



### **Conference Paper**

# Do Small Medium Enterprises (SMEs) Need To Adopt E-wallet? A Study Post- Covid-19 Pandemic

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### Abstract.

SMEs are not deemed to be moving forward until they quickly implement e-payment systems into their operations. In today's world, both online and in-person purchases are made via electronics. Many stores and malls currently provide digital payment options like QRIS (Quick Response Indonesia Standard), but few SMEs are willing to adopt it. Therefore, this research is important because during the Covid-19 pandemic, online shopping activities at e-commerce merchants for SMEs in Indonesia increased. Because SMEs must be able to adjust to situations, both during and after the pandemic by using E-Wallet as a form of payment, the results of this study can be taken into consideration by SMEs players to adopt e-wallet and make the move to digital. Based on earlier research used to develop the study's research hypotheses, quantitative descriptive research was carried out. The Smart PLS program will be used to handle the data for 250 respondent populations dispersed across 5 regions of Indonesia. Based on the study's findings, SMEs players may want to consider going digital and expanding their payment choices with secure, user-friendly e-wallets so that customers feel comfortable making payments.

**Keywords:** e-wallet, intention to adopt, perceived ease of use, perceived risk, promotion

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# 1. Introduction

A global phenomenon that occurs throughout developing countries is the presence of e-commerce [1]. A recent development in e-commerce, cashless payment using digital technologies, is a smart payment option that some developing nations use to obtain a long-term economic edge [2]. Consumer behavior has changed significantly as a result of digitalization, creating a new way of living. E-payments have improved in reliability along with the growth of suppliers' reach and the size of their delivery networks as online services have become more widely used [3].

SMEs are not considered to make further progress unless they immediately introduce e-payment systems into their businesses. In the digital age, consumers want convenient

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and easy payments when shopping and transacting [4]. With the advancement of technology in the digital era, people are used to doing all their activities online. One of the activities that is greatly influenced by technological advances is the way people make payments digitally. People are currently using gadgets for online shopping and direct purchase transactions at merchants. Many shops and malls offer digital payment alternatives such as QRIS (Quick Response Indonesia Standard), but not many SMEs accept electronic payments [5].

Electronic payments refer to online transactions that are done over the internet and everyone can make electronic payments without printing receipts. Bank transfers, online credit cards, online debit cards, and prepaid devices kept on cloud-based servers known as e-wallets are examples of common electronic payment systems. An e-wallet is an electronic service that has functions such as data storage, payment by card or electronic money, receipt of funds, and payment methods that can be used for payments [6].

A QRC (Quick Response Code) payment capability is already included in the typical e-wallet. This is one of the payment options available in Indonesian e-wallet software. This technique is accepted as a payment method by 19 registered e-wallet programs. In an effort to encourage the usage of non-cash payments in Indonesia, the Indonesian government published QRIS (Quick Response Indonesia Standard) in May 2019. In addition, 65 million SMEs in Indonesia use payment via QR Code as a replacement for cards [7].

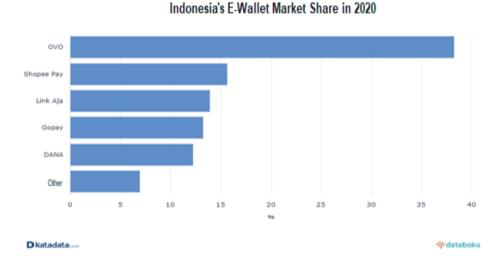


Figure 1: Indonesia's e-wallet market share in 2020 [8].

There are several electronic or digital wallet applications that are very popular in Indonesia such as Gopay, OVO, Shopee Pay, Dana, Link aja, and others (Fig. 1). With the existence of several e-wallets in Indonesia, of course this is a convenience for its users



to make digital transactions, plus some e-wallets offer a variety of promotions for their users such as discounts or discounts.

The research findings of Krisnawati, et al show that all antecedents (perceived usefulness, perceived ease of use, consumer trust, perceived risk) significantly influence the intention to adopt e-wallet payments with perceived benefits as the dominant factor [6]. According to William and Tjokrosaputro's research, the importance of perceived usefulness and promotion on the desire to use e-wallets as a payment method can help the e-wallet platform [9]. According to the findings of the regression analysis in the study by Ming et al., people are more likely to use e-wallets if they think that they are useful and simple to use. Additionally, this study discovered that consumers who plan to utilize e-wallets may be discouraged by higher perceived risk. These findings aid e-wallet service providers in determining the important variables influencing users' decisions to use e-wallet services [10]. The other research findings demonstrate that adoption of an e-wallet is highly influenced by perceived convenience, trust, and promotion. This study provided advice to e-wallet service providers on how to acquire a competitive edge in the cutthroat e-wallet market by attracting new customers and keeping hold of current ones [11]. Perceived utility, perceived simplicity of use, social influence, lifestyle compatibility, and perceived trust were found to have a substantial beneficial impact on both intentions to use and adoption of an e-wallet in the study by Yang et al. [12].

The urgency of this research is where during the Covid-19 pandemic consumer habits of buying food / shopping through merchants in e-commerce are high, and rarely do people currently carry cash, so SMEs must be aware of the needs of consumers who want comfort and convenience in transactions. This research is in line with the university's strategic plan, which is to improve the culture of research & publication and also to increase the relevance of research to the quality of learning and the needs of society in accordance with the scientific field clusters. Since SMES players may wish to consider switching to digital as one of their business strategies, researchers want to look more closely at the factors that determine desire to adopt an e-wallet.

### 2. Literature Review

### 2.1. Theory of Acceptance Model (TAM)

Theory of Acceptance Model (TAM) is the most influential research model to explain the application of information technology and is considered useful for learning about the acceptance of various contexts related to increasing technology [13].

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### 2.2. E-Wallet

When it comes to storing data used for payments on e-commerce websites, such as credit card numbers, emails, owner IDs, contact information, shipping or billing information, customer addresses, and other information, e-Wallets are typically the same as physical wallets. Consumers can use e-wallets to submit information once and use it to make purchases on any website. Consequently, e-wallets will improve the store's efficiency [14].

# 2.3. Intention to Adopt (ITA)

According to Venkatesh, behavioral intention of adoption relates to consumers' plans to use upcoming goods or services effectively. According to Davis, user-friendly technology can boost user confidence and have an impact on how satisfied users are with the product. There isn't much work required of them. Customers will reap the benefits of an information system and be able to use it to fulfill their requirements and desires if they find it to be simple to use, which will encourage them to employ the technology [15].

The idea of "intention to adopt" is typically described as a person's drive for future action [16]. This idea is consistent with the information systems approach's idea of desire to adopt: An organization's decision-makers should take into account implementing sustainable information systems [17]. There are several things that influence attitudes and intentions to use e-wallets, namely: 1) personal innovativeness; 2) perceived ease of use (eas); 3) perceived compatibility; 4) perceived usefulness; 5) perceived security; 6) rewards; 7) social influence [18].

### 2.4. Perceived ease of use

Perceived ease of use or perceived ease is individual confidence when using technology can adapt easily to understanding [19]. A crucial element in affecting user attitudes and behavior intentions to adopt and use a technology is perceived ease of use [20]. In research Shankar & Datta show perceived ease of use significantly increase the likelihood that people will accept mobile payments [21]. Perceived simplicity of use has a huge impact on whether people want to use e-wallets [12]. Meanwhile, another opinion states that perceived ease of use is a condition where individuals believe that using the internet is easy and does not require work effort from users [22]. Wibowo, et.al suggest



that there are four dimensional items of perceived ease of use, namely: 1) easy to learn; 2) easy to use; 3) clear and understandable; 4) become skillful [23].

### 2.5. Perceived of risk

Perceived risk is evaluated as consumers' perceptions or opinions about the negative consequences that may occur when making online transactions [24]. When consumers cannot foresee the consequences of their buying decisions, they are said to be in a state of risk awareness. A person's subjective appraisal of the possibility of an accident occurring and how concerned they are about potential outcomes are additional examples of risk perception [25]. According to research by Jesuthasan and Umakath, perceived risk is one of the most effective and significant predictors of the use of electronic wallets [26]. There are six types of risk that consumers perceive as having several indicators, namely: 1) financial risk; 2) performance risk; 3) psychological risk; 4) physiological risk; 5) social risks; 6) time risk [27].

According to Soto Acosta et al divided perceived risks into five, namely, financial risk, performance risk, psychological risk, physical/privacy risk, and social risk. Of the five types of risk recognized, financial risk has the greatest impact on financial and privacy risks. This is because online transactions are beyond the control of consumers [28]. Based on research conducted by Martins, et al, it proves that perceived risk has a negative effect on intention to adopt [29]. Another study conducted by Natarajan, et al also found that perceived risk has a negative influence on intention to adopt [30]. Something similar was found by Soto Acosta, et al someone who showed that perceived risk had an adverse effect on adoption intention [28].

### 2.6. Promotion

The definition of promotional activities is as an activity designed to persuade customers by showing products or services to persuade customers to make purchases [31]. All promotional activities are aimed at influencing purchasing behavior, but the main purpose of promotion is to inform, persuade, and remind consumers [9].

E-wallet business promotion is like a pioneer of marketing managers. In addition, many developing countries still find it difficult to accept technological changes and advances. Some of them still cling to the traditional culture and find it more practical and easy to manage the use of cash. Therefore, there is a need for a sharper introduction

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and disclosure to potential users regarding the existence of e-wallets and what is offered by the e-wallet itself [9].

There are several indicators in conducting sales promotions, namely: 1) coupons; 2) rebates; 3) price packs / cents-off-deals; 4) samples; 5) premium; 6) cashback; 7) continuity programs; 8) contests and sweepstakes [32].

In Krisnawati's research, et al show that all antecedents (perceived usefulness, perceived ease of use, consumer trust and perceived risk) significantly influence the intention to adopt e-wallet payments with perceived usefulness as the dominant factor [6]. Whereas in this study, researchers present a different model by adding promotional variables and not using consumer trust and perceived usefulness variables. In William and Tjokrosaputro's research, it is stated that e-wallet is very important perceived usefulness and promotion of the intention to use e-wallet as a payment method [9]. Whereas in this study presents a different model, researchers only use direct influence without mediating variables and add risk perception variables. In Abrahao's research, et al stated that adopting mobile payment serves as a stimulus for the development of communication and marketing strategies that highlight these positive attributes and generate the intention to adopt these services by the widest possible community [15]. In this study, researchers also present a different model that emphasizes the desire to adopt e-wallets, because in previous studies more emphasis on behavior.

## 2.7. Conceptual framework

Seeing the analysis of the theories and concepts described, that there is something that needs to be explored regarding perceived ease of use, perceived risk, promotion in influencing the intention to adopt e-wallet. Therefore, a model was made to explain the flow of thought in this study (Fig. 2).

### 3. Methods

The model used in this study is a causal or influential relationship model. The analysis technique used to test the hypothesis proposed in this study is SEM or Structural Equation Modeling. The analysis method in this research is quantitative method, and the analysis tool is sem. The validity and reliability of the instrument (questionnaire) and the hypothesis test of 5% alpha (0.05) were tested first before being analyzed by path analysis.

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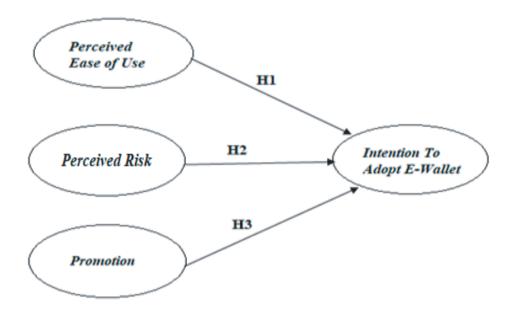


Figure 2: The conceptual framework.

The descriptive and quantitative methods used in this study were used. The goal of descriptive research is to describe the traits of a certain group. Because the purpose of this study is to ascertain the link between these variables and express values numerically, or to concentrate on data that is expressed as numerical values and is mathematically processed using statistical formulas. The quantitative approach, a research methodology based on the potvistic concept, is employed to study certain populations or samples. This survey is quantified, and the analysis employs statistics to gauge and compile survey data from questionnaires. Respondents filled out a questionnaire that had questions arranged as options and a likert scale, and this way of gathering data was used to acquire the data (1-5). In this work, SEM PLS using SmartPLS 3.3 software was used for data analysis.

This research was conducted on e-wallet users in five regions in Indonesia, where the adoption of this e-wallet has a significant impact on the growth and sustainability of SMEs. The instrument used is a questionnaire using a Likert scale with a score of 1-5 which is expressed from the most negative, neutral to the most positive, Population is all items whose properties are assessed, and the sample is part of the population whose properties are tested [33]. The population of this survey is e-wallet users in Jabodetabek. By applying SEM many relationships can be analyzed simultaneously to achieve statistical efficiency [34]. There are 25 indicators in this survey, so the sample is 25 indicators x 10, or 250 respondents.



### 4. Results and Discussion

In this research, two testing phases—evaluation of the measurement model and evaluation of the structural model—were conducted.

# 4.1. The effect perceived ease of use on intention to adopt e-wallet

The desire for e-wallet adoption is significantly influenced by perceived ease of use [1]. In research Shankar & Datta show perceived ease of use significantly increase the likelihood that people will accept mobile payments [20]. Meanwhile, another opinion states that perceived ease of use is a condition where individuals believe that using the internet is easy and does not require work effort from users [21]. In this case, proposition 1 is formulated: There is a direct effect about perceived ease of use to intention to adopt e-wallet.

# 4.2. The effect perceived risk on intention to adopt e-wallet

According to research by Jesuthasan and Umakath, perceived risk is one of the most effective and significant predictors of the use of electronic wallets [26]. Based on research conducted by Martins, et al, it proves that perceived risk has a negative effect on intention to adopt [29]. Another study conducted by Natarajan, et al also found that perceived risk has a negative influence on intention to adopt [30]. Something similar was found by Soto Acosta, et al someone who showed that perceived risk had an adverse effect on adoption intention [28]. In this case, proposition 2 is formulated: There is a direct effect about perceived risk to intention to adopt e-wallet.

# 4.3. The effect promotion on intention to adopt e-wallet

The results of the multiple linear regression analysis, the allure of promotions, the belief in benefits, and the perception of convenience positively and significantly influence interest in using e-wallets [34]. Kiew et al, findings indicate that promotion has a substantial impact on the adoption of e-wallets. The results of this study provided advice to e-wallet service providers on how to acquire a competitive edge in the cutthroat e-wallet market by attracting new customers and keeping hold of current ones [11]. Putri et al, show the study positive and significant results between cashback promotion on



intention to use [35]. In this case, proposition 3 is formulated: there is a direct effect about promotion to intention to adopt e-wallet.

According to this, customer interest in using e-wallets can be increased by perceptions of the convenience and danger of using them. The pandemic Covid-19 also encourages consumers to feel more at ease doing transactions using e-wallets, eliminating the need for carrying currency. However, it turns out that customers are more inclined to hunt for e-wallet applications that are simple to use and quickly accessible, therefore the promotions made by e-wallets do not seem to have any impact on the interest in adopting e-wallets.

### 5. Conclusion

The theory underlying this model will be empirically examined using partial least square (PLS) analysis. According to the study's findings, SMEs should think about becoming digital and expanding their payment options with low-risk, simple-to-use e-wallets so that customers feel comfortable making digital payments. This is evident from the reasons e-wallet users choose e-wallets.

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# References

- [1] Yang M, Mamun AA, Mohiuddin M, Nawi NC, Cashless transactions: A study on intention and adoption of e-wallets. Sustainability. 2021.
- [2] Do N, Tham J, Azam S, Khatib A. The effects of factors influencing on user behavior intention to use mobile payment: Evidence from Cambodia. International Journal of Data and Network Science. 2020;4(2):213-224.
- [3] Li C, Mirosa M, Bremer P. Review of online food delivery platforms and their impacts on sustainability. Sustainability. 2020;12(14).
- [4] Bisnis.com. UMKM Bisa Tertinggal Jika Tak Pakai Pembayaran Elektronik. Bisnis.com. 2018.



- [5] Tobing A. Inilah Alasan Mengapa Bisnis UMKM Harus Pakai QRIS. oyindonesia.com. 2021.
- [6] Krisnawati M, Wienadi J, Wiradinata T. The effect of consumer trust and perceived risk on e-Wallet adoption: Consideration for technology startup entrepreneurs. Jurnal Entrepeneur dan Entrepeneurship. 2021;10(2):111-118
- [7] Devita D. Siapakah Aplikasi E-Wallet Terpopuler di Indonesia? iprice.co.id. 2019.
- [8] Annur CM. Survei: OVO Rajai Pangsa Pasar E-Wallet Indonesia pada 2020. katadata.co.id. 2021.
- [9] William G, Tjokrosaputro M. Persepsi Kegunaan Dan Promosi Untuk Memprediksi Niat Penggunaan E-Wallet: Sikap Sebagai Variabel Mediator. *J Muara Ilmu Ekon dan Bisnis*. 2021;5(1):74-88.
- [10] Ming KL, Jais M, Wen CC, Zaidi NS. Factor affecting adoption of E-wallet in Sarawak. International Journal of Academic Research in Accounting, Finance and Management Sciences. 2020;10(2):244-256.
- [11] Kiew JP, Toh ETL, Ngian ET, Law SHC. Perceived trust, convenience and promotion for the adoption of e-Wallet. International Journal of Academic Research in Business and Social Sciences. 2022;12(9).
- [12] Yang M, Mamun A Al, Mohiuddin M, Nawi NC, Zainol NR. Cashless transactions: A study on intention and adoption of e-Wallets. Sustainability. 2021;13(2).
- [13] Kasilingam D, Krishna R. Understanding the adoption and willingness to pay for internet of things services. International Journal of Consumer Studies. 2022 Jan;46(1):102-31.
- [14] Wiradimaja MF, Rikumahu B. Pengaruh Faktor Risiko Dan Faktor Kepercayaan Terhadap Adopsi Electronic Wallet Menggunakan Model Tam (studi Kasus: E-wallet Ovo Di Kota Bandung). eProceedings of Management. 2019 Aug 1;6(2).
- [15] Abrahão, Ricardo de Sena; Stella NaomiMoriguchi DF. Intention of adoption of mobile payment: An analysis in the light of the unified theory of acceptance and use of technology (UTAUT). RAI Rev Adm e Inovação. 2016;13(3):221–230.
- [16] Hallikainen H, Paesbrugghe B, Laukkanen T, Rangarajan D, Gabrielsson M. How individual technology propensities and organizational culture influence B2B customer's behavioral intention to use digital services at work? In 2017. p. 4577– 4585.
- [17] Al-Mamary YHS, Shamsuddin A, Aziati AHN. Investigating the key factors influencing on management information systems adoption among telecommunication companies in Yemen: The conceptual framework development. International Journal of Energy Information and Communications. 2015;6(1):59–68.



- [18] Aydin G, Burnaz S. Adoption of mobile payment systems: A study on mobile wallets. Journal of Business, Economics and Finance. 2016;5(1):73–92.
- [19] Priambodo S, Prabawani B. Pengaruh Persepsi Manfaat, Persepsi Kemudahan Penggunan, Dan Persepsi Risiko Terhadap Minat Menggunakan Layanan Uang Elektronik (Studi Kasus pada Masyarakat di Kota Semarang). Jurnal Ilmu Administrasi Bisnis. 2016;5(2):127–135.
- [20] Chawla D, Joshi H. Role of Mediator in Examining the Influence of Antecedents of Mobile Wallet Adoption on Attitude and Intention. Global Business Review. 2020.
- [21] Shankar A, Datta B. Factors affecting mobile payment adoption intention: An Indian perspective. Global Business Review. 2018;19(3).
- [22] Karimah RU. Pengaruh Reputasi Toko dan Persepsi Kemudahan Terhadap Minat Beli Online Pada Situs Lazada.co.id Dengan Kepercayaan Sebagai Variabel Mediasi (Studi Pada Mahasiswa STIE Putra Bangsa Kebumen). STIE Putra Bangsa; 2018.
- [23] Hafiz MA. Pengaruh Persepsi Manfaat Dan persepsi Kemudahan Penggunaan Terhadap niat Penggunaan Mobile commerce (Survey Pada Pelaku Usaha Di Sentra Tanaman Hias Cihideung Kab. Bandung Barat). Universitas Komputer Indonesia; 2019.
- [24] Kusumawati I, Hartono S, Kustiyah E. Kemudahan, Kepercayaan Dan Persepsi Resiko Terhadap Keputusan Pembelian Pengguna Dompet Digital Ovo Di Surakarta).

  Journal of Management Small and Medium Enterprises. 2020;11(1).
- [25] Mauludiyahwati S. Pengaruh Kepercayaan, Keamanan, Kualitas Pelayanan Dan Persepsi Risiko Menggunakan E-Commerce Terhadap Keputusan Pembelian Online (Survei Pada Konsumen www.lazada.co.id). Universitas Negeri Yogyakarta; 2017.
- [26] Jesuthasan S, Umakanth N. Impact of behavioural intention on E-Wallet usage during Covid\_19 period: A study from Sri Lanka. Sri Lanka Journal of Marketing. 2021;7(2).
- [27] Sati RAS, Muhammad Ramaditya. Pengaruh Persepsi Manfaat, Persepsi Kemudahan Penggunaan, Kepercayaan Dan Persepsi Risiko Terhadap Minat Menggunakan E-Money (Studi Kasus Pada Konsumen Yang Menggunakan Metland Card). STIE Indonesia (STEI) Jakarta; 2020.
- [28] Soto-Acosta P, Molina-Castillo FJ, Lopez-Nicolas C, Colomo-Palacios R. The effect of information overload and disorganisation on intention to purchase online: The role of perceived risk and internet experience. Online Information Review. 2014;38(4):543– 561.
- [29] Martins C, Oliveira T, Popovič A. Understanding the Internet banking adoption: A unified theory of acceptance and use of technology and perceived risk application. International Journal of Information Management 2014;34(1):1–13.



- [30] Natarajan T, Balasubramanian SA, Kasilingam DL. Understanding the intention to use mobile shopping applications and its influence on price sensitivity. Journal of Retailing and Consumer Services 2017;37:8–22.
- [31] Armstrong G, Adam S, Denize S, Kotler P. Principles of marketing. 6th ed. Australia: Pearson; 2014.
- [32] Kotler P, Keller KL. Marketing management 16 edition. 16th ed. Pearson Prentice Hall; 2016.
- [33] Suliyanto. Metode Penelitian Bisnis untuk Skripsi. Yogyakarta: Andi; 2018.
- [34] Hair Jr JF, Hult GTM, Ringle CM, Sarstedt M. A primer on partial least squares structural equation modeling (PLS-SEM). Sage publications; 2021.
- [35] Putri DE, Sinaga OS, Sudirman A, Augustinah F, Dharma E. Analysis of the effect of perceived ease of use, perceived usefulness, trust, and cashback promotion on intention to use E-wallet. International Journal of Economics, Business and Management Research. 2022;6(11).