

## ANALYSIS OF E-WALLET USING INTENTIONS AMONG MILLENIAL GENERATION

Fitri<sup>1</sup> Dewi Anggraeni<sup>2</sup>, Ulfa Rabiyah<sup>3</sup>, Grace T Pontoh<sup>4</sup>, Mediaty<sup>5</sup>, Sri Sundari<sup>6</sup>  
Universitas Muslim Maros<sup>1</sup>, STIE Tri Dharma Nusantara<sup>2</sup>, STIE AMKOP<sup>3</sup>, Universitas  
Hasanuddin<sup>4-6</sup>

Jl. Urip Sumoharjo, 90222, Makassar  
Correspondence Email: fitriaza26@umma.ac.id

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### ABSTRACT

Before the development of the Corona outbreak, cash payment transactions using smartphones were already very popular in the global community but during the Covid-19 pandemic, there was an increase of 44% of Indonesians who used non-cash payments more often. This study aims to identify the perceived usefulness of e-wallet to strengthen the influence of perceived risk of COVID-19 on intention to use e-wallet. This study is a study with a quantitative approach using a survey method. The online questionnaire method was used to collect data from 172 respondents and analyzed using PLS structural equation modeling (SEM) analysis. The results of the study show that the perception of the risk of being exposed to Covid-19 has a positive effect on the intention to use the E-Wallet and the usefulness of the E-Wallet. Perception of the usefulness of e-wallet can strengthen the influence of perceived risk of covid-19 on intention to use e-wallet

**Keywords:** E-wallet, perceived usefulness, perception of the risk

## **INTRODUCTION**

During this COVID-19 pandemic, the policy of social distancing has brought about a change in the world community's perspective on aspects of human relations. Where in normal times, human interaction is carried out directly without boundaries, now during the covid-19 pandemic, human interaction needs to be carried out. Of course, this also has an impact on human interaction in economic transactions. Therefore, we need a media liaison that can make humans can still interact without obstacles. So now there are providers that can connect someone to make financial transactions such as Go-Pay, OVO (GrabPay), Dana, Paytren, Sakuku, Jenius, iSaku and Linkaja.

The existing providers are very helpful as a bridge for someone to make financial transactions so that the risk of being exposed to covid-19 can be minimized. This is in accordance with WHO's call to use digital money whenever possible (Brown, 2020). Prior to the development of the Corona outbreak, cash payment transactions using smartphones had been very popular in the global community (Andrieu, 2001) including in several countries as according to a study by Capgemini (2019) which stated that in several developing countries such as India, Indonesia, Thailand, Vietnam and Mexico. Based on data released by the Global Consumer Insight Survey in 2019, the growth of smartphone use in financial transactions in neighboring countries such as Thailand has reached 67% customers or 19% growth, followed by Vietnam at 24% and countries in the Middle East at 20% (PKW, 2019). One of the uses of smartphone technology in payment transactions is using an e-wallet. The use of e-wallet is starting to slowly reduce the use of e-money as a payment transaction. The difference between e-wallet and e-money lies in the use of chips for e-money such as ATMs or credit cards, while e-wallets are stored on servers.

In Indonesia, several e-wallet providers are now developing, such as Go-Pay, OVO (GrabPay), Dana, Paytren, Sakuku, Jenius, iSaku and Linkaja. The results of a survey conducted by Ipsos show that the providers that are familiar among the Indonesian people are GoPay 58%, OVO 29%, Dana 9% and LinkAja 4%.

In some research results that the use of e-wallet is influenced by the basis of usury beliefs (Aji et al. 2020). In addition, the use of e-wallet is influenced by considerations of risk (Leong et al., 2020). Based on the results of Ipsos research, it shows an increase in the use of digital wallets (e-wallet) in payment transactions compared to cash transactions of 71% among millennial during the covid-19 pandemic. This can be realized by considerations to avoid the spread of COVID-19. Because non-cash transactions can minimize physical contact through cash media. This is because cash payments with cash may be one of the spreads of Covid-19. However, avoiding the spread of Covid-19 in the intention to use e-wallet needs to be proven empirically, hopefully this research is still relatively rare.

Therefore, this research that will be carried out can help the lack of research related to topics that affect interest in using e-wallet in financial transactions, especially during this Covid-19 pandemic. Especially with the development of e-wallet providers created by the nation's children who are able to compete with foreign-owned e-wallet providers. This study is very relevant to the Covid-19 condition where the use of e-wallet aims to stop the spread of the Covid-19 virus. This study aims to find a model of the characteristics that influence people to switch or use e-wallet. In particular, this study aims to find a positive effect of perceived COVID-19 risk on intentions to use e-wallet, find a positive effect of perceived usefulness of e-wallet on intentions to use e-wallet, identify perceptions of usefulness of e-wallet that can strengthen the effect of perceived COVID-19 on intention to use e-wallet.

## **LITERATURE REVIEW**

### **Covid-19 risk**

According to Im et al. (2008), perceived risk is defined as the perceived uncertainty in a buying situation. According to the literature, perceived risk is a multi-dimensional construct having several dimensions which can vary according to the product or service class (Kassim & Ramayah, 2015). When associated with online transactions, perceived risk has several dimensions such as performance risk, financial risk, time risk, and psychological risk (Forsythe & Shi, 2003). According to Mai (2001), said that "bad" purchasing decisions can result in risks such as (a) financial risk, (b) performance risk, (c) social risk, (d) physical risk, (e) psychological risk, (f) risk of lost time, and (g) risk of opportunity. Then, Maser and Weiermair (1998) also added another dimension, namely the risk of disease, which is more relevant to the context of the COVID-19 outbreak that is hitting the world today.

In psychometric theory, the risk of something is assessed based on a combination of risk characteristics including fear, knowledge, and ability to be controlled, which are then categorized into cognitive and emotional risks (Oh et al., 2015). In this study, perceived risk is defined as a situation where a customer is unsure of the new coronavirus droplets on physical or cash money. Therefore, following Oh et al. (2015) and Maser and Weiermair (1998), the risk dimension associated with this study is more related to cognitive and disease risk, where customers are worried about being infected by Covid-19 through the exchange of physical money.

H1: Perception of Covid-19 risk has a positive effect on intention to use E-Wallet.

H2: Perception of Covid-19 Risk has a positive effect on the usefulness of E-Wallet.

### **Usefulness E-Wallet**

The usefulness of a product can feel limited if the use of the product is also limited. Therefore, the perceived usefulness of someone will be different from others depending on how often they use it. The more often someone uses the product, the more useful the product.

Usefulness is a person's degree of belief about the use of a system to increase achievement in his work (Prasetyo, 2012). According to Pande Wedantha and Widhiyani (2016), usefulness is related to the productivity and effectiveness of the system's usefulness in completing tasks as a whole. Therefore, usefulness can be interpreted as a person's level of confidence or trust in a product, in the context of this research are e-wallet products provided by the provider.

Some of the advantages of e-wallet compared to the use of cash or other payment instruments are 1) no need to interact directly so that the risk of the spread of covid-19 can be avoided, 2) it is faster and more convenient, where the owner does not need to be complicated to provide the right money when transacting, 3) the time required to use an e-wallet is short compared to using e-money such as an ATM or credit card, 4) the value of money in an electronic e-wallet can be refilled. Therefore, the use of e-wallet will be felt to be useful because it can increase the effectiveness and efficiency of users, improve individual performance and facilitate work related to payment transactions, and provide benefits for users such as promos or discounts.

H3: The usefulness of the E-Wallet has a positive effect on the intention to use the E-Wallet.

H4: the perception of the usefulness of the e-wallet can strengthen the influence of the perceived risk of covid-19 on the intention to use the e-wallet.

### Intention to Use E-wallet

Intention is the desire or interest in something useful in this case e-wallet. If someone's intention is big, then someone's motivation to use e-wallet is also great. E-wallet is an alternative technology innovation that makes it easy for users to make payment transactions. The use of e-wallet is a real condition where the owner of the e-wallet uses the e-wallet as one of the transaction tools of his choice. So the interest in using e-wallet in the context of this research is the public's interest and desire to use e-wallet in making payment transactions. Where, people can choose existing e-wallet providers such as Go-Pay, OVO (GrabPay), Dana, Paytren, Sakuku, Jenius, iSaku and Linkaja. Someone who has the intention can be characterized by the desire to use e-wallet in payment transactions, continue to use e-wallet in the future.

According to Riquelme and Rios (2010), consumers are generally used to cash, but mobile payments as a new alternative can be adopted when consumers feel certain benefits. Trust and perceived risk are determinants of adoption of payments using E-wallet (Hampshire, 2017; Lu et al., 2005). Some researchers incorporate the perceived risk into the TAM theory (Koening-Lewis et al., 2010; Lee & Park, 2016) and have a significant effect on the benefits perceived by consumers (Hampshire, 2017; Lee & Park, 2019) so that it will affect the intention to buy. using E-wallet.

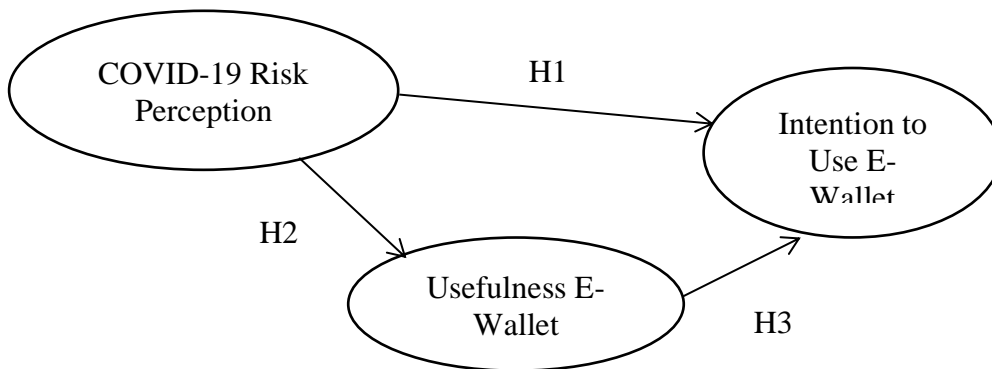


Figure 1. Research Framework Model

## RESEARCH METHOD

This study is a survey method and quantitative approach. This type of study is appropriate because it aims to describe the characteristics of a sample of a population (Groves et al., 2004). The survey method is a data collection system to describe, compare, and explain knowledge, attitudes and behavior (Hidayat & Lawahid, 2020).

This study involved e-wallet users (such as Go-Pay, OVO, DANA, LinkAja) in Maros Regency, where the sample was carried out using the incidental technique, meaning people who happened to be met. This study recruited 172 respondents from various educations, genders, professions and e-Wallet users in Panakukang District, Makassar City, Indonesia.

This study uses a google form online questionnaire technique as a data collection technique. The instrument in this study will measure aspects of Covid-19 Risk Perception, Government Support, and Interest in using e-wallet. The instrument for measurement is the result of the adoption of several studies, such as for measuring the Perception of Risk for Affecting Covid-19, the researcher adapted the instrument from Olya and Al-Ansi (2018). Measurement of Usefulness E-Wallet during the COVID-19 pandemic was measured using an instrument adapted from Aji et al. (2020). Structural equation modeling based on variance was analyzed using partial least squares (PLS) which aims to test the measurement model, structural model and test the proposed hypothesis. The advantage of using PLS is that there is no need for normality tests or other parametric test requirements (Hair et al., 2017).

The PLS method also has the advantage of testing whether the proposed theoretical model is appropriate. Before testing the model, it is necessary to test the validity and reliability of the constructs to ensure the accuracy and consistency of the variables. In testing the structural model and testing hypotheses, according to Hair et al., (2017) it is recommended to perform a bootstrap procedure with 5,000 liters and a full VIF collinearity test to detect the variance of the common method variance (Kock & Lyan, 2012)

## RESULTS

### 1. Characteristics of Respondents

Characteristics of respondents by gender, 106 (66.7%) are dominated by female gender, age 21-25 years (92 or 53.5%), work as a student (89 or 56.0%), Diploma/S1 (76 or 48.0%).

**Tabel 1.** Characteristics of Respondents

Demographics variables		n	%
Gender	Female	106	66.7
	Male	53	33.3
Old (Year)	< 16	1	0.6
	16-20	10	5.8
	21-25	92	53.5
	26-30	36	20.9
	31-35	20	19.1
E-Wallet	OVO	84	56.5
	Go-pay	69	40.1
	Dana	3	1.7
	LinAja	3	1.7
Occupation	Students	89	56
	Housewife	7	4
	Government Employees	16	10
	Lecturer/Teacher	12	8
	Employee	21	13
	Entrepreneur	14	9
Education Level	Secondary school	74	47.0
	Diploma- Bachelor	76	48.0
	Master	9	6.0

**Table 2.** Loading, Cronbach' alpha, composite reliability (CR), and AVE

Indicator	Code	Loading	Alpha	CR	AVE
<i>Covid-19 Risk Perception (Mean = 3.478; Std. dev = 1.099)</i>			0.835	0.891	0.676
I'm worried about being infected with the corona virus if I use cash	RP1	0.893			
I am not comfortable using cash payments	RP2	0.613			
I'm afraid of getting infected if I use cash	RP3	0.866			
I am worried that there is a corona virus that sticks to cash if you use cash in transactions	RP4	0.883			
<i>Usefulness E-Wallet (Mean = 4.101; Std. dev = 0.859)</i>			0.900	0.926	0.715
During the COVID-19 pandemic, the use of electronic wallets (eg: shopee, go-pay, tokopedia, lazada, OVO, Grabpay, Dana, Paytren) is very effective	U5	0.834			
During the COVID-19 pandemic, the use of electronic wallets (eg: shopee, go-pay, tokopedia, lazada, OVO, Grabpay, Dana, Paytren) has become easier in payment transactions	U6	0.887			
During the COVID-19 pandemic, using electronic wallets (eg: shopee, go-pay, tokopedia, lazada, OVO, Grabpay, Dana, Paytren) can increase productivity	U7	0.873			
During the COVID-19 pandemic, using electronic wallets (eg: shopee, go-pay, tokopedia, lazada, OVO, Grabpay, Dana, Paytren) can improve performance	U8	0.808			
During the COVID-19 pandemic, electronic wallets (eg shopee, go-pay, tokopedia, lazada, OVO, Grabpay, Dana, Paytren) are useful in helping my work	U9	0.823			
<i>Intention to Use E-Wallet ((Mean = 3.881; Std. dev = 0.957)</i>			0.872	0.922	0.798
I will use an electronic wallet (eg shopee, go-pay, tokopedia, lazada, OVO, Grabpay, Dana, Paytren) for payment transactions during the COVID-19 pandemic	1nt10	0.931			
I prefer to use an electronic wallet (eg shopee, go-pay, tokopedia, lazada, OVO, Grabpay, Dana, Paytren) for payment transactions during the COVID-19 pandemic	Int11	0.937			
Later I will use an electronic wallet (eg shopee, go-pay, tokopedia, lazada, OVO, Grabpay, Dana, Paytren) for payment transactions	Int12	0.805			

To provide an overall picture of the variables, this study assessed the mean and standard deviation of the variables (Table 3). The average Usefulness E-Wallet variable is 4.101 (0.859) which is higher than the Intention to Use E-wallet variable is 3.881 (0.975) and the average perception of worrying about Covid-19 is 3.478 (1.099).

## 2. Measurement Model

Based on the PLS SEM analysis, it shows that the measurement model for the full collinearity VIF test results is 2.691. This means that this research model has no problem on the common method variance (Hair et al., 2017). Table 2 shows that the model has reliability and construct validity (Hair et al., 2017), this is shown from all items having a loading factor of more than 0.60 and significant, then the composite score of reliability (CR) and Cronbach's Alpha has a score of more than 0.7 and the mean extracted variance score (AVE) exceeded 0.5. Because the Fornell-Larcker criteria and crossloading checks are less reliable with a lack of discriminant validity (Hair et al., 2017; Henseler et al., 2015) then to check the discriminant construct validity the Monotrait Heterotrait Ratio method is used as shown in table 4.

**Table 3. Heterotrait-Monotrait Ratio (HTMT)**

	COVID-19 Risk Perception	Intention to Use E-Wallet	Usefulness E-Wallet
COVID-19 Risk Perception			
Intention to Use E-Wallet	0.563		
Usefulness E-Wallet	0.455	0.739	

Table 4 shows that there is no value higher than the cut-off value of 0.9, so this indicates that all constructs are valid (Henseler et al., 2015)

## 3 Structural Model

The results of testing the structural model and the hypothesis show that the model has a goodness of fit value of 0.165 which indicates the model is fit (Hair et al., 2017). The risk perception factor for Covid-19 explains the 50.1% variance of Intention to Use E-Wallet. The perception of the risk of being exposed to Covid-19 explains 15.90% of the Usefulness E-Wallet.

The results of hypothesis testing the relationship between variables are presented in table 4. COVID-19 Risk Perception has a significant direct effect on Intention to Use E-Wallet ( $\beta = 0.286$ ;  $p < 0.01$ ). COVID-19 Risk Perception has a significant direct effect on the Usefulness of E-Wallet ( $\beta = 0.405$ ;  $p < 0.01$ ). Usefulness of E-Wallet has a direct significant effect on Intention to Use E-Wallet ( $\beta = 0.545$ ;  $p < 0.01$ ). The Usefulness E-Wallet factor can strengthen the influence of COVID-19 Risk Perception on Intention to Use E-Wallet ( $\beta = 0.221$ ;  $p < 0.01$ ). This indicates that all hypotheses H1, H2, H3 and H4 are supported.

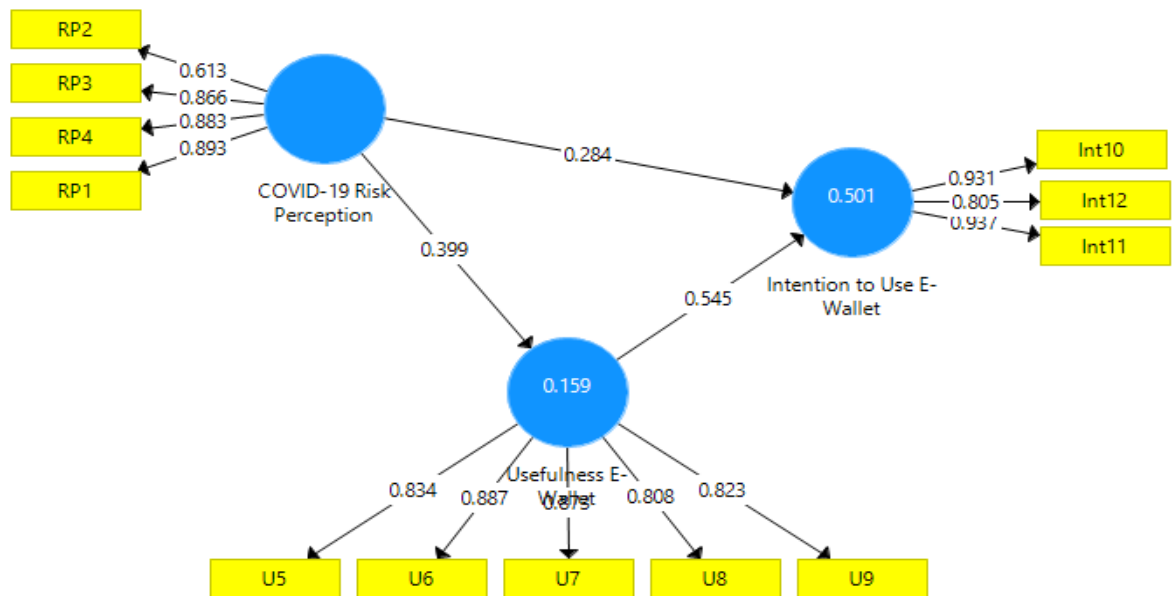
**Table 4. Hypothesis Testing**

Hypothesis/path	Direct effect		Indirect effect		Total effect	
	B	t-Value	B	t-Value	$\beta$	t-Value
COVID-19 Risk Perception -> Intention to Use E-Wallet	0.284	4.627	0.217	4.545	0.501	8.944**

COVID-19 Risk Perception -> Usefulness E-Wallet	0.399	5.342**					0.399	5.342**
Usefulness E-Wallet -> Intention to Use E-Wallet	0.545	9.598**					0.545	9.598**

\*Significant at  $p < 0.05$ , \*\*significant at  $p < 0.01$ .

Figure 2. Model testing Results



## DISCUSSION

The results show that the percentage of E-wallet users is dominated by OVO users, this is slightly different from market survey institutions, (Ipsos, 2020) Indonesia in its latest survey stated that Gopay is the most widely known digital wallet by millennials and Z generation (58%) followed by OVO (29%), Dana (9%) and LinkAja (4%). The results of statistical tests show that the intention to use an e-wallet is directly determined by the perception of the risk of contracting Covid-19. The results of the study show that the COVID-19 outbreak has made customers worried about being infected with SARS-Cov2 which can be transmitted through physical money. As mentioned, SARS-Cov2 droplets can easily land on inanimate objects (Ather et al., 2020). Based on this possibility, therefore, WHO recommends and encourages the use of digital payments where possible (Brown, 2020). The results support and also provide an alternative to previous findings. Previous studies confirmed that there is a negative relationship between perceived risk and intention (Kassim & Ramayah, 2015; Lu et al., 2005; Marafon et al., 2018; Rittichainuwat & Chakraborty, 2009). In the context of this study, the perceived risk of COVID-19 significantly affects the customer's intention to use e-wallet. On the other hand, it means that the perceived risk of COVID-19 has a negative relationship with the intention to use physical money.

The results also show that the intention to use an e-wallet is directly determined by the perception of its usefulness. Relevantly, perceived benefits are found to be a strong



predictor of intention to use electronic money (Aji & Dharmesta, 2019). This is the reason why someone accepts a technology or application (Venkatesh & Bala, 2008; Rauniar et al., 2014; Beldad & Hegner, 2017)

### **CONCLUSION**

This study aimed to examining the direct and indirect effects of perceived COVID-19 risk on intentions to use e-wallet, also examine the effect of perceived COVID-19 risk on perceptions of e-wallet usability, and the effect of perceived e-wallet usefulness on intentions to use e-wallet. . This study concludes that there is a direct and indirect effect of perceived COVID-19 risk on intentions to use e-wallet, the results also show that there is an effect of perceived COVID-19 risk on perceived usefulness of e-wallet, and the effect of perceived usefulness of e-wallet on intention to use e-wallet.

There are some limitations in this study. First, the sample is not exactly proportional in number. It is also very difficult to keep track of the exact proportions of gender, age, occupation and other demographic groups. Second, because it is difficult to determine the proportion in demographic groups, the findings can only be generalized to the characteristics of the respondents who are more dominant. Third, this study only captures the intention to use e-wallet during the COVID-19 pandemic. Insights could be better in longitudinal studies comparing before and after a pandemic. In addition, further research is suggested to consider income as a moderating variable. It is believed that consumers from this group are more open to accepting financial technology or innovation

### **LIMITATION**

The government and the private sector need to encourage people to use e-wallet in financial transactions. The use of e-wallet can reduce the risk of transmitting infectious diseases such as covid 19.

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### **DECLARATION OF CONFLICTING INTERESTS**

**The authors declare there is no conflict interest.**

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