption of mobile payment. The research searches using the keyword pattern that focuses on mobile payment based on the research approach. The keywords employ Boolean operators to filter the data, giving them prominence in the database search for each study paper. Symbols and Boolean operators used are OR and AND.

The keywords utilized to identify the literature are as follows: (mobile payment OR (m-payment) OR (electronic AND payment) OR (digital AND wallet)) AND (component OR Attribute) AND ((framework AND payment) OR (framework AND digital)) ((mobile AND payment) OR (digital AND wallet)) AND (fintech AND mobile)) ((electronic AND wallet) OR (e-wallet)) AND ((key AND factor) OR (mobile AND payment). The results of the investigation are as follows. A total of 60 studies about MPS are finally selected from various databases (Sage, Emerald, Science Direct, Taylor, and Francis). Then, all investigations are published from 2010 until 2020.

The second stage is extraction of studies. A search with a predetermined keyword at the origin of the research publication yields 208 research papers that meet the expected requirements. There are 101 research publications among 150 that match the title and abstract to the research query. The final number of paper to be examined is 60. Table 1 shows the extraction of detailed data.

Results and Discussion

The review shows that mainstream contemporary literature centers around several theoretical models, as summarized in Table 1.

Table 1 Theories or Models Employed to Investigate Adoption
and Use of Mobile Payment Systems (MPS)

Theoretical Models Employed		Sources	Number of Studies	Examples of Studies
TAM	Technology Acceptance Model	(Davis, 1985; Davis, 1989)	14	(Shankar & Datta, 2018; Liébana-Cabanillas et al., 2015; Williams et al., 2017)
UTAUT	Unified Theory of Acceptance and Use of Technology	(Venkatesh et al., 2003)	7	(Khalilzadeh et al., 2017; Yeh & Tseng, 2017; Molina-Castillo et al., 2020)
DOI	Diffusion of Innovation	(Rogers et al., 2003)	7	(Shao et al., 2019; Di Pietro et al., 2015; Pal et al., 2015)
TPB	Theory of Planned Behavior	(Ajzen, 1985)	3	(Ting et al., 2016; De Luna et al., 2019)
TRA	Theory of Reasoned Action	(Ajzen & Fishbein, 1980)	3	(Ramos-de-Luna et al., 2016; Hidayanto et al., 2015)
UTAUT2	Unified Theory of Acceptance and Use of Technology 2	(Venkatesh et al., 2012)	2	(Slade et al., 2015; Morosan & DeFranco, 2016)

Table 1 illustrates the theoretical models employed to investigate MPS. These models are normally extended to capture the phenomena of MPS. For example, TAM is extended with trust and compatibility (Williams et al., 2017) and attitude (Liébana-Cabanillas, Nogueras, et al., 2013). Then, UTAUT is extended with self-efficacy (negatively), perceived security, perceived trust, and perceived risk (negatively)(Khalilzadeh et al., 2017). The additions of external predictors like attitude, perceived risks, and perceived trust prove that the existing theoretical models are incapable of explaining and predicting the adoption and use of MPS. Hence, a conceptual framework is needed to capture the unique features of MPS in Indonesia. Table 3 illustrates the findings.

As a predictor, attitude has shown inconsistent results. Attitude predicts behavioral intention to adopt and use MPS (Liébana-Cabanillas, Nogueras, et al., 2013). This result is confirmed by Ting et al. (2016), Ramos-de-Luna et al. (2016), Wang and Dai (2020), and De Luna et al. (2019). However, attitude does not predict behavioral intention to accept and use MPS (Liébana-Cabanillas et al., 2015). This finding is consistent with the results of Dixit et al. (2019) on mobile tourist guides and Marmaya et al. (2019) on halal food.

The results of the SLR show that there are various determinants of behavioral intention to adopt MPS, such as performance expectancy (or its root constructs: perceived usefulness, relative advantage, outcome expectation, and extrinsic motivation), effort expectancy (perceived ease of use, ease of use, and complexity), social influence (subjective norms, social factors, image), perceived security, perceived risks, and perceived trust. Interestingly, the results of the SLR show that attitude has been used to predict behavioral intention.

Table 2 The Effects of Attitude

No.	Independent Variable	Mediator	Dependent Variable	Result	Context	Author
1	PU	Attitude	BI	Supported	MPS in Spain	(Liébana-Cabanillas, Nogueras, et al., 2013)
	PEOU	Attitude	BI	Supported		
	Attitude		BI	Supported		
2	PU		BI	Supported	New MPS in Spain	(Francisco et al., 2015)
	PU	Attitude	BI	Not Supported		
	PEOU	Attitude	BI	Not Supported		
	Attitude		BI	Not Supported		
3	PU	Attitude	BI	Supported	MPS in Malaysia	(Ting et al., 2016)
	PEOU	Attitude	BI	Supported		
	Attitude		BI	Supported		
4	PU		BI	Supported	Offline MPS in China	(Wang & Dai, 2020)
	PU	Attitude	BI	Supported		
	PEOU	Attitude	BI	Supported		
	Attitude		BI	Supported		
5	PU	Attitude	BI	Supported	NFC MPS in Spain	(Ramos-de-Luna et al., 2016)
	PEOU	Attitude	BI	Not Supported		
	Attitude		BI	Supported		
6	PU		BI	Supported	SMS, NFC, QR, and MPS in Spain	(De Luna et al., 2019)
	PU	Attitude	BI	Not Supported		
	PEOU	Attitude	BI	Not Supported		
	Attitude		BI	Supported		
7	PU		BI	Supported	MPS in Italy	(Di Pietro et al., 2015)
	Attitude	PU	BI	Supported		
	PEOU		BI	Supported		
	PEOU	PU	BI	Supported		

Note: Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Behavioral Intention (BI), and Mobile Payment Systems (MPS).

Table 3 The Lack of Studies of Financial Incentives as a Predictor of Behavioral Intention

Antecedent	Results of Financial Incentives as an Antecedent of Behavioral Intention		
	Supported	Contexts	Not Supported
Financial Incentives	(Agarwal et al., 2010)	Credit cards, cashback, and interest reduction.	
	(Arango et al., 2015; Carbó-Valverde & Liñares-Zegarra, 2011)	Credit cards, cashback, and interest reduction	
		Card payment (cashback rewards are more effective than discounts)	
	(Zhao et al., 2019)	NFC mobile payment, cashback, and discounts	

Contrary to previous research, cashback rewards are more effective than discounts in promoting credit card usage, and no significant differences are found in the effects of cashback and discount rewards on Near-field Communication (NFC) mobile payment adoption. The findings imply that cashback and discounts are equally effective in improving payment card adoption. At this stage of the innovation process of payment cards, it appears that just offering some incentive is all needed to potentially increase adoption rates (Carbó-Valverde & Liñares-Zegarra, 2011). Moreover, the availability of financial rewards has had a positive impact on the intention to accept mobile payments from NFC (Zhao et al., 2019). These results substantiate the findings of Arango et al. (2015) that incentives for credit card rewards are a major determinant of the growth in credit card use. Previous studies have shown the effectiveness of financial incentives in promoting customers' adoption of credit cards (Agarwal et al., 2010; Arango et al., 2015) and mobile payments from NFC (Zhao et al., 2019). However, there has been no empirical evidence that financial incentives successfully improve customers' mobile payments, especially the adoption of mobile payments in Indonesia. This research is the first to show that offering financial incentives can boost the adoption of MPS in Indonesia. Table 3 shows the lack of studies of financial incentives as a predictor of behavioral intention.

The Mediating Roles of Behavioral Intention

Behavioral intention is a broad concept. Behavioral intention is the extent to which a person plans to perform or avoid some kind of behavior (Venkatesh & Bala, 2008). Behavioral intention is also defined as a 'person's subjective probability that he/she will perform some behavior' (Fishbein & Ajzen, 1975). Intentions are 'instructions people give to themselves to behave in certain ways' (Triandis, 1979). This definition implies that intentions represent an individual's plans for future behavior (Davies et al., 2002). The simplest and probably the most effective way to assess whether an individual will perform a given behavior is to ask whether the individual intends to perform that behavior (Fishbein & Ajzen, 1975). Behavioral intention is significantly predicted by perceived usefulness, perceived ease of use, subjective norms, image, output quality, self-efficacy, perceptions of external control, and playfulness (Jaradat & Al-Mashaqba, 2014). Indeed, extant literature reveals that various determinants have been examined to predict behavioral intention to adopt MPS. Beliefs and attitudes are predictors of behavioral intention (Wang et al., 2009). This finding confirms that attitude, in the presence of perceived usefulness and ease of use, has a significant and positive effect on behavioral intention. Similar effects are displayed by perceived usefulness and perceived ease of use on behavioral intention to adopt MPS in Spain (Liébana-Cabanillas, Nogueras, et al., 2013). Performance expectancy predicts behavioral intention, but effort expectancy does not. Likewise, trust has a positive effect on behavioral intention, and perceived risks have a negative effect on behavioral intention to adopt MPS (Slade et al., 2015). Initial trust, perceived usefulness, and perceived cost affect behavioral intention (Zhou, 2011).

Moreover, contemporary literature shows that behavioral intention predicts the use behavior of MPS. The adoption and use of MPS find that usage intention positively and significantly determines the adoption of MPS in Taiwan (Yeh, 2020). This result reaffirms the

finding of a previous study in France that intention positively and significantly impacts mobile payment usage (Koenig-Lewis et al., 2015). These results also validate the previous findings (Arenas-Gaitán et al., 2015; Jaradat & Al-Mashaqba, 2014; Lim et al., 2016). However, behavioral intention fails to predict green purchase and green behavior (Mishal et al., 2017), and intention does not indirectly predict mobile banking behavior mediated by masculinity/femininity (Baptista & Oliveira, 2015).

Attitude is excluded in Technology Acceptance Model 2 (TAM2), Social Cognitive Theory (SCT), Diffusion of Innovation (DOI), Innovation Diffusion Theory (IDT), and UTAUT (Rana et al., 2016). Attitude does not fully mediate the effect of perceived usefulness and perceived ease of use on behavior (Davis, 1989). The contemporary literature shows that attitude is examined together with perceived usefulness/perceived ease of use. The analyses reveal that attitude is investigated together with perceived usefulness/perceived ease of use in seven studies examining the adoption of MPS (Davis, 1989; Venkatesh et al., 2003). However, despite the "cash burning" phenomenon, there have been very few studies investigating the effectiveness of financial incentives as a predictor of behavioral intention.

The main gaps identified in the research concern the inconsistencies of UTAUT determinants of performance expectancy, effort expectancy, social influence, and determinants derived from outside the UTAUT models such as trust, perceived security, perceived risks (Harris et al., 2019), attitude (Ramos-de-Luna et al., 2016; Liébana-Cabanillas, Muñoz-Leiva, & Sánchez-Fernández, 2013; Wang & Lai, 2020; Francisco et al., 2015), and lack of literature investigating financial incentives as an antecedent of behavioral intention (Zhao, 2017; Zhao et al., 2019). Similarly, even though behavioral intention is found to affect use behavior positively (Koenig-Lewis et al., 2015; Shao et al., 2019), it also shows inconsistencies in the findings (Mishal et al., 2017). These findings are confirmed by Patil et al. (2020), who assert that UTAUT requires some context-specific external constructs that can more appropriately capture all possible aspects of mobile payment.

Proposed Model

As discussed in the previous section, MPS has been investigated using various theoretical models. Constructs examined have shown inconsistent results, and unique features of MPS have not been considered in contemporary models. Therefore, to investigate the adoption and use of MPS, a framework containing unique aspects is needed to explain and predict the adoption and use of MPS in Southeast Asia. The following subsections provide a thorough discussion of the formation of hypotheses and an explanation of the key constructions (see Figure 1).
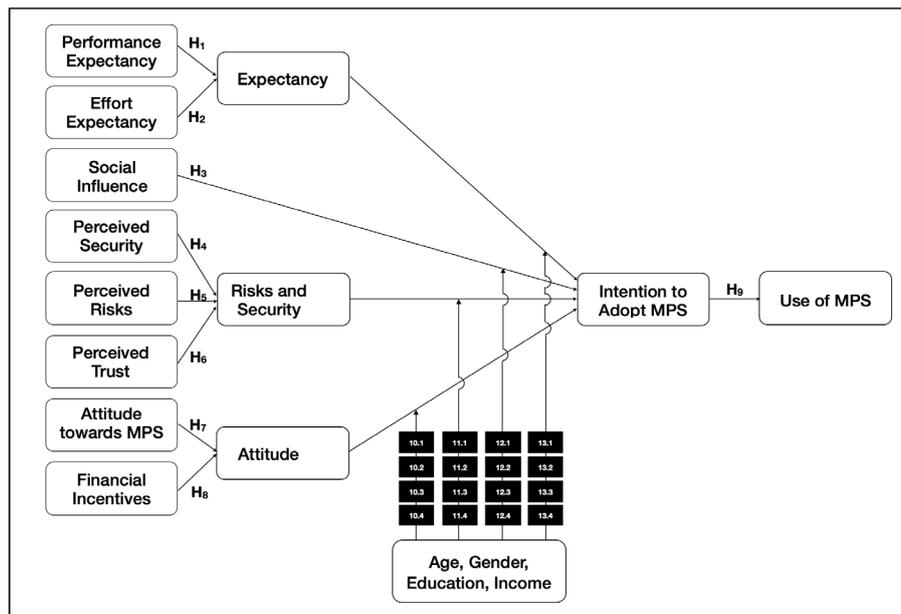
Figure 1 Proposed Model

The proposed framework captures the unique features of an MPS, which has technology acceptance aspects such as performance expectancy, effort expectancy, and social influence. The framework also considers the psychological aspects of using a MPS. Users face risks, trust, security, and attitude, whether they like the MPS or not. Finally, the framework also incorporates the mobile payment marketing aspect of financial incentives.

As suggested by previous research, the acceptance of technology can be moderated by age and gender. This proposed model adds two moderators, i.e., education and income levels. The review of contemporary literature has revealed that the key determinants of UTAUT exhibit various relationships with behavioral intention and use behavior. Performance expectancy is found to be the most examined and most robust construct of UTAUT to predict behavioral intention. Almost all previous studies investigating the relationship between performance expectancy and behavioral intention find that performance expectancy is a positive and significant predictor of behavioral intention. However, extant literature shows that the key determinants in UTAUT need further examination due to their inconsistency in predicting behavioral intention and use behavior.

Conclusion

The research proposes a model for the adoption and use of MPS. MPS has unique features that include security, risks, trust, consumers' attitudes toward the systems, and the effects of financial incentives. The research also examines the efficacy of three major factors performance expectancy, effort expectancy, and social influence. The research expands UTAUT's theory horizons with features unique to MPS, such as perceived security, perceived

risks, and perceived trust. It also reinstates the functions of attitude to shed light on consumers' likes or dislikes about the MPS. Furthermore, since MPS uses financial incentives to lure consumers, the research investigates the roles of financial incentives in predicting intention to adopt and use MPS. This research is among the first to investigate financial incentives as a predictor of consumers' intentions. Moreover, the research also examines whether age, gender, levels of education, and income level moderate the relations of the determinants and behavioral intention. Finally, the results of the systematic literature reviews serve as a guideline for future research.

Additionally, the present literature displays that constructs from outside the UTAUT model are significant predictors of behavioral intention and use behavior due to the uniqueness of MPS. Consumers need to be assured of the security and the risks of adopting and using the system. Consumers' trust is also another crucial factor. These three factors are in line with the suggestions from other reviews of MPS adoption. Attitude also plays a vital role in predicting the adoption and use of the technology. Finally, financial incentives are expected to boost the adoption and use rate of MPS in Indonesia.

The main limitation of the proposed framework is that it has not been examined empirically. Another limitation is due to the lack of empirical research that spans across ASEAN countries. Furthermore, each mobile payment may have its unique selling point customized to win each unique market in an ASEAN country. A generalization of the result may not be easy to draw. However, the research results can shed light on the consumer behavior of MPS users in the ASEAN countries and lay the basic framework for future investigations of MPS. Future research can focus on the gaps of MPS adoption and use in various ASEAN countries to include cultural differences among the nations and the availability of interoperability platforms, such as QRIS in Indonesia to facilitate the use of MPS.

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