

CHAPTER 1

INTRODUCTION

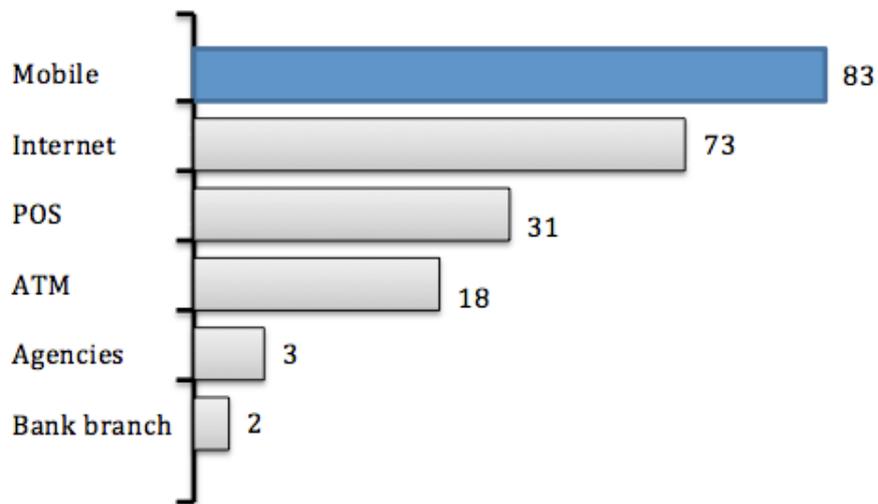
1.1 Research Background

The huge number of smartphone users and advances in technology rapidly makes people shift to mobile payment systems. The development of technology and information requires business actors to face the challenges of increasingly fierce business competition. Companies are required to provide maximum service by considering aspects of effectiveness and efficiency. Meanwhile, with the rapid development of technology, companies have found alternative ways to facilitate the cashless transaction.

According to Sahut (2018), the development of cashless or non-cash transactions has significant value throughout the world. Cashless payment emerges as a credible alternative to cash payments for payment method. On the other hand, the type of non-cash payment has a significant increase through the mobile payment system. It can be seen in **Figure 1.1** that mobile payment penetration has a percentage of 83%, exceeding transaction on Mobile, Internet, POS, ATM, Agencies, and Bank (Ernst and Young, 2011). It is because the mobile payment system has been accelerated in every transaction.

Figure 1.1

Enhancement of Payment System



Source: Ernst and Young, 2011

Mobile payment is an alternative type of non-cash payment system that has been widely used in a large number of countries in the world, including Indonesia. Besides, according to Biscaye *et al.* (2015), mobile payment is still relatively new, with widespread entrance into the market of the developing country. E-money is a form of payment system development, providing significant changes that provide convenience, efficiency, flexibility, and security in every online transaction (Samsumar, 2016).

Mobile wallets are finally getting traction after years of effort by players across the ecosystem according to Peterson and Wezel (2016). The changing of technological advancement has changed the market into electronic commerce (e-commerce). Digital wallet (e-wallet) is a transformation in the way one purchases something. Digital wallet is a solution for everyone for making e-commerce transactions based on online purchases. It works through apps on smartphone's

user, by merely tapping or one clicking the user's smartphone to purchase and complete the transaction immediately.

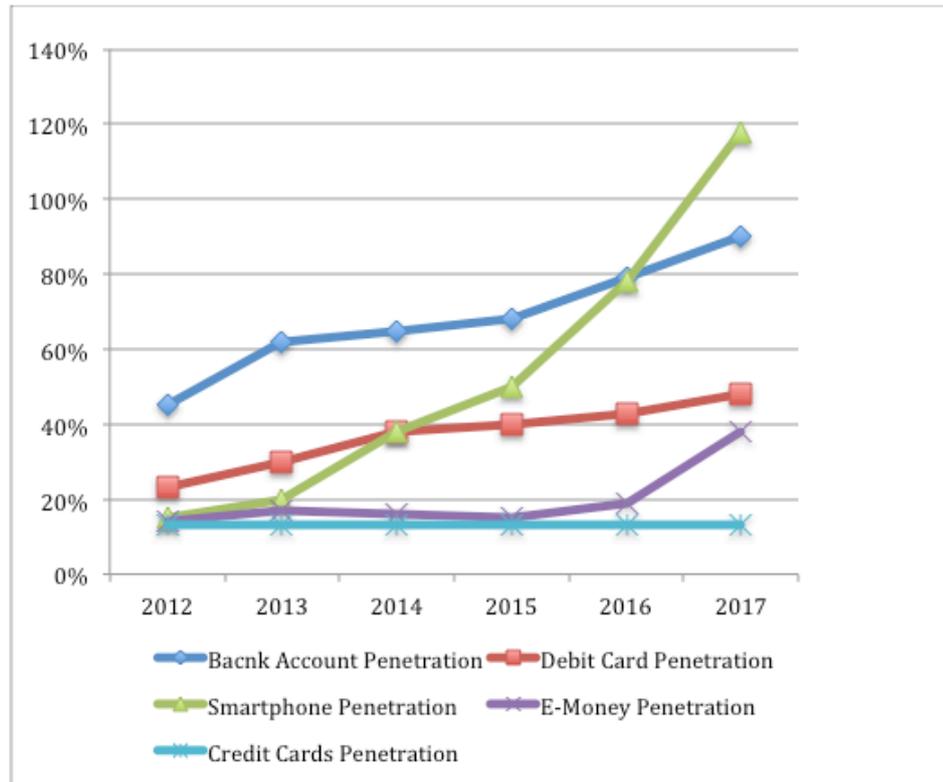
A digital wallet helps to change user's finance management in any transactions. It stores user's financial information of transaction history and actual database of personal detail containing user input information. Digital wallet has two essential features which are application and information storage. It is a software that is responsible for the security system, encryption, and the actual transaction. These components provide a high user interface to support secure transactional capabilities. According to Sahut (2008), the digital wallet can replace cash with the following condition:

- a) E-wallet must facilitate transaction without carrying cash.
- b) E-wallet must reduce user's calculation in order to accelerate the transaction.
- c) E-wallet must increase security and reduce the risk of loss and ensure the user's privacy.

As a non-cash transaction technology solution, mobile payment service will be one of the main factors of payment method. It can be seen in **Figure 1.2** which shows the penetration in Indonesia especially in the application system that becomes a trending payment with a significant user base.

Figure 1.2

Smartphone Penetration versus Payment Penetration

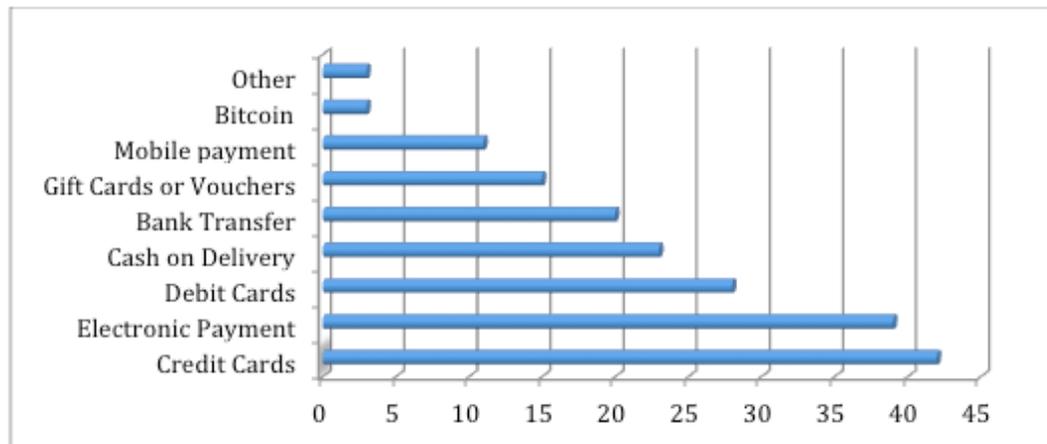


Source: MDI Ventures & Mandiri Sekuritas Research, 2018

As part of the financial technology industry solution, mobile payment services will be one of the most effective factors of payment method. These factors explained with a statistic above show that the growth of smartphones has significantly increased (Eka, 2018). This phenomenon makes financial technology's companies compete for market share.

There are various payment systems offered in this era. Several payments are based on cards and extra. As can be seen in **Figure 1.3**, cash transaction still has high popularity these days and followed by card transaction. Meanwhile, non-card payments are not the best choices transaction.

Figure 1.3
Regular Usage Percentage



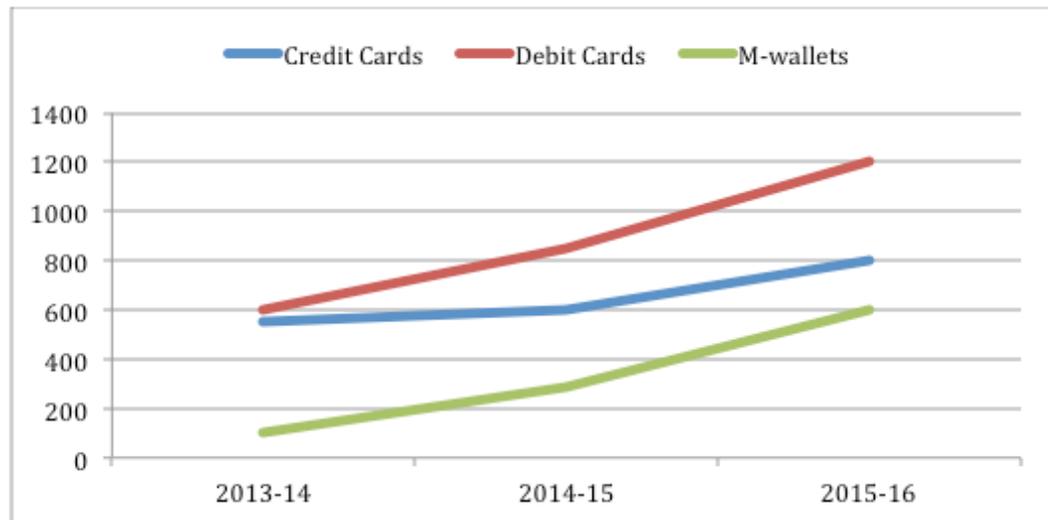
Source: Statista, 2017

According to Statista (2017), the preferred payment methods of global online shoppers, as can be seen on the figure above, is 42% preferred to pay via credit card and mobile payment in the low-third position that stated online shoppers usage percentage is only 11%. The popularity of cards was high in some recent years.

Meanwhile, living in a digital world has lead people into a new shopping experience (Jakpat, 2014). The changing experience of shopping activities also occurs in transaction methods. A various payment method leads payment to several ways, although the most common one is using a money deposit method. By using an account or particular apps, people deposit some money to be used in their transaction.

According to Nair *et al.* (2016), the statistic growth of transactions in different payment methods from 2013 to 2015 can be seen in **Figure 1.4** below:

Figure 1.4
Number of transactions



Source: Nair *et al.* (2016)

As shown in **Figure 1.4**, despite the growth of consumer adoption and the usage of mobile wallet, many consumers are still unwilling to use the digital wallet as payment option compares to credit cards and debit cards.

Furthermore, according to a survey of Jakpat (2014), a survey of digital wallet among Indonesian internet user by sending questionnaires to 1515 respondents in order to understand their usage in the mobile transaction, several findings had been found in the survey, but there was a notable highlight to summarize overall finding. Interestingly, the survey revealed that it did not precisely found the linearity between the high level of internet penetration among Indonesian internet user and their adoption of digital wallet for payment.

The lack of understanding of how to use digital wallet has been the main obstacle faced by most Indonesian. Therefore, this gap was used as a motivation in researching to understand the factors that might affect the behavioral intention to adopt and use digital wallet services so that the company can consider what

aspects that are to be improved and the customer's acceptance of mobile payment services can be optimal.

Replacing the payment method, especially with digital wallet, a mobile phone has provided such enormous opportunities for financial development (Iman, 2018). Nowadays, people are always encouraged to understand new technology to assist them in doing daily activities as well as personal financial technology. The success of financial technology depends on the intention of the customer.

As a result of this phenomenon, there are several popular e-wallets in Indonesia. Based on *cermati.com*, the most wanted e-money providers in Indonesia are Sakuku BCA, T-Cash, TapCash BNI, OVO, Go-Pay, Brizzi BRI, Flazz BCA, e-Money Mandiri, Doku Wallet, and Indomaret Card. OVO appears as one of digital wallet platform which attracts considerable number of customers in the blink of eye. Through Android (OS 4.2 and above) and iPhone (iOS 8.0 and above), customers utilize OVO for easier transaction.

One of the growing financial technologies in Indonesia is OVO digital wallet. According to DailySocial Research (2018), currently, OVO application users continue to grow and reach 9.5 million users. OVO is a new business, but it has good integration and given an excellent system to compete with the competition. It is a financial technology startup that builds a digital platform aiming to simplify customer's life by providing amazing rewards & deals through its merchant partners, simple payment and smart financial services. OVO has hundreds of affiliated merchants and business partners and multi-million members

in the ecosystem. OVO Cash can be used to make payments at Lippo merchants, top up and check balances, and make transfers between OVO accounts.

Recently, the President Director of OVO, Adrian Suherman, through pers and in *detik.com*, stated that OVO has approximately 350 thousand merchants, and it does exist in more than 400 malls in Indonesia. Although OVO has many merchants and offers big amount of discount, based on the published data in 2017, OVO still has a very small number of users, which stated that 50% of e-money users used Go-Pay, 46% used e-money from Mandiri Bank , 42% used T-Cash from Telkomsel, 25% used Flazz from BCA Bank, 17% used LINE pay from Line, 15% used OVO from Lippo, and 12% used BRIZZI from BRI (Databoks, katadata, Indonesia, 2017).

Nowadays, people are always exposed in understanding new technology to assist them in running daily activities as well as personally financial arrangements. The success of OVO adoption depends on the rate of consumer acceptance of OVO. Therefore, this gap is used as a motivation in conducting a research to understand the factors which may affect the behavioral intention to use of OVO. By doing so, the company is expected to consider certain required aspects to be improved as well as to optimize customer's acceptance of OVO.

The number of e-wallet users in Indonesia, as stated above, encourages the providers of e-wallet to market their product to the customers, including Malang. Malang is also the second most populous city in East Java after Surabaya, reaching 895,387 residents living in the city (Wikipedia, 2017). The large number of residents in Malang became a good market for the company to promote their digital wallet products.

In this research, the researcher used the Technology Acceptance Model (TAM) that was explained by perceived usefulness and perceived ease of use. Also, the researcher used perceived value because it provides new insights into factors affecting behavioral intention to use of digital wallet. According to Shaikh *et al.* (2015), behavioral intention to use is the key to adopt digital wallet. Behavioral intention to use seeks to extend the understanding of mobile technology by undertaking a detailed review of digital wallet adoption. Considering the complexity of mobile technology and the variety of service that being offered, behavioral intention to use contributes to the digital wallet by exploring and analyzing the current state of knowledge on the digital wallet and its adoption in so many amounts of payment method. Behavioral intention to use also underlies payment decision and takes a role in consumer behavior (Slade *et al.*, 2015)

Technology Acceptance Model (TAM) was first introduced by Fred Davis in 1989, and it was an adoption of the Theory of Reasoned Action (TRA) in 1980. Technology Acceptance Model is built to predict and explained how technology users could accept and use technology in their work. This model is widely used in various studies concerning the adoption of information technology. Technology acceptance model (TAM) determines the behavioral intention of technology (Davis, 1986). That research illustrated that TAM is suitable for this research because it can be modified by several factors of perceived acceptance. TAM has been broadly contemplated and checked by various studies that check the individual technology acceptance behavior in various data frameworks develops. According to Davis (1989), the user's point of view uses particular systems to

raise the performance of user activities. Technology acceptance model (TAM) has been influenced to behavioral intention toward the user in term of perceived usefulness (PU), and perceived ease of use (PEOU).

Matemba, Li & Elizabeth (2017) analyzed consumers' willingness to adopt and use mobile wallet toward TAM and explained that it significantly affects the intention to use. These aspects are needed to improve the customers' acceptance of mobile payment services. This research combined the variables from previous research by Alalwan *et al.* (2016) that used perceived usefulness and perceived ease of use from TAM theory.

Similar results are obtained by Wang *et al.* (2003) who found that perceived ease of use, perceived usefulness, perceived credibility, and computer self-efficacy had a significant effect on behavioral intention to use internet banking in Taiwan. Gu *et al.* (2009) also verified that there is a significant effect of perceived usefulness, trust and perceived ease-of-use on behavioral intention in using mobile banking. In line with those findings, Thakur and Srivastava (2013) also mentioned that perceived usefulness, perceived ease of use and social influence are found to be significant dimensions of behavioral intention to adopt mobile commerce in India.

Kotler and Keller (2012) defined customer perceived value as the difference between the customer's evaluation of all the benefits and all the costs of an offering and the perceived alternatives. They extend the concept by describing customer perceived value as the proportion between total customer value (a bundle of economic, functional and psychological benefits such as product, services, personnel, image value) and total customer costs (monetary,

time, energy, psychic costs).

Fu *et al.* (2018) investigated the relations among perceived value (PV) and behavior intention (BI), in further examination of the significant effect among perceived value and behavioral intention. This research combined perceived value from the previous researcher by Amoroso and Watanabe (2012) that used perceived value in building a research model for mobile wallet consumer adoption in Japan; it contributed positive effect to behavioral intention to use. Another research by Wang *et al.* (2012) examined the perceived value's crucial role in determining revisit intention.

All of the explanation above, TAM is the main reason why the customer uses the product. Technology acceptance model enables to improve performance and modality of expectancy or conditional reasoning. Also, according to Natarajan *et al.* (2018), TAM has been both extended and modified to predict the acceptance of various technologies by the general population. Therefore, TAM has been used to analyze the intention of digital wallet applications.

Besides TAM, there is also a more important aspect, which is perceived value. Perceived value can be the additional options that are spotted after perceived usefulness and perceived ease of use because it has a conceptual affective component and aspect. Perceived value can understand how valuable, acceptable, and worth the product is by comparing all benefits that the user gets and how much users spend for the product or services.

Based on the discussion towards the development of financial technology that overgrows, researcher aimed to analyze whether or not perceived usefulness, perceived ease of use, and perceived value directly affect behavioral intention to

use. This research entitled “Effects of Perceived Usefulness, Perceived Ease of Used, and Perceived Value on Behavioral Intention to Use of Digital Wallet (A Case Study of OVO User in Malang).

The researcher believed, that OVO was suitable to be used as an object of research which could explain the description of the phenomena. It is because of the users’ intention in using technology acceptance model (TAM) consisted of perceived usefulness, perceived ease of use and perceived value (PV).

1.2 Research Problems

- 1) Does perceived of usefulness positively affect customer’s behavior intention to use of OVO as a digital wallet?
- 2) Does the perceived ease of use positively affect customer’s behavior intention of OVO as a digital wallet?
- 3) Does perceived value affect positively customer’s behavior intention to use?

1.3 Research Objectives

- 1) To examine the effect of perceived usefulness on customer’s behavior intention to use of OVO as a digital wallet
- 2) To examine the effect of perceived ease of used on customer’s behavior intention to use of OVO as a digital wallet
- 3) To examine the effect of perceived value on customer’s behavior intention to use of OVO as a digital wallet

1.4 The Significance of the Study

1) Theoretical Significance

This research investigated the influence of perceived usefulness, perceived ease of used, and perceived value on customers' behavioral intention to use of OVO as a digital wallet. Therefore, the result can be used as a reference for future research.

2) Practical Significance

This research provides some recommendations for business, especially for the digital wallet.

- a) The result can be used as additional information for the company in term of improving marketing strategy on the operation to increase intention to use of digital wallet.
- b) The source for people to learn about digital wallet, increasing the particular information to spread the awareness of digital wallet technology in which digital wallet is the newest technology for some people in Indonesia, particularly in customers' perceptions (perceived usefulness, perceived ease of use and perceived value) and these influences on customer's intentions to use digital wallet.