Analysis of the Effect of Perceived Usefulness, Perceived Ease of Use, Perceived Security, and Trust on Intention to Use E-Wallet Gopay

(Survey of Gopay Users in DKI Jakarta)

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Abstract. This research investigates the factors influencing the intention to use the Gopay E-Wallet in DKI Jakarta. This study uses Perceived Usefulness, Perceived Ease of Use, Perceived Security, and Trust as independent variables and Intention to Use as the dependent variable. The investigation was conducted on consumers of the DKI Jakarta Gopay E-Wallet. As many as one hundred respondents were sampled. Using IBM SPSS Statistics 26 and multiple linear regression analysis techniques, the analysis was conducted to test the extended TAM Model. According to the results, Gopay's Intention to Use an E-Wallet is significantly influenced by Perceived Usefulness, Perceived Ease of Use, and Trust. However, Perceived Security has no significant effect on Gopay's Intention to Use an E-Wallet.

Keywords: E-Wallet · Gopay · Technology Acceptance Model (TAM) · Security · Trust

1 Introduction

The Covid-19 pandemic swept the globe. The disease had spread to most provinces in Indonesia by April 2020, with Jakarta, West Java, and Central Java enduring the brunt of the devastation. To prevent the spread of the virus, the government implemented measures such as social isolation, work-from-home policies, and extensive social restrictions; community activity restrictions will be enforced [1]. To prevent the spread of the COVID-19 pandemic, cash transactions have been substituted with electronic payments.

In 2014, the Indonesian government, through Bank Indonesia, launched the National Non-Cash Movement (or electronic payment) to establish a secure, more efficient payment system and reduce currency transaction issues [2]. E-payment is a system of electronic payment that facilitates financial transactions through digital media. Businesses have adopted a variety of digital payment methods, as banks have migrated to mobile and Internet banking [3]. In 2020, electronic money transactions increased by 69%, while currency in circulation only increased by 8%. E-wallet is a program that enables digital

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wallets to store funds for payment transactions. Numerous applications such as Gopay, OVO, Doku Wallet, Dana, Shopeepay, and Linkeeja have been released since 2016 [4].

However, the data breaches and lost balances have necessitated a higher level of trust in electronic wallets. Bank Indonesia has issued regulations, including Bank Indonesia Regulation Numbers 18/17/PBI/2016 and 20/6/PBI/2018, requiring e-wallet companies to register with Bank Indonesia and obtain operational licenses. These regulations aim to increase public confidence in the use of electronic wallets by licensed enterprises.

According to Boku Inc. [5], seventy-three percent of Indonesians use e-wallets for online payments, with 63.6 million users and a transaction value of $28 billion in 2020. Gopay is an e-wallet accessible through the Gojek application and one of the earliest e-wallets in Indonesia, with 87% of survey respondents using it [5]. Increasing the adoption of electronic wallets can support the National Non-Cash Movement program and the transition to a cashless society. This study examines the factors that influence the adoption of the Gopay e-wallet, focusing on perceived usefulness, ease of use, perceived security, and trust.

The extended Technology Acceptance Model (TAM), which measures perceived usefulness, ease of use, perceived security and trust are utilized in one such study. Numerous studies have shown that perceived security and trust are crucial factors for the adoption of digital money transfer and banking systems. This investigation replicates Kumala et al.'s study [6]. It focuses primarily on Gopay users in DKI Jakarta, where 85% of the population used the internet in 2019 and 18% of e-wallet users in 2020 originated from the region. In urban areas such as DKI Jakarta, the Covid-19 pandemic has increased the usage of electronic wallets. The purpose of this study is to examine the impact of perceived usefulness, perceived ease of use, perceived security, and trust on the intention to use the Gopay e-wallet, with a particular focus on Gopay users in DKI Jakarta.

2 Research Methods

The hypothesis model of the research can be seen on Fig. 1 below.

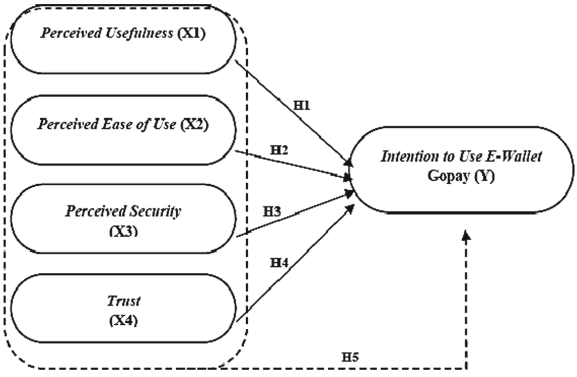

Fig. 1. Hypothesis model.

The quantitative survey was adopted in this study. Furthermore, to determine the behavior of Gopay e-wallet users in DKI Jakarta, multiple linear regression analysis, the Likert scale for measurement, and non-probability sampling with the purposive sampling technique are utilized. The population of DKI Jakarta Gopay e-wallet users is unknown, so the Lemeshow formula was used to select 96 samples. This research used Google Forms to capture data through an online survey distributed via Whatsapp, Twitter, and Instagram.

The quantitative data utilized in this analysis was derived from primary sources using the questionnaire. The validity and reliability of the research instrument were evaluated using the pearson's correlation and Cronbach alpha. The results showed that the instruments were valid and reliable. All items in the questionnaire were significantly correlated (<0.05) and the Cronbach's Alpha was more than 0.6. The standard assumption tests for this investigation are the normality, multicollinearity, and heteroscedasticity tests. Using a simultaneous test (F test) and a partial test, it is possible to investigate the null hypothesis (T-test).

Due to the residents' advanced comprehension of technological innovations such as e-wallets, the province of DKI Jakarta was chosen for these investigations. Next, to ascertain the behavior of e-wallet users in regions with specific characteristics, the chosen research location was restricted to the province of DKI Jakarta. Independent variables include perceived usefulness, perceived ease of use, perceived security, and trust whereas the dependent variable was intention to use. These variables and the respondent's personal information, including name, age, gender, and status, were measured by the survey questionnaire.

3 Research Results and Discussion

According to the interpretation of data analysis, perceived usefulness, perceived ease of use, and trust are independent variables that influence Gopay's intention to use an e-wallet in DKI Jakarta. However, perceived security does not influence Gopay's intention to use an e-Wallet.

The first hypothesis is supported: Perceived Usefulness (X1) significantly influences Gopay's Intention to Use an E-Wallet (Y). This is confirmed by the p-value which is less than 0.05 (0.00). The regression coefficient for Perceived Usefulness (X1) is 0.291, indicating a positive relationship. This is the most dominant factor affecting the intention to use e-wallet with the largest standardized coefficient of 0.474. The findings support previous studies [7, 8].

The second hypothesis is also supported: Perceived Ease of Use (X2) significantly influences E-Wallet Gopay Intention (Y). This is shown by the p-value which is less than 0.05 (0.016). The variable Perceived Simplicity of Use (X2) has a coefficient of 0.166, indicating a positive relationship. The findings are in line with previous studies [7, 8].

The third hypothesis is not supported: Perceived Security (X3) does not significantly influence Gopay's Intention to Use E-Wallet (Y). The p-value for the Perceived Security (X3) variable is 0.50, which is greater than 0.05, and the regression coefficient is -0.037, indicating a negative relationship. Gautam et al.'s study [9] also found similar findings in which security was considered as a compulsory feature of e-wallet.

Table 1. Hypothesis test results.

No.	Hypothesis	B	Sig	Information
1.	Hypothesis 1 (PU-IT)	0.291	0.000	Accepted
2.	Hypothesis 2 (PEOU-IT)	0.166	0.016	Accepted
3.	Hypothesis 3 (PS-IT)	−0.037	0.500	Rejected
4.	Hypothesis 4 (T-THAT)	0.140	0.024	Accepted
5.	Hypothesis 5 (PU,PEOU,PS,T-IT)	-	0.000	Accepted

The fourth hypothesis is supported: Trust (X4) significantly influences E-Wallet Gopay Intention (Y). This is demonstrated by the p-value which is less than 0.05 (0.024). The variable Trust (X4) has a coefficient of 0.140, indicating a positive relationship. The findings are similar with previous studies [7, 8].

The results of the simultaneous test or F test support hypothesis 5, which states that Perceived Usefulness (X1), Perceived Ease of Use (X2), Perceived Security (X3), and Trust (X4) have a significant influence on Gopay e-Wallet Intention to Use (Y). The p-value is 0.00, which is less than 0.05, so we can accept the hypothesis. See Table 1.

4 Conclusion

Perceived usefulness, perceived ease of use, and trust are independent variables that influence Gopay's intention to use an electronic wallet in DKI Jakarta. In addition, Perceived Security has no effect on Gopay's Intention to Use an E-Wallet:

- Perceived Usefulness (X1) positively and significantly influences Gopay's Intention to Use an E-Wallet (Y).
- Perceived Ease of Use (X2) positively and significantly affects E-Wallet Gopay Intention (Y).
- Perceived Security (X3) does not significantly influence Gopay's Intention to Use E-Wallet (Y).
- Trust positively and significantly influences Gopay's Intention to Use E-Wallet (Y).
- Perceived Usefulness (X1), Perceived Ease of Use (X2), Perceived Security (X3), and Trust (X4) simultaneously have a significant influence on Intention to Use (Y) Gopay e-Wallet. As such, the combination of Perceived Usefulness, Perceived Ease of Use, Perceived Security, and Trust can be used to predict Intention to use Gopay e-Wallet.

The findings of this study are useful for formulating strategies to increase e-wallet adoption in which e-wallet provider should develop e-wallet that is useful, easy to use, and trustworthy.

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