CHAPTER I

INTRODUCTION

1.1 Research Background

Along with the rapid development of the times, there are many aspects of human life that are also experiencing significant changes. The so-called modern life is now progressively directed towards achieving a smart and practical lifestyle. This brings the chain of behavior to the point where conventional habits are now being done in a virtual way. This change is known as digitalization or digital transformation, which is a holistic process that is pertinent with changes related to the business processes, products, organizational structure, and business models (Breuer & Knetsch, 2023; Hess et al., 2016). Adding to that, digitalization is also interpreted as the use of new digital technologies related to information technology (IT) that enhances work process to be more cost saving and improve customer experience (Verhoef et al., 2021).

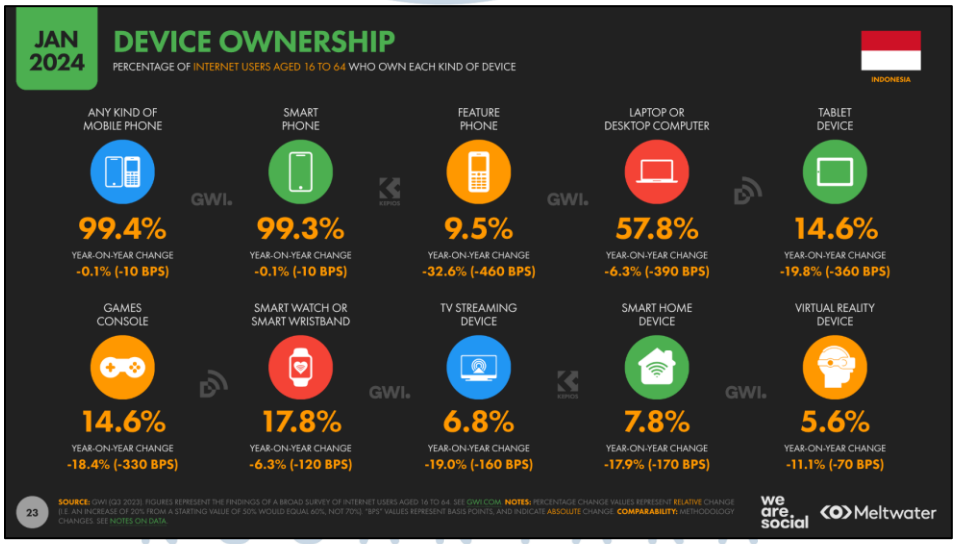

Figure 1.1 Device Ownership in Indonesia

Source: We Are Social & Meltwater, 2024

One simple example we can see is the number of devices owned by the society today. Based on the data shown in the graphic in Figure 1.1, the

majority of Indonesian citizens are now open to the access of mobile devices and equipment, starting with 99.4% of the citizens who owns any kind of mobile phone. Moving on to the main focus, the smartphone fixes its position with the grossing number of 99.3%, making it the most owned type of device which indicates that most people in Indonesia use or at least have a smartphone.

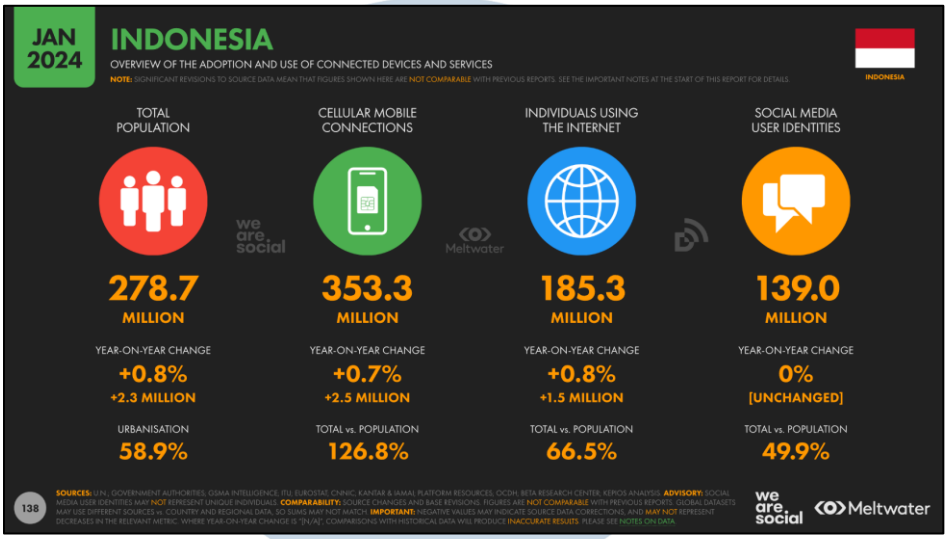

Figure 1.2 Overview of the Adoption and Use of Connected Devices and Services in Indonesia

Source: We Are Social & Meltwater, 2024

As shown in Figure 1.2, the data published on the We Are Social page which discusses the Global Digital 2024 overview report, we can see that out of 278.7 million which is the total population in Indonesia in January 2024, 58.9% of Indonesia's population now lives in urban areas. From there, the 353.3 million people in Indonesia indicate that 126.8% of the total population of Indonesia currently uses gadgets or electronic devices, and according to the number given in this particular data, we can also see that the higher number of cellular mobile connections compared to the total population implies that an individual may have one or more devices in their possession. Additionally, it is also known that 185.3% million people in Indonesia now use the internet, which means 66.5 percent of Indonesia's total population is on the internet.

In accordance to the evolving digital era and the rising number of phone owners, the financial sector in Indonesia is also most certainly affected. What was once fully done offline with a more constrained options, payment nowadays tends to be more flexible and easier to do. That is due to the shifting of work practices, where a time efficient and versatile alternatives are made available. Thus, it's only natural that we see many current payment methods that can be done remotely.

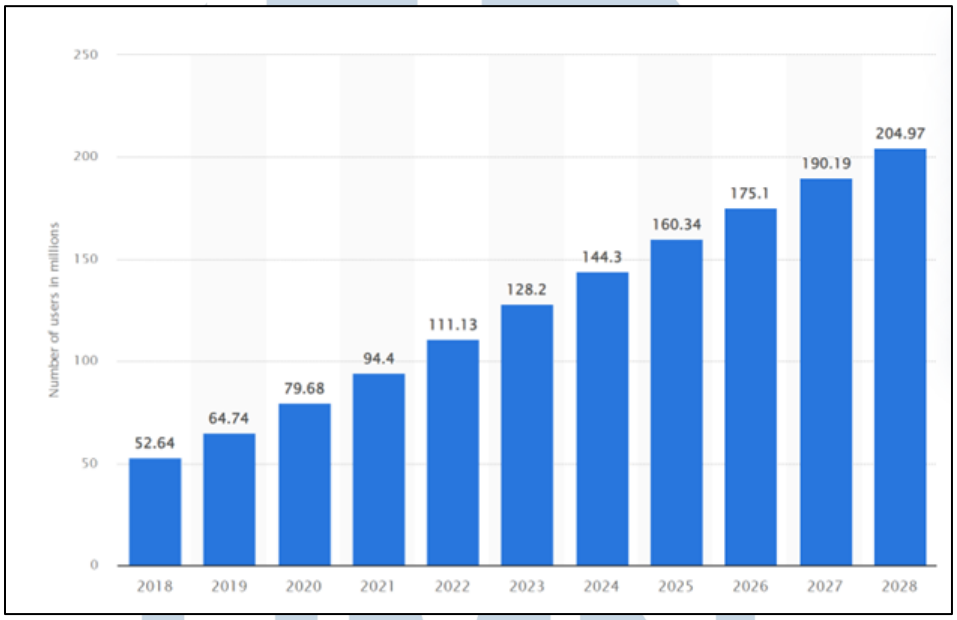

Figure 1.3 Number of Users of Digital Payments in Indonesia from 2018 to 2028

Source: Statista Market Insights, 2024

Referring to the 2024 survey provided by Statista Market Insights, the trend of digital payment users in currently on a year-to-year increase. In Figure 1.3 above, it was forecast that the number of users in the fintech market especially in the 'Digital Payments' segment in Indonesia will continuously increase between the year 2018 to 2028. As we can see, after the tenth consecutive years of increase, it is estimated that the total of 204.97 million users of digital payment will peak in 2028. That is a gaping amount of 60.67 million users and an increase of 42.07% from the current number in 2024. This

increase in trend also poses the fact that Indonesia is presently moving away rapidly from using cash as a media to make payments to various digital payment platforms, such as credit cards, debit cards, e-wallets, e-money, and internet banking.

Speaking of the diverse digital payment methods, Indonesia is considered as one of the fastest-growing archipelagos for digital payments in the world, together with the growth of e-commerce and ride-hailing applications in the country (Statista Research Department, 2024). Aside from the changing habits within the society where people are adjusting to a digital lifestyle, the growing purchasing power with the emerging internet and smartphone penetration is also rapidly developing the infrastructures that facilitate and support this trend (Bank Indonesia, 2023).

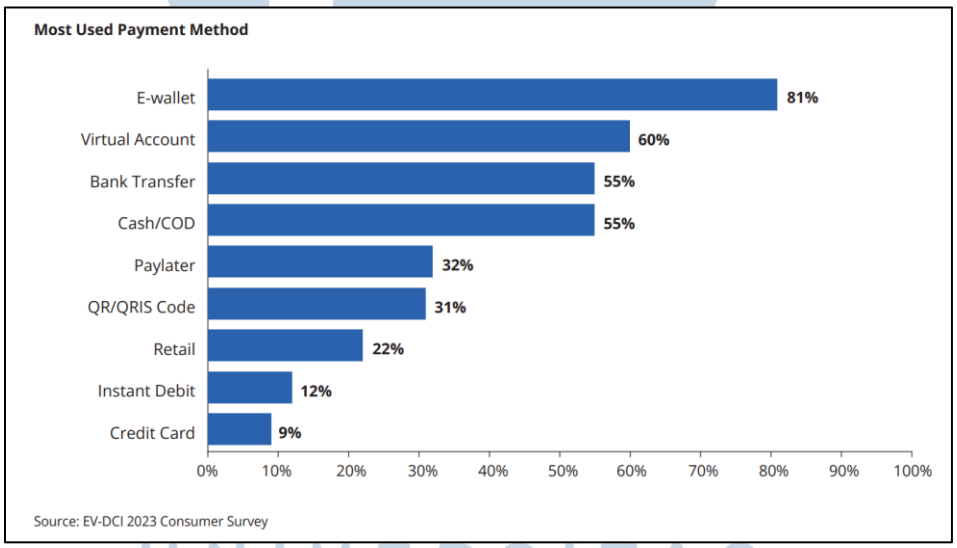

Figure 1.4 Most Used Payment Method in Indonesia

Source: East Ventures, Digital Competitiveness Index, 2023

Figure 1.4 above displays that the payment method that is mostly used among others is the electronic wallet. With a percentage of 81%, it is known that by topping the chart, the E-Wallet is used by most consumers/citizens as a medium to carry on and conduct transactions. The graph also shows that virtual account is placed in the second row with 60% of usage. Meanwhile, bank

transfer and cash or cash on delivery are positioned on the same grid with a percentage of 55%. The rank continues on to paylater in the fifth position with 32%, QRIS with 31%, retail with 22%, instant debit with 12% and credit card in the last position with 9% (East Ventures, 2023). This data further proves that in the midst of digitalization, the modern cashless lifestyle is gradually increasing, boosting the use of mobile device-based payment platforms such as the E-Wallet. Moreover,

E-Wallet or what was also widely known as digital wallet is a mobile device-based platform which enables cashless payments for sales transactions between consumers and merchants or service providers, either in person or remotely (Ramli & Hamzah, 2021). Soegoto & Tampubolon (2020) said that E-Wallet enables registered users to make online payments in a comfortable and safe manner without frontally disclosing their financial information, as well as send and receive money transfers using only their email via mobile phone. Additionally, according to Ramli & Hamzah (2021), an e-wallet does have a similar role when being compared to a traditional wallet and it must be linked to the user's account in order to operate safely. Adding to that, Pahwa (2023) states that an E-Wallet is an online prepaid account that allows anyone to save money and transact both online and offline using either a smartphone or a computer as needed. However, we need to note that people sometimes confuse the terms e-wallet and digital wallet since they are used interchangeably. In her article, Tussyahada (2024) mentioned that digital banking first and foremost is a product of banking services where customers can access bank services and products online or digitally, eliminating the need to physically visit the bank and on the other hand, an electronic wallet or E-Wallet, is a type of electronic device platform that stores money and facilitates user’s financial transactions.

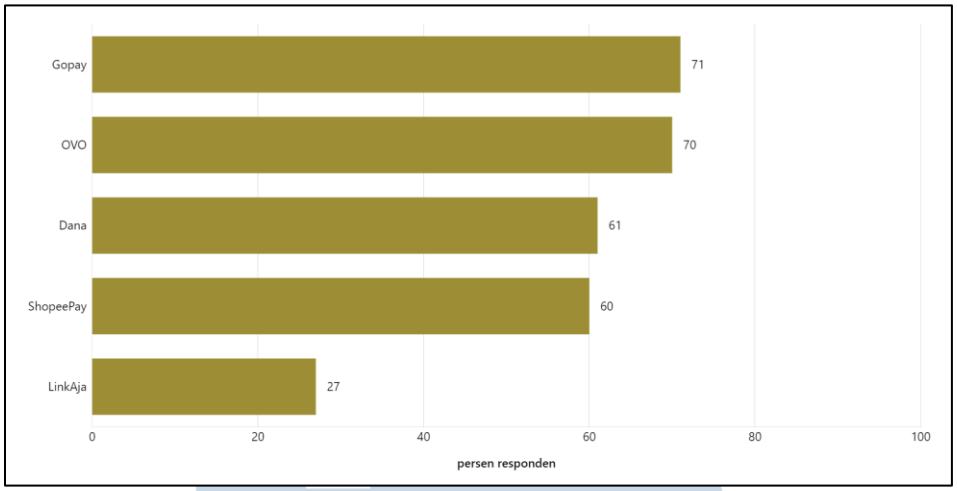

Figure 1.5 Top E-Wallet Used by Indonesian Society

Source: InsightAsia, E-Wallet Industry Outlook, 2023

Talking about digital wallets or E-Wallets, there are several players or should we say competitors in Indonesia. According to the results of a survey conducted by Insight Asia on the topic of E-Wallet Industry Outlook, there are five favorite E-Wallets used by the local people. In the first position, there is GoPay, which is a product of the largest ride-hailing company in Indonesia, namely Gojek, with a percentage of 71%. The second position is then occupied by OVO with 70 percent, followed by DANA in the third position with a user percentage of 61%, ShopeePay with 60% and LinkAja with 27%. So, from the number shown on the graph above, it can be said that the market of E-Wallet in Indonesia is currently dominated by GoPay and OVO.

Table 1.1 Comparison of Top E-Wallets in Indonesia

No.	Brand	Release Date	Rating	Details
1.	GoPay	Gojek launch date = 2016 Independent application = 2023	4.7	Widely accepted by all merchants, integrated with the Gojek and Tokopedia ecosystem, offering features such as Gopay Diary, Paylater, and co-payments.

No.	Brand	Release Date	Rating	Details
2.	ShopeePay	2018	4.8	Integrated seamlessly with the Shopee marketplace, offering attractive cashback and promotions, free bank transfers and top-ups.
3.	DANA	2018	3.9	User-friendly interface, broad merchant acceptance, offers bill payment and investment options.
4.	OVO	2017	4.1	Extensive partnerships with merchants and brands, offering various financial services such as microloans and insurance.
5.	LinkAja	2019	3.6	Government-backed e-wallet, widely accepted for transportation and public utilities, offer bill payments and social payments.

Source: Researcher's Data (2024)

In line with the discussion regarding the top E-Wallets in Indonesia which was mentioned in the previous sub-point, Table 1.1 above contains the highlighted comparison of each E-Wallet. Referring to the information obtained by the researcher, GoPay is one of the older E-Wallet that operates in Indonesia. Released back in 2016 when Gojek launched its service, GoPay was made as the app's default payment unit where Gojek users have a choice of either using GoPay (by topping up the account balance) or use cash to fulfill payments of the service. Thus, the benefits of using GoPay is that the service is widely accepted by all merchants, integrated with the Gojek and Tokopedia ecosystem, offering features such as Gopay diary, paylater, and co-payments. In 2017, OVO started its operation in Indonesia. OVO itself was known to have extensive partnerships with public facilities, merchants, and brands, offering

users with various financial services such as microloans and insurance. ShopeePay was introduced in 2018 under the company of Shopee. Similar to GoPay, ShopeePay is made as the e-commerce's payment unit. Hence, attractive cashback and promotions, free bank transfers and top-ups, along with the seamless integration to the Shopee marketplace makes ShopeePay one of the most favorite E-Wallet to use for online shopping. In the same year of 2018, DANA was also introduced to the public under a company named PT Espay Debit Indonesia Koe. The DANA E-Wallet was said to bring a fresh and new media of payment with a user-friendly interface, broad merchant acceptance, offers bill payment and investment options. As a new comer which debuted in 2019, LinkAja is government-supported e-wallet, which is widely accepted for transportation and public utilities, offer bill payments and social payments.

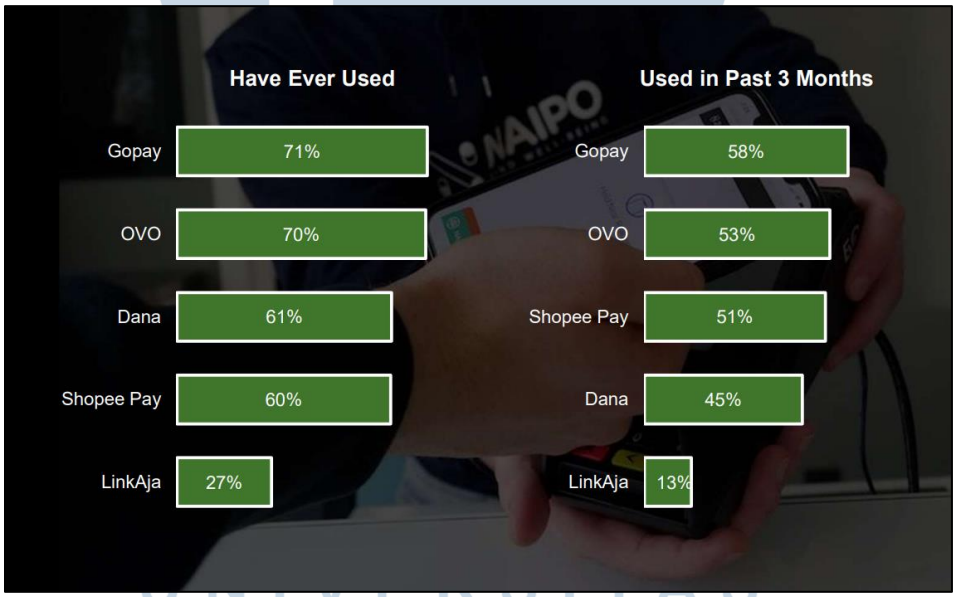

Figure 1.6 Indonesia's E-Wallet Performance

Source: InsightAsia, E-Wallet Industry Outlook, 2023

Looking at the performance of Indonesia's Top 5 E-Wallet, Figure 1.6 illustrates the data provided by InsightAsia (2023) regarding the usage of each E-Wallet brand in the recent months. From the graph, it can be seen that the DANA E-Wallet was positioned in the fourth place with a percentage of 45% users. The first position was claimed by GoPay with a percentage of 58%,

continued by OVO with 53%, ShopeePay with 51%, and LinkAja in the last position with 13%. Based on the information above, it can be said that within the top 5 E-Wallets in Indonesia, DANA's position is still quite low compared to the others. Therefore, the data also showed that there is a difference between the percentage of people that have ever used DANA E-Wallet and the percentage of users in the recent months that indicates a change and decrease of usage.

To summarize, the researcher found and realize that even though the DANA digital wallet is included in the top 5 E-Wallets in Indonesia, the data above shows that the performance of the DANA E-Wallet is still lacking when compared to several other competitors, namely GoPay, OVO and ShopeePay. It is worth remembering that in Figure 1.5, the DANA E-Wallet was positioned in the third place with a user percentage of 61%. However, in Figure 1.6, the recent data shows only 45% users used DANA E-Wallet, placing DANA lower back on the grid in the fourth place. Even more so, the application rating published on the Google Play store page shows that DANA E-Wallet's app rating being inferior to its competitors, despite DANA being one of the older E-Wallets compared to new comers.

For this research, the researcher decided to carry out this research with Generation Z as the subject. According to Warren (2024) Generation Z refers to those born between 1997 and 2012. It's also known as "Gen Z," for short. This generation comes after Millennials and precedes Generation Alpha. As of 2024, the youngest members of Generation Z are aged 12 years old, with 27 years old being the eldest. Described as the self-learners, Generation Z is more comfortable learning online than at traditional institutions of learning (Francis & Hoefel, n.d.; Nina & Lopez, n.d.). In addition to that, Rajdev et al. (2020) states that Generation Y and Z use e-wallets approximately equally. However, Gen Zs use e-wallets more frequently for mobile recharging, online shopping, online ticket buying, and other activities than Generation Y. Moreover, Visa Indonesia's President Director Riko Abdurrahman said that 89 percent of Gen

Z in Indonesia use digital wallets or E-Wallets when doing payments (Kompas.com, 2023). Hence, these understanding above strengthens the reasoning for the researcher in using Generation Z as the research subject, which will be examined wiin Indonesia.

Seeing the phenomenon which pictures DANA E-Wallet performance, the researcher wanted to further examine the company. To investigate this phenomenon, the previous studies that the researcher used as the main reference used the Technology Acceptance Model (TAM) theory. For that, there are several factors namely Perceived Usefulness, Perceived Ease of Use, Perceived Risk, and Reward in determining a person's decision to use an E-Wallet (Malik & Annuar, 2021).

Perceived usefulness is a perception that arises when someone believes that using a technology can improve performance in doing some sort of actions so that it is useful for them (Davis, 1989). Ming et al. (2020) said that people who perceive e-wallets as beneficial and easy to use are more likely to adopt them.

Perceived ease of use is a perception that arises when someone believes that using a technology can be done easily or is easy to use (Davis, 1989). Gusni et al. (2020) said that a technology that is easy to use will form a good attitude from users towards the technology itself.

Perceived risk is seen as a perception of the possible disadvantages or loss that customers might encounter, and the damage that might occur or arise when a they utilize a particular service and/or technology (Nguyen, 2020). Abrahão et al. (2016) said usually the higher the perceived risk, the lower the usage intention to use a product.

Reward is considered as a benefit that a person might receive from the seller right after their purchase (Ming et al., 2020). Malik & Annuar (2021) said that focusing on potential rewards of e-wallets can be effective strategies to promote and increase future adoption or usage intention.

Intention to use can be described as the interest of consumers and their desire to try out and use services (Venkatesh et al., 2003). Mai et al. (2021) said that intention itself is the motivation or drive that influences individual behavior, which shows the willingness or effort made by the individual to carry out that behavior.

Therefore, through this research, the writer intends to further investigate and analyze the effect of perceived usefulness, perceived ease of use, reward and perceived risk towards the intention to use DANA. Based on the phenomenon and the research background explained above, the writer intends to conduct a research entitled **"INVESTIGATING THE ROLE OF EXTENDED TECHNOLOGY ACCEPTANCE MODEL (TAM) TO THE USAGE INTENTION OF DANA E-WALLET"**.

1.2 Problem Formulation and Research Question

Based on the phenomenon previously explained in the research background, several problems are able to be formulated in order to be researched further. Such as:

1. The disparity between the brand's popularity and the low usage rate of DANA application.
2. DANA's inferior performance as an E-Wallet compared to other competitors.
3. The importance of perceived thoughts from the society that affects the intention to use of digital/electronic wallets.

The formulated problems above are then identified in these research questions as follows:

1. Does Perceived Usefulness have an effect on DANA E-Wallet Usage Intention?
2. Does Perceived Ease of Use have an effect on DANA E-Wallet Usage Intention?
3. Does Reward have an effect on DANA E-Wallet Usage Intention?

4. Does Perceived Risk have an effect on DANA E-Wallet Usage Intention?

1.3 Research Objectives

Based on the problem formulation that has been described previously, the objectives of this research are as follows:

1. To find out and analyze the effect of Perceived Usefulness towards DANA E-Wallet Usage Intention.
2. To find out and analyze the effect of Perceived Ease of Use towards DANA E-Wallet Usage Intention.
3. To find out and analyze the effect of Reward towards DANA E-Wallet Usage Intention.
4. To find out and analyze the effect of Perceived Risk towards DANA E-Wallet Usage Intention.

1.4 Research Benefits

The researcher aims this research to achieve both theoretical and practical benefits, as follows:

1.4.1 Theoretical Benefits

The researcher aspires that the research conducted may provide a more precised and comprehensive academical insight to its readers apropos to the effect of Perceived Usefulness, Perceived Ease of Use, Reward, and Perceived Risk towards DANA Usage Intention.

1.4.2 Practical Benefits

The researcher aspires that the research findings allow DANA as a company and other E-Wallet companies to have a clearer image on what actually contributes to the Usage Intention of an E-Wallet application that can be used as the foundation of creating corporate strategies that is highly related to Perceived Usefulness, Perceived Ease of Use, Reward, and Perceived Risk.

1.5 Scope and Limitations

The research carried out is limited based on the scope and criteria which are timely and relevant to the research, which are described as follows:

1. The number of variables used in this research is limited to 5 variables, namely: Perceived Usefulness, Perceived Ease of Use, Reward, Perceived Risk, and Usage Intention.
2. The research sample is Gen Z with an age range of 15 - 27 years old.
3. The respondents are those who knew DANA E-Wallet.
4. Samples have used DANA before, but do not use it again or very rarely use the service.
5. This research was conducted in a limited time frame of 4 months from February 2024 to May 2024.
6. The IBM SPSS Statistics 29 software was used to run the data analyses.

1.6 Writing System

The systematics of writing this thesis consists of five chapters, where each chapter is related to one another. The systematics of writing are as follows:

CHAPTER I INTRODUCTION

This chapter contains the background which discusses the factors that lead to the main problem of the research, continued by the formulation of the problem which is considered as the basis of conducting this research including the research questions that is proposed by the researcher along with the research objectives to be achieved, the expected benefits of doing the research, the limitations of the problem in conducting the research, and the systematics of thesis writing.

CHAPTER II LITERATURE REVIEW

This second chapter contains the theoretical connections and literature reviews that are used as the grounds for analyzing and discussing the core of the problem. The theoretical description will be related to the problem

formulated, such as Perceived Usefulness, Perceived Ease of Use, Reward, Perceived Risk, and Usage Intention.

CHAPTER III RESEARCH METHODS

In this chapter, the research design and model used, the scope of the research, data collection techniques and sampling procedures, as well as the analysis techniques used to answer the problem formulation will be described.

CHAPTER IV DATA ANALYSIS AND DISCUSSION

This fourth chapter contains a general view of the research object, followed by an explanation of the questionnaire results that have been obtained by the researcher, along with a description and analysis of the questionnaire results that will be linked to the theories and hypotheses used namely, Perceived Usefulness, Perceived Ease of Use, Reward, and Perceived Risk towards DANA Usage Intention.

CHAPTER V CONCLUSION AND RECOMMENDATION

In this chapter, the researcher provides conclusions and recommendations collected from the research results which answer the research hypotheses. Furthermore, the researcher hopes that the conclusions and recommendations from this research can be utilized by the related company and others.