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Analysis of factors affecting the acceptance or use of e-wallet in Jakarta

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ABSTRACT

Abstract - Technology is developing rapidly and has a big impact in all aspects of the world. One of them is financial technology (fintech). Fintech e-wallet allows us to make payments using only mobile phones. Indonesia is one of the fastest digitizing countries that has started to take advantage of this new technology. However, the penetration rate still tends to be low. Fintech in Indonesia is still growing and competing with several fintechs that continue to emerge. The purpose of this study was to determine the factors that influence the acceptance or use of e-wallet. Methods of data collection using a questionnaire distributed to 200 respondents who have made payments using e-wallet and are domiciled in Jakarta. The analytical method used is structural equation modeling (SEM). The results showed that perceived usefulness and perceived ease of use had a positive and significant impact on attitudes toward using, and perceived usefulness and attitudes toward using had a positive and significant impact on behavioral intention to use.

Keywords: Financial Technology, Fintech Payment, E-wallet

1. INTRODUCTION

Mobile technology in the industrial era 4.0 is developing very rapidly. Various types of products and services created have helped humans in all aspects of life. Starting from helping us wake up in the morning, arranging our daily schedule, finding public transportation, until when we go back to sleep at night. As time goes by, society will be more open to existing technology, so the need for innovation will also increase. With the increasingly widespread development of internet network speed, specifications of powerful data storage devices and increasingly intelligent software will make mobile devices more effective and efficient. In Indonesia, internet users continue to increase every year, based on data from the Association of Indonesian Internet Service Providers (APJII) in 2018 internet users in Indonesia were 171,176,716.8 million out of a total population of 264,161,600 million people.

It is undeniable that the growth of the internet has pushed people's lifestyles to become completely online, one of which can be felt directly when we transact. In the past, payments were still made using conventional methods, namely paying using cash. However, along with the development of the times and the existing technology has changed to become more sophisticated where we can make payments via smartphones or done digitally which is usually called digital payment, which is better known as financial technology. Based on data from econographies (Katadata.co.id, 2019) digital payments dominated in 2018 at 94.7%. Digital payments increased significantly from the previous year from 943.3 annual transactions in 2017 to 2900 in 2018. Based on (Katadata.co.id, 2019), there have been 37 mobile payment companies issued by financial technology (fintech). This mobile payment company is not only issued by fintech, but also issued by banks and telecommunications companies. With the development of

increasingly sophisticated technology, society indirectly leads people towards the development of technology for cashless.

Indonesia has also begun to adopt this behavior due to the increase in e-wallet fintech payment companies such as OVO, Gopay, Dana, LinkAja, and so on (Series & Science, 2018). E-wallet is defined as a digital currency, where there is convenience in shopping without the need to carry cash in physical form (non-cash) and can be distributed when carrying out other activities. In other words, e-wallet can make it easier for us to transact because it does not require cash as a medium of payment but can only use cards or via smartphones (Megadewandanu, Suyoto, & Pranowo, 2017). As of 2019, there are 38 digital wallets or e-wallets that have been officially licensed (Katadata.co.id, 2019).

Based on data from (Medium, 2019), the most popular e-wallets are Gopay, OVO, and Dana when viewed based on their monthly active users. This is in accordance with the Indonesian government's vision of "Go Digital Vision 2020". This vision is supported by the activities that have been carried out by the government by creating the National Non-Cash Movement (GNNT), as well as the implementation of a comprehensive non-cash payment system on toll roads. This phenomenon is called a "cashless society" where the government hopes that people will no longer depend on cash and all transactions can be done digitally or online (Assariy, 2019).

But despite its very rapid development, this cashless society is still difficult to achieve in the near future because based on data from the Financial Services Authority (OJK) in 2019, the Indonesian people's financial literacy index in 2019 was still around 38% of the entire Indonesian population. In other words, more than half of the Indonesian population does not yet have knowledge and confidence about financial service institutions and financial service products, including features, benefits and risks, rights and obligations related to financial products and services, and have skills in using financial products and services. From the survey results by Katadata, e-wallet users are dominated by the millennial generation (1980-1996) and generation z (1997-2002) (Burhan, 2020).

From the data above, the question arises what are the factors that influence the acceptance and use of fintech e-wallet? Researchers are interested in examining the factors that influence the acceptance and use of fintech e-wallet in Indonesia. To conduct this study, researchers used Davis's Technology Acceptance Model (TAM) in 1989 (Davis in Beldad & Hegner (Beldad & Hegner, 2018)). Technology Acceptance Model (TAM) was introduced by Fred Davis in 1986 to analyze the factors that influence the acceptance of computer technology. TAM is the result of Theory of Reasoned Action (TRA), which was developed by Fishbein and Ajzen in 1980. Theory of Reasoned Action (TRA) is a theory in which behavioral intention (behavioral intentional) is a function of attitudes and norms. subjective (subjective norm) to behavior. This means that a person's interest in performing behaviors (behavioral intention) is predicted by attitudes towards our behavior (attitude towards behavior) and how we think other people will judge us if we perform that behavior (called subjective norms) (Otieno, Liyala , Odongo, & Abeka, 2016).

2. LITERATURE REVIEW

A. Marketing

In doing business, marketing is a process that cannot be forgotten, marketing is part of the business so that consumers will buy the company's products. The simplest definition of marketing is managing profitable customer relationships. The two main goals of marketing are to attract new customers by promising superior value and to retain and grow current customers by providing satisfaction (Kotler, Armstrong, Trifts, & Buchwitz, 2017). Broadly defined, marketing is a social and managerial process by which individuals and organizations obtain what they need and want through the creation and exchange of value with others. In a narrower business context, marketing involves building profitable exchange relationships and terms of value with customers. Therefore, (Kotler et al., 2017) defines marketing as a process by which companies create value for customers and build strong customer relationships to get value from customers in return.

B. Financial Technology

Financial technology, or FinTech for short, is a modern innovative and radical solution that aims to increase efficiency, effectiveness and experience in the financial services industry. The following solutions come in the form of new applications, products, processes, and business models (Chuang, Liu, & Kao, 2016).

Fintech is not a new concept and has developed into three eras (Leong & Sung, 2018). Fintech 1.0 was when Trans-Atlantic communication with transmission cables first took place in 1958. In this era, a new technological solution is the Automated Teller Machine (ATM). While in fintech 2.0, financial services were implemented with the internet when digitization emerged, but they are still traditional (Arner, 2018). Finally, fintech 3 is related to data technology and new companies that focus on online platforms (Kompas Ekonomi, 2017). Fintech has not finished here and will continue to develop with newer and more advanced technology.

C. Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was first introduced by Davis in 1986, where TAM is a model adapted from the Theory of Reasoned Action (TRA) model which was later modified to be suitable for measuring technology user acceptance (Davis in Beldad & Hegner (Beldad & Hegner)

Hegner, 2018)). Theory of Reasoned Action (TRA) is a theory in which behavioral intention (behavioral intentional) is a function of attitudes and subjective norms towards behavior. This means that a person's interest in performing behaviors (behavioral intention) is predicted by attitudes towards our behavior (attitude towards behavior) and how we think others will judge us if we perform that behavior (called subjective norms) (Otieno et al. ., 2016). Since its introduction, TAM has been continuously tested and empirically validated by scientists in various fields and contexts to explain user trust behavior in various technologies (Davis in Beldad & Hegner (Beldad & Hegner, 2018)).

According to TAM, someone who uses technology is actually influenced directly or indirectly by behavioral intention to use, perceived benefits or perceived usefulness, and perceived ease of use. TAM also proposes that external factors influence intention and actual usage by mediation through perceived usefulness and perceived ease of use (Davis in Marangunić & Granić (Marangunić & Granić, 2015)). The TAM model can be seen in Figure 1.

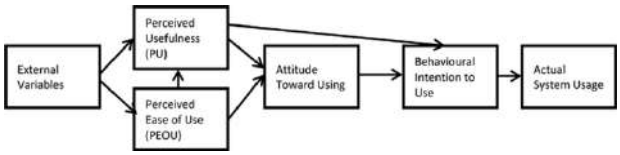

Figure 1. Conceptual Framework of Technology Acceptance Model (TAM)
Source: (Fernando, 2019)

D. Perceived Usefulness
Perceived Usefulness refers to a person's level of trust in technology to be useful in daily activities. Previous research on perceived usefulness explains the level of user confidence, when users use the system, they can improve their work performance (Yani et al. in Syahril & Rikumahu (Syahril & Rikumahu, 2019)). Usability will determine attitudes towards use which will affect interest in use. This statement is supported by previous research which found that Usefulness has a significant impact on Attitudes Toward Using (Chuang et al., 2016; Hu, Ding, Li, Chen, & Yang, 2019; Jiwasiddi, Adhikara, Adam, & Triana, 2019). ; Kurniawan & Suyanto, 2019). Previous studies have also shown that Usefulness also directly affects Behavioral Intention to Use (Fernando, 2019; Syahril & Rikumahu, 2019).

E. Perceived Ease of Use
In this factor, the user's perception of the effortless system that provides convenience will be determined. In this study, convenience is about practicality and user expectations for fintech that can be used without difficulty (Yani et al. in Syahril & Rikumahu (Syahril & Rikumahu, 2019)). Since fintech aims to provide an easy way to make transactions without extra effort, Indonesians are expected to experience this convenience. When they feel this convenience, they are more likely to have a positive attitude towards use and have the intention to use it. Previous research has also shown that Perceived Ease of Use affects Attitudes Toward Using (Chuang et al., 2016; Fernando, 2019; Jiwasiddi et al., 2019).

F. Behavioral Intention to Use
Behavioral Intention is defined as a person's subjective thinking whether he will use technology voluntarily (Fernando, 2019). In theory, intention is a process after attitude and behavior. Strong intentions will reflect the person's overall acceptance and use of fintech. Based on several previous studies, Behavioral Intention to Use is usually influenced by Attitudes Toward Using (Chuang et al., 2016; Fernando, 2019; Hu et al., 2019; Kurniawan & Suyanto, 2019) and Perceived Usefulness (Fernando, 2019; Syahril & Rikumahu, 2019).

a. Framework

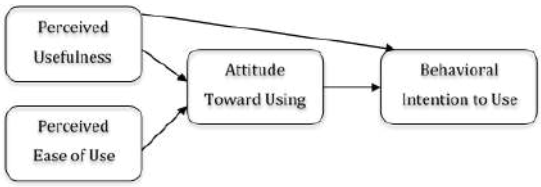

Figure 2. Research Model
Source: Researcher, 2020

3. METHODOLOGY

This study uses a type of causal research where this research is designed to explain the relationship between variables. In this causal research, the research will use quantitative research, which requires numerical and statistical information to process research data (Sofia, 2017). According to (Rahi, 2017) quantitative methods use non-experimental designs, such as surveys. Non-experimental designs or surveys include cross-sectional and longitudinal studies using a questionnaire to sample the population. Therefore, this study will examine the influence of the independent variable, namely perceived usefulness, and perceived ease of use with the dependent variable, namely attitudes toward using and behavioral intention to use.

The design of this research is as follows:

Objective	Research Design			
	Types of Research	Research Methods	Unit of Analysis	Time Horizon
T-1	Associative Quantitative	Survey	Individual: Active e-wallet user in Jakarta	Cross Sectional
T-2	Associative Quantitative	Survey	Individual: Active e-wallet user in Jakarta	Cross Sectional
T-3	Associative Quantitative	Survey	Individual: Active e-wallet user in Jakarta	Cross Sectional
T-4	Associative Quantitative	Survey	Individual: Active e-wallet user in Jakarta	Cross Sectional

The type of data used in this research is quantitative data in the form of numbers on the questionnaire which will be measured using an ordinal scale. The ordinal scale is a scale that provides information about relative quantities (McDaniel & Gates, 2015). In this study, questionnaires were distributed online via a google form. The questions in this research survey are short and closed questions, which use a Likert scale from one to five for each question. The population that becomes the object of this research are respondents who live in DKI Jakarta. From these calculations the results of the sample needed for this study were 100 respondents, but the researchers managed to collect as many as 213 respondents who met the criteria as respondents. The analytical method in this study will use Structural Equation Modeling (SEM) with the Partial Least Square (PLS) analysis model, also known as SEM-PLS. Research data processing will use the SmartPLS version 3.0 software.

4. RESULT AND DISCUSSION

Calculation of the analysis of the influence of Perceived Usefulness on Attitudes Toward Using individually:

Table 2. Path Coefficients of Perceived Usefulness Variables on Attitudes Toward Using

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Perceived Usefulness -> Attitudes Toward Using	0.282	0.291	0.092	3.071	0.002

Source: SmartPLS 3.0, 2020

There is an effect of Perceived Usefulness on Attitudes Toward Using on e-wallet users in Jakarta because it has a t-statistics value of 3,071 greater than a t-value of 1.96, which means that the hypothesis is accepted because t-value < t-statistics, and a p-value of 0.002, which means that there is a significant influence between perceived usefulness on attitudes toward using because a p-value of 0.000 and less than 0.05 is considered significant (according to Hair et al in Syahril & Rikumahu (Syahril & Rikumahu, 2019).

Table 3. Path Coefficients Perceived Ease of Use on Attitudes Toward Using

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Perceived Ease of Use -> Attitudes Toward Using	0.442	0.435	0.094	4.685	0.000

Source: SmartPLS 3.0, 2020

There is an effect of Perceived Ease of Use on Attitudes Toward Using on e-wallet users in Jakarta because it has a t-statistics value of 4.685 which is greater than a t-value of 1.96, which means that the hypothesis is accepted because t-value < t-statistics, and the p-value value of 0.000 which means that there is a very significant influence between perceived ease of use on attitudes toward using because a p-value of 0.000 and less than 0.05 is considered significant (according to Hair et al in Syahril & Rikumahu (Syahril & Rikumahu, 2019) and (Nasution et al., 2020)). Attitude towards the use of an e-wallet is determined by the ease of use.

Table 4. Path Coefficients Perceived Usefulness on Behavioral Intention to Use

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Perceived Usefulness -> Behavioral Intention to Use	0.166	0.176	0.047	3.550	0.000

Source: SmartPLS 3.0, 2020

There is an effect of Perceived Usefulness on Behavioral Intention to Use on e-wallet users in Jakarta because it has a t-statistics value of 3.550 which is greater than t-value 1.96, which means that the hypothesis is accepted because t-value < t-statistics, and the p-value of 0.000 which means that there is a very significant influence between perceived usefulness on behavioral intention to use because a p-value of 0.000 and less than 0.05 is considered significant (according to Hair et al in Syahril & Rikumahu (Syahril & Rikumahu, 2019) and (Nasution et al ., 2020)). Intention to use an e-wallet is determined by the benefits felt or received.

Tabel 5. Path Coefficients Attitudes Toward Using on Behavioral Intention to Use

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Perceived Toward Using -> Behavioral Intention to Use	0.705	0.700	0.059	11.911	0.000

Source: SmartPLS 3.0, 2020

There is an influence of Attitudes Toward Using on Behavioral Intention to Use on e-wallet users in Jakarta because it has a t-statistics value of 11,911 which is greater than a t-value of 1.96, which means that the hypothesis is accepted because t-value < t-statistics, and the p-value value of 0.000 which means that there is a very significant influence between brand & service trusts on attitudes toward using because a p-value of 0.000 and less than 0.05 is considered significant (according to Hair et al in Syahril & Rikumahu (Syahril & Rikumahu, 2019) and (Nasution et al., 2020)). The intention to use an e-wallet is determined by the attitude of use.

Based on the results of research conducted on the acceptance or use of e-wallet using quantitative methods by distributing questionnaires to 200 respondents using google forms in this study. So the researchers can conclude as follows:

1. There is an effect of Perceived Usefulness on Attitudes Toward Using on e-wallet users in Jakarta.
2. There is an effect of Perceived Ease of Use on Attitudes Toward Using on e-wallet users in Jakarta.
3. There is an effect of Perceived Usefulness on Behavioral Intention to Use on e-wallet users in Jakarta.
4. There is an effect of Attitudes Toward Using on Behavioral Intention to Use on e-wallet users in Jakarta.

Based on the results of research showing that there is a positive and significant influence of perceived usefulness on attitudes toward using, the researchers suggest the industry to pay attention to the features provided to suit the needs of today's society, such as so that people can feel the benefits of using this e-wallet such as providing e-vouchers or rewards points for each first user so that people will give a positive response from using the e-wallet because they feel the features provided are useful. The results of the study indicate that there is a positive and very significant influence of perceived ease of use on attitudes toward using, the researchers suggest the industry to pay attention to the features provided to facilitate daily community activities such as providing a split bill feature to make it easier to calculate bill distribution. This is very suitable for Generation Z who likes everything that is practical and easy so that all activities will become easier and faster. With the need for the convenience provided, it will create a positive response from the public to use e-wallet.

There is a positive and very significant effect of perceived usefulness on behavioral intention to use, so the researchers suggest the industry to pay attention to the features provided to suit the needs of today's society. The features displayed are kept simple, such as making a simple User Interface and highlighting the benefits and convenience provided for use so that people can feel the benefits of using this e-wallet so that people's intention and desire to use e-wallet will also increase.

5. CONCLUSION

The results of the study indicate that there is a positive and very significant influence of attitudes toward using on behavioral intention to use, the researchers suggest the industry to always pay attention to the needs of users, responses from users and always listen to complaints or criticisms and suggestions from users. Don't forget to always consistently provide appropriate features that are informed to users so that users will always feel that the e-wallet always provides features that are needed and can be trusted, such as showing teaser videos for each new feature and providing pages containing application certification and personal data security guarantees. user. From the positive response above, it can build intention to use e-wallet.

For further research that wants to conduct similar research, the authors hope that future researchers can explore more extensive research, such as the number of research samples that can be expanded to a minimum of more than 200 respondents and can develop research by examining variables not examined in this study so that with the results Existing research can help the industry to further develop in meeting the wants and needs of the community.

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