

**Survey on Benefits of Digital Payment, Switching Consumer Behavior in Using OVO  
Application as a Tool of Payment Transaction**



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#### DECLARATION OF AUTHENTICITY

Here I declare the originality of the thesis; I have not presented anyone else's work to obtain my university degree, nor I presented anyone else's words, ideas, or expression without acknowledgement. All quotations are cited and listed in the bibliography of the thesis.

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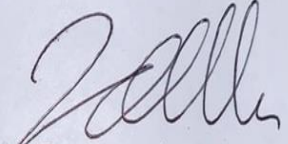
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# CHAPTER I

## Introduction

### 1.1. Study background

Digital payment is currently attracting global attention from all sides of the buying and selling economy as an alternative payment that has modernly been done, such as using m-banking, SMS banking, and cellular payments are part of the products produced from the development of cellular technology that has specific solutions to facilitate transactions using digital payment in Indonesia. Including in electronic payments such as ATM, e-money, internet banking, credit card, debit, mobile payments, mobile banking (Teoh et al., 2013).

Switching behavior is a process where consumers will leave the relationship with the product or service that is currently consumed and switch to a competitor's product or service over a certain period of time (Jung et.al: 2017; Hazen et.al.: 2017). Currently, there is a tendency to shift the emphasis on transactional behavior in society. The company's orientation to products and services shifts to consumer needs. The company's dynamically moving consumer demands need to be anticipated so that consumers will not switch to other customers. Switching behavior will certainly have an impact on changes in income for the company (Widiyati, et al. 2022).

The research conducted in Malaysia showed that people slowly changed their behaviour from using cash-money to adopting mobile-payment and electronic money because of many reasons. For example, the level of people's confidence in doing transactions using credit cards is slowly increasing due to flexibility of payment compared to traditional one. This phenomenon could be caused by two basic things, first, credit card probably reduced their cash-carrying enable them from the risk crime of theft-cash money, and second, there has been a huge increase in consumer demand for credit cards, which is mostly due to how simple it is to pay with them and how convenient they are to use (Teoh et al. 2013).

The problem faced were how to accelerate switching behavior in cashless payments, Specifically the formulation of the problem is as follows: What are the factors that determine and constrain people's switching behavior in cashless payments. The convenience and security factors will have an influence on the payment method in economic transactions. The non-cash national movement carried out by Bank Indonesia (BI) is very appropriate in this era. The Non-

Cash National Movement policy will have a positive impact in the future due to potential support in the form of regulatory support, equitable internet access, and sustainable infrastructure development. (Widiyati, et al. 2022)

The technology developed rapidly has affected human life activities especially in the field of trade (selling and buying), human life is greatly facilitated by existing technology. The development of technology in the economic field has a large impact in all financial activities, both in the government sector and the private sector, this can be seen by the new innovations in the financial system, the financial system is now starting to implement the digital economy to make it easier for users to carry out all their transactions. The trend of payments using electronic money in the fintech system as a digital wallet is growing very fast, because of its ease to use and many users founded surround people, the presence of E-wallet for example, OVO, GOPAY, and DANA in the financial system will slowly shift payment methods via SMS banking, internet banking or mobile banking, and of course the cash method, because fintech has developed very rapidly, now fintech can be used to pay for daily needs such as paying tolls, taxes, electricity bills, BPJS, shopping at malls, paying for goods at online shops, paying for online motorcycle taxes and others. (Yanto, et al. 2020).

The digital payment companies are currently really paying attention to the assurance or guarantee (such as financial security guarantees, if a money loss occurs outside the user's control) which does not only want to be a slogan but is also a form of dimension of service quality and security which the ultimate goal is customer satisfaction with services of the company. The assurance offered is in the form of the company's ability to generate confidence and trust in promises that have been made to consumers. In its implementation, conviction is an important thing to be given to consumers, such as guarantees of security and safety in transactions and guaranteed consumer confidentiality. (Yoon. 2002)

The increasing of competition of existing e-money, especially business competition in the field of payment services has pushed OVO company provide more efficient and trusted in making payment service systems, so that a payment service needs to pay close attention to consumer behavior and the factors that influence the decision to use. It is known that one of OVO's competitors namely GOPAY has launched a cashback solution to increase user confidence toward the application, and improve its security system. This can be an indicator of why this research was conducted, so that OVO service providers can take the positive side of

their competitors and increase their marketing efforts so that can increase the number of users. (Iliyini, et al. 2020)

Digital payment can be divided into two, namely transactions with mobile banking and mobile payments. Some are the differences between mobile payments and mobile banking, mobile banking are financial transactions carried out through digital payments to bank accounts, while mobile payments are made using cellular devices without the need for a bank account and this is what many people use mobile payments for, this is one reason why many people use mobile payment. Besides that, there are advantages in using digital payment for sellers and individuals itself. Based on data (International Trade Administration. 2020) As of February 2020, 41 licensed e-Wallet platforms have been approved by Indonesian government regulators; in October 2019 Samsung Pay entered the Indonesian market, marking a significant development for a foreign fintech provider. Between 2017 and 2018, digital consumers in Indonesia grew from 64 million to 102 million, almost half the total population in Indonesia. With the growth of digital consumers, online shopping is predicted to increase 3.7 times from USD 13.1 billion in transactions in 2017 to USD 48.3 billion in 2025.

In Indonesia, in the era of the digital economy, which is currently being promoted by the government, one of them is the cashless movement. The high number of money in circulation, the number of cases of falsification of money, and the large operational costs incurred by Bank Indonesia each year in printing, storing, distributing, and destroying money are the background for Bank Indonesia as the central bank of Indonesia to launch a movement to use non-cash instruments (Less Cash Society). This is especially true in transactions which are known as the National Non-Cash Movement. (Mentari, et al. 2018)

With the rapid development of technology, it can change the way and consumer behaviour in making a purchase transaction. Almost all aspects of life have been digitized For example, currently there are e-commerce, online transportation, to payment systems via e-commerce digital payment applications. This payment system aims to reduce the use of conventional money to non-cash or cashless. One of them is currently intensively doing promotion is OVO. OVO is a smart application that provides payment services and online transactions (OVO Cash). (Nasution. 2020)

Based on research obtained through katadata.co.id (2019) regarding Digital The most widely used payment in Indonesia in 2019, of the total 651 respondents, 83.3% used GoPay and 81.4% used OVO, and 68.2%, used DANA and LinkAja 53%. More than 80% of people

used GoPay and OVO with competitive usage percentages. Even so, public awareness regarding OVO services (99.5%) was higher compared to GoPay (98.5%). Users also rated the digital wallet as easy to use (68.3%) and saved time (66.2%). Others used this payment fintech because the service is complete (32.8%). Application OVO has been downloaded more than 115 million times.

Davis, et al (1989) established the TAM (Theory Adoption Model), this model made the basic assumption that perceived usefulness and perceived ease of use are primarily influence user behavior, and the degree of acceptance of information technology. The benefits and conveniences offered by electronic money can be affect the increase in users. When a product has benefits and comfort when used in everyday life, then the product has the potential to be used in a wider public and commercial. Likewise with money which is considered for transaction activities, it is possible that people will be interested in using electronic money.

Many researchers focused on the factors that influence individual users' post-adoption behavior (user continuity). According to (Bhattacharjee. 2001), the expectation-confirmation model (ECM) and argued that individual users' satisfaction with prior experience using the service is the main factor of continuous usage behavior. Furthermore, (Thong et al. 2006) extended each argument about ECM and discovered that individual users' continued usage intention is heavily influenced by their satisfaction with its services.

According to research done by Rao, V.C.S.M.R and Gundala (2016) majority of the digital-payment users were caused by dissatisfaction of cash-payment method. Satisfaction can make customer continue using the services. Satisfied consumers are tending to be loyal and may not switch to another services provider too. From research that was done by Shah, Husnain, and Zubairshah (2018) resulting that one of the factors of user's continuity within one brand was consumer satisfaction that can be attained by guaranteeing that their consumers are satisfied with the services given. Therefore, satisfaction can be the determinants whether a consumer switched or not.

However, problems that occur from the consumer side, from the transaction system using cash-manual compared to OVO digital money. Which is where payment transactions using digital money are easier and attract people's attention compared to paying manually (Cash). So as a researcher who also participates in using the grab application and the interesting features and promos offered by OVO make people curious about OVO. (Amri, U. 2020)

Nasution (2020) stated in his research OVO is a digital wallet service (smart financial apps) that offers various transactions across a number of OVO partners. This company is made by the Lippo Group, namely LippoX. OVO was first launched in March 2017 and it is under the auspices of PT Visionet Internasional. OVO users can save time and effort to get what they need. This is in accordance with Davis theory, that using a certain system a person will be free from effort and ease to use can affect user interest (Davis, et al 1989). With the ease of using OVO, of course the community in particular Millennials will be very interested in reusing Digital Payment OVO. Even now, the use of OVO has become a necessity in transaction, because OVO itself is quite masterful, with OVO people can pay for transactions online transportation payments, e-commerce even for purchasing credit and credit electricity payments can be paid using OVO. This will make Millennials in particular continue to use OVO.

This study used the quantitative approach, and study design used in this research is explanatory research to understand and characterize each variable that explored dependent variables and the independent variable (Malhotra, et al. 2017). This study attempted to determine the characteristics impacting consumer switching behavior among university students in Yogyakarta, ranging from those who used traditional payment methods to those who used digital payment service providers. The selected respondent criteria will be contained of university students in Yogyakarta who have utilized and actively used the OVO application service provider for their transaction activities with the number of 300 respondents. The reason why the researcher chose the respondent criteria was because of the limited time and area of the researcher in collecting respondents, it would be easier if the respondents were taken from the location where the researcher lived, also the most of OVO users were those between the ages of 18 to 25 years which were dominated by the average age of university students.

Researchers felt interested and had a goal to get evidence from empirical research on the benefits of the influence of consumer interest on the use of digital payments as a method of payment with the sample of OVO users. Therefore, the researcher wanted to do research entitled " SURVEY ON BENEFITS OF DIGITAL PAYMENT, SWITCHING CONSUMER BEHAVIOR IN USING OVO APPLICATION AS A TOOL OF DIGITAL PAYMENT

## **1.2. Research problem**

Based on the background, the research problem are:

1. Does perceived usefulness have a positive influence toward people's self-efficacy to use OVO application?
2. Does perceived ease of use have a positive influence toward people's self-efficacy to use OVO application?
3. Does self-efficacy have a positive influence toward perceived security and trust?
4. Does perceived usefulness have positive influence toward switching behavior?
5. Does perceived ease of use have positive influence toward switching behavior?
6. Does perceived security and trust have positive impacts toward switching behavior?

## **1.3. Research Objective**

1. To investigate whether perceived usefulness has positive influence toward people's self-efficacy to use OVO application.
2. To investigate whether perceived ease of use has positive influence toward people's self-efficacy to use OVO application.
3. To investigate whether self-efficacy has a positive influence toward perceived security and trust.
4. To investigate whether perceived usefulness have positive impacts toward switching behavior.
5. To investigate whether perceived ease of use have positive impacts toward switching behavior.
6. To investigate whether perceived security and trust have positive impacts toward switching behavior.

## **1.4. Theoretical Benefits**

The findings of this study were expected to expand the literature on people's behavior when transitioning from traditional cash to digital financial services in Indonesia. Since many digital-finance services appear, one of which is the OVO company which has grown very

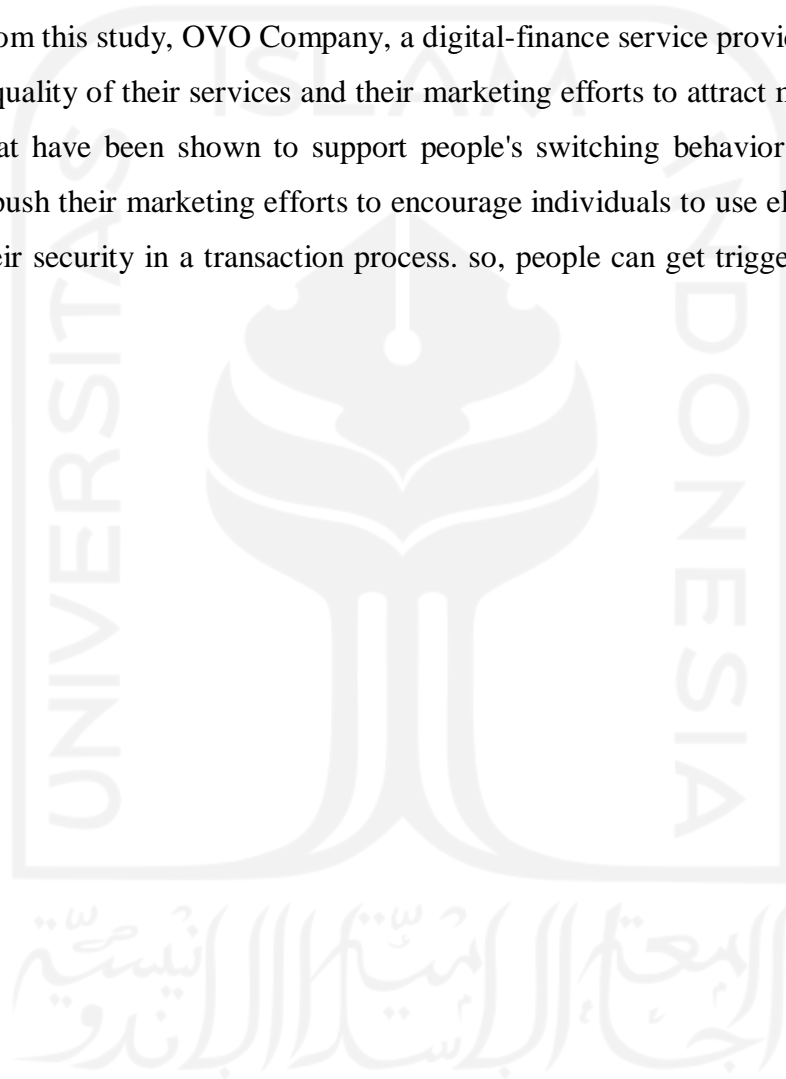


rapidly in the last 5 years. Consumer behavior in Indonesia mainly focused on cash-payment and nowadays people are beginning to switch their behavior to digital payment.

This study attempted to cover a wider area, focusing on providers of digital payment services.

### **1.5. Practical Benefits**

The findings from this study, OVO Company, a digital-finance service provider, may be able to improve the quality of their services and their marketing efforts to attract more users. With the elements that have been shown to support people's switching behavior in transactions, businesses can push their marketing efforts to encourage individuals to use electronic money, and increase their security in a transaction process. so, people can get triggered to utilize its services.



## CHAPTER II

### LITERATURE REVIEW

#### 2.1. General research model

This study originally replicated Lee, Y. C., et al (2022) from a study that focused on factors influencing people's intentions to migrate from traditional payment methods to electronic payment (e-payment) from the perspective of Korean consumers. There were some changes, including the addition of Indonesia as the location, and the addition of a company object, namely the *OVO application* (mobile-payment and E-money service provider), and also added one variable: it is *self-efficacy* (as mediating variable). Five different variables were evaluated in this study, these were the variables used: perceived usefulness, perceived ease of use, self-efficacy, security and trust, and the last is switching behavior. The theory that was used in this research was the technology acceptance model (TAM).

This study were utilizing 300 reliable data to analyze the validity of the variables and the causal relationship among variables using structural equation modelling (SEM), and the explanation about its theory will be explained bellow.

##### 2.1.1. TAM (Technology Acceptance Model)

Technology acceptance model (TAM) defined user technology acceptance information, technology acceptance model (TAM) to determine technology behavioural intention. The model consists of perceived usefulness (PU) and perceived ease of use (PEOU) for forecasts of attitudes, behavioural intentions, and the application of technology. There are many other theories discussing the intention to use mobile payment not only TAMs, including the idea of planned behavior and the unified acceptance and use theory of technology. (Davis, et al 1989)

TAM proposes two theoretical constructs, namely perception benefits (perceived usefulness) and perceived ease of use (perceived usefulness ease of use) as a fundamental determinant of user acceptance of a system information. Perceived benefits and perceived convenience both have an influence toward behavioural intentions. Interest in using technology will occur when the technology system is found to be useful and easy to use (Davis, et al.1989).

According to (Matemba, et al. 2018) analysis of customer tendency to adopt and utilize an E-wallet in relation to TAM's theory, the intention to use was considerably impacted. To boost consumer adoption of mobile payment services, these factors are necessary.

The purpose of TAM is to explain the main factors of behaviour users to the acceptance of technology users. In more detail would be explained the acceptance of information technology with the dimensions of certain factors that can affect its acceptance (Davis et al., 1989). TAM was designed to achieve this goal by identifying several basic variables suggested in previous studies that agree with factors - factors that affect cognitively and affectively on acceptance technology.

## **2.2. Digital payment**

Digital payment is a method of payment using electronic media. Digital payment is a new method of transaction tool which no longer requires banknotes or checks to make it easier for user transaction. Digital payment is a representative of all non-cash payments, which are also interpreted as payment transactions using electronic money between buyers and sellers by using a savings account through the internet or electronic networks. (Teoh et al., 2013).

There are 3 types of digital payment:

1. Card payments is Cards are the most familiar type of electronic payments in the world over
2. Bank transfer payments is the transfer of money from one bank account to another can be done in several ways.
3. EWallet Payments. E Wallet is ready to take over the place of payment, like OVO, GOPAY etc.

Transaction methods are very diverse, ranging from credit cards, debit cards or even online payments with gadgets, such as Gopay, OVO, T-Cash, etc. as technology develops, people are beginning to switch to using digital payments and giving up cash payments. This is because more and more people are receiving digital payments. Digital payment in Indonesia is deliberately encouraged to reduce the burden of making banknotes in the country. When compared with China, Indonesia is clearly far behind. Because more than 650 million citizens have used electronic payments, this number is almost half of their population, reaching 1.38 billion people.

Based on data from Bank Indonesia, there are 38 e-wallet services that have received official licenses and so far, e-wallet transactions in Indonesia have reached USD 1.5 billion. Here are some of the most popular e-wallets in Indonesia: GOPAY, FUNDS, OVO, LINK AJA, JENIUS, and E.T.C. A digital wallet, sometimes called an e-wallet, is a service that allows people to pay for goods, usually through a mobile application. It also stores a number of other items that traditional wallets will hold, such as SIMs, gift cards, tickets for entertainment events, and transportation tickets. Some of the benefits or advantages of using electronic money compared to cash and other non-cash payment instruments, including: others (Hidayati et al., 2006): Faster and more convenient than money cash, especially for transactions of small value (micro payments), due to users do not need to provide an exact amount of money for a transaction or have to save change. Besides, the error in counting money the return of a transaction does not occur when using electronic money.

### **2.3. Variables**

In this study, specifically using five variables were discussed, they were as follows: (1) perceived usefulness, (2) perceived ease of use, (3) self-efficacy, (4) security and trust, (5) switching behaviour. The theoretical definitions regarding these variables were discussed in the following section.

#### **2.3.1. Perceived Usefulness**

According to (Davis, et al. 1989), perceived usefulness (PU) is the degree to which one thinks using a system will enhance its performance. According to (Wang & Li, 2016), when accepted technology can be used everywhere and at any time, users would sense its perceived usefulness. Perceived usefulness has dimensions, namely time saving, ubiquity, and convenience. Davis et al. (1989) gives several indicators in the ease-of-use construct, which are: (1) Easy to Learn, (2) Controllable (3) Clear & Understandable, (4) Flexible, (5) Easy to Become Skilful) (6) Easy to Use.

According to Jogiyanto (2007) what is meant by the benefits is the degree to which a person thinks utilizing a particular technology will boost productivity is known as perceived usefulness, while Dalcher and Shine (2003) defined perceived benefits as construct a person's belief that the use of a particular technology enabled to improve their performance. Thompson (1991) stated that individuals would use information technology if the person knew the positive benefits (usefulness) for its use. Individuals who find benefit from using technology would find

it easier to do activity in their life, especially in a trading process. Benefit variables can be measured by indicators:

1. By utilizing the system can enhance each person's performance (improves job performance).
2. By utilizing the technique can boost each person's level of productivity (increases productivity).
3. By utilizing the system can lead to increased productivity effectiveness (enhances effectiveness).
4. By utilizing the system is advantageous for people (the system is useful). (Thompson. 1991)

From the definition above, it is known that the perceived usefulness benefits are a belief about the decision-making process. If someone feels that the technology is useful then have a willingness to use it, whereas if he thinks the technology is less useful then will not use it. A positive attitude in using electronic money arises because customers feel confident that electronic money can improve performance, productivity, and performance effectiveness for its users.

### **2.3.2. Perceived Ease of Use**

Davis, et al (1989) defined ease of use as perceived the degree to which users believe that using the system will be free from arduous endeavour. This followed from the definition of the word convenience "freedom from trouble and great effort". Wang & Li (2016) outlined that people can find it easy to use the technology as measured by various aspects such as the ease of doing instalments. In addition to instalments, the next process is ease of operation or use of the technology itself. Perceived ease of use has dimensions namely the simplicity of setting up instalment payments, the simplicity of learning the user interface, and the convenience of contrasting third-party e-payment systems with cash payment methods (Priyono, 2017). (Wang & Li, 2016).

According to Beldad, et al (2018), and Sugandini et al. (2019), using a mobile application involved risks and uncertainties that call for security and trust. This is especially true when it comes to situations where it is difficult to predict whether an action will produce positive results and when specific technologies can be used to undermine user trust.

### 2.3.3. Self-efficacy

Self-efficacy is the capacity of a person to believe in their ability to mobilize motivation, cognitive resources, and behaviors needed to control incidents, according to Ozer and Bandura. The self-efficacy here talking about here had an impact on people's willingness to utilize e-wallet services as well as their self-control, initiative, and persistence in overcoming challenges (Vance et al., 2012). According to Shahri, and Mohanna (2016), self-efficacy has an impact on the security of user information. Self-Efficacy Users can gain from the program's effectiveness in terms of information security. One of the key predictors of information system security is self-efficacy (Hameed & Arachchilage 2018).

The processes that affecting people's Self-Efficacy according to Bandura (1977), there are 4 psychological processes in self-efficacy that play a role in humans, thus are:

- a. **Cognitive process:** it is the process of thinking inside humans themselves, including obtaining, and using information about the use of mobile-payments. Individuals who have high self-efficacy prefer to imagine success. On the other hand, individuals with low self-efficacy imagine more failure that can hinder the achievement of success.
- b. **Motivation process,** After the cognitive process is complete, individual motivations / drives arise inside themselves and direct them to the actions through the previous stages of thinking to use mobile payment.
- c. **The affective process,** it is the process of regulating emotional conditions and emotional reactions that are generated after motivation arises inside the individual to make decisions.

From the various opinions above, it can be concluded that self-efficacy is a belief in a person's ability to take an action to achieve a predetermined goal, and can influence the situation well, and can overcome an obstacle.

### 2.3.4. Security and trust

Numerous studies have revealed that customers' desire to conduct e-payment transactions and participate in online currency exchanges is significantly influenced by security and trust. High security and trust result in a lower perception of risk, which encourages the adoption of e-payments. Trust is defined as the degree of risk of the functions involved in financial transactions. The importance of security and trust is elevated in e-payment because of the high degree of uncertainty and risk presented in most online transactions, that is the reason why Kniberg (2002) insists that trust is more important than security (teoh, et al. 2013).

The security system in one case is very important especially in digital payment services. Security according to Pratama (2019) is something that is absolutely provided by business people, both products, service or both, security provides convenience to the user (or in this case consumers) and increase consumer trust, which leads to increase in the number of sales Pratama 2019; 197).

Development of mobile payment systems is supervised by various security levels, perceived by consumers when conducting online or offline transactions. Most consumers worry about their online activities being hacked by irresponsible users. A situation that may trigger financial data losses or money-theft of sensitive personal details. Therefore, to ensure safety of online transactions, mobile payment services providers should guarantee reliable and secure payment methods and should provide efficient data transmissions and storage. (Francis, L., et al. 2010)

Trust is an important construct catalyst in many transactional relationships. For example, in trust-commitment relationship marketing, trust when conceptualised as a dimension of technology acceptance model, could have also been thought of having a striking influence on user willingness to engage in online exchanges of money and personal sensitive information (Wang et al., 2003). In the literature, trust has been conceptualized as existing when one party has confidence in partner reliability and integrity. Another element that is thought to affect consumer behavior when shopping online is **trust**. (Jin, et al. 2014).

The biggest worry of users when using e-payments is related to the privacy of the transactions made and the concern that data of user will be sold to other parties with a percentage of 42.91% and 34.04%, respectively.

Tirto.id explained that public awareness is still low, this can occur due to a lack of public knowledge regarding the functions and benefits of e-payment, because actually different from cash transactions, electronic transactions are easier and faster in the data recording

process. However, this kind of awareness has not yet spread even to e-Money users, causing various perceptions. An example account in the use of digital payments such as OVO required more security because it can attract users to trust the security of their data in using the application.

### **2.3.5. Switching behavior**

Consumer behavior is always influenced by several factors, which simulates consumers to stay true to the existing brand or switch against other brands, which behavior that is affected by the use of cash becomes cashless.

Customer satisfaction will increase as perceived value and usability are raised. Users may become more devoted by making the product more helpful because they must consider the costs associated with switching brands. According to Ahmed, et al (2015 ) The consumer behavior is always remaining under influence of factors, which simulates the behavior of consumers towards either remaining loyal with existing brands or switched towards other brands.

Switching behavior is a process where consumers will leave the relationship with the product or service that is currently consumed and switch to a competitor's product or service over a certain period of time (Jung et.al: 2017; Hazen et.al.: 2017). Currently, there is a tendency to shift the emphasis on transactional behavior in society. The company's orientation to products and services shifts to consumer needs. The company's dynamically moving consumer demands need to be anticipated so that consumers will not switch to other customers. Switching behavior will certainly have an impact on changes in income for the company.

According to Kim, et al (2019) the Push factor (dissatisfaction) is a component of the inefficient payment system (cash payments) that persuades customers to utilize mobile payment services during transactions. The risk of cash money theft is the primary concern with payment services based on cash payment, stated that people may lack confidence as a result of this risk and be hesitant to utilize a certain payment mechanism. Therefore, the availability of a different payment system has the potential to persuade individuals to abandon the outdated one (Humbani and Wiese, 2019).

Similarly, consumer switching behaviour is basically consumer behavior in shifting their attitudes from one brand (product) to another brand (product) (Ahmed, et al 2015).



Generally, according Bhasin (2010) there are four categories of factors, which highly affect the consumer behavior and also play an important role in switching consumer behavior represent four factors:

1. Cultural factors are the main influencing factors, related to culture, in where customers live and their needs and wants are very high influenced by culture, which includes culture, sub-culture and social class.
2. Social factors in the form of norms, values and saga also affect consumer buying behavior such as reference groups, family members and their respective roles and society.
3. Personal factors belong to consumer behavior depend on personal factors such as age, cycle, income and lifestyle.
4. Psychological factors are a person's motivation, perception, learning, beliefs, attitudes and thoughts also affect purchases consumer decisions.

## **2.4. Hypothesis Development**

### **2.4.1 Perceived Usefulness and Self-efficacy**

According to Thompson (1991) stated that individuals would use information technology if the person knows the benefits or positive usefulness of its use. Individuals who find it easier to use the internet, will find it easier to benefit from the technology. Perceived benefits are a construct of a person's expectation that using a certain technology will enable them to perform better. So, it can be concluded that in this study what is meant by perceived usefulness is the user's subjective view of the benefits obtained by using electronic money services.

Individuals who find it easier to use the internet, will find it easier to get the benefits of this financial technology. The usefulness variables can be measured by several indicators:

1. by utilizing the system can enhance each person's performance (improves job performance).
2. by utilizing the technique can boost each person's level of productivity (increases productivity).
3. by utilizing the system can lead to increased productivity effectiveness (enhances effectiveness).

4. by utilizing the system is advantageous for people (the system is useful).

The research conducted by Nasution (2020) stated the majority of users felt that using OVO application allows them to fulfil their needs in the transacting more practically, and efficiently, people don't need to carry a lot of cash, and also, they do not have to wait long for get a change from transaction. It can be concluded that the OVO application is able to make payment transactions more practical and efficient and save time (Budyastuti. 2020).

Perceived usefulness is able to explain people's interest in reusing the application by 81%, it means that the relationship between the usefulness variable has a positive impact on self-efficacy.

According to Pratama (2019), people's interest in using electronic money is positively impacted by the perception of usefulness. This implied that consumers will be more self-confident about utilizing the benefits of the OVO application than using cash-money. Respondents who felt that they would get benefit from using electronic money and moreover would be interested in using electronic money. The results of this study are in line with the theoretical construct of TAM (theory acceptance model). In TAM it is explained that the benefits of a technology also affect the acceptance of an information technology by users (Nasution. 2020)

According to the findings of statistical testing, perceived usefulness has a favourable and significant impact on a user's willingness to utilize mobile payments. These findings support the study that was done in China by Weng, et al (2018). The increase of users in E-wallet applications is due to many benefits users are able to gain by engaging in transactions. One benefit that many users experience is the benefits that come in the form of promotions offered by providers through applications that are made available to users. This means that the higher the perceived usefulness, the higher the user's self-efficacy in society (Hurriyati, et al. 2019).

The research conducted by Luna, et al (2019) the digital payment due to its affiliation with numerous retailers, e-commerce platforms, even coffee shops and online transportation that offer various advantages in its use. The application offers excellent benefits when doing transaction activities. This benefit has a positive impact on the concept of *self-efficacy*, because people would be easily triggered by each service to download and use it in many merchants around them who are already affiliated with this service. In addition to the benefits obtained by users, A comfortable experience was also provided to users, attracting them to utilize the app.

They felt so comfortable when transacting without having to move (Ting, et al. 2016). By considering the availability of merchants who have affiliated with OVO as a transaction instrument, users of the OVO application can use it whenever and wherever they choose (Isrososiawan, Hurriyati, Dirgantari. 2019).

The perceived benefits of using OVO which guarantees transaction security makes users feel comfortable in the experience of making payment transactions without carrying money, it is enough to scan a QR on the OVO application within seconds the payment transaction is complete. Based on the test conducted by Nasution (2020) in Medan (North Sumatra), the results of the Perceived Usefulness variable on Behavior Intention obtained a positive value of 94% from 100 respondents. which means that Users of Digital Payment OVO have a favourable and significant impact on their self-efficacy through perceived usefulness. That is consistent with the dimensions of perceived usefulness according to Wang & Li (2016) these are time saving, ubiquity, and convenience. (Nasution. 2020)

H1: perceived usefulness has positive influence toward self-efficacy.

#### **2.4.2 Ease of Use and Self-efficacy**

Contrastingly, perceived ease of use, refers to "the degree to which a person believes that using a particular system would be free of effort." An individual can only give a certain amount of effort to each of the tasks for which they are accountable (Radner, et al. 1975).

The difference between usefulness and ease of use in this context are: first, The characteristic that makes a certain group of functions relevant to a decision-maker and the degree to which the functions of the individual elements are an essential component for task completion. Second; perceived usability, which is the extent to which the information format is clear, understandable, or readable (Larcker, et al. 1980).

The adoption of innovations also has a very important role for perceived ease of use. Between different types of innovation, the relative benefit, compatibility, and complexity have the most consistently significant links, and also there is a relationship between the characteristics of an innovation and its adoption (Tornatzky, et al.1982). In their meta-analysis resulted, people surely adopted this innovation because of it is easy to use and flexible, the adoption was about how people previously always used cash in their transactions at retail stores or others, and tried to adapt by adopting a new culture that was simpler and more efficient,

namely 'digital wallets' that could be carried and installed in their own phone (Davis et al. 1989).

The research conducted by Budiastuti (2020) in Jakarta stated that *ease of use* had a positive impact on *self-efficacy* or in his term; awareness of people intention to use the services. It is demonstrated by the 400 responders who answered the questions about usability in agreement or even strongly in agreement. OVO is highly simple and flexible to conduct transactions, according to respondents, who feel that the OVO program is simple to use, grasp, and doesn't demand a lot of effort. This is consistent with research done by Fitriana (2017), whose findings demonstrated that the ease-of-use element already brought out new trends in people's transaction activities.

This trend has made people motivated inside themselves and drove them to adapt with new technology. "The old practices of people who always carry thick wallets with its contents are now becoming less require effort", therefore people are also moved to try out from cash to cashless and quickly become a trend.

The advantages of users' adoption of technology's perceived ease of use are considered in OVO application found such as simple application's display, and many kinds of transaction options in the menu proven by Seetharaman et al (2017). It will affect how often people use the application if some functions operate delicately. The simplicity of receiving requests, the simplicity of installing apps, the adaptability of learning, and the number of cellular users demonstrate the benefits and ease of use. The perceived benefits of the system and the likelihood that users would embrace the program will both rise with an appealing user interface and ease of usage. It means the more people felt ease of use would significantly impact the self-efficacy in the society.

The TAM (Theory Acceptance Model) stated that perceived ease of use (PEOU) may have an impact on how much customers adopt information technology because of social influence. It meant the perceived usefulness concept impacted people's self-efficacy. The behavioural intention comes from an individual perceived their interest by others that will influence them to use the new system. (Jogiyanto :2007, p 321). It is very necessary to add trust factors in the e-commerce context. However, because it is difficult to forecast consumer behavior online and adopting financial transactions over the Internet is risky, trust is an issue that must be taken into account when adopting digital payment technology (Chinomona. 2013; Beldad, et al. 2018).

The research conducted by (Teoh et al., 2013) in Malaysia found that Self-efficacy in using online banking services was significantly boosted by perceived ease of use and hence e-payment of the country. There are numerous studies that showed a technology would be used commercially when many people felt it is easier to use. It means the increased in accessibility can lowers the chance of error, which is important when offering financial services online. Additionally, operational system usability encourages cost reduction and a better understanding of the contents and tasks in operating systems, the application or in downloading.

The process of customer interactivity through ease of use and flexibility of operation is an important criterion that attracts *self-efficacy* in e-payment delivery. The ability of an innovation to ease users' needs using many different features available on an application's menu such as digital wallet, credit payment, E-transfer, daily necessities payment, and E.T.C. In addition to increase consumer willingness besides contents, the quality of designs, visuals, or colors that create a positive impression of the apps' services would improve users' ability to control those services. Additionally, download speed is a significant factor in determining a user's interest. The majority of people who download stuff from the internet risk infecting their computers with viruses, and the downloaded files take a big space in memory. This case very often happened in E-payment transactions and of course it would lead to delay services delivery, from here application capability is needed. Things that are a big consideration for e-payment service providers are how can they provide a light and fast service, especially providing fast download access and does not take a lot of space in memory. These are the conclusions that an effective consumer design of e-payment systems is important to attracting users' acceptance of e-payment. (Teoh., et al 2013).

H2: perceived ease of use has positive influence toward self-efficacy.

### **2.4.3. Self-efficacy and Security and Trust**

Bandura (1977) stated that self-efficacy is people's beliefs about their ability to produce a level of performance and master situations that affect their lives, then self-efficacy will also determine how people feel, think, motivate themselves and behave. Then Bandura in his book also added that self-efficacy has an important impact, even being the main motivator for one's success. People are more likely to do an activity they believe they can do than to do a job they feel they can't.

According to Bandura, there are three kinds of aspects in self-efficacy, including:

a. *Magnitude;*

Related to the level of difficulty of the task performed by the individual. If they faced with tasks that are arranged according to the level of difficulty, *low, medium, and high*, then the individual will take actions that he feels capable to do and to meet their desire.

b. *Generality;*

Related to the wide range of tasks faced by individuals. How long individuals believe in their abilities in various situations to a series of tasks in various situations.

c. *Strength;*

Regarding the strength of a person's beliefs about abilities possessed. Individuals who have a strong belief in their capabilities will persevere in their efforts and do not care with many difficulties and obstacles. (Kholid. 2015)

Individual self-efficacy is an important element in ensuring Information Systems safeguard effectiveness and increasing individual trust upon the system, individual self-efficacy is a significant attribute of information technology security innovation adoption. The individual self-efficacy on financial technology security adoption has become the crucial things individual user to consider, the researcher (Hameed. 2018) stated that the number of E-wallet services user over time has increased from year to year, and this topic has been interesting among the scholarly researchers to be researched. People adopted new technology in information system or financial technology required them to concern about security of personal data and transaction especially their money savings. Operating online information services is actually full of risk including viruses, data leakage, transaction security, and money theft hacking (Banu.2013). Before an individual possesses the system, people tend to seek the effectiveness of a safeguard measure in protection provided from information system threats, so than individual is more likely to adopt preventive action to increase their self-confidence in dealing with those threats. (Hameed 2018)

Health Information System is a specific area of information systems, World Bank stated that system for the collection/ processing of data from various sources, and using the information for policy making and management of health services, However, the use of Health Information System can reduce an error system and improve the quality of financial system data. The study by Roca (2006) showed that self-efficacy has a positive effect on the security information systems.

Also, this research in line with the research conducted by Dillon (2007) stated that self-efficacy is used to help in the identification of the user's understanding of the privacy of secret information, and its effect on the implementation of Health information system as well.

Enrici, et al (2010) stated in his research about psychological approach to information technology security. The human psychological aspects such as self-efficacy has significant impacts on the security of people's technological environment. also, another research conducted by a graduate student in a business school of the United States discovered that self-efficacy on information security might be differs among people. It means people with high self-efficacy in information security need more security software for protecting their information and make stronger decisions to strengthen their information security. Therefore, the more technology users, the more information security systems will increase and vice versa, because this can increase the confidence of service providers to maintain the security of users and improve user experience.

The research above is in line with the research conducted by Rhee, et al (2009) in Korea stated that self-efficacy significantly has positive impacts with security, majority of individual with higher self-efficacy use more security software to protect their own information from potentially threatening events. Individual self-efficacy generally rises markedly with success, and vice versa. And on the other hand, Bandura (1977) claimed that the social cognitive theory (it is a concept for understanding factors influencing end users' control-enhancing their behavior, this concept concerned with how people's perceptions of their own efficacy affect their motivation and ability to make a decision from social phenomenon) has very big influence here, the increasing of technology users makes surrounding community becomes curious about the benefits of its user, then they are motivated within themselves to take advantage of it as well.

The other study showed that self-efficacy has positive impacts on security adoption. The influence of CSE (Compeau, et al (1995) described it as an individual assessment of one's computer-using skills.). On the internet usage and the adoption of technology is being the main lesson in this hypothesis. It has been shown that the CSE concept significantly increases users' confidence when using an internet information system (Torkzadeh 1999). For instance, it has been demonstrated that a crucial factor for using the Internet and its security services is a person's level of self-efficacy (Hsu, Chiu, 2004). In other words, Self-efficacy was expected to be a very reliable indicator of the types of security features implemented on residential wireless

networks. According to these studies, people's self-efficacy and self-belief can both affect how they use information systems (Rhee, et al. 2009).

H3: self-efficacy has positive influence toward security and trust.

#### **2.4.4. Perceived Usefulness, and Switching Behaviour**

Minarti, et al (2014) stated that consumer's actions, evaluation, and emotional response after making a purchase demonstrated their self-efficacy and user intention to use. Products and services were compared based on how well they really performed in comparison to what consumers had anticipated from them.

Dissatisfaction was a primary push factor for people switching to another service provider. Chang (2014) stated in his research it is verified that dissatisfaction with a current traditional transaction positively influenced people's switching intention to mobile payment service. According to Yunita & Rosa's (2016) research, customer dissatisfaction is the main reason why people switch from traditional payment methods to digital ones, particularly when people's expectations for a particular transaction are not met, in this case security issues with cash, lengthy transactions, and other things. The study also revealed that discontent has a considerable positive influence on changing behavior.

Digital finance has made people switch their behavior from traditional payments to digital-based, one of the factors that causes them to switch is transaction difficulties which make it difficult for people to always carry a lot of cash in the pocket. It defines public dissatisfaction which is now being an evaluation for digital finance companies for the previous bad experiences of people using traditional payments, to provide good services especially in digital payment transactions (Hong, Lee. 2021).

The most consistent influencer of people switching their behaviour to digital payment adoption are perceived usefulness which means how far people believe that their transaction performance would be improved by using mobile payment technology. Such benefits include combining bank cards with mobile devices, shopping without physical wallets, and increasing transactions convenience and security. This is similar to the findings of studies Karjaluto (2019) stated both perceived usefulness and ease of use have been the most influential factors



of people's mobile payment adoption technology especially in this pandemic situation, the transaction conducted by contactless payment system. (Hong, Lee. 2021).

The new recent technology has similarity and functional desirability over the traditional act to satisfy people's specific needs, it is payment transaction. Perceived usefulness in mobile payment enabled users to adopt a new media for overcoming a traditional payment becoming more efficient and flexible. As users can easily get access to internet, and become familiar with the multi-functions and advantages of mobile payment relative to traditional payment, they may understand that mobile payment can feel their specific needs, such as transaction convenience, mobility, and economic benefits. These specifically will increase people's intention to switch to mobile payment (Hong, Lee. 2021).

Zhao and Bacao (2021) stated in his research During the COVID-19 pandemic, customers are more worried about transaction performance, efficiency, and accuracy. Because they are unsure of who is infected by the COVID-19, who is infectious, and that person has been in contact with, customers feel uneasy conducting business with strangers in a physical store. Customers will consequently be more motivated to convert to mobile payment than traditional one if they believe that mobile payment is a valuable instrument to conduct transactions swiftly and efficiently during the pandemic.

It has been confirmed that perceived usefulness and ease of use are the two main factors that influence switching behavior in a variety of scenarios. This study uses the term "ease of use" to describe a customer's perception that utilizing mobile payment technologies will be simple. When utilizing digital innovation, individuals tend to think it is simpler to use since they anticipate saving both time and effort. The M-payment program can be downloaded for free by anyone, scan the QR barcode, and transaction just completed. (Hong, Lee. 2021).

When people are unhappy with traditional payments, their desire to switch to PMP, in this situation mobile payment is growing. the research conducted in South Korea 2021 among 356 respondents resulted, more than 67% agreed that the biggest influence on people changing their intentions was their perception of usefulness. The usefulness measures revealed that customers preferred using mobile payment since it might facilitate speedy and efficient transaction completion (Hong and Lee. 2021).

According to research by Cheng et al (2019), perceived usefulness is positively correlated with switching intention. This conclusion is related to that study's finding that perceived usefulness had a large and favourable influence on switching behavior. However, it

was also discovered that simplicity of use played a substantial role in switching behavior. This result is consistent with Ye, and Potter (2011), who found that ease of use had a substantial impact on users' switching behaviors. They came to the conclusion, based on an empirical analysis, that customers are more likely to transfer services when they are aware of the EOU of the alternative provider (Lee, Hong. 2021).

H4: Perceived usefulness has positive influence toward switching behavior

#### 2.4.5. Perceived Ease of Use and Switching Behavior

Perceived ease of use, in contrast, refers to the degree to which a person believes that using a particular system would be free of effort. This follows from the definition of ease: freedom from difficulty or great effort. Effort is a finite resource that a person may allocate to the various activities for which he or she is responsible (Radner, et al. 1975). All else being equal, we claim, an application perceived to be easier to use than another is more likely to be accepted by users.

This study defined Pull factor as a factor held by mobile payment (**destination**) that encouraged and drew customers to use this platform as a payment system at a physical store. According to (Koenig-lewis et al. 2015), one of the reasons why people want to adopt new technology is the unique experience it provides. In the context of information technology, and also Farivar et al (2017) defined enjoyment because of perceived use factor as the amount to which the use of a particular technology is seen to be enjoyable regardless of any predicted performance or repercussions.

Perceived ease of use in an economic framework is also a pull element that entices customers to switch from their previous payment system to mobile payment in a physical business. This concept is also known as **deal proneness**, which refers to an individual's impulse in reacting to monetary benefits such as a discount, redeemable points, and other financial rewards. By including this value in their payment service, they enable customers to use mobile payment technology in offline transactions to be more significant, particularly for new users (Wang et al., 2016).

Maier, et al (2017) stated in his research; It has been extensively used in previous research where it has been demonstrated that perceived ease of use frequently has a large beneficial impact on the adoption of a new technology (Davis, et al. 1989.) Individuals must

utilize a specific mobile device when using mobile payment, thus a technology is developed to facilitate the payment process. The perceived ease of use connected with the mobile payment process, including using the system, has a large influence on individuals' decision to move from their existing payment method to mobile payment. We examined perceived simplicity of use as a pull factor in this case. The easier it is to utilize mobile payment, the more likely individuals will migrate to mobile payment.

perceived ease of use is how much someone believes that using a payment system technology will ease them from a big effort. In this study, it is believed that the perception of the perceived ease of use of a payment system technology is able to create interest in reusing the payment system technology. With the ease of operating mobile payments, most people believe that using payment system technology they can save time and improve their performance. convenience in technology is trusted when someone if someone uses payment system technology and feels the benefits of using it, that person will continue to use the payment system technology. (Nasution. 2020)

What causes people to accept or reject digital payment technology? the research suggests there are two primary determinants. First, consumers will use or not use an application if they believe it will make performing transactions easier. Second, even if potential users believe that a certain program is beneficial, they may also consider that the system is too difficult to use and that the performance benefits outweigh the difficulty of utilizing the application. therefore (Radner, et al. 1975) stated Perceived ease of use appears refers to ensure to which a person believes that using a particular system would be free of effort, and there, people feel more comfortable transacting using mobile payments rather than cash-payments. (Davis, et al. 1989).

H5; Perceived ease of use has positive influence toward switching behavior

#### **2.4.6. Security and Switching Behaviour**

According to Teoh., et al (2013) security is being a significant obstacle to people in digital finance adoption, which influences their use of e-payment systems This is because, although consumers' trust in their chosen banking system is high, their trust in technology is low. On the other hand, high security system increases people's trust in technology adoption, and also the outcome of trust is reduced perceived risk, leading to positive intentions toward e-

payment adoption. High security system and Consumer trust in the digital finance ecosystem is essential because it ensures that the service provider will protect its users from risks such as misleading information, distributing personal data, and loss of funds. He also stated that security and trust positively impact switching behaviour.

According to Zhou., T (2011) trust is the most important factor in the relationship between sellers and buyers so that transactions run smoothly, especially in e-commerce systems. Trust has always been considered as the most important factor that stimulates buying via the internet, as it has been acknowledged to positively influence online consumer intentions to buy. According to Gefen (2003) states that the indicator of trust consists of three components, namely: integrity (integrity), kindness (benevolence), competence (competence). Buyer's trust in online sellers is related to how the seller with his expertise can convince the buyer to guarantee security when making a payment transaction, ensuring that the transaction will be processed immediately.

Trust positively influenced toward switching behaviour in mobile payment adoption after people believe that the system related to technology are secured enough (Jin, et al. 2014). The high security system influences people's behaviour in online transaction, which in turn and leads to the actual action of buying. Because trust is founded on a reasonable appraisal of an individual's skill and integrity as well as feelings of worry and goodwill, it is a multidimensional construct.

Hong, Lee (2021) stated in his research that Perceived security belongs to users' belief that mobile payment service providers have appropriate systems in place to ensure that their service is risk-free, the security system in the digital finance services is one of the biggest considerations of mobile payment adoption to people, therefore (Johnson. 2018) stated in his research that perceived security positively and significantly impacts on people's switching behaviour in m-payment adoption.

Perceived risk on mobile payments are estimated to be high because the users are unable to predict since the service is intangible features and not reel physical. Majority perceived risk in mobile payment services could be loss of funds and leakage of personal information, Therefore, perceived risk is considered the most barrier for people using this service. According to (Kim, M.; Kim, S.; Kim, J. 2019) Privacy issues are significant barriers for people to accept mobile payment services in South Korea, and also many researchers are agreed about this statement for example (Lewis, Marquet, Palmer, Zhao. 2015) they already examined in user's

mobile payment adoption and indicated that perceived risk could hinder people switching their behaviour.

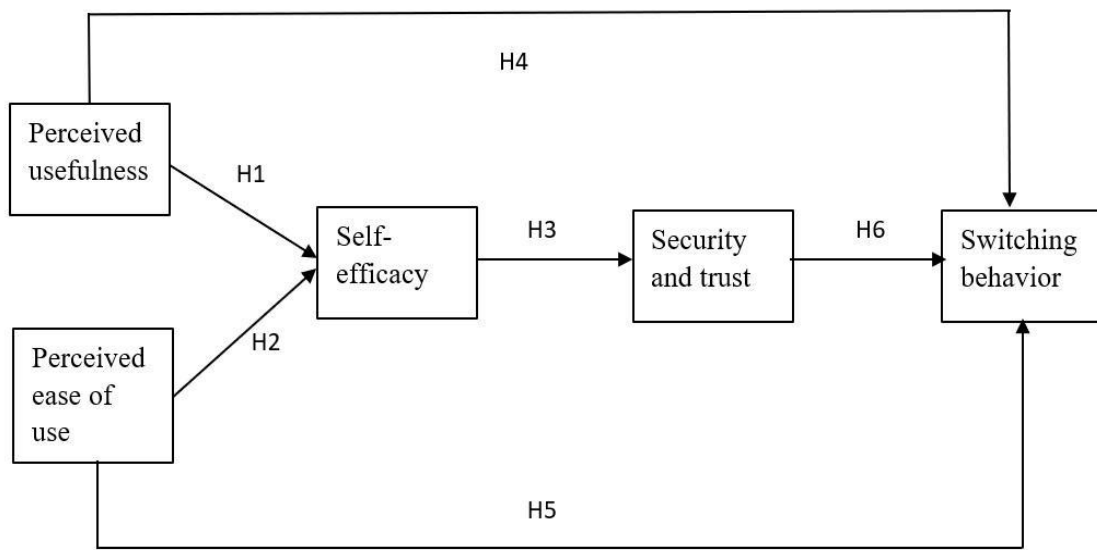
High security system is needed by users of mobile payment system in order to improve the performance their monetary transactions Trust is a tool for service providers to preserve the sustainability of their business, particularly when implementing e-commerce transactions; therefore, it is essential for businesses to prevent and regulate the hazards and risks of electronic transactions. According to Febrina Mahliza, trust is essential in consumer online purchasing decisions (2020).

In the research conducted by (Fahmi, Evanita. 2019) in Padang Indonesia explained that the public's perceived security can form a positive attitude so that it generates public to switch their behaviour from caas-transaction to electronic payment instruments. The same thing can be seen in research conducted by (Vejacka., et al 2017) that perceived security is one of the important factors in shaping people's attitudes that influence them to use electronic payment instruments.

H6: security and trust have positive influence toward switching behavior

#### **2.4 Theoretical Framework**

This research is using five attributes of study, perceived usefulness, perceived ease of use, security and trust, and switching behavior. The following is the concept of the research that would be conducted:



Source: Davis et al (1989)





## **CHAPTER III**

### **RESEARCH METHODOLOGY**

#### **3.1. Research design**

This study used the quantitative approach, and study design used in this research is explanatory research. Explanatory research was utilized to understand and characterize each variable that explored dependent variables and the independent variable. A quantitative research method is one that is based on the philosophy of positivism sample and is used to examine the population or a specific sample using the research data instrument of this research, quantitative data analysis, or statistics with the goal of testing the hypothesis that has been set.

#### **3.2. Population and Sampling**

##### **3.2.1 Population**

The population is the entire set of elements that share a common set of attributes and comprise the universe for the purpose of the marketing research challenge (Malhotra, et al. 2017). This study attempted to determine the characteristics impacting consumer switching behavior among university students in Yogyakarta, ranging from those who used traditional payment methods to those who used digital payment service providers. As a result, the population in this study consisted of university students in YOGYAKARTA.

##### **3.2.2. Sampling**

A sample is a set of individuals in population that has been chosen to participate in the study (Malhotra, et al. 2017). In this study, the researchers selected a small sample of the population to be studied. Purposive sampling is used to facilitate comprehension of sample criteria that are relevant to the researcher's goal, when it is expected that the selected sample will contain accurate information for the researcher's purpose.

##### **3.2.3. Sampling method**

The sampling method utilized in this study is non-probability sampling. According to (Malhotra, et al. 2017), non-probability sampling relied on the researcher's judgment rather than chance in picking respondents. The researcher also choosed which respondents to include in the sample depending on their own preferences. In addition, the researcher employed



convenience sampling. Convenience sampling is a non-probability sampling strategy that attempts to obtain a sample of convenient respondents, with sample collecting based on the researcher's preferences (Malhotra, et al. 2017). The respondent criteria were university students in Yogyakarta who have utilized and actively used the OVO application service provider for their transaction activities. The reason why the researcher chose the respondent criteria was because of the limited time and area of the researcher in collecting respondents, it would be easier if the respondents were taken from the location where the researcher lived, also the most of OVO users were those between the ages of 18 to 25 years which were dominated by the average age of university students..

The questions to the respondents are 21 questions thus are;

4 questions for usefulness and ease of use,

5 questions for self-efficacy, and security, and trust, and

3 questions for switching behavior.

(Hair. 2006) stated that the minimum number of samples required for an uncertain exact population was five times the variables analyzed or indicator question.

Number of samples = 5 x indicator of questions

Therefore, this research would at least need:

$5 \times 21 = 105$  sample

### **3.3 Data and Data Collection**

In this research was using a quantitative method with primary data as the data source. Primary data are data collected by a researcher with the intention of facing a problem (Malhotra, et al. 2017). This study's data collection method was:

#### **3.3.1. Questionnaire**

A questionnaire is a structured data collection approach that included a series of questions, either written or verbal, that respondents must answer (Malhotra, et al. 2017). The questionnaire was employed in this study, and it was distributed to the respondents. The questionnaire was distributed via online distribution using Google Form. Respondents were required to fill out a questionnaire via Google Form, which was then automatically returned to the researcher, the method of distribution is by sharing the link to fill out the google form that

the researcher has made along with the question indicators, for example through whats app groups and other social media.

### 3.3.2 Measurement

The researcher delivered questionnaire scales related to research variables to respondents in order to collect primary data. A five-point Likert scale was employed in this investigation. A Likert scale assessment score is shown in the table below:

**Table 3.1 Assessments Score**

No	Category	Scale
1	Strongly disagree	1
2	Disagree	2
3	Neutral	3
4	Agree	4
5	Strongly agree	5

### 3.4. Identification of Research Variables

Hypotheses can be considered as conclusions or conclusions that are while the guess may or may not be right. Based on literature review and previous research as described above, then the hypotheses that would be developed in this research are as follows:

**a. Hypothesis 1,**

Perceived usefulness has a relationship influence on self-efficacy. The variables must be measured in order to objectively prove hypothesis 1 are:

Independent Variable: perceived usefulness

Dependent Variable: self-efficacy

**b. In hypothesis 2,**

The perceived ease of use had a relationship influence on self-efficacy. The variables must be measured in order to objectively prove hypothesis 2 are:

Independent Variable: Perceived ease of use

Dependent Variable: self-efficacy

**c. In hypothesis 3,**

Self-efficacy had a relationship influence on security and trust. The variables must be measured in order to objectively prove hypothesis 3 are:

Independent Variable: self-efficacy

Dependent Variable: security and trust

**d. In hypothesis 4,**

There is a relationship influence of usefulness and ease of use on switching behavior. The variables must be measured in order to objectively prove hypothesis 4 are:

Independent Variable: usefulness, and ease of use

Dependent Variable: Switching behaviour

**e. In hypothesis 5,**

There is a relationship influence between security and trust and switching behavior. The variables must be measured in order to objectively prove hypothesis 5 are:

Independent Variable: security and trust

Dependent Variable: Switching behaviour

### **3.5 operational definition of research variables**

There would be two independent variables in this study: perceived usefulness and ease of use. They were two mediating variables: self-efficacy and security and trust. Finally, switching behavior is a dependent variable. Each research variable has operational definitions.:

1. Perceived usefulness: According to Jogiyanto (2007) the degree to which a person believes that employing a particular technology will increase his work performance is referred to as perceived usefulness. While Dalcher and Shine (2003) defined perceived usefulness as a person's conviction that using a specific technology will improve their performance. Indicators that used were:

	Perceived usefulness (Davis, et al. 2013)
1	Using OVO application improves my transaction performance
2	using OVO application enables me to accomplish transaction more quickly
3	using the OVO application increase my convenience in transactions
4	Using OVO application increases my productivity

2. Perceived ease of use: (Davis, et al. 1989) defined perceived ease of use as the extent to which users believe that using the system will be free from difficult efforts. This follows from the definition of the word ease: freedom from trouble and great effort. Wang & Li, (2016) described that consumers can find it easy to use technology measured from various aspects such as the ease of installation. Indicators that used were:

	Perceived ease of use (Budiyastuti, 2020)
1	Using OVO application is easy in making instalments
2	Using OVO application is easy to learn how to use a non-cash payment system
3	Using OVO application is easy to operate the system according to what individuals want to do
4	Using OVO application does not need a large effort to make non-cash payments

3. Self-efficacy: According to Hasan (2007) stated that it is a person's belief in his abilities that he is able to do something or overcome a situation by carrying out a specific task or job using a particular technology. Indicators that used were:

	Self-efficacy (Winarno, Masud, Palupi. 2021), and (Nasution. 2020)
1	I think I am confidence in finding information needed about non-cash payment.
2	I think i am capable to use the system
3	I think the OVO application suits my needs in transactions either it is offline or online transaction
4	I use this application because of the many stores that are already affiliated with the OVO application
5	I think I will recommend this application to people surrounding me who are not using this service yet

4. Security and trust: According to Arpaci (2015), perceived security is a person's degree of confidence that the technology used to transfer sensitive information such as consumer data and financial transaction data is guaranteed safe. Francisco (2016) explained that Perceived Security is always associated with negative consequences that consumers may suffer if consumers intend to use a system. If the level of security is deemed too low, then consumers were unlikely to be involved in using a transaction system. Indicators that used were:

	Security and trust (Budiyastuti. 2020)
1	I trust that the service provider of a non-cash payment system is honest
2	I trust that the service provider of a non-cash payment system provides secure services in a transaction
3	I trust that the system provider is able to limit unauthorized people to access the payment system
4	I trust that my personal data is safe when using a non-cash payment service
5	I trust OVO application in overall online payment systems, and E-wallet services to keep my money and personal data

5. Switching behaviour: According to Han et al (2011), switching intention referred to the confirmed probability of swapping the current service provider with another. Indicators that used were:

	Switching intention (Hong, Lee. 2021)
1	I am rather be dissatisfied with cash-payment in a transaction
2	I am considering switching from traditional payments to proximity mobile payments in a physical store in the near future
3	My intention to use mobile payments in a physical store is high in the near future

### 3.6 pilot test (validity and reliability)

In the pilot test there is a validity test which is a measure of the extent to which an indicator can be measured what it is needed (Ghozali, 2017). Then the questions from the questionnaire can reveal something to be measured, then the questionnaire can be declared valid. The indicator can be said to be valid if it has a standardized regression weight  $\geq 0.5$ .

#### a. Validity

Validity is used to determine how accurate the research was. Validity is generally separated into three parts: content validity, criterion-related validity, and construct validity (Sekaran & Bougie, 2016). The measure's content validity showed that it has an acceptable and representative selection of items that are consistent with the idea (Sekaran & Bougie, 2016). When a measure differed individuals on a criterion that it is meant to predict, it is said to have criterion-related validity (Sekaran & Bougie, 2016). Construct validity confirmed how well the results obtained from using the measure suit the theories that the test is based on (Sekaran & Bougie, 2016).

The validity test of this study was carried out with 50 respondents and tested through SPSS version 23 which aimed to find out how far the indicators in the questionnaire can measure as desired. Validity was tested using the data of 50 respondents (n=50) and the software SPSS version 26. The test was carried out using a 5% r table, a two-tail test, and df=n-

2. Creating degree of freedom (df)= n-2 obtained 50- 2=48 and r table= 0.279. If r result  $\geq$  r table, the item can be declared valid; if r result  $\leq$  r table, the item can be declared invalid. The test results, according to the analysis, were:

### b. Reliability

In the pilot test there is also a reliability test, which is a measurement of variables that measure indicators (Ghozali, 2017). Reliability is a tool that is used to measure a questionnaire which is an indicator of a variable. To measure the reliability using a statistical test tool, namely *Cronbach's Alpha*. A questionnaire is declared reliable if a person's answer to the statement is consistent or does not change. In SPSS a variable is declared reliable if the *Cronbach Alpha* is 0.70 (Ghozali, 2017).

**Table 3.2 Instrument validity test**

Variable	Result		Correlation value	Statement
	Indicator	r result		
Perceived usefulness	PU1	0,902	0,5	Valid
	PU2	0,849		Valid
	PU3	0,922		Valid
	PU4	0,863		Valid
Perceived ease of use	PEOU1	0,677	0,05	Valid
	PEOU2	0,835		Valid
	PEOU3	0,908		Valid
	PEOU4	0,824		Valid
Self-efficacy	SE1	0,737	0,5	Valid
	SE2	0,807		Valid
	SE3	0,873		Valid
	SE4	0,730		Valid
	SE5	0,836		Valid
	ST1	0,710		Valid

Security and trust	ST2	0,847	0,5	Valid
	ST3	0,803		Valid
	ST4	0,789		Valid
	ST5	0,852		Valid
Switching intention	SI1	0,804	0,5	Valid
	SI2	0,836		Valid
	SI3	0,821		Valid

**Table 3.3 instrument reliability test**

Variable	<i>Cronbach's Alpha</i>	Standard cronbach's Alpha	Statement
Perceived usefulness	0,907	0,7	Reliable
Perceived ease of use	0,830	0,7	Reliable
Self-efficacy	0,855	0,7	Reliable
Security and trust	0,857	0,7	Reliable
Switching intention	0,748	0,7	Reliable

### 3.7 Data analysis

#### 3.7.1 Descriptive analysis

Just after the completion of the questionnaire, the data would be explained in detail. A descriptive study's goal is to collect data that can be utilized to characterize the issue of interest (Sekaran & Bougie, 2016). The researcher demonstrated the data in this analysis and then offered a summary of the research findings. There are two messages communicated in this study, thus are:

1. Respondent Characteristic Data The age, gender, and income of respondents were used in this study.



## 2. 2. Variables Assessment Data from Respondents.

### 3.7.2. Statistic tools

Data from the questionnaire were statistically analyzed to prove the hypothesis that was proposed. Structural Equation Model is the analysis tool employed (SEM). SEM is a technique for simulating a series of dependencies between a set of concepts or constructs represented by several measurable variables and incorporated into an integrated model (Malhotra, Nunan, & Birsk, 2017). Analysis of Moment Structure is the software used to analyze the structure (AMOS). The software produced results such as scaling and structural issues. The results can be evaluated and hypotheses tested.

Step that would be taken during SEM test:

#### 1. Quality of the data

##### a. Sample size

Sample size is essential in interpreting SEM results since it provides a basis for estimating sampling error. As a result, the recommended sample size is 100 to 200 samples (Ghozali, 2017).

##### b. Data normally

The collected data must be examined to verify whether it met the normalcy assumption, after which it can be processed further for SEM modeling. The normality test is used to determine whether the data met the normal distribution criteria. A normality test utilizing AMOS is considered normal if the critical ratio is greater than  $\pm 2,58$  at a significance level of 0.01. (Ghozali, 2017).

##### c. Outlier evaluation

1. An outlier is a data observation situation that has distinct characteristics that appear to be significantly different from other observations and present in an extreme form (Ghozali, 2017). Outlier evaluation can be carried by using (Ferdinand, 2006):

##### 2. Univariate outlier

Univariate outlier evaluation can be performed by defining the threshold that defines an outlier by converting the value of 38 research data into a standard score or Z-score that has a zero mean value and a standard deviation of 1.00. If there is a Z-score of  $\geq \pm 3$ , it is considered univariate outliers.

### **3. Multivariate outlier**

Although the findings of data evaluation did not show any outliers at the univariate level, they can become outliers when combined. The AMOS output from the Mahalanobis distance includes this evaluation. The Mahalanobis distance is calculated using the chi square value with degrees of freedom adjusted for the number of independent variables at the  $p < 0.001$  level. If the Mahalanobis distance was greater than  $\chi^2$ , a multivariate outlier was discovered (chi-square).

### **2. Confirmatory factor analysis**

Confirmatory Factor Analysis (CFA) was used to determine whether latent variable indications were significant and legitimate (Ghozali, 2017). The CFA measurement is based on a validity test questionnaire item and the reliability of the loading factor. Validity test showed how the manifest variable (indicator) reflected the latent variable being measured. The value of the validity test to be declared valid must have a loading factor  $> 0.50$  (Ghozali, 2017). Test reliability indicated the extent to which the measurement can be given a result that is relatively not much different from the re-measurement on the same object. Good construct reliability is that it has a value  $> 0.70$  (Ghozali, 2017).

### **3. Goodness of fit**

At this point, the researcher assessed the appropriateness of the actual or observed input with the proposed model's predictions. Previously, the data conformance was assessed using the structural equation model's essential assumptions. Because SEM is very sensitive to data distribution characteristics, particularly significant kurtosis, the data must be checked for outliers and the distribution of data must be regularly multivariate.

If the basic assumption of SEM is confirmed, the next step is to evaluate the offending estimate. The offending estimate is the estimated coefficient in the structural model or measurement model whose value exceeded the allowed limit. If it is determined that there is no longer an offending estimate, the researcher can then examine the entire fit model using several fit model assessment criteria. The following criteria are used to measure model fit (Ghozali, 2017):

- a. Likelihood Ratio Chi-Square Statistic

The key metric of overall fit is the chi square likelihood ratio ( $\chi^2$ ). The bigger the chi square value in comparison to the degree of freedom, the smaller the probability (p) value than the significance level ( $\alpha$ ). Because the covariance matrix input between predictions and real observations did not show a significant difference, the smaller the chi square value indicated the better (Ghozali, 2017).

b. CMIN/DF

to calculate this assessment the chi square value by the degree of freedom to. Some writers recommend performing this assessment to determine the relative chi square value ( $\chi^2$ ), which indicated a difference between the covariance matrices analysed and those estimated. The fit scale used by was value ratio  $< 2$ . (Ghozali, 2017)

c. Goodness of fit index

This valuation showed a non-statistical measure by calculating the weighted comparison of the variance present in the covariance matrix of the sample and described with the population covariance matrix. GFI had values that range from 0 (poor fit) to 1.0 (perfect fit), the higher the GFI value the better. Several researchers suggested values above 90% as a good fit (Ghozali, 2017).

d. Root Mean Square Error of Approximation (RMSEA)

If the chi square statistic has a tendency to reject models with high sample sizes, this measurement can help to correct the outcome. Acceptable Root Mean Square Error of Approximation (RMSEA) values vary from 0.03 to 0.08.

e. Adjusted Goodness of Fit Index (AGFI)

These valuations are included in goodness of fit measurement. This valuation is obtained from the development of the goodness of fit index assessment, which has been adjusted to the degree of freedom ratio value. The better the model, the higher the adjusted goodness of fit index value. The recommended value is  $\geq 0.90$ . (Ghozali, 2017).

f. Tucker Lewis Index (TLI)

TLI is an index of comparison between the tested models and the baseline model that combines the parsimony metric. The recommended TLI number ranges from 0 to 1.0, with  $\geq 0.90$  being the most common (Ghozali, 2017).

g. Normal fit index (NFI)

The proportionate size of the suggested model and the null model is shown by NFI. The value ranges from 0 (no fit at all) to 1.0 (excellent fit), with  $\geq 0.90$  being the ideal value (Ghozali, 2017).

**Table 3.4 goodness of fit test criteria**

NO	Goodness of fit	Cut off value
1	Chi-square	Low
2	Probability	$\geq 0.05$
3	CMIN/DF	$< 2,0$
4	GFI	$\geq 0.90$
5	RMSEA	$0.03 \leq RMSEA \leq 0.08$
6	AGFI	$\geq 0.90$
7	TLI	$\geq 0.90$
8	NFI	$\geq 0.90$

**4. Model modification**

When the model is stated not fit with the data, the appropriate act that can be done is to modify the model by adding a connecting line, adding more variables if available, or reducing variables. Model modification can be done based on modification indices resulting from AMOS. If the model is modified, then the model has to be cross-validated first before accepted.

**5. Hypothesis test**

The hypotheses provided are tested by looking at the outcomes of the analysis and marking the signs and magnitudes of their significant values. If the sign matched the theory and the significant value is *less than 0.05*, the hypothesis is accepted. If the sign did not correspond to the theory and the significant value is *more than 0.05*, the hypothesis is rejected.

## **CHAPTER IV**

### **DATA ANALYSIS AND DISCUSSION**

This chapter contained the findings of an investigation into data from research on the effect of Perceived Usefulness, Perceived Ease of Use on Self-Efficacy and Security and trust and their impact on Switching behavior on OVO application users in Yogyakarta. This study used primary data from 300 respondents who had transactions using the OVO application in the Yogyakarta area who filled out a questionnaire. The results of respondents' answers used to answer research problems. The research results are presented with descriptive analysis and SEM analysis.

With reference to the previous problems and hypotheses, The Structural Equation Model was one of the analysis techniques used in this study (SEM) method using Amos software version 24. The analysis is carried out using the procedures described in this chapter. The results of the SEM analysis used to test the proposed suitability. Then use the results of data processing to examine the hypotheses made as a result of model changes, and a second order if the model was not practicable, making SEM analysis easier to use. It can now be used as a guide to draw conclusions as well.

The analysis was carried out in accordance with the phases in the analysis statistics stated in the earlier chapter. To acquire the desired fit, the evaluation of the SEM model was also examined. Evidence of the hypothesis was obtained as a result of data processing, which then becomes a reference in the conclusion.

#### **SEM (structural equation modelling)**

The research's analysis method in this study was structural equation modeling (SEM). SEM was utilised because it was simpler to move forward using SEM analysis despite the complicated hypothesis test, accurate analysis of questionnaire data involving perceptions without ignoring error on each observation, and ease of model modification with a second order if the model was not practical. AMOS was the program utilized to carry out the SEM analysis procedure.

In this research the respondents who used are 300 respondents, and also the analysis carried out was done in accordance with the stages in the analysis statistics that was described in the previous chapter. The evaluation of the SEM model was also analyzed to obtain the proposed fit. From the results of data processing, evidence was obtained of the hypothesis which then becomes a reference in the conclusion.

#### 4.1 respondent descriptive analysis

The descriptive data gathered from the respondents explained in this section. Descriptive research data is supported to characterize the research data profile and the correlations that exist between the variables employed in the investigation.

##### 4.1.1 respondent gender

The following characteristics of respondents based on gender were collected from the results of a questionnaire distributed to 300 university students in Indonesia:

**Table 4.1 respondent characteristics based on gender**

Gender	Frequency	Percentage (%)
Male	152	50,7 %
Female	148	49,3 %
Total	300	100 %

According to Table 4.1 it could be seen the majority of the respondent's answers are male with 152 responses or 50,7%. While the rest of the respondent's answers are female with 148 responses or 49,3%.

##### 4.1.2. respondents Age

The following characteristics of respondents based on gender were collected from the results of a questionnaire distributed to 300 university students in Yogyakarta:

**Table 4.2 Respondents Characteristics Based on Age**

<b>Age</b>	<b>Frequency</b>	<b>Percentage</b>
18 – 20	100	33,3 %
21 – 23	177	59 %
> 23	23	7,7 %
Total	300	100 %

According to Table 4.2, most of the respondents' age replies ranged between 21 and 23, with 177 responses (59 %). The second most common age range for respondents was 18-20, with 100 responses (33.3%). With 23 responses, or 7.7 percent, the respondent's age was greater than 23.

#### **4.1.3 The Semester Respondents Enroll**

The following characteristics of respondents based on gender were collected from the results of a questionnaire distributed to 300 university students in Yogyakarta:

**Table 4.3 Respondents Characteristics Based on The Semester They Enroll**

<b>Semester</b>	<b>Frequency</b>	<b>Percentage (%)</b>
4	64	21,3 %
6	84	28,7 %
7	144	48 %
10	6	2%
Total	300	100 %

According to Table 4.3, the majority of respondents (144 or 48 percent) said that they are enrolling in the eighth semester. The second majority of respondents (86 replies or 28.7%) stated that they are enrolling in the sixth semester. The third majority of respondents (64 answers or 21.3%) stated that they are enrolled in the fourth semester. With a frequency of 6 or 2 percent, the minority of respondents said they are enrolling in the 10th semester.

#### **4.1.4 Respondents Income**

The following characteristics of respondents based on gender were collected from the results of a questionnaire distributed to 300 university students in Indonesia:

**Table 4.4 Respondents Characteristics Based on Income**

<b>Income</b>	<b>Frequency</b>	<b>Percentage %</b>
Rp. 500.000 – Rp. 999.000	74	24,7 %
Rp. 1.000.000 – Rp. 1.500.000	182	60,7 %
>Rp. 1.500.000	44	14,7 %
Total	300	100 %

According to Table 4.4, most of the respondents' income was between Rp. 1.000.000 and Rp. 1.500.000, with 182 frequency of answers or 60.7%. With 74 frequencies of answers or 24,7 percent, the second majority of respondents' income was between Rp. 500.000 and Rp. 999.000. The smallest respondent's income was Rp. 1.500.000, with 44 frequency of responses or 14.7%.

#### 4.2 Validity and Reliability of Each Variable Model

**Table 4.5 Validity and Reliability test of Each Variable Model**

<b>Variables</b>	<b>Items</b>	<b>Factor Loading</b>	<b>statement</b>	<b>Construct Reliability</b>	<b>statement</b>
<b>Perceived Usefulness</b>	PU1	0,776	Valid	0,871	Reliable
	PU2	0,779	Valid		
	PU3	0,825	Valid		
	PU4	0,793	Valid		
<b>Perceived Ease of Use</b>	PEU1	0,725	Valid	0,853	Reliable
	PEU2	0,785	Valid		
	PEU3	0,792	Valid		
	PEU4	0,779	Valid		



<b>Self-Efficacy</b>	SE1	0,833	Valid	0,930	Reliable
	SE2	0,844	Valid		
	SE3	0,843	Valid		
	SE4	0,837	Valid		
	SE5	0,911	Valid		
<b>Security and Trust</b>	ST1	0,790	Valid	0,874	Reliable
	ST2	0,774	Valid		
	ST3	0,745	Valid		
	ST4	0,714	Valid		
	ST5	0,790	Valid		
<b>Switching Behavior</b>	SI1	0,754	Valid	0,765	Reliable
	SI2	0,703	Valid		
	SI3	0,708	Valid		

To propose the validity test of this research data using AMOS version 24 is a complete list of questions to represent each variable and item. The data is regarded to be legitimate if the loading value is greater than 0.5, (Ghozali.2017). The validity test findings revealed that all questions representing the five factors were effective with a value greater than 0.5.

According to Ghozali (2017), a test result is regarded to be reliable if the configuration reliability value is bigger than 0.7. The results of this test showed that each variable's C.R value is larger than 0.7. Based on these findings, it is possible to infer that all of the research instruments are trustworthy and can be employed in this study.

### 4.3. Analysis of Research Variable Data Description

Based on the data obtained, respondents' responses were recapitulated and then examined to determine a description of each variable's responses. This response description

revealed the respondent's thoughts on different research variables such as service quality, price perception, customer satisfaction, switching cost, and switching behavior. The respondents' responses were graded on a five-point Likert scale ranging from (1) Strongly Disagree to (5) Strongly Agree. As for the criterion calculation, it is as follows:

Lowest value: 1

Highest value: 5

$$\text{Interval} = (\text{higher value} - \text{highest value}) / \text{class interval}$$

$$\text{Interval} = (5 - 1) / 5 = 0,8$$

As a result, the assessment limitations for each variable are as follows:

**Table 4.6 Value Interval**

<b>Interval</b>	<b><i>Perceived Usefulness</i></b>	<b><i>Perceived Ease of Use</i></b>	<b><i>Self-Efficacy</i></b>	<b><i>Security and Trust</i></b>	<b><i>Switching Behavior</i></b>
1,00 - 1,79	Very poor	Very poor	Very inconvenient	Very untrusted	Very poor
1,80 – 2,59	Poor	Poor	Inconvenient	Untrusted	Poor
3,00 – 3,39	Moderate	Moderate	Moderate	Moderate	Moderate
3,40 – 4,19	Good	Good	Convenient	Trusted	Good
4,20 – 5,00	Very good	Very good	Very convenient	Very trusted	Very good

#### **4.3.1 Descriptive Analysis of Perceived Usefulness**

According to the responses obtained from respondents about service quality, the distribution of respondents' assessments of service quality characteristics is as given in Table 4.7 below:

**Table 4.7 Results of the Descriptive Analysis on perceived usefulness**

<b>Indicator</b>	<b>Mean</b>	<b>Criteria</b>
Using OVO application improves my transaction performance	3,93	good
using OVO application enables me to accomplish transaction more quickly	3,82	good
using the OVO application increase my convenience in transactions	3,93	good
Using OVO application increases my productivity	3,89	good
<b>Mean</b>	<b>3,89</b>	<b>good</b>

Based on the results of the descriptive analysis of the variables in Table 4.7, the average respondent's assessment of the *Perceived Usefulness* variable is 3.89. The lowest value for this variable is 3.80 in the second indicator, namely "using OVO application enables me to accomplish transactions more quickly". The highest scores were found in the first and third indicators, respectively 3.93, namely "Using OVO application improves my transaction performance" and "using the OVO application increased my convenience in transactions".

#### **4.3.2 Descriptive Analysis of Perceived ease of use**

According to the responses obtained from respondents about service quality, the distribution of respondents' assessments of pricing perception variables is as given in Table 4.8 below:

**Table 4.8 Results of the Descriptive Analysis on Perceived Ease of Use**

<b>Indicator</b>	<b>Mean</b>	<b>Criteria</b>
Using OVO application is easy in making instalments	3,81	good
Using OVO application is easy to learn how to use a non-cash payment system	3,80	good
Using OVO application is easy to operate the system according to what individuals want to do	3,86	good

Using OVO application does not need a large effort to make non-cash payments	3,78	good
<b>Mean</b>	<b>3,81</b>	<b>good</b>

Based on the results of the descriptive analysis of the variables in Table 4.8, the average respondent's assessment of the *Perceived Ease of Use* variable is **3.81**. The lowest value for this variable is 3.78 in the fourth indicator, namely Using OVO application does not need a large effort to make non-cash payments. The highest score for the third indicator is 3.86, namely Using OVO application is easy to operate the system according to what individuals want to do.

#### 4.3.3 Descriptive Analysis of self-efficacy

According to the responses obtained from respondents about people's motivation, the distribution of respondents' estimates of self-efficacy factors is as given in Table 4.9 below:

**Table 4.9 Results of the Descriptive Analysis on self-efficacy**

<b>Indicator</b>	<b>Mean</b>	<b>Criteria</b>
I think I am confident in finding information needed about non-cash payment.	3,99	Convenient
I think I am capable to use the system	4,00	Convenient
I think the OVO application suits my needs in transactions either it is offline or online transaction	4,01	Convenient
I use this application because of the many stores that are already affiliated with the OVO application	4,02	Convenient

I think I will recommend this application to people surrounding me who are not using this service yet	4,02	Convenient
<b>Mean</b>	<b>4,00</b>	<b>Convenient</b>

Based on the results of the descriptive analysis of the variables in Table 4.9, the average respondent's assessment of the Self Efficacy variable is 4.00. The lowest value for this variable is 3.99 in the second indicator, namely I think I am confident in finding information needed about non-cash payments. The highest value is the fourth and fifth indicators are 4.02, respectively, namely I use this application because of the many stores that are already affiliated with the OVO application and I think I will recommend this application to people surrounding me who are not using this service yet.

#### 4.3.4 Descriptive Analysis of security and trust

According to the responses obtained from respondents on security and trust, the distribution of respondents' assessments of each characteristic is as indicated in Table 4.10 below:

**Table 4.10 Results of the Descriptive Analysis on security and trust**

<b>Indicator</b>	<b>Mean</b>	<b>Criteria</b>
I trust that the service provider of a non-cash payment system is honest	3,78	trusted
I trust that the service provider of a non-cash payment system provides secure services in a transaction	3,84	trusted
I trust that the system provider is able to limit unauthorized people to access the payment system	3,78	trusted
I trust that my personal data is safe when using a non-cash payment service	3,78	trusted

I trust OVO application in overall online payment systems, and E-wallet services to keep my money and personal data	3,84	trusted
<b>Mean</b>	<b>3,80</b>	<b>trusted</b>

Based on the results of the descriptive analysis of the variables in Table 4.10, the average respondent's assessment of the **Security** variable is 3.80. The lowest value for this variable is 3.78 on the first, third and fourth indicators, namely I trust that the service provider of a non-cash payment system is honest, "I trust that the system provider is able to limit unauthorized people to access the payment system", and "I trust that my personal data is safe when using a non-cash payment service". The highest scores were found in the second and fifth indicators, respectively 3.84, namely I trust that the service provider of a non-cash payment system provides secure services in a transaction and I trust OVO application in overall online payment systems, and E-wallet services to keep my money and personal data.

#### 4.3.4 Descriptive Analysis of switching behavior

According to the respondent's answers that had been collected regarding switching behavior, it could be explained that the distribution of respondents' assessments of each variable is as shown in Table 4.11 below:

**Table 4.11 Results of the Descriptive Analysis on switching behavior**

<b>Indicator</b>	<b>Mean</b>	<b>Criteria</b>
I am rather be dissatisfied with cash-payment in a transaction	4,01	good
I am considering switching from traditional payments to proximity mobile payments in a physical store in the near future	4,06	good
My intention to use mobile payments in a physical store is high in the near future	4,00	good

<b>Mean</b>	<b>4,00</b>	<b>good</b>
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Based on the results of the descriptive analysis of the variables in Table 4.11, the average respondent's assessment of the Switching Behavior variable is 4.00. The lowest value for this variable is 4.00 in the third indicator, namely "My intention to use mobile payments in a physical store is high in the near future". The highest value found in the second indicator is 4.06, namely "I am considering switching from traditional payments to proximity mobile payments in a physical store in the near future".

#### 4.4 Structural Research Model Test

The results of the validity and reliability tests of each variable are shown in Table 4.12 below:

**Table 4.12 Structural Research Model Test (CFA)**

<b>Variable</b>	<b>indicators</b>	<b>Factor Loading</b>	<b>statement</b>	<b>Construct Reliability</b>	<b>statement</b>
<b>Perceived Usefulness</b>	PU1	0,783	Valid	0,871	Reliable
	PU2	0,765	Valid		
	PU3	0,824	Valid		
	PU4	0,798	Valid		
<b>Perceived Ease of Use</b>	PEU1	0,722	Valid	0,853	Reliable
	PEU2	0,794	Valid		
	PEU3	0,790	Valid		
	PEU4	0,772	Valid		
<b>Self-Efficacy</b>	SE1	0,831	Valid	0,930	Reliable
	SE2	0,847	Valid		
	SE3	0,835	Valid		
	SE4	0,844	Valid		

	SE5	0,912	Valid		
<b>Security and Trust</b>	ST1	0,792	Valid	0,873	Reliable
	ST2	0,764	Valid		
	ST3	0,740	Valid		
	ST4	0,711	Valid		
	ST5	0,801	Valid		
<b>Switching Behavior</b>	SI1	0,701	Valid	0,771	Reliable
	SI2	0,716	Valid		
	SI3	0,765	Valid		

Based on Table 4.12, it is known that the results of the CFA validity test show the factor loading value for all variable elements  $> 0.5$  and the construct reliability value for each variable  $> 0.7$ , thus all elements are validated and variables are declared reliable so that the results of this analysis can be used for further testing.

#### 4.5. SEM (Structural Equation Modelling) Analysis

Structural Equation Modeling abbreviated as SEM is a multivariate analysis method that is used to describe the simultaneous linear relationship between observed variables (indicators) and variables that cannot be measured directly Ghozali (2017). With reference to the previous problems and hypotheses, this study used the Structural Equation Model (SEM) method using Amos software version 24.

##### 4.5.1 Quality Data Test

**1) sample size:** It is said that 100 samples are required to apply the Maximum Likelihood (ML) technique (Ghozali.2017). Since 300 data were acquired for this study, the volume of data was sufficient. SEM AMOS software is used to carry out the following process.

**2) Data normality:** Normality test calculated using the AMOS tool, compare the value of the C.R. (critical ratio) on the evaluation of normalcy to 2.58, with a significance level of 0.01 (Ghozali.2017). The study data may be characterized



as normal if the CR value of the multivariate data is in the range 2.58. The following findings of the data normality test are displayed in Table 4.13:

**Table 4.13 Normality Data test**

Variable	min	max	skew	c.r.	kurtosis	c.r.
SI3	1.000	5.000	-.419	-2.703	-.131	-.422
SI2	1.000	5.000	-.598	-3.863	.314	1.014
SI1	2.000	5.000	-.460	-2.970	.186	.601
ST5	1.000	5.000	-.341	-2.198	-.190	-.612
ST4	1.000	5.000	-.329	-2.123	.573	1.849
ST3	2.000	5.000	-.034	-.217	-.647	-2.089
ST2	2.000	5.000	-.071	-.458	-.699	-2.256
ST1	1.000	5.000	-.378	-2.440	.421	1.360
SE5	1.000	5.000	-.889	-5.740	.532	1.718
SE4	1.000	5.000	-.696	-4.493	.438	1.413
SE3	1.000	5.000	-.717	-4.629	.126	.407
SE2	1.000	5.000	-.868	-5.603	.480	1.549
SE1	1.000	5.000	-.684	-4.415	.257	.829
PEU4	2.000	5.000	-.113	-.728	-.692	-2.235
PEU3	1.000	5.000	-.414	-2.672	-.285	-.919
PEU2	1.000	5.000	-.501	-3.231	.552	1.781
PEU1	1.000	5.000	-.442	-2.853	-.135	-.435
PU4	1.000	5.000	-.485	-3.129	-.048	-.155
PU3	1.000	5.000	-.578	-3.730	.235	.760
PU2	1.000	5.000	-.426	-2.752	.190	.613
PU1	1.000	5.000	-.487	-3.146	.023	.073
Multivariate					-7.513	-1.911

Based on the normality test table, the critical ratio (CR) of kurtosis (curl) and skewness is in the range of  $\pm 2.58$ , so that the majority of the univariate normality tests are normally distributed.

### 3) outlier evaluation:

Outliers are observations or data with distinctive features that stand out from other observations and show up as extreme values, either for a single variable or for a set of variables. A study of the multivariate outliers identified by the Mahalanobis Distance value can be used to assess the outliers. To calculate Mahalanobis Distance test is using the chi-square value on the standard of freedom of 20 indicators at the level of  $p < 0.001$  using the formula  $X^2(21; 0.001) = 46.797$ , This means that *all data/cases greater than 46,797 are*

*multivariate outliers*. The results of the outlier analysis can be seen in Table 4.14.

**Table 4.14 outlier evaluation test**

Observation number	Mahalanobis d-squared	p1	p2
108	40.783	.006	.776
117	36.923	.017	.929
118	36.664	.018	.840
113	36.441	.019	.720
218	36.151	.021	.605
238	35.592	.024	.568
105	35.164	.027	.517
217	34.332	.033	.597
9	34.213	.034	.491
121	33.790	.038	.485
65	31.876	.060	.892
167	31.739	.062	.857
36	31.237	.070	.895
120	30.453	.083	.960
23	30.373	.085	.942
143	30.349	.085	.910
210	29.956	.093	.934

Observation number	Mahalanobis d-squared	p1	p2
68	29.924	.094	.903
18	29.285	.107	.961
222	28.754	.120	.984
88	28.596	.124	.982
147	28.550	.125	.974
4	28.355	.130	.975
46	28.255	.133	.970
132	28.163	.136	.963
193	28.040	.139	.959
56	27.879	.144	.959
24	27.871	.144	.940
119	27.714	.148	.941
148	27.452	.156	.957
187	27.395	.158	.945
58	27.308	.161	.937
109	26.684	.182	.986
142	25.999	.206	.998
100	25.746	.216	.999
144	25.703	.218	.999
21	25.674	.219	.998
110	25.561	.224	.998
45	25.551	.224	.997

Observation number	Mahalanobis d-squared	p1	p2
233	25.551	.224	.995
8	25.512	.226	.994
16	25.428	.229	.993
48	25.387	.231	.991
92	25.224	.238	.993
26	25.151	.241	.991
129	25.113	.242	.989
235	25.113	.242	.983
62	24.785	.257	.993
107	24.774	.257	.990
172	24.763	.258	.986
245	24.763	.258	.980
157	24.729	.259	.974
189	24.631	.264	.975
78	24.617	.264	.966
66	24.565	.266	.961
124	24.431	.273	.966
97	24.355	.276	.964
86	24.340	.277	.953
229	24.301	.279	.945
22	24.221	.282	.943
84	24.203	.283	.928

Observation number	Mahalanobis d-squared	p1	p2
79	24.150	.286	.920
159	24.111	.288	.907
196	24.106	.288	.883
158	23.979	.294	.896
14	23.928	.297	.885
94	23.869	.299	.877
12	23.862	.300	.848
161	23.856	.300	.816
191	23.850	.300	.779
227	23.844	.301	.738
201	23.566	.315	.835
155	23.550	.315	.806
145	23.531	.316	.775
207	23.499	.318	.749
126	23.477	.319	.717
208	23.317	.327	.762
195	23.180	.334	.793
3	23.176	.335	.754
152	22.912	.349	.846
98	22.735	.358	.885
49	22.691	.361	.874
160	22.617	.365	.873

Observation number	Mahalanobis d-squared	p1	p2
133	22.534	.369	.877
239	22.534	.369	.847
60	22.455	.374	.850
57	22.405	.377	.840
35	22.392	.377	.813
122	22.335	.380	.805
111	22.259	.385	.807
198	22.257	.385	.770
194	22.187	.389	.770
76	22.139	.392	.757
47	22.050	.397	.767
182	21.967	.401	.774
34	21.947	.403	.746
209	21.792	.412	.794
214	21.783	.412	.761
186	21.750	.414	.739
112	21.693	.417	.732

In the table the results of the outlier test showed the value of the Mahalanobis distance, from the processed data there is no detected value greater than the value of 46,797. Thus, it can be concluded that *there are no outliers in the data.*

#### 4.5.2. Structural Model Identification

Some ways to see if there is a problem identification or not is to look at the results of the evaluation. SEM analysis can only be done if the model identification results showed that the model is in the over-identified category. This identification is done by looking at the (df) value of the model created.

**Table 4.15 Computation of Degrees Freedom (Default model)**

Number of distinct sample moments:	231
Number of distinct parameters to be estimated:	49
Degrees of freedom (231 - 49):	182

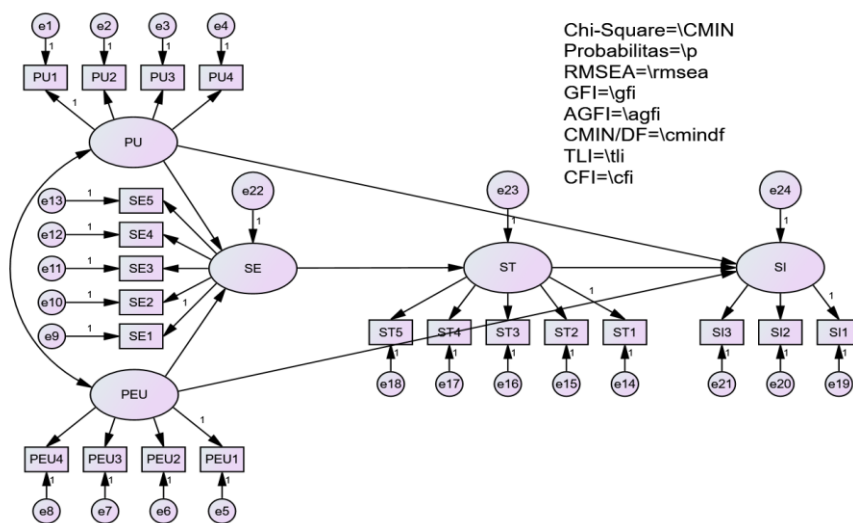
*Source: Results of primary data processing, 2022*

The results showed that the df value of the model was 182. This indicated that the model was in the over-identified category because the DF value of the model was positive. Therefore, the research can take data analysis to the next level.

#### 4.5.3. Structural Analysis

After each variable was tested and accepted, the next step was to estimate the full structural model. It can be done by inserting the indicators that are already tested with confirmatory factor analysis. The result of the structural model analysis can be seen from Figure 4.1 below.

**Figure 4.1 structural equation model**



#### 4.5.4. Goodness of Fit

Goodness of fit is done to find out how far the hypothesized model is fit the sample data. Goodness of fit is analysed through several criteria. The following are the results of goodness of fit shown in Table 4.16 below.

**Table 4.16 Goodness of Fit Index. Test Results**

Goodness of fit index	Cut-off value	Research model	Statement
Chi-Square ( $\chi^2$ )	Little	280,055	Marginal Fit
Probability	$\geq 0.05$	0,000	Marginal Fit
RMSEA	$\leq 0.08$	0,047	Good Fit
GFI	$\geq 0.90$	0,903	Good Fit
AGFI	$\geq 0.90$	0,877	Marginal Fit
CMIN/DF	$\leq 2.0$	1,539	Good Fit
TLI	$\geq 0.90$	0,965	Good Fit
CFI	$\geq 0.90$	0,970	Good Fit

Based on the overall goodness-of-fit measure described above, there were indicators that showed the marginal and results which fit from the research model.

It means that it is not necessary to modify the model. Nevertheless, the model proposed in this study is still acceptable because RMSEA, GFI, RMSEA, CMIN/DF, TLI and CFI all meet the fit criteria.

#### 4.5.5. Hypotheses Test

In this section, a hypothesis test was carried out to analyze the structural models that had been made. The process of testing the proposed hypothesis could be done by observing at the value of the standardized regression coefficient.

The statistical test process is shown in the table below. Data processing showed that if C.R showed a value is bigger than 1.96 and less than 0.05 to the p-value, then there is a positive relationship between variables (Ghozali, 2016). The result is shown at table 4.17 below:

**Table 4.17 Hypothesis Test Results**

No	Hypothesis	Estimate	C.R.	P	limits	statement
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1	perceived usefulness has positive influence toward self-efficacy	0,509	7,204	0,000	0,05	accepted
2	perceived ease of use has positive influence toward self-efficacy	0,544	7,174	0,000	0,05	accepted
3	self-efficacy has positive influence toward security and trust	0,343	5,768	0,000	0,05	accepted
4	Perceived usefulness has positive influence toward switching behavior	0,164	2,737	0,006	0,05	accepted
5	Perceived ease of use has positive influence toward switching behavior	0,194	3,135	0,002	0,05	accepted
6	Security and trust have positive influence toward switching behavior	0,486	7,888	0,000	0,05	accepted

Based on the table above, the results of the regression weight test can be seen which can explain the coefficient of influence between the related variables. The results of the regression weight analysis shown as follows:

**1. Perceived usefulness has positive impacts toward self-efficacy**

The parameter value of the estimated regression weight coefficient is 0.509, which indicated that the relationship between Perceived Usefulness and Self-Efficacy is positive. This showed that the better Perceived Usefulness increased Self-Efficacy. Testing the relationship between the two variables showed that a C.R value of 7.204 > 1.96 and a probability value of 0.000 ( $p < 0.05$ ), it meant hypothesis 1 which stated perceived usefulness has positive influence toward self-efficacy is *accepted*.

**2. Perceived ease of use has positive impacts toward self-efficacy**

The parameter value of the estimated regression weight coefficient is 0.544, which indicated that the relationship between Perceived Ease of Use and Self-Efficacy was positive. It meant that the better Perceived Ease of Use increased Self-Efficacy. Testing the relationship between the two variables showed that a C.R value of 7.174 > 1.96 and a probability value of 0.000 ( $p < 0.05$ ), it meant hypothesis 2 which

stated perceived ease of use has a positive influence toward self-efficacy is *accepted*.

**3. Self-efficacy has positive impacts toward security and trust**

The parameter value of the estimated regression weight coefficient is 0.343, which indicated that the relationship between Self-Efficacy and Security and Trust was positive. This showed that *the better Self-Efficacy increased Security and Trust*. Testing the relationship between the two variables showed that a C.R value of 5.768 > 1.96 and a probability value of 0.000 ( $p < 0.05$ ), it meant that hypothesis 3 which stated self-efficacy has positive influence toward security and trust is *accepted*.

**4. Perceived usefulness has positive impacts toward switching behavior**

The parameter value of the estimated regression weight coefficient is 0.164, which indicated that the relationship between *Perceived Usefulness and Switching Behavior is positive*. It meant that the better Perceived Usefulness increased Switching Behavior. Testing the relationship between the two variables has shown the result: a C.R value of 2.737 > 1.96 and a probability value of 0.006 ( $p < 0.05$ ), thus hypothesis 4 which stated Perceived usefulness has a positive influence toward switching behavior is *accepted*.

**5. Perceived ease of use has positive impacts toward switching behavior**

The parameter value of the estimated regression weight coefficient is 0.194, which indicated that the relationship between *Perceived Ease of Use and Switching Behavior is positive*. This result means that the better Perceived Ease of Use increased Switching Behavior. Testing the relationship between the two variables has shown the result a C.R value of 3.135 > 1.96 and a probability value of 0.002 ( $p < 0.05$ ), this meant hypothesis 5 which stated Perceived ease of use has a positive influence toward switching behavior is *accepted*.

**6. Security and trust have positive impacts toward switching behavior**

The parameter value of the estimated regression weight coefficient is 0.486, which indicated that the relationship between *Security and Trust and Switching Behavior is positive*. This shown that the better Security and Trust increased Switching Behavior. The testing relationship between the two variables has shown the result a C.R value of 7.888 > 1.96 and a probability value of 0.000 ( $p < 0.05$ ), thus hypothesis 6 which stated Security and trust have a positive influence toward switching behavior is *accepted*.

## 4.6 discussion

After testing the hypotheses based on research findings, then the following discussion can be drawn.

### 1. The influence of perceived usefulness toward self-efficacy

The results showed that perceived usefulness has a positive and significant effect on self-efficacy. This result is evidenced by the estimated regression weight value of 0.509 which is positive and the probability value of 0.000 which is smaller than 0.05. This meant that the better the performance and benefits felt by the user, the higher the perceived self-efficacy. Customers believed that they are able to use the OVO e-wallet service in making payments. Users felt that the benefits of OVO are considered good and the service able to meet their needs in transactions. Users did not need to carry a lot of cash when shopping and did not have to worry about calculating the change for the excess of the nominal issued by customers. This is in line with previous research by Nasution (2020) which stated that the perception of benefits had a positive and significant effect on self-efficacy.

### 2. The influence of perceived ease of use toward self-efficacy

The results showed that perceived ease of use has a positive and significant effect on self-efficacy. This result is evidenced by the estimated regression weight value of 0.544 which is positive and the probability value of 0.000 which is smaller than 0.05. This meant that the better the ease with which users feel in transacting using the OVO application, the higher self-efficacy. Information technology development is able to create an innovation to make it easier for users to meet their needs. The use of digital wallet services is considered to have high flexibility in providing the convenience of required payment transactions. The use of OVO services is also considered easy to use and did not require significant effort, thereby increasing the self-efficacy of users. This is in line with previous research by Jiat, et.al., (2013) which proved that the convenience felt by users of digital services had a positive effect on self-efficacy.

### 3. The influence of self-efficacy toward security and trust

The results showed that self-efficacy use had a positive and significant effect on security and trust. This result is evidenced by the estimated regression weight value of 0.343 which is positive and the probability value of 0.000 which is smaller than 0.05. This meant that the better the user's self-efficacy is able to affect his sense

of security and trust in OVO application services. User self-efficacy is an important factor in ensuring the effectiveness of information technology security and increasing trust in the system. Good self-efficacy from users who are able to know the working system of a digital wallet service affected their sense of security and trust from within. The OVO application is one of the digital wallet services used by the public. More and more OVO users were able to influence their level of self-efficacy and increased confidence that the services they use have good and reliable security. This is in line with research by Ryu, et.al, (2009) which proved that self-efficacy had a positive and significant influence on perceptions of security and trust in information technology services.

4. The influence perceived usefulness toward switching behavior

The results showed that perceived usefulness had a positive and significant effect on switching behavior. This result is evidenced by the estimated regression weight value of 0.164 which is positive and the probability value of 0.006 which is smaller than 0.05. This meant that the better the perception of the benefits felt by the user, the more interest he or she switched to using the OVO application service. Users feel that the OVO digital wallet service can function and be used properly in transactions. Users also felt that the OVO digital wallet service on the payment website is faster and more precise than conventionally, so users felt helped by the service. In line with previous research from Cheng et al. (2019) which proved that perceived usefulness had a positive and significant impact on interest in switching to digital wallet services.

5. The influence of perceived ease of use toward switching behavior

The results showed that perceived ease of use had a positive and significant effect on switching behavior. This result is evidenced by the estimated regression weight value of 0.194 which is positive and the probability value of 0.002 which is smaller than 0.05. This meant that the better the perception of convenience felt by the user, the more interest he or she switched to using the OVO application service. One of the reasons underlying the movement of payment methods from conventional to digital is the ease of use. The use of digital wallet technology services is considered easy and did not require a difficult effort to operate. Users did not need to carry a lot of money needed as a sign of payment in transactions. This is in line with previous research by Karjaluoto (2019) which proved that the

perception of user convenience had a positive impact on interest in switching to digital wallet services.

6. The influence of security and trust toward switching behavior

The results showed that security and trust had a positive and significant effect on switching behavior. This result is evidenced by the estimated regression weight value of 0.486 which is positive and the probability value of 0.000 which is smaller than 0.05. This meant that the better the level of security and trust felt by the user, the more interest he or she switched to using the OVO digital wallet service. Guaranteed security and trust from a system is an important consideration for people in using it. This is because the use of digital wallet services for payment facilities is considered to have unpredictable risks because these services are intangible and not physical. The OVO application service has a high security system that supports its performance activities in transactions. Users believed that OVO is a safe and reliable tool as a means of payment and digital money storage that is able to encourage the movement of usage from conventional to digital. This is in line with previous research by Fahmi and Evanita (2019) which proved that the security of the electronic payment system had a positive effect on the interest in switching the use of electronic transactions.



## CHAPTER V

### Conclusion

#### 5.1 conclusion

Based on the results of the analysis and discussion in this study about Survey on benefits of digital payment, switching consumer behavior in using OVO application as a tool of payment transaction which has been described in the previous chapter, the author can draw several conclusions as follows:

1. Perceived Usefulness had a positive and significant effect on Self-Efficacy on OVO application users. The use of the OVO application as a payment transaction is considered better by the respondents, the higher the self-efficacy of the respondents.
2. Perceived Ease of Use had a positive and significant effect on Self-Efficacy of OVO application users. The OVO application is considered easy to use and efficient, this increases the trust of users to use it as a means for payment for their transactions.
3. Self-Efficacy had a positive and significant effect on Security and Trust for OVO application users. The use of OVO application services has the belief that OVO is easy to learn and has good benefits, thereby increasing the trust felt by users.
4. Perceived Usefulness had a positive and significant effect on Switching Behavior on OVO application users. The use of the OVO application is considered to be able to assist the financial transaction activities needed by the user. This encouraged him to switch to using the OVO application as a means of payment compared to conventional methods.
5. Perceived Ease of Use had a positive and significant effect on Switching Behavior on OVO application users. OVO application users felt that the application can be easily used without excessive effort.

This increased their desire to use the OVO application for transactions.

6. Security and Trust had a positive and significant effect on Switching Behavior on OVO application users. OVO application users perceived that OVO is able to guarantee data and transaction security which made users

had a high trust in the OVO application. Higher trust is able to encourage them to switch to the OVO application in financial transactions.

### **5.2. Managerial implication**

Based on the results of the analysis in this study, perceived benefits influenced people's self-efficacy and people's behavior moved to the OVO application for payment transactions. It is hoped that OVO service providers will be able to more aggressively campaign for the benefits and advantages of using the OVO application as a means of payment that has high security and efficiency. This is because it will be very useful for users in payment transactions.

The public is also expected to be able to learn about the use and benefits of the OVO digital wallet in making transactions. Thus, the public can gain knowledge about the benefits and uses of OVO services in safe, easy and efficient transactions compared to using money in conventional transactions.

### **5.3. Limitation and suggestion**

Based on the process and results of the research that has been done, the researcher realizes that there are still some limitations experienced and need to be improved in future research. Some of the limitations experienced by researchers, among others:

1. Data collection is done online using Google Form which is based on respondents' perceptions of the variables studied, thus the conclusions obtained are only based on the results of the questionnaire and have not been supported by direct opinions through interviews. Future research is expected to add direct interview methods to obtain data that can support research results.
2. Data collection is one-way and the researcher did not interact directly with the respondents. This allows for misunderstanding of the questions asked and the filling of answers that are not in actual conditions. Future research, if possible, can carry out direct distribution to respondents, thereby minimizing respondents' misunderstanding of the questions asked and getting data that is even better in describing conditions in the field.



3. The study was only conducted on the use of the OVO e-wallet application service in Yogyakarta, so it has not described the conditions for other e-wallet services. Thus, future researchers are expected to be able to conduct research on other e-wallet services, for example: Shopee pay, go-pay, DANA, and others. As well as expanding the scope of research with a larger number of samples.



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### Section A

1. Gender
  - Male
  - Female
2. Age
  - 18 – 20
  - 21 – 22
  - > 23
3. Monthly income:
  - Rp. 500.000 – Rp. 999.000
  - Rp. 1.000.000 – Rp. 1.499.000
  - > Rp. 1.500.000
4. Have you ever used OVO application as a tool of payment transaction? (cash-to cashless)

### Section B

Instruction:

Please select one of the available options according to your situation.

Information:

1. Strongly Disagree

2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

There are no right or wrong answers in this questionnaire. We also did not ask for names and identities. Please be able to fill in the answer options according to yourself.

1. Perceived usefulness

no	question	response				
		1	2	3	4	5
1	Using OVO application improves my transaction performance					
2	Using OVO application is easy to learn how to use a non-cash payment system					
3	Using OVO application is easy to operate the system according to what individuals want to do					
4	Using OVO application does not need a large effort to make non-cash payments					

2. Perceived ease of use

no	question	response				
		1	2	3	4	5

1	Using OVO application is easy in making installments					
2	Using OVO application is easy to learn how to use a non-cash payment system					
3	Using OVO application is easy to operate the system according to what individuals want to do					
4	Using OVO application does not need a large effort to make non-cash payments					

### 3. Self-efficacy

no	question	response				
		1	2	3	4	5
1	I think I am confidence in finding information needed about non-cash payment.					
2	I think I am capable to use the system					
3	I think the OVO application suits my needs in transactions either it is offline or online transaction					
4	I use this application because of the many stores that are already affiliated with the OVO application					

5	I think I will recommend this application to people surrounding me who are not using this service yet					
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#### 4. Security and trust

no	question	response				
		1	2	3	4	5
1	I trust that the service provider of a non-cash payment system is honest					
2	I trust that the service provider of a non-cash payment system provides secure services in a transaction					
3	I trust that the system provider is able to limit unauthorized people to access the payment system					
4	I trust that my personal data is safe when using a non-cash payment service					
5	I trust OVO application in overall online payment systems, and E-wallet services to keep my money and personal data					

#### 5. Switching intention

no	question	response				
		1	2	3	4	5

1	I am rather be dissatisfied with cash-payment in a transaction					
2	I am considering switching from traditional payments to proximity mobile payments in a physical store in the near future					
3	My intention to use mobile payments in a physical store is high in the near future					

**Attachment 2 instrument test data**



	Perceived usefulness				Perceived ease of use					Self-efficacy					Security and trust					Switching intention						
	PU1	PU2	PU3	PU4	PU	PEU1	PEU2	PEU3	PEU4	PEU	SE1	SE2	SE3	SE4	SE5	SE	ST1	ST2	ST3	ST4	ST5	ST	SI1	SI2	SI3	SI
1	5	5	5	5	20	5	4	4	5	18	5	5	4	4	5	23	4	4	5	4	5	22	4	5	5	14
2	5	3	5	5	18	5	5	4	3	17	5	5	5	2	5	22	2	5	5	5	5	22	5	5	5	15
3	5	5	5	5	20	5	4	3	3	15	4	5	4	4	4	21	5	5	4	5	4	23	4	4	5	13
4	4	4	4	4	16	4	4	4	4	16	5	5	5	5	5	25	5	5	5	5	5	25	5	5	3	13
5	3	3	3	3	12	3	4	4	4	15	5	4	4	4	5	22	4	4	4	3	4	19	4	4	4	12
6	5	5	5	5	20	5	5	5	5	20	5	5	5	4	5	24	4	4	4	4	4	20	4	5	4	13
7	3	3	4	5	15	5	5	5	5	20	5	5	5	3	5	23	5	4	3	3	3	18	2	4	2	8
8	3	3	3	3	12	4	4	4	4	16	4	3	3	3	4	17	3	3	3	4	3	16	3	3	4	10
9	4	5	5	5	19	5	5	5	5	20	5	5	5	4	5	24	5	5	5	4	5	24	3	4	5	12
10	4	4	4	5	17	4	4	4	4	16	4	5	4	5	4	22	5	4	5	4	5	23	4	4	5	13
11	4	4	4	4	16	4	4	4	4	16	4	3	3	4	4	18	4	3	3	4	4	18	4	3	4	11
12	5	5	5	5	20	5	5	5	5	20	5	5	5	5	5	25	5	5	5	5	5	25	5	5	5	15
13	4	4	3	3	14	4	4	5	5	18	4	5	3	3	4	19	4	4	4	3	4	19	4	4	5	13
14	5	5	5	5	20	5	5	5	5	20	5	5	5	5	5	25	5	5	5	5	5	25	5	5	5	15
15	5	5	4	3	17	4	4	5	5	18	4	5	5	5	4	23	5	4	4	4	5	22	3	4	4	11
16	3	4	3	3	13	5	3	3	3	14	4	4	5	4	4	21	5	5	4	3	5	22	3	4	3	10
17	4	4	4	4	16	4	5	5	5	19	5	4	5	4	4	22	5	5	5	5	5	25	4	4	3	11
18	5	4	5	4	18	5	4	5	5	19	5	5	5	5	5	25	5	5	5	5	5	25	5	5	5	15
19	5	5	5	5	20	5	5	5	5	20	5	5	5	5	5	25	4	4	5	5	4	22	5	5	5	15
20	2	2	2	2	8	5	5	5	5	20	5	5	5	5	5	25	5	5	5	5	5	25	5	5	5	15
21	4	4	4	4	16	4	4	4	4	16	5	5	5	5	5	25	5	5	5	5	5	25	5	5	5	15
22	5	4	4	5	18	4	4	3	5	16	4	5	4	5	5	23	4	5	4	5	4	22	4	4	5	13
23	5	4	5	5	19	5	5	4	3	17	4	5	5	4	5	23	5	5	4	5	5	24	5	4	5	14
24	5	5	4	4	18	5	4	5	4	18	5	5	4	5	5	24	5	5	4	5	5	24	5	4	4	13
25	5	5	5	5	20	5	5	5	5	20	5	5	5	5	5	25	5	5	5	5	5	25	5	5	3	13
26	2	2	2	4	10	3	4	4	4	15	4	4	4	4	4	20	4	5	5	3	3	20	3	4	3	10
27	3	3	3	3	12	4	3	3	3	13	4	4	4	4	4	20	3	3	4	3	3	16	3	4	3	10
28	4	5	4	4	17	4	5	4	4	17	4	4	4	4	4	20	4	4	4	4	4	20	4	4	4	12
29	5	5	5	5	20	5	5	5	5	20	5	5	5	5	5	25	5	5	5	5	5	25	5	5	5	15
30	3	4	3	4	14	4	3	4	4	15	3	4	4	4	4	19	4	3	4	4	4	19	3	4	3	10
31	5	5	5	5	20	5	5	5	5	20	5	5	5	5	5	25	5	5	5	5	5	25	5	5	5	15
32	4	4	4	4	16	4	5	5	5	19	5	5	5	5	5	25	5	5	5	5	5	25	5	5	5	15
33	5	5	5	5	20	4	5	5	5	19	5	5	3	4	3	20	5	5	5	4	4	23	5	4	4	13
34	4	4	3	4	15	4	4	3	4	15	4	3	4	4	4	19	5	4	4	4	4	21	4	4	4	12
35	4	5	3	4	16	4	5	5	5	19	5	5	5	5	5	25	5	5	5	5	5	25	4	5	5	14
36	4	5	4	5	18	5	5	5	5	20	5	5	4	5	4	23	5	5	4	4	4	22	5	5	5	15
37	3	3	3	3	12	3	4	3	4	14	4	3	3	4	3	17	4	3	4	3	4	18	3	3	4	10
38	4	3	3	4	14	4	4	3	4	15	4	4	5	4	5	22	4	4	5	4	5	22	3	4	5	12
39	4	4	4	4	16	4	5	5	5	19	5	4	4	4	4	21	5	5	4	5	4	23	5	4	5	14
40	4	5	4	4	17	5	5	4	4	18	5	4	3	4	3	19	5	4	5	5	5	24	4	4	4	12
41	5	5	5	5	20	5	5	5	5	20	4	5	5	5	5	24	5	4	4	4	4	21	5	5	5	15
42	3	4	3	2	12	5	5	5	5	20	5	5	5	5	5	25	5	5	5	5	5	25	5	5	5	15
43	5	5	5	5	20	5	5	5	5	20	4	4	4	4	4	20	4	4	4	4	4	20	3	4	4	11
44	5	4	2	3	14	5	5	5	5	20	5	5	4	4	4	22	4	4	3	2	4	17	5	2	1	8
45	3	3	3	3	12	3	3	3	3	12	2	3	2	2	3	12	3	3	3	3	3	15	3	3	3	9
46	5	4	4	4	17	4	5	4	4	17	5	3	4	4	4	20	4	4	3	5	4	20	4	4	4	12
47	3	4	4	3	14	5	4	4	5	18	5	5	4	4	4	22	5	5	5	4	5	24	3	3	4	10
48	5	5	4	5	19	5	5	4	4	18	5	5	5	4	5	24	5	4	4	4	4	21	5	5	4	14
49	5	5	5	5	20	5	5	5	5	20	5	5	5	5	5	25	5	5	5	5	5	25	5	5	5	15
50	5	5	5	5	20	5	5	5	5	20	5	5	5	5	5	25	5	5	5	5	5	25	5	5	5	15

Attachment 3 Validity and Reliability Instrument Test Data

Perceived usefulness

**Correlations**

		PU1	PU2	PU3	PU4	PU
PU1	Pearson Correlation	1	.749**	.762**	.680**	.902**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	50	50	50	50	50
PU2	Pearson Correlation	.749**	1	.694**	.573**	.849**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	50	50	50	50	50
PU3	Pearson Correlation	.762**	.694**	1	.794**	.922**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	50	50	50	50	50
PU4	Pearson Correlation	.680**	.573**	.794**	1	.863**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	50	50	50	50	50
PU	Pearson Correlation	.902**	.849**	.922**	.863**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	50	50	50	50	50

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Reliability Statistics

Cronbach's Alpha	N of Items
.907	4





Perceived ease of use

**Correlations**

		PEU1	PEU2	PEU3	PEU4	PEU
PEU1	Pearson Correlation	1	.487**	.452**	.309*	.677**
	Sig. (2-tailed)		.000	.001	.029	.000
	N	50	50	50	50	50
PEU2	Pearson Correlation	.487**	1	.689**	.557**	.835**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	50	50	50	50	50
PEU3	Pearson Correlation	.452**	.689**	1	.776**	.908**
	Sig. (2-tailed)	.001	.000		.000	.000
	N	50	50	50	50	50
PEU4	Pearson Correlation	.309*	.557**	.776**	1	.824**
	Sig. (2-tailed)	.029	.000	.000		.000
	N	50	50	50	50	50
PEU	Pearson Correlation	.677**	.835**	.908**	.824**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	50	50	50	50	50

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Reliability Statistics

Cronbach's Alpha	N of Items
.830	4

Self-efficacy

**Correlations**

		SE1	SE2	SE3	SE4	SE5	SE
SE1	Pearson Correlation	1	.533**	.528**	.425**	.497**	.737**
	Sig. (2-tailed)		.000	.000	.002	.000	.000
	N	50	50	50	50	50	50
SE2	Pearson Correlation	.533**	1	.606**	.475**	.608**	.807**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	50	50	50	50	50	50
SE3	Pearson Correlation	.528**	.606**	1	.520**	.803**	.873**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	50	50	50	50	50	50
SE4	Pearson Correlation	.425**	.475**	.520**	1	.441**	.730**
	Sig. (2-tailed)	.002	.000	.000		.001	.000
	N	50	50	50	50	50	50
SE5	Pearson Correlation	.497**	.608**	.803**	.441**	1	.836**
	Sig. (2-tailed)	.000	.000	.000	.001		.000
	N	50	50	50	50	50	50
SE	Pearson Correlation	.737**	.807**	.873**	.730**	.836**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	50	50	50	50	50	50

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Reliability Statistics

Cronbach's Alpha	N of Items
.855	5

Security and trust

**Correlations**

		ST1	ST2	ST3	ST4	ST5	ST
ST1	Pearson Correlation	1	.579**	.378**	.383**	.518**	.710**
	Sig. (2-tailed)		.000	.007	.006	.000	.000
	N	50	50	50	50	50	50
ST2	Pearson Correlation	.579**	1	.626**	.579**	.612**	.847**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	50	50	50	50	50	50
ST3	Pearson Correlation	.378**	.626**	1	.531**	.698**	.803**
	Sig. (2-tailed)	.007	.000		.000	.000	.000
	N	50	50	50	50	50	50
ST4	Pearson Correlation	.383**	.579**	.531**	1	.604**	.789**
	Sig. (2-tailed)	.006	.000	.000		.000	.000
	N	50	50	50	50	50	50
ST5	Pearson Correlation	.518**	.612**	.698**	.604**	1	.852**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	50	50	50	50	50	50
ST	Pearson Correlation	.710**	.847**	.803**	.789**	.852**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	50	50	50	50	50	50

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Reliability Statistics

Cronbach's Alpha	N of Items
.857	5

Switching behavior

**Correlations**

		SI1	SI2	SI3	SI
SI1	Pearson Correlation	1	.560**	.419**	.804**
	Sig. (2-tailed)		.000	.002	.000
	N	50	50	50	50
SI2	Pearson Correlation	.560**	1	.556**	.836**
	Sig. (2-tailed)	.000		.000	.000
	N	50	50	50	50
SI3	Pearson Correlation	.419**	.556**	1	.821**
	Sig. (2-tailed)	.002	.000		.000
	N	50	50	50	50
SI	Pearson Correlation	.804**	.836**	.821**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	50	50	50	50

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Reliability Statistics**

Cronbach's Alpha	N of Items
.748	3

Attachment 4 Data Analysis



	Perceived usefulness				Perceived ease of use				Self-efficacy					Security and trust					Switching intention		
	PU1	PU2	PU3	PU4	PEU1	PEU2	PEU3	PEU4	SE1	SE2	SE3	SE4	SE5	ST1	ST2	ST3	ST4	ST5	SI1	SI2	SI3
1	4	4	4	5	4	3	4	4	4	3	3	4	3	3	3	4	4	3	4	3	3
2	3	3	4	3	5	4	5	5	3	4	4	4	4	3	4	4	4	3	3	4	4
3	4	4	4	5	5	5	4	5	4	5	5	5	4	4	4	4	5	5	5	4	4
4	5	5	4	4	4	5	5	4	5	4	5	4	5	4	4	4	5	5	4	5	5
5	4	4	4	4	4	4	4	4	5	4	5	4	4	4	5	4	4	5	4	4	4
6	5	4	5	5	4	5	5	4	5	5	4	5	5	5	4	4	4	4	5	4	4
7	5	4	5	5	5	4	5	5	4	4	4	4	5	3	4	4	4	4	4	3	4
8	3	3	3	3	5	4	5	5	3	4	3	4	3	4	4	3	4	3	3	4	4
9	5	4	4	5	5	4	5	5	4	5	5	5	4	4	4	5	5	5	5	5	3
10	5	5	5	5	5	4	4	5	4	5	5	5	5	4	5	5	5	4	4	5	5
11	3	3	3	3	4	4	3	3	3	3	3	3	3	3	3	4	4	3	3	4	3
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14	4	4	5	5	4	4	4	5	5	5	5	5	4	4	4	3	4	3	5	5	4
15	3	3	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
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250	5	4	5	4	4	5	5	4	4	5	4	4	4	4	3	4	3	4	5	4

Attachment 5 Frequency Respondent Count Data

gender	frequency	percentage
male	152	50,70%
female	148	49,30%
total	300	100%

age	frequency	percentage
18-20	100	33,30%
21-23	177	59%
>23	23	7,70%
total	300	100%

semester	frequency	percentage
4	64	21,30%
6	84	28,70%
8	144	48%
10	6	2%
total	300	100%

income	frequency	percentage
Rp. 500.000 - 999.000	74	24,70%
Rp. 1.000.000 - 1.500.000	182	60,70%
Rp. Rp. > 1.500.000	44	14,70%
total	300	100%

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
SE <--- PU	.471
SE <--- PEU	.496
ST <--- SE	.402
SI <--- PEU	.250
SI <--- PU	.214
SI <--- ST	.587
PU1 <--- PU	.783
PU2 <--- PU	.765
PU3 <--- PU	.824
PU4 <--- PU	.798
PEU1 <--- PEU	.722
PEU2 <--- PEU	.794
PEU3 <--- PEU	.790
PEU4 <--- PEU	.772
SE1 <--- SE	.831
SE2 <--- SE	.847
SE3 <--- SE	.835
SE4 <--- SE	.844
SE5 <--- SE	.912
ST1 <--- ST	.792
ST2 <--- ST	.764
ST3 <--- ST	.740
ST4 <--- ST	.711
ST5 <--- ST	.801
SI1 <--- SI	.701
SI2 <--- SI	.716
SI3 <--- SI	.765

Assessment of normality (Group number 1)

Variable	min	max	skew	c.r.	kurtosis	c.r.
SI3	1.000	5.000	-.419	-2.703	-.131	-.422
SI2	1.000	5.000	-.598	-3.863	.314	1.014
SI1	2.000	5.000	-.460	-2.970	.186	.601
ST5	1.000	5.000	-.341	-2.198	-.190	-.612
ST4	1.000	5.000	-.329	-2.123	.573	1.849
ST3	2.000	5.000	-.034	-.217	-.647	-2.089
ST2	2.000	5.000	-.071	-.458	-.699	-2.256
ST1	1.000	5.000	-.378	-2.440	.421	1.360
SE5	1.000	5.000	-.889	-5.740	.532	1.718
SE4	1.000	5.000	-.696	-4.493	.438	1.413
SE3	1.000	5.000	-.717	-4.629	.126	.407
SE2	1.000	5.000	-.868	-5.603	.480	1.549
SE1	1.000	5.000	-.684	-4.415	.257	.829
PEU4	2.000	5.000	-.113	-.728	-.692	-2.235
PEU3	1.000	5.000	-.414	-2.672	-.285	-.919
PEU2	1.000	5.000	-.501	-3.231	.552	1.781
PEU1	1.000	5.000	-.442	-2.853	-.135	-.435
PU4	1.000	5.000	-.485	-3.129	-.048	-.155
PU3	1.000	5.000	-.578	-3.730	.235	.760
PU2	1.000	5.000	-.426	-2.752	.190	.613
PU1	1.000	5.000	-.487	-3.146	.023	.073

Variable	min	max	skew	c.r.	kurtosis	c.r.
Multivariate					-7.513	-1.911

### Outlier evaluation

Function Arguments

CHIINV

Probability: 0.001 = 0.001

Deg\_freedom: 21 = 21

= 46.79703804

This function is available for compatibility with Excel 2007 and earlier.  
Returns the inverse of the right-tailed probability of the chi-squared distribution.

**Deg\_freedom** is the number of degrees of freedom, a number between 1 and 10<sup>10</sup>, excluding 10<sup>10</sup>.

Formula result = -46.79703804

[Help on this function](#) [OK] [Cancel]

### Observations farthest from the centroid (Mahalanobis distance) (Group number 1)

Observation number	Mahalanobis d-squared	p1	p2
108	40.783	.006	.776
117	36.923	.017	.929
118	36.664	.018	.840
113	36.441	.019	.720
218	36.151	.021	.605
238	35.592	.024	.568
105	35.164	.027	.517
217	34.332	.033	.597



Observation number	Mahalanobis d-squared	p1	p2
9	34.213	.034	.491
121	33.790	.038	.485
65	31.876	.060	.892
167	31.739	.062	.857
36	31.237	.070	.895
120	30.453	.083	.960
23	30.373	.085	.942
143	30.349	.085	.910
210	29.956	.093	.934
68	29.924	.094	.903
18	29.285	.107	.961
222	28.754	.120	.984
88	28.596	.124	.982
147	28.550	.125	.974
4	28.355	.130	.975
46	28.255	.133	.970
132	28.163	.136	.963
193	28.040	.139	.959
56	27.879	.144	.959
24	27.871	.144	.940

Observation number	Mahalanobis d-squared	p1	p2
119	27.714	.148	.941
148	27.452	.156	.957
187	27.395	.158	.945
58	27.308	.161	.937
109	26.684	.182	.986
142	25.999	.206	.998
100	25.746	.216	.999
144	25.703	.218	.999
21	25.674	.219	.998
110	25.561	.224	.998
45	25.551	.224	.997
233	25.551	.224	.995
8	25.512	.226	.994
16	25.428	.229	.993
48	25.387	.231	.991
92	25.224	.238	.993
26	25.151	.241	.991
129	25.113	.242	.989
235	25.113	.242	.983
62	24.785	.257	.993

Observation number	Mahalanobis d-squared	p1	p2
107	24.774	.257	.990
172	24.763	.258	.986
245	24.763	.258	.980
157	24.729	.259	.974
189	24.631	.264	.975
78	24.617	.264	.966
66	24.565	.266	.961
124	24.431	.273	.966
97	24.355	.276	.964
86	24.340	.277	.953
229	24.301	.279	.945
22	24.221	.282	.943
84	24.203	.283	.928
79	24.150	.286	.920
159	24.111	.288	.907
196	24.106	.288	.883
158	23.979	.294	.896
14	23.928	.297	.885
94	23.869	.299	.877
12	23.862	.300	.848

Observation number	Mahalanobis d-squared	p1	p2
161	23.856	.300	.816
191	23.850	.300	.779
227	23.844	.301	.738
201	23.566	.315	.835
155	23.550	.315	.806
145	23.531	.316	.775
207	23.499	.318	.749
126	23.477	.319	.717
208	23.317	.327	.762
195	23.180	.334	.793
3	23.176	.335	.754
152	22.912	.349	.846
98	22.735	.358	.885
49	22.691	.361	.874
160	22.617	.365	.873
133	22.534	.369	.877
239	22.534	.369	.847
60	22.455	.374	.850
57	22.405	.377	.840
35	22.392	.377	.813

Observation number	Mahalanobis d-squared	p1	p2
122	22.335	.380	.805
111	22.259	.385	.807
198	22.257	.385	.770
194	22.187	.389	.770
76	22.139	.392	.757
47	22.050	.397	.767
182	21.967	.401	.774
34	21.947	.403	.746
209	21.792	.412	.794
214	21.783	.412	.761
186	21.750	.414	.739
112	21.693	.417	.732

**Model fit summary**

**Computation of degrees of freedom (Default model)**

**CMIN**

Model	NPA R	CMIN	DF	P	CMIN/ DF
Default model	49	280.05 5	18 2	.00 0	1.539
Saturated model	231	.000	0		
Independence model	21	3449.7 67	21 0	.00 0	16.427

**RMR,GFI**

Model	RM R	GFI	AG FI	PG FI
Default model	.029	.903	.877	.712
Saturated model	.000	1.00 0		
Independence model	.287	.222	.145	.202

**Baseline comparisons**

Model	NFI Delta 1	RF I rho 1	IFI Delta 2	TL I rho 2	CFI
Default model	.919	.90 6	.970	.96 5	.970
Saturated model	1.00 0		1.00 0		1.00 0
Independence model	.000	.00 0	.000	.00 0	.000

**RMSEA**

Model	RMSE A	LO 90	HI 90	PCLO SE
Default model	.047	.035	.057	.696
Independence model	.249	.242	.256	.000

Hypothesis test

**Regression Weights: (Group number 1 - Default model)**

			Estimate	S.E.	C.R.	P	Label
SE	<--	PU	.509	.071	7.204	**	par_18
SE	<--	PEU	.544	.076	7.174	**	par_19
ST	<--	SE	.343	.060	5.768	**	par_20
SI	<--	PEU	.194	.062	3.135	.00	par_21
SI	<--	PU	.164	.060	2.737	.00	par_22
SI	<--	ST	.486	.062	7.888	**	par_23
PU1	<--	PU	1.000				
PU2	<--	PU	.899	.072	12.410	**	par_1
PU3	<--	PU	1.047	.077	13.663	**	par_2
PU4	<--	PU	1.002	.077	13.072	**	par_3
PEU1	<--	PEU	1.000				
PEU2	<--	PEU	1.019	.091	11.249	**	par_4
PEU3	<--	PEU	1.078	.095	11.298	**	par_5
PEU4	<--	PEU	.978	.084	11.691	**	par_6
SE1	<--	SE	1.000				
SE2	<--	SE	1.126	.069	16.431	**	par_7
SE3	<--	SE	1.008	.063	16.052	**	par_8
SE4	<--	SE	.983	.060	16.497	**	par_9
SE5	<--	SE	1.185	.063	18.709	**	par_10
ST1	<--	ST	1.000				
ST2	<--	ST	.972	.079	12.374	**	par_11

		Estimate	S.E.	C.R.	P	Label
ST3	<-- ST	.948	.081	11.671	**	par_1
	-			1	*	2
ST4	<-- ST	.861	.074	11.560	**	par_1
	-			0	*	3
ST5	<-- ST	1.074	.079	13.532	**	par_1
	-			2	*	4
SI1	<-- SI	1.000				
	-					
SI2	<-- SI	1.109	.115	9.617	**	par_1
	-				*	5
SI3	<-- SI	1.207	.119	10.167	**	par_1
	-			7	*	6

Influence total

**Total Effects (Group number 1 - Default model)**

	PE U	PU	SE	ST	SI
SE	.496	.471	.000	.000	.000
ST	.199	.189	.402	.000	.000
SI	.367	.326	.236	.587	.000
SI3	.281	.249	.181	.449	.765
SI2	.263	.233	.169	.421	.716
SI1	.258	.228	.166	.412	.701
ST5	.160	.152	.322	.801	.000
ST4	.142	.135	.286	.711	.000
ST3	.148	.140	.298	.740	.000
ST2	.152	.145	.307	.764	.000
ST1	.158	.150	.319	.792	.000
SE5	.452	.429	.912	.000	.000
SE4	.418	.397	.844	.000	.000



	PE U	PU	SE	ST	SI
SE3	.41 4	.39 3	.83 5	.00 0	.00 0
SE2	.42 0	.39 9	.84 7	.00 0	.00 0
SE1	.41 2	.39 1	.83 1	.00 0	.00 0
PEU 4	.77 2	.00 0	.00 0	.00 0	.00 0
PEU 3	.79 0	.00 0	.00 0	.00 0	.00 0
PEU 2	.79 4	.00 0	.00 0	.00 0	.00 0
PEU 1	.72 2	.00 0	.00 0	.00 0	.00 0
PU4	.00 0	.79 8	.00 0	.00 0	.00 0
PU3	.00 0	.82 4	.00 0	.00 0	.00 0
PU2	.00 0	.76 5	.00 0	.00 0	.00 0
PU1	.00 0	.78 3	.00 0	.00 0	.00 0

Direct influence

**Standardized Direct Effects (Group number 1 - Default model)**

	PE U	PU	SE	ST	SI
SE	.49 6	.47 1	.00 0	.00 0	.00 0
ST	.00 0	.00 0	.40 2	.00 0	.00 0
SI	.25 0	.21 4	.00 0	.58 7	.00 0
SI3	.00 0	.00 0	.00 0	.00 0	.76 5
SI2	.00 0	.00 0	.00 0	.00 0	.71 6
SI1	.00 0	.00 0	.00 0	.00 0	.70 1
ST5	.00 0	.00 0	.00 0	.80 1	.00 0
ST4	.00 0	.00 0	.00 0	.71 1	.00 0

	PE U	PU	SE	ST	SI
ST3	.00 0	.00 0	.00 0	.74 0	.00 0
ST2	.00 0	.00 0	.00 0	.76 4	.00 0
ST1	.00 0	.00 0	.00 0	.79 2	.00 0
SE5	.00 0	.00 0	.91 2	.00 0	.00 0
SE4	.00 0	.00 0	.84 4	.00 0	.00 0
SE3	.00 0	.00 0	.83 5	.00 0	.00 0
SE2	.00 0	.00 0	.84 7	.00 0	.00 0
SE1	.00 0	.00 0	.83 1	.00 0	.00 0
PEU 4	.77 2	.00 0	.00 0	.00 0	.00 0
PEU 3	.79 0	.00 0	.00 0	.00 0	.00 0
PEU 2	.79 4	.00 0	.00 0	.00 0	.00 0
PEU 1	.72 2	.00 0	.00 0	.00 0	.00 0
PU4	.00 0	.79 8	.00 0	.00 0	.00 0
PU3	.00 0	.82 4	.00 0	.00 0	.00 0
PU2	.00 0	.76 5	.00 0	.00 0	.00 0
PU1	.00 0	.78 3	.00 0	.00 0	.00 0

Indirect influence

**Standardized Indirect Effects (Group number 1 - Default model)**

	PE U	PU	SE	ST	SI
SE	.00 0	.00 0	.00 0	.00 0	.00 0
ST	.19 9	.18 9	.00 0	.00 0	.00 0
SI	.11 7	.11 1	.23 6	.00 0	.00 0

	PE U	PU	SE	ST	SI
SI3	.28 1	.24 9	.18 1	.44 9	.00 0
SI2	.26 3	.23 3	.16 9	.42 1	.00 0
SI1	.25 8	.22 8	.16 6	.41 2	.00 0
ST5	.16 0	.15 2	.32 2	.00 0	.00 0
ST4	.14 2	.13 5	.28 6	.00 0	.00 0
ST3	.14 8	.14 0	.29 8	.00 0	.00 0
ST2	.15 2	.14 5	.30 7	.00 0	.00 0
ST1	.15 8	.15 0	.31 9	.00 0	.00 0
SE5	.45 2	.42 9	.00 0	.00 0	.00 0
SE4	.41 8	.39 7	.00 0	.00 0	.00 0
SE3	.41 4	.39 3	.00 0	.00 0	.00 0
SE2	.42 0	.39 9	.00 0	.00 0	.00 0
SE1	.41 2	.39 1	.00 0	.00 0	.00 0
PEU 4	.00 0	.00 0	.00 0	.00 0	.00 0
PEU 3	.00 0	.00 0	.00 0	.00 0	.00 0
PEU 2	.00 0	.00 0	.00 0	.00 0	.00 0
PEU 1	.00 0	.00 0	.00 0	.00 0	.00 0
PU4	.00 0	.00 0	.00 0	.00 0	.00 0
PU3	.00 0	.00 0	.00 0	.00 0	.00 0
PU2	.00 0	.00 0	.00 0	.00 0	.00 0
PU1	.00 0	.00 0	.00 0	.00 0	.00 0