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# Factors influencing e-wallet usage intentions among Gen Z and Millennials in Jabodetabek

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**Abstract:**
This study explores the factors influencing the adoption of e-wallets in the Jakarta-Bogor-Depok-Tangerang-Bekasi (Jabodetabek) metropolitan region, Indonesia, among Generation Z and Millennials. The research uses a quantitative approach and analyzes data from 136 participants using SEM-PLS. The study examines perceived usefulness, ease of use, risk, trust, convenience, and attitude toward the service. The findings reveal that perceived usefulness significantly influences attitude toward the service rather than intention to use. Perceived ease of use influences usefulness rather than attitude toward the service. Perceived risk influences attitude toward the service, and trust is crucial. This research contributes significantly to the existing literature on e-wallets and digital payment technology in Indonesia, thus contributing to the growth of the country's digital economy. Providers should communicate transparently about security and improve accessibility to increase adoption rates.

**Keywords: Influence Factors, e-wallet, Gen Z, Jabodetabek**

## 1. Introduction

Over the last several years, e-wallets have grown rapidly and emerged as one of Indonesia's most rapidly expanding digital financial solutions. As revealed in Figure 1.1, there is no significant disparity in e-wallet use preference between Generation Z (Gen Z) and Generation Y (Millennials). Both generations have a strong inclination towards using e-wallets, making them perhaps the most adept generation regarding e-wallet use.

According to poll data from Lavinda (2022), over 68% of Generation Z individuals use e-wallets, while just 35.4% engage with bank ATMs for their financial transactions. Visa Indonesia's studies indicate that Generation Z in Indonesia mostly use digital wallets or e-wallets as their primary digital payment method, with a utilization rate of 89%.

The study conducted by Perdana (2022) demonstrates the strong inclination of Generation Z and Millennials towards using e-wallets, with more than 50% of Generation Z and Millennials already possessing a digital wallet as shown in Figure 1.2. Furthermore, the use of e-wallets by both of these generations is consistently and quickly growing in Indonesia. Generation Z and Millennials prefer using e-wallets but differ in how they use them. Generation Z mainly uses e-wallets for everyday activities, while Millennials view them as a more secure mode of payment.

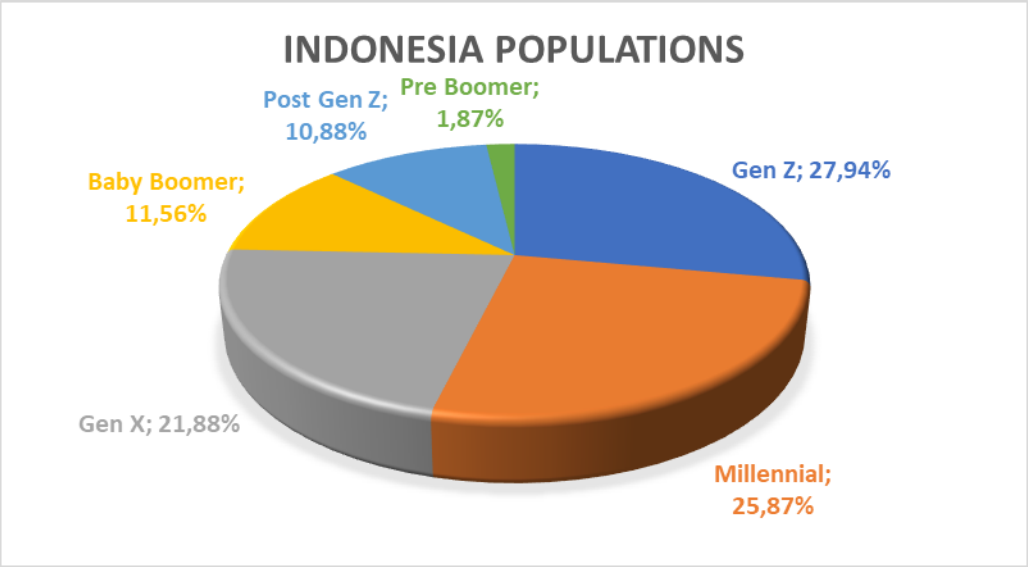


Figure 1.1. Percentage of the Indonesian population by generation.
Source: Databoks (2020).

In Indonesia, popular e-wallets include Go-Pay, ShopeePay, Ovo, and DANA. Both generations use these e-wallets for various activities, from buying things to making charges and paying fees. E-wallets have become the primary payment method for Generation Z, surpassing debit/credit cards and QR codes. Both generations prefer cashless purchases using e-wallets over traditional payment methods.

According to a recent study by InsightAsia, up to 74% of respondents actively use digital wallets for various financial activities (Wulandari, 2020). According to Wulandari (2020), the digital wallet programs with the highest popularity among Indonesians are ShopeePay, OVO, GoPay, DANA, and LinkAja. Based on the digital wallet market study conducted by Insight Asia, it is observed that the percentage of GoPay users is somewhat higher than that of OVO users, as revealed in Figure 1.2. According to Ahdiat (2023), GoPay had a satisfaction rate of 71% among customers, with ShopeePay following closely at 70% and DANA at 61%.

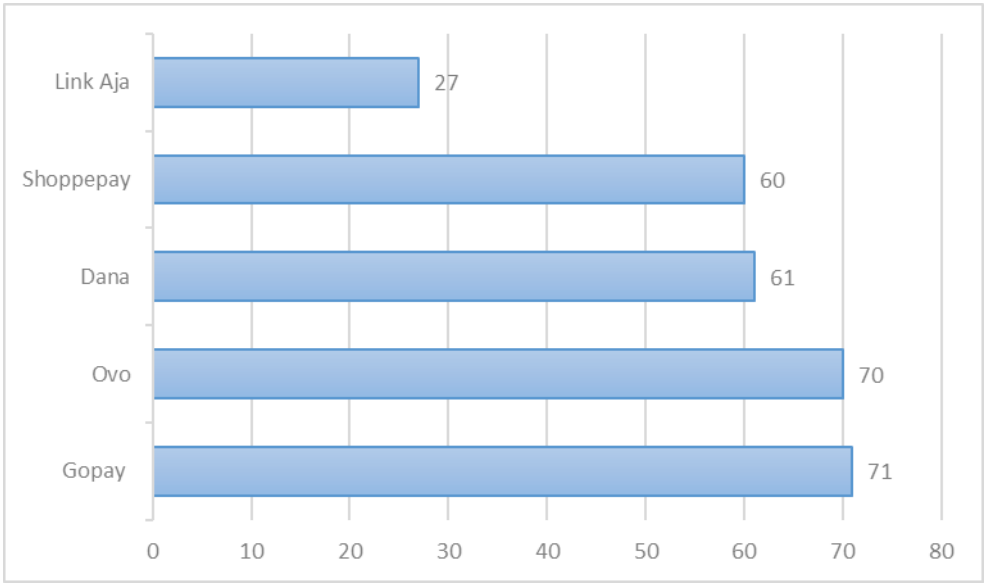


Figure 1.2. Five Most Popular Digital Wallet Apps in Indonesia.
Source: Insight Asia (2020).

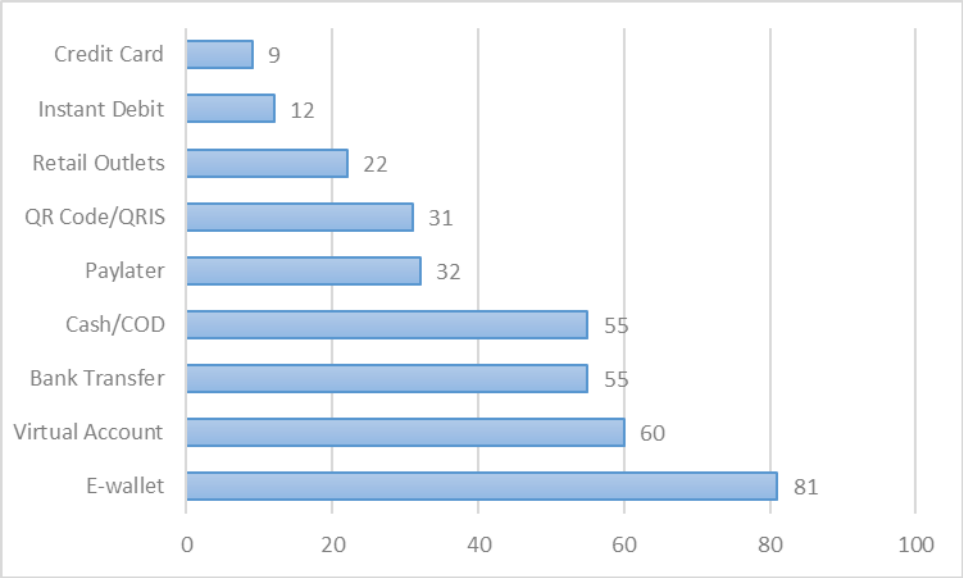


Figure 1.3. Most Used Payment Methods in Indonesia.
Source: East Ventures (2023).

A study by Ramadhani in 2022 found that e-wallet usage in Indonesia is predominantly observed among millennials. According to research by Naura from East Ventures in 2023, e-wallets have become the most popular mode of payment in Indonesia, accounting for 81% of transactions in 2022. The data from Figure 1.3 shows this trend. Projections suggest a significant rise in e-wallet users in Southeast Asia, with around 250 million users by 2025. Indonesia is expected to account for most of this growth, with approximately 130 million new users during this period.

The popularity of e-wallets and electronic money in Indonesia can be attributed to the fact that one does not need a bank account or credit card to register. This feature makes it easier for unbanked individuals to use digital payment platforms, improving accessibility and convenience (DTI, 2023). Moreover, e-wallet apps offer a variety of promotional deals and discounts for each transaction, making it more attractive for people to switch to this payment method (Adisty, 2022).

The main objective of this research is to understand better the different factors influencing customers' willingness to use e-wallets. The factors considered in this study are perceived usefulness, perceived ease of use, perceived risk, trust, attitude toward the service, and convenience. The study examines the significance of these factors in terms of the acceptance and usage of electronic wallets.

Perceived usefulness refers to how customers perceive that using an e-wallet will help them achieve their goals or tasks more efficiently. Perceived ease of use pertains to the level of simplicity that users feel when using e-wallets, with minimal effort or cost. Perceived risk is the possible negative consequences of using e-wallets, such as fraud, data breaches, and illegal transactions. Trust plays a crucial role in customers' willingness to use e-wallets, as it indicates their confidence in the security and reliability of the service. Users' attitude towards the service is influenced by their impressions of the usefulness and user-friendliness of e-wallets, which then affects their desire to use the service. Convenience measures users' ease when using an electronic wallet, which can significantly affect their willingness to use it.

Understanding these factors is essential for e-wallet providers as it enables them to develop marketing strategies and improve their services to ensure user satisfaction and increase usage. The results of this study can also assist in developing effective policies and guidelines for implementing and promoting e-wallet services.

E-wallets have become a swiftly growing trend in Indonesia. However, there still needs to be a greater understanding of the factors that motivate individuals to implement and utilize this technology. Therefore, this research investigates the factors influencing an individual's intention to use an e-wallet in Indonesia. Therefore, it is anticipated that the findings of this study will provide valuable information for e-wallet service providers and affiliated parties seeking to increase the market penetration and usage of e-wallets in Indonesia.

This study explores the factors influencing the intention of using e-wallets, such as perceived ease of use, usefulness, risk, trust, and convenience. By conducting a comprehensive analysis of these factors, we can gain insights into the preferences and requirements of e-wallet users in Indonesia. This, in turn, will help e-wallet service providers improve their services and increase the adoption and usage of e-wallets among the general public. Furthermore, this research will contribute significantly to the existing literature on e-wallets and digital payment technology in Indonesia, thus contributing to the growth of the country's digital economy.

## 2. Theoretical Basic and Previous Research Review

### 2.1 Overview of E-wallet

A digital wallet, also known as an e-wallet or electronic wallet, is a digital system that allows individuals to store and manage their financial transactions securely. This includes making payments, receiving money, and monitoring expenses, all of which can be conveniently done using a mobile device or computer (Rahman M, 2022). The popularity of digital wallets has risen in both developed and developing countries due to the convenience, security, and widespread availability of cell phones and internet connectivity (Ramayah, 2023). The use of e-wallets in Indonesia has grown significantly due to the increasing prevalence of smartphones and internet connectivity. Some popular e-wallets in Indonesia include Gopay, OVO, DANA, and ShopeePay (Ramli, 2023). E-wallets offer several benefits, such as quick and convenient transaction processing, improved security measures, access to attractive promotional offers, and better financial management capabilities (Ramayah, 2023). E-wallets can be used for various transactions, including bill payments, credit-based purchases, and fund transfers (Ramayah, 2023).

Several studies have been completed before this study. Researchers accept the presence of several discrepancies in research outcomes, variables, sample durations, locations, and other elements that differ from other researchers. The objective of discovering these gaps was to evaluate the Perceived Usefulness (PU), Perceived Ease to Use (PEU), Perceived Risk (PR), Perceived Trust (PTS), Perceived Attitude Towards the Service (ATS), and Perceived Convenience (PC) in connection to the intention to use. Wardana's (2023) study reveals that convenience, PEU, and PU have a major and positive impact on the intention to use. Nevertheless, it is essential to mention that the study did not consider the influence of trust and danger on the intention to use. Defa Oktaviana Putri (2023) researched the influence of perceived risk and trust on the decision to use without considering aspects like convenience, perceived ease to use, and perceived usefulness.

This study gap exists because studies need to explain the combined effects of the two investigations stated before. More exploration of this topic is needed to ensure there is sufficient research. The variables are measured using different sample sizes, locations, and time intervals, which results in variances in the research findings. The researcher intends to further their investigation by collecting additional data.

A research investigation in Bangladesh explored client satisfaction with e-wallet payment systems Muhtasim (2022). This study aims to identify external variables that are known to contribute to the existing hypothesis, as supported by earlier literature. The research revealed that consumer satisfaction is impacted by several elements, including but not limited to simplicity of use, security, and convenience. A research study conducted in Malaysia examined the factors that influence the desire to continue using e-wallets (Thai, S, B, K. Y., 2023). The study used the Technology Continuance Theory (TCT) to analyze four variables: pricing advantages, habits, trust, and operational restrictions. The study found that the user's happiness, perceived usefulness, and ease of use significantly impact the willingness to continue using e-wallets. Research has also shown that e-wallets have gained recognition as a reliable form of digital payment in emerging countries, including Malaysia. A comprehensive analysis of existing literature on mobile payments and e-wallets in developing nations has been conducted. This study provides valuable insights into the prospects of e-wallet adoption in emerging countries, with a particular focus on Malaysia (Ramli, 2021). Therefore, this literature analysis demonstrates the importance of e-wallets as a crucial tool for managing financial transactions in the digital world. Several factors, such as perceived usefulness, ease of implementation, trustworthiness, and social influence, influence the acceptance and utilization of e-wallets.

**2.2 Perceived Usefulness (PU)**

Perceived usefulness refers to an individual's assessment of how much a specific technology or system can enhance their ability to complete tasks or fulfill their role more efficiently and efficiently. This perception of technology's ability to improve performance is crucial in shaping individuals' acceptance and continued use of technological advancements.

In recent years, extensive research has been conducted on using and accepting e-wallets. The perceived utility of electronic wallets has emerged as a critical factor influencing customer behavior, and the relationship between the perceived usefulness of e-wallets and individuals' perception of their ability to move about was examined. However, the study did not find a direct correlation between the user-friendliness of e-wallets and users' impression of their usefulness. This view thus impacts customers' inclination to adopt e-wallets. Research conducted by Rahayu (2021) yielded empirical data affirming that perceived usefulness substantially influences customers' inclination to sustain their mobile or Internet banking services amidst the COVID-19 pandemic. A study conducted by Ridaryanto in 2023 revealed that the usability of e-wallets and the associated risks play a vital role in shaping their acceptance. Reza's (2022) research also examined customer satisfaction linked to using e-wallets, demonstrating that using e-wallets leads to positive results in transactional situations. Finally, the study conducted by Muhtasim (2023) examined the relationship between perceived responsiveness and perceived intellect.

In recent studies, researchers have examined the relationship between customer satisfaction and various factors related to e-wallet usage. Chalik (2022) found that many key elements, such as PTS, system quality of information, service quality, and structural assurances, influence consumer satisfaction. Rosli (2023) studied the determinants of e-wallet acceptability among Generation Z, using the Extended Technology Acceptability Model as a conceptual framework. The researcher discovered that the adoption of e-wallets is substantially influenced by elements such as perceived utility, perceived simplicity of use, and other relevant variables. Similarly, Kínış (2023) investigated the determinants of e-wallet acceptance in Northern Cyprus, and their findings revealed that several factors, including PU, PEU, and other relevant variables, affect the adoption of electronic wallets. Therefore, the perceived utility, simplicity of use, trustworthiness, and system quality are significant contributors to the adoption of e-wallets. This literature provides valuable information for e-wallet providers to enhance their services to align with user demands and expectations.

**2.3 Perceived Ease to Use (PEU)**

Perceived Ease of Use (PEU) is the subjective assessment of how easy it is to use a particular technology or system. User-friendliness is a vital factor in the acceptance and continued use of technology. Consumers are more likely to use technology when it is easy to operate.

In recent years, extensive research has been conducted on adopting and using electronic wallets. This research identifies PEU as a crucial determinant of customer behavior. Several studies provide valuable insights into the relationship between PEU and the adoption of e-wallets. A Wardana (2023) study revealed a positive correlation between the convenience of e-wallet usage and users' perception of its usefulness, thus increasing their inclination to utilize it. Rahayu (2021) empirical study provided evidence supporting the notion that PEU has a significant and favorable impact on customers' desire to maintain their usage of mobile or internet banking services during the COVID-19 pandemic. Ridaryanto (2023) study revealed that the usability of e-wallets and the associated risks significantly impact the adoption of e-wallets. The PEU was the primary predictor of perceived usefulness. Reza (2022) examined customer satisfaction regarding using e-wallets. Their findings revealed that using e-wallets yields a positive value in transactions, with the PEU component exerting a significant influence.

Liswandi (2018) proved that perceived ease of use significantly influences buy intention's influence on Tokopedia. Despite not being a digital wallet, the research indicates that increased ease of use generally produces a favorable effect.

A further investigation conducted by Muhtasim (2023) explores the correlation between perceived responsiveness, perceived intelligence, and perceived mobility concerning the ease to use of e-wallets. In

their research, Chalik (2022) investigated the relationship between customer happiness and several elements of e-wallet usage. Their findings revealed that many vital factors influence customer satisfaction, including Trust, system quality, information quality, service, and structural assurance. Notably, the PEU emerged as a significant component in determining customer satisfaction. The study conducted by Rosli (2023) examined the determinants of e-wallet adoption among individuals belonging to Generation Z, utilizing the Extended Technology Adoption Model as the theoretical framework. The Researcher discovered that characteristics such as PEU, PU, and other variables substantially impacted the adoption of e-wallets. In their study, Kınış (2023) investigated the determinants of e-wallet acceptance in Northern Cyprus. Their findings revealed that many factors, including PEU, PU, and other relevant criteria, significantly influence the adoption of e-wallets.

Previous research findings indicate that the e-wallet's PEU significantly shapes its uptake and sustained usage. Additional variables, such as the perception of utility, trustworthiness, and system quality, are significant elements that contribute to adopting e-wallets. This study offers significant insights into the determinants of e-wallet adoption and can assist e-wallet providers in enhancing their services to align with users' requirements and preferences.

### 2.4 Perceived Risk (PR)

Consideration of Perceived Risk (PR) is significant in assessing technology adoption and the sustained utilization of technological advancements, such as e-wallets. Individuals' propensity to engage with technology positively correlates with their perception that the potential hazards inherent in its utilization can be effectively controlled or reduced. Ramtiyal (2022) identifies several pertinent public relations (PR) characteristics within e-wallets, encompassing financial, privacy, performance, and security threats. Throughout the previous few years, multiple research has been conducted on the acceptance and utilization of e-wallets, wherein PR has emerged as a significant factor in shaping customer behavior. The research conducted by Putri (2023) investigated the mediating effect of trust on the relationship between PR and the choice to use e-wallets among students at Muhammadiyah Ponorogo University.

The study by Khan (2023) investigates the impact of PR as a mediator and the moderating influence of perceived service quality and perceived trust on the behavior of digital wallet usage. In this research conducted by Foster (2022), an examination is undertaken to assess the impact of product knowledge, perceived advantages, and risk perceptions on the decision-making process of Indonesian students in adopting e-wallets for the specific case of *Warunk Upnormal*. The research conducted by Hutapea (2021) investigated the utilization of electronic payment systems, namely e-wallets, after the COVID-19 pandemic. The study also examined the influence of reduced distribution costs and transit time on impulsive buying behavior. The research conducted by Wei (2023) investigated the impact of perceptions and attitudes on individuals' willingness to utilize e-wallets during the COVID-19 epidemic. The present study conducted by Aisyah (2021) undertakes a systematic evaluation focusing on using mobile payments and e-wallets in developing nations. The investigation encompasses analyzing several elements that contribute to the acceptance of these technologies, including the effect of public relations. Based on the findings of this literature analysis, it can be inferred that PR significantly impacts the acceptance and usage of e-wallets. Enhancing public relations efforts and bolstering customer trust in electronic wallets' security and efficacy might foster greater acceptance and utilization of this technological innovation.

### 2.5 Attitude Toward the Service (ATS)

Attitude toward the service is a significant determinant of its adoption and sustained utilization, as individuals have a greater propensity to engage with a service when they hold a favorable attitude toward it. Within electronic wallets, Attitude Toward the Service can be subject to several aspects, including but not limited to PU, PEU, PR, and PTS (Illieva, 2023).

In recent years, many studies have been conducted on using e-wallets. The attitude towards the service significantly influences customer behavior in this context. The research conducted by Illieva (2023) examined the variables that impact consumers' attitudes and intentions toward the adoption of digital wallets. The study identified trust, mobility, convenience, and usability as significant elements influencing customers'

decision-making. A study conducted by Shin (2009) investigated the impact of many aspects, such as attitude Towards the service, on customers' inclination to use e-wallet payment systems. The findings indicated that perceived utility emerged as the most influential element affecting users' attitudes and intents. The research conducted by Kilani (2023) examined the post-consumer adoption of e-wallets from an expanded viewpoint, focusing on the role of trust and emphasizing the significance of Attitude Toward the Service in sustaining e-wallet usage. The study conducted by Hidayat (2023) examines the influence of mobility, simplicity of use, and perceived utility on customers' attitudes and intentions to use e-wallets. The findings highlight enterprises' importance in addressing these variables to enhance consumers' attitudes toward the Service.

Furthermore, Genoveva (2015) conducted a study that examines the relationship between attitude toward service and perception of service quality. The study highlights the significant impact of service quality perception in shaping client attitudes toward a service. Perceived service quality has a crucial role in shaping Generation Z's and millennials' mindset in Jabodetabek towards using e-wallet services. Excellent service quality can foster a good attitude towards the service, encompassing reliability, responsiveness, customer comprehension, access, communication, and credibility. Consequently, this optimistic mindset can impact customers' inclination to utilize e-wallet services. Several factors significantly influence attitudes towards the service, such as the acceptance and sustained utilization of e-wallets. Various factors, including PU, PEU, PR, and PTS, substantially impact customers' attitudes towards e-wallet services. Gaining comprehension of these variables and effectively resolving them will help e-wallet providers enhance their services to align with client wants and expectations.

### 2.6 Perceived Trust (PTS)

Establishing and maintaining consumer trust is crucial in shaping the acceptance and ongoing utilization of online payment systems, including e-wallets. Several factors significantly shape customer trust within e-wallets, including security, risk, and simplicity of usage (Prasetya, 2023). In recent years, many studies have been conducted on the acceptance and utilization of e-wallets; perceived trust is a significant independent variable on intention to use e-wallets. PTS is crucial for multiple reasons. PTS has a substantial impact on the intention to make a buy. A study by Chairy (2017) revealed that brand knowledge, relationship, familiarity, and trust substantially influenced purchase intention, with a significance value below 0.05. When people have confidence in a brand, their inclination to purchase its products or services increases. Trust is crucial. E-wallets facilitate monetary transactions, necessitating customers to trust the brand's reliability to safeguard their funds and maintain the security of their transactions. Users' faith in the e-wallet brand positively influences their likelihood of using it, enhancing their intention to utilize the electronic wallet.

The research conducted by Ramli (2021) investigates the use of mobile payments and e-wallets in developing nations, encompassing analysis of many determinants that impact the adoption process, such as trust. The research conducted by Prasetya (2023) examines the security, risk, and trust aspects of e-wallet payment systems in Indonesia. The study offers empirical data highlighting the significance of trust in the acceptance and use of e-wallets. The research conducted by Wei (2023) investigated the use of digital currency, namely e-wallets, after the COVID-19 pandemic. The study also examined the influence of reduced distribution costs and transit times on impulsive buying behavior, emphasizing the significance of trust in the acceptance and usage of e-wallets.

Perceived trust plays a vital role in the initial acceptance and sustained usage of electronic wallets. Several factors, including security, risk, and simplicity of usage, may influence consumer trust in e-wallet services. Gaining comprehension and effectively managing these elements will facilitate e-wallet providers' enhancement of services to align with client wants and expectations.

### 2.7 Perceived Convenience (PC)

Electronic wallets have experienced a notable surge in popularity, particularly among individuals belonging to the Generation Z and Millennial cohorts. The primary reason for their popularity is the ease they provide in terms of accessibility and time effectiveness. This literature analysis aims to examine the impact of these factors on the intention to adopt e-wallets among different generations. E-wallets, also known as digital

wallets, are software applications that facilitate the storage, transmission, and reception of monetary funds in digital form. The platform provides customers a rapid, secure, and simple method to conduct transactions in any location, supplanting conventional wallets' role. Electronic wallets, commonly known as e-wallets, are user-friendly and can be conveniently accessed from mobile and desktop computers. Individuals can establish an electronic wallet account in minutes, facilitating seamless and convenient transactions. The platform enables users to conduct immediate transactions, reducing the inherent delay experienced with conventional payment methods such as cheques or interbank transfers.

The perceived simplicity of usage substantially influences the intention to utilize e-wallets. The findings of a research study examining the inclination of Generation Z individuals towards utilizing electronic wallets indicate that their desire to engage in such behavior is strongly influenced by their perception of the ease of use associated with these digital payment platforms. This aligns with the theoretical framework known as the Technology Acceptability Model (TAM), which suggests that the perceived level of convenience in utilizing a technology plays a crucial role in its acceptability and subsequent usage Khuong (2022).

Electronic wallets, sometimes called e-wallets, facilitate seamless and expeditious payment transactions for users, eliminating the necessity for physical currency or traditional credit cards. The software allows users to input payment details, facilitating prompt transaction processing. This obviates the necessity of waiting in line at financial institutions or brick-and-mortar vendors, resulting in time and energy conservation Ermanja (2023). Therefore, the ease provided by electronic wallets, particularly in terms of accessibility and time effectiveness, substantially impacts the inclination of Generation Z and Millennials to utilize them. Understanding these characteristics is of utmost importance for e-wallet providers to improve their services and augment user engagement, given that these generations are the primary consumers of this technology.

**2.8 Intention to Use (ITU)**

The use of e-wallets has seen a tremendous surge in popularity, especially among individuals belonging to the Generation Z and Millennial groups. The main reason for their popularity is their convenience in terms of accessibility and time effectiveness. E-wallets, also known as digital wallets, are software applications that facilitate the storage, sending, and receiving of monetary funds in digital form. The platform provides a fast, secure, and simple method for customers to conduct transactions at any location, thus replacing the role of conventional wallets. Electronic wallets, commonly known as e-wallets, are easy to use and can be accessed easily from mobile and desktop computers. Individuals can create an e-wallet account in minutes, facilitating smooth and convenient transactions. The platform allows users to make immediate transactions, reducing the delays inherent in conventional payment methods such as checks or bank transfers Ariel (2022). Perceived ease to use substantially influences the intention to use e-wallets. Findings from a research study examining Generation Z individuals' propensity to use e-wallets showed that their willingness to engage in such behavior was strongly influenced by their perception of the ease of use associated with these digital payment platforms. This aligns with the theoretical framework known as the Technology Acceptability Model (TAM), which suggests that the perceived level of comfort in using a technology plays a crucial role in its acceptance and subsequent use (Ariningsih (2022)).

Electronic wallets, sometimes called e-wallets, facilitate smooth and fast payment transactions for users, eliminating the need for physical currency or traditional credit cards. The software allows users to enter payment details, facilitating fast transaction processing. This eliminates the need to stand in line at financial institutions or physical vendors, conserving time and energy. Time efficiency has an essential effect on the intention to use e-wallets.

## 3. Research Model, Hypothesis Development and Methods

### 3.1. Research Model

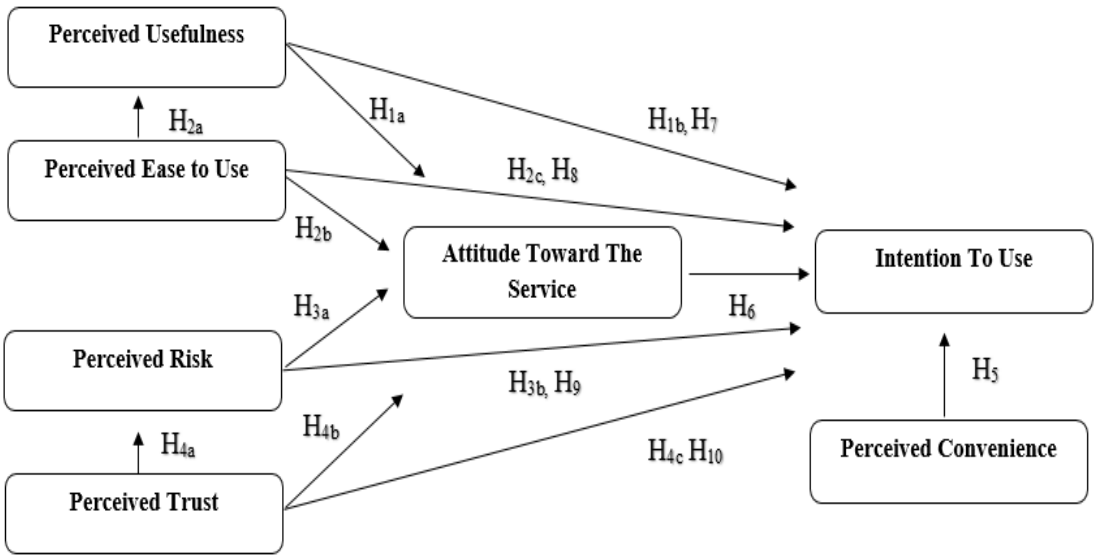


Figure 3.1. Theoretical Framework.
Source: Oanh Thi Nguyen (2020).

Several investigations have been conducted before this one. Scholars recognize the presence of numerous deficiencies in research outcomes, variables, sample durations, locations, and other factors that differ among investigators. These gaps were identified to evaluate the perceived usefulness, perceived ease to use, perceived risk, trust, attitude toward the service, and convenience concerning the intention to use. The research was conducted by Wardana (2023). provides evidence that the intention to use is significantly and positively impacted by convenience, perceived simplicity of use, and perceived usefulness. However, it is important to note that neither risk nor trust were considered in the study as determinants of intention to use. In the interim, a study by Putri, D. O. (2023) investigates the influence of trust and perceived risk on the utilization decision while excluding variables such as perceived convenience, perceived ease to use, and perceived utility. The lack of studies that clarify the synergistic effects of combining the two investigations mentioned above gives rise to this research lacuna. It is essential to investigate this subject comprehensively to avoid an unresolved lacuna in the research literature. Distinct time intervals, locations, and sample sizes measure these variables. The discrepancy between these factors results in divergent research outcomes. The investigator intends to advance their inquiry by collecting data from additional sources.

### 3.2. Hypothesis Development

$H_{1a}$: Perceived usefulness influences attitude towards the service.

$H_{1b}$: Perceived usefulness influences the intention to use the service.

Multiple research done between 2013 and 2023 have provided evidence that the perceived usefulness of an electronic wallet (e-wallet) positively influences individuals' attitudes toward the service and their intention to utilize it.

The findings of a study published in the Emerald Insight journal in 2021 indicate that several factors, including perceived utility, perceived simplicity of use, attitude, subjective norm, positive disconfirmation, and perceived behavioral control, have a substantial impact on customers' propensity to utilize e-wallet services. The research also revealed that the perceived value component did not enhance the association between user happiness and the desire to use e-wallets. This implies that perceived utility and other variables substantially influence usage intention Ariffin (2021).

The notion is further supported by a study undertaken by Atlantis Press in 2023. The research revealed that the perceived usefulness and simplicity of use notably impacted individuals' desire to utilize e-wallet applications. Additionally, the research revealed that social influence did not yield a statistically significant

impact, underscoring the significance of perceived usefulness in shaping individuals' intention to use Effendy (2020).

A recent publication in the PMC database (2021) revealed that the perceived usefulness of e-wallets was found to have a beneficial influence on users' sentiments towards continued usage. The research also revealed that the COVID-19 epidemic has significantly impacted the utilization of e-wallets. However, the sustained adoption of e-wallets is primarily contingent upon consumer self-efficacy, which can be influenced by the perceived usefulness of these digital payment systems, Effendy (2020).

A study conducted by IOPscience (2023) revealed that the perceived usefulness of the e-wallet payment system emerged as the most influential determinant of users' views and intentions towards its adoption. Additionally, the research revealed that mobility emerged as the least influential element, indicating that the perceived usefulness of e-wallets has a more substantial impact on individuals' intention to use them, Khan & Abideen (2023).

$H_{2a}$: Perceived ease to use influences perceived usefulness.

$H_{2b}$: Perceived ease to use influences attitude towards the service.

$H_{2c}$: Perceived ease to use influences intention to use.

Several types of research support the premise that an e-wallet's ease of use positively influences attitudes toward the service and perceptions of its value. According to a study published in 2023, perceived utility is the factor that exerts the most influence on users' attitudes and intentions toward adopting the e-wallet payment system. The study also found that the perceived ease to use, which refers to an individual's perception of how straightforward it is to utilize a system, has a key influence on the acceptance and use of electronic wallets Hidayat (2021).

A subsequent investigation in 2023 revealed that the perceived simplicity of use exhibited a noteworthy and favorable impact on both the perceived usefulness and the level of interest in utilizing e-wallets. According to the study, the perceived usability of an e-wallet had a notable and favorable influence on individuals' intention to utilize it.

A study conducted in 2023 revealed a notable positive correlation between the perceived ease to use and the propensity to utilize e-wallets among adult individuals. According to the survey, many customers felt that the experience of using the e-wallet app was user-friendly. Additionally, the study suggests that when a technology is easier to use, it is more likely to be preferred by consumers as a payment method for conducting transactions, Yang (2021)

$H_{3a}$: Perceived risk influences attitude toward the service.

$H_{3b}$: Perceived risk influences intention to use.

Several studies conducted between 2013 and 2023 support the concept that the perceived danger of using an e-wallet negatively influences the attitude toward the service. According to the findings of Khan & Abideen (2023), the perception of risk, including potential adverse consequences such as fraudulent activities, illegal access to personal data, and unauthorized transactions, can impede the acceptance and utilization of digital wallets. According to the study, individuals who perceive elevated risks linked to utilizing a digital wallet may exhibit a reduced inclination to develop an intention to use it. Moreover, this perception of risk may diminish the likelihood of actual usage. Consequently, these factors can significantly impact the individual's intention to use the digital wallet and subsequent usage patterns Khan & Abideen (2023).

A study by Priyono (2023) showed that the perception of risk negatively influences adopting electronic payment technology. The findings suggest that users make payment transactions based on their subjective assessment of potential risks (Foster, 2022).

According to the findings of Hutapea & Wijaya (2023) study, a negative relationship exists between perceived risk and the effective utilization of fintech services. The research revealed a negative correlation between perceived risk and actual use of electronic payment technology, suggesting that higher levels of perceived risk are associated with lower rates of adoption Wijaya (2021)

As mentioned earlier, the research offers compelling evidence that the perception of risk has a detrimental effect on individuals' attitudes toward e-wallet services, corroborating the proposed theory. Apprehensions about using e-wallets, including concerns about fraudulent activities and data breaches, may

discourage individuals from embracing and engaging with these services. Hence, implementing risk mitigation measures is crucial to enhancing the adoption and utilization of electronic wallet services.

$H_{4a}$: Perceived trust influences perceived risk.

$H_{4b}$: Perceived trust influences attitude towards the service.

$H_{4c}$: Perceived trust influences intention to use.

Multiple research studies from 2013 to 2023 support the hypothesis that trust in the e-wallet provider positively influences perceived risk and attitude toward the service. The study "An Investigation into the Impact of Trust and Perceived Risk on Customers' Intention to Utilize NFC Mobile Payment Systems" discovered that customers' intention to use mobile payment systems is adversely affected by their perception of risk. This suggests that trust can be crucial in mitigating this perceived risk and subsequently enhancing the intention to use such systems Alward (2021).

A separate research investigation titled "Customer Attitude toward Digital Wallet Services" discovered that the extent to which customers trust e-wallets substantially influences their decision to embrace such services (Ileva, 2023). This finding implies that consumers' trust in the e-wallet provider positively influences their likelihood of adopting the service, supporting the stated hypothesis.

The study, titled "The Influence of Behavioral Intention on the Usage Behavior of Digital Wallet: Examining the Mediating Role of Perceived Risk and the Moderating Roles of Perceived Service Quality and Perceived Trust," found that perceived trust and service quality have a significant moderating effect on the relationship between perceived risk and digital wallet usage behavior, Khan & Abideen (2023). This discovery implies that the amount of confidence placed in the e-wallet provider can reduce the perceived danger connected with the service and, as a result, positively influence users' perspectives towards it. The study titled "Perceived Risk, Trust, and Intention to Use Fintech Service During the Covid-19 Pandemic" discovered that trust plays a crucial role in influencing the use of fintech services. It indicates that having confidence in the e-wallet provider may foster a favorable perception of the service and ultimately result in its practical adoption, Hutapea & Wijaya (2021).

$H_5$: Perceived convenience influences the intention to use the service.

Utilizing an electronic wallet (e-wallet) undeniably yields favorable effects on the inclination to adopt and employ this service. This assertion is substantiated by several research conducted between 2013 and 2023. In a research conducted by Wardana et al. in Surakarta, Indonesia, it was discovered that convenience plays a crucial role in influencing the intention to utilize an electronic wallet, yielding a favorable and statistically significant impact. The research also discovered that when individuals perceive an e-wallet as being user-friendly, it increases their perception of its usefulness. Consequently, this perception positively influences their desire to adopt and utilize the e-wallet, Wardana (2022), the user, has provided a numerical reference.

According to a study by Forbes Advisor, most individuals (53%) exhibit a higher frequency of utilizing digital wallets than conventional payment methods. The predominant factor driving the utilization of digital wallets for transactional purposes was convenience, accounting for 41% of respondents. This was closely followed by rewards and loyalty programs, constituting 22% of the respondents' motivations. The user provided a numerical reference, Claypool (2023).

Western Union also emphasized the benefits of digital wallets, asserting its versatility for both online and in-store transactions. They further described digital wallets as efficient, secure, and convenient, offering a financially astute method for acquiring products and services across several domains.

Electronic wallets, commonly known as e-wallets, facilitate consolidating several payment methods inside a single platform. These methods typically encompass credit cards, bank accounts, gift cards, and other relevant forms of payment. This feature prevents employing several money transfers or banking applications, facilitating the expeditious transmission of transactions, irrespective of geographical location and temporal constraints.

$H_6$: Perceived attitude toward the service influences intention to use the service.

Numerous research projects between 2013 and 2023 lend credence to the idea that a favorable attitude toward e-wallet services significantly influences the inclination to utilize the service. According to a

publication in the Spanish Journal of Marketing - ESIC, it was observed that the inclination of consumers to persist in using e-wallet services was considerably and positively impacted by factors such as the perceived ease to use, perceived usefulness, attitude, subjective norm, positive disconfirmation, and satisfaction Arifin (2021). This finding indicates that customers' inclination towards the e-wallet positively influences their likelihood of sustained usage.

A recent publication in the AIP Conference Proceedings highlights the considerable importance of the developer's reputation in fostering user trust in utilizing e-wallet applications (Wijaya & Hardiyansyah, 2023). This suggests that an individual's inclination to utilize the e-wallet service can be influenced by their favorable perception of the service provider. According to a study published in the Future Business Journal, several factors, including perceived ease to use, utility, perceived risk, and attitude, were found to have had a substantial impact on the intention to utilize an e-wallet Shetu (2022). This finding provides more evidence in favor of the premise that a favorable attitude toward the e-wallet service substantially influences the intention to utilize the service.

According to a study published in MDPI, customers prioritize perceived usefulness as the primary criterion when evaluating e-wallets, followed by considerations of risk, ease of usage, and other factors.

Ilieva (2023). This finding indicates that individuals' favorable perception of the e-wallet service's use can substantially impact their inclination to utilize it. A study published in Springer has identified attitude as a prominent factor in predicting users' intentions to sustain their usage of the e-wallet Halim (2022). This finding provides more evidence in favor of the premise that a favorable attitude towards the e-wallet service substantially influences the intention to utilize the service.

$H_7$ : Perceived usefulness through Perceived Attitude Toward the Service influences the intention to use the service.

$H_8$ : Perceived ease through Perceived Attitude Toward the Service to use influences the intention to use the service.

$H_9$ : Perceived risk through Perceived Attitude Toward the Service influences the intention to use the service.

$H_{10}$: Perceived trust through Perceived Attitude Toward the Service influences the intention to use the service.

### 3.3. Methods

#### 3.3.1 Research Design

The researchers used quantitative research methods to examine the determinants of e-wallet adoption among Generation Z and Millennials residing in the Jabodetabek region. This method places significant emphasis on systematically collecting and analyzing data, employing quantitative techniques. Additionally, it involves the rigorous testing of theories that are formulated based on empirical evidence and adhere to a positivist perspective Hestniati (2022). The primary objective of this study is to construct and employ mathematical models, theories, and hypotheses about the phenomenon under investigation, specifically the utilization of electronic wallets.

Researchers collect and analyze quantitative data to identify trends and ascertain averages, formulate predictions, examine cause-and-effect relationships, and extrapolate findings to a broader population. This study diverges from qualitative research, which encompasses collecting and analyzing non-numeric data. The researchers employ quantitative research to standardize the process of data collecting and facilitate the generalization of findings. Various research approaches, such as questionnaires, organized observations, or experiments, are encompassed within this domain Malik (2021). This study enables researchers to gain insights into a specific demographic cohort, specifically Generation Z and Millennials residing in the Jabodetabek region.

This research entails systematically collecting and analyzing quantitative data to characterize, forecast, or manipulate factors of significance (Utami, 2022). The primary objective of this study is to examine a pre-established theory or hypothesis empirically and, after that, determine its validity through the analysis of obtained data, leading to either its acceptance or rejection.

Within the study, the independent variables encompass Perceived Usefulness, Perceived ease of use,

Perceived Risk, Attitude Toward the Service, Trust, and Convenience. The variable being measured in this study is the intention to use. The Researcher employs this model to investigate the correlation between the characteristics above, as mentioned earlier, and the inclination to utilize electronic wallets among individuals belonging to Generation Z and Millennials residing in the Jabodetabek region.

### 3.3.2 Research Location

The study was carried out in the Greater Jakarta region, encompassing the urban areas of Jakarta and Jabodetabek, which consists of Jakarta, Bogor, Depok, Tangerang, and Bekasi. The research will encompass many geographical sites within the region, including shopping malls, electronics centres, parks, college campuses, and other metropolitan places.

### 3.3.3. Sampling Plan

The research sample will consist of Indonesian individuals who meet the requirements of belonging to the Millennial and Generation Z cohorts. Based on the findings of Hestniati (2022), the Directorate General of State Assets has defined Generation Z as individuals born between 1997 and 2012, whereas Millennials are classified as those born between 1981 and 1996.

The study utilized a sample size of 135 participants. The research requirements and the availability of resources determined the selection of this sample size.

The Researchers employ purposive sampling as the sampling strategy, a non-probability technique wherein samples are selected based on the Researcher's understanding of the community and research goals (Hestniati, 2022). Within the framework of this study, the sample selection will be contingent upon the stipulation that individuals belong to either Generation Z or Millennials and have a history of utilizing e-wallets.The procedure for data collection will be facilitated using an online poll, which will be disseminated over several social media platforms and email channels. The survey will encompass inquiries regarding participants' perceptions of the simplicity of utilizing an e-wallet, its perceived utility, and the social factors influencing their desire to adopt its usage**.**

### 3.3.4 Population

In research, the population refers to the entirety of elements that are the objects and subjects with specific attributes and characteristics. Populations can be divided based on quantity (limited and unlimited), nature (homogeneous and heterogeneous), and other differences, such as target populations and survey populations Amin (2023).

In research on the intention to use e-wallets, determining the population becomes crucial as it is the primary data source. Several studies have identified relevant populations such as millennials, Generation Z, e-banking users, and the general public, aligning with their research objectives. In the context of this study on the intention to use e-wallets in the Jabodetabek area, the chosen population comprises Generation Z and millennials. This population selection aligns with the research aim of understanding the intention to adopt e-wallets among the younger demographic, representing a potential target market for e-wallets in the Jabodetabek region.

### 3.3.5 Sample

As defined in the literature by Rahman (2023), a sample refers to a subset of persons chosen from a broader population to conduct a research study. The primary objective of sampling is to acquire a representative sample comprising a subset of examples or units chosen from a significantly larger group or population. This enables the researcher to examine the subset and derive accurate inferences about the broader population.

Research has two primary sampling techniques: probability and non-probability (Fleetwood, . This research employs non-probability sampling methods due to the unavailability of information regarding the total population size. Specifically, purposive sampling techniques are utilized as the chosen way of sampling. Purposive sampling is a strategy employed to obtain the proper sample size by selecting individuals based on specific criteria pertinent to the research objectives. Purposive sampling was employed due to the constraints of using a random sample. This approach necessitates that the chosen sample aligns

accurately with the research's contextual parameters.

This study employs sample criteria consisting of persons who meet age qualifications, are users of e-wallets in the Jabodetabek area, and have a specific degree of education. According to Amin (2023), the principles for determining sample size, as advised by Roscoe, are as follows:

1. The appropriate range for sample sizes in research often falls between 30 and 500.
2. To ensure statistical validity, each category within the sample must have a minimum of 30 individuals.
3. When conducting multivariate analysis, such as correlation or multiple regression, it is recommended that the sample size be at least 10 times larger than the number of variables being analyzed.
4. In fundamental experimental research using both an experimental group and a control group, the sample size typically varies between 10 and 20 participants for each group.

Sugiyono (2014) states that the Cochran formula is a statistical technique utilized to ascertain the necessary sample size for a study or survey. This strategy is highly appropriate for extensive populations. The method, devised by William G. Cochran, determines the necessary sample size based on the desired accuracy level, confidence level, and expected proportion of qualities in the population.

$$n = \frac{z^2 pq}{e^2}$$

$$n = \frac{(1{,}96)^2 (0{,}5)(0{,}5)}{(0{,}10)^2}$$

$$n = 96{,}04 = 97$$

Information:
N: Sample
Z: Price in the normal curve for a deviation of 5%, with a value of 1.96
P: Correct probability 50% = 0.50
q: Wrong chance 50% = 0.50
e: Margin of error 10%

According to the journal, Divakar (2021), the standard practice for dealing with decimal values in a sample is to round up. This is because it is preferable to have a bigger sample size to guarantee sufficient statistical power for your research. Having a bigger sample is preferable to having a smaller sample, as smaller samples can yield erroneous results and reduce statistical power Rahman (2023)

### 3.3.6. Data Collection Design

The present study employs a data-collecting strategy that utilizes survey methods, namely through the distribution of questionnaires, including an interval scale, to gather information from respondents. A questionnaire, or a survey, is a systematic method of gathering data by presenting a series of questions to individuals to obtain their responses. According to Sugiono (2014), the samples were obtained using a basic random sampling method, wherein the Researchers ensured that every community member had an equal chance of being picked into the samples without considering any strata present within the population. The sampling method employed in this study was incidental sampling, as described by Sugiyono (2018). Incidental sampling is a non-probability sampling method that relies on accidental encounters with individuals who may serve as relevant data sources. The research data utilized in this study are derived from two distinct sources, specifically primary data and secondary data. The present study provides a comprehensive elucidation of the data utilized in the research endeavor.

This study employs a data-gathering approach utilizing a survey methodology by disseminating questionnaires with an interval scale to gather information from participants. The methodology employed in

this study utilizes a combination of simple random sampling and incidental sampling for the questionnaire distribution. To integrate these two approaches, the researcher initially employed Simple Random Sampling to choose a subset of the people residing in Jabotabek. Subsequently, we employed Accidental Sampling to gather data from individuals who were readily available or fulfilled the requirements of belonging to the Gen-Z and Millennial demographics within that subset. This strategy can facilitate the equilibrium between the benefits and drawbacks of both methods, incorporating the impartiality inherent in Simple Random Sampling with the cost and time effectiveness of Accidental Sampling.

Citing Noor, Tajik, and Golzar (2022), Simple Random Sampling is a probabilistic sampling technique where every individual in the population has an identical probability of being chosen. The approach described is regarded as the most fundamental sampling technique due to its simplicity in execution and the fact that each member of the population has an equal probability of being selected for the sample. According to West (2016), In a basic random sample, every feasible sample of a specified size has an equivalent probability of being chosen. The incidental sampling approach, as described in references Golzar (2022), is a non-probability sampling technique where sample members are mostly chosen based on their vicinity and availability to the researcher.

The research data utilized in this study are derived from two distinct sources, specifically primary data and secondary data. The present study provides a comprehensive elucidation of the data utilized in the research endeavour.

#### 3.3.6.1 Primary Data

Primary data is information obtained directly by the Researcher from data sources, With following the definition put forward by Kabir (2016). In this study, primary data was obtained through questionnaires distributed to respondents. Respondents will answer questions that have been systematically designed. In the context of this study, primary data is obtained directly from respondents who are E-wallet users in the Jabodetabek area, with questionnaires that will be distributed to get an overview of the effect of ease of use, perceived usefulness, perceived risk, trust, convenience and attitude to services on Intention to Use on e-wallet.

#### 3.3.6.2 Measurement Scale

This study incorporates two measuring scales, specifically the nominal scale and the ordinal scale. The rating scale, as described by Budiaji (2013), is a type of data representation that utilizes numerical values, and after that, it is subject to interpretation. The item under observation exhibits certain attributes that enable its classification into a certain category. This study employed a nominal scale to categorize participants based on certain attributes. This research categorizes attributes, including age, income, gender, and domicile location.

According to Sugiyono (2014). The ordinal scale is a measurement scale that uses categories and ranks to gather information and address research inquiries. This study will utilize ordinal and nominal scales to assess the variables in the research questionnaire. The selected scale for evaluating values will be an interval scale, continuously offering a range of response choices. The interval scale is a method used to evaluate the attitudes, income, and perceptions of people or groups toward social issues. The interval scale utilized in this research is a quantitative scale that spans from 1 to 10, including the subsequent values as shown in Figure 3.2:


**Figure 3.2. Measurement Scale.**
**Source: Author (2023).**

### 3.3.7 Data Analysis Methods

Data analysis refers to the systematic compilation and examination of data derived from ma Any sources,

such as interviews, field notes, and other relevant materials. The main objective of this technique is to provide an in-depth knowledge of the data and effectively communicate the study findings to a broader audience. The employed data analysis methodologies encompassed multivariate data analysis approaches, explicitly incorporating the utilization of Cronbach's Alpha test and Structural Equation Modeling. The study employed a data-gathering approach using a questionnaire derived from prior scholarly investigations. The questionnaire included a 10-point interval scale with questions intended to evaluate several aspects such as PU, PEU, PR, PC PTS, ATS, and ITU. The software utilized in this study is SmartPLS, an application commonly employed in academic research. Partial Least Squares Structural Equation Modeling (PLS-SEM) encompasses two distinct sub-models. The measuring model is also called the outer model, and the structural model is alternatively known as the inner model.

### 3.4 Descriptive Statistics Test

According to Vetter (2017), descriptive statistics is the precise method used to calculate, display, and summarize study data in a meaningful and helpful manner. The document contains numerical representations of detailed statistics in the text and tables, and graphical representations can be found in the figures. This course for people new to statistics covers some basic rules for showing descriptive statistics.

Three statistical measures, the mean, median, and mode, indicate a dataset's main trend. Along with its center trend (mean, median, or mode), another critical component of a research dataset is its variability or distribution, which refers to how spread the data is. Variability is the degree to which different measured scores or numbers differ from each other.

The range, standard deviation, and interquartile range are three statistical measures showing how spread out or variable a data set is. The standard deviation is often used to see how spread out the data is around the mean, and the interquartile range is used to see how spread out the data is around the median.

The mean is one method of measuring the central tendency that indicates the average value of the dataset. It is calculated by multiplying the sum of all values and dividing by the total number of observations. The mean helps understand the general tendencies of data, and it is essential when the dataset is normal.

Standard deviation is one method of measuring dispersion that indicates data spread around the mean. A small standard deviation indicates that the data values are close to the mean, while a high standard deviation indicates that the data values are more spread out. Standard deviation is useful for understanding data variability and for assessing data normality.

Minimum and maximum values are the lowest and highest values in the dataset, respectively. This is useful for understanding the data range and identifying extreme or outlier values. Researchers often use these three methods with biostatisticians or epidemiologists to ensure they draw correct and broad conclusions from the data and summary statistics they collect. These methods include looking for statistical significance, determining the observed treatment effect (or the strength of the link between an exposure and a result), and developing an appropriate confidence interval.

### 3.5. Validity Test

The outer measurement model illustrates the relationship between each set of indicators and their respective latent variables. It is assessed through confirmatory factor analysis, which employs the Fornell-Larcker technique to establish convergent and discriminant validity.

#### a) Convergent Validity

Convergent validity, especially regarding reflective indicators, is evident by the association between the scores of individual items or indicators and the concept scores. A reflective measure is seen to be robust when it demonstrates a correlation over 0.70 with the desired concept. However, it is worth noting that in the context of the scale development study, loadings within the range of 0.50 to 0.60 are considered appropriate, as stated by Yoon (2021).

#### b) Discriminant Validity

The distinguishable discriminant validity of indicators is evident when analyzing the cross-loadings between indicators and their respective constructs. The relationship between latent concepts and their corresponding

indicators is stronger than the association between indicators and other latent constructs. This suggests that the latent constructs are better at predicting the indicators within their group than those from other groups. An alternative method for assessing discriminant validity is examining the square root of the average variance extracted (√AVE) for each construct and comparing it to the correlations between components and other constructs in the model. Discriminant validity is achieved when (√AVE) for each construct is greater than the correlation between that construct and the others. The study by Yoon (2021). Introduces a new method for evaluating construct validity using the (√AVE) metric. An acceptable level of model fit is achieved when the average variance extracted (√AVE) for each construct exceeds the threshold of 0.50.

### 3.6. Reliability Test

In addition to evaluating the validity, the model is also assessed to assess the reliability of a construct. The primary objective of the reliability evaluation is to establish the instrument's capacity to accurately, consistently, and precisely measure the intended constructs. Within the framework of Partial Least Squares Structural Equation Modeling (PLS-SEM) and the utilization of the SmartPLS 3.0 software, the assessment of the reliability of a construct that incorporates reflective indicators may be achieved by employing two separate approaches: Cronbach's Alpha and Composite Reliability. A construct is considered trustworthy when the composite reliability and Cronbach's alpha values are both more than 0.70, as specified by Yoon (2021).

### 3.7. Structural Model Test or Inner Model

The inner model, sometimes called the structural model, depicts the connections and the magnitude of estimates between latent variables or constructs based on substantive theory.

**a. R-Square**

A primary step in analyzing the structural model is to examine the R-Square for each internal latent variable. This measurement is used to determine the predictive potential of the structural model. The assessment of the structural model centers on examining the R-square value, which serves as a measure of the model's goodness of fit. The fluctuations in the R-Square value provide insight into the effects of particular external latent factors on the internal latent variables, revealing the extent of their significant influence. According to Koniyo (2022) quote on Chin (1998), R-Square values of 0.67, 0.33, and 0.19 indicate a strong, moderate, and weak model, respectively.

**b. F-Square**

The f-square examination is conducted to determine the model's goodness of fit. The interpretation of f-square values, such as 0.02, 0.15, and 0.35, aids in determining if the latent predictor variable has a little, moderate, or significant impact on the structural level Ariyanti & Joseph (2020).

**c. Estimate for Path Coefficients**

Following this, the analysis examines the importance of the relationship between variables by closely examining the values of parameter coefficients and the statistically significant values of T. The bootstrapping approach is employed to accomplish this objective Ariyanti & Joseph (2020).

**d. Goodness of Fit (GoF)**

Goodness of Fit (GoF) measures overall model fit in Partial Least Squares Structural Equation Modelling (PLS-SEM). The GoF index provides an overview of how well the model fits the observed data. In this study, the Goodness of Fit (GoF) Index is needed to evaluate how much the model you build fits the observed data. The GoF Index will help validate the overall structural model and provide an overview of how well the model fits the research data Ringle (2024).

**e. Q Square**

Q square is a measure used in Partial Least Squares Structural Equation Modelling (PLS-SEM) to measure the predictive relevance of the model. Q square indicates how well the model produces the observed value, with a Q square value> 0 indicating the model has good predictive relevance. In contrast, a Q square value ≤ 0 indicates a lack of predictive relevance Eric (2023).

This study needs a Q square to evaluate how much the built model fits the observed data. Q square will help validate the overall structural model and provide an overview of how well the research model fits the

research data.

### 3.8. Hypothesis Testing

When making hypothesis testing in research using the PLS (Partial Least Squares) data analysis method, the strategy relies on the utilization of making hypothesis testing in research using the PLS (Partial Least Squares) data analysis method; the strategy relies on the utilization of utilizing the Bootstrapping method. This method is applied while processing the created structural model, following the principles proposed by Geisser and Stone. The Bootstrapping method enables the exploitation of freely dispersed data, hence reducing the reliance on assumptions regarding normal distribution and the requirement for a large sample size (with a minimum of 30 samples). Hypothesis testing analyzes the probability and statistical values Latan & Ghozali (2015). The T statistic or test is utilized as the foundational statistical test in this method-test is utilized as the foundational statistical test in this method. Significantly, the P-value, a measure of likelihood, must be less than 0.5 when assessed at an alpha level of 5%. The t-table value corresponding to an alpha level of 5% is 1.96. Therefore, the process of adopting a hypothesis entails the comparison of T-Statistics with T-Table. The t-test is conducted, and the resulting P-value at a significance threshold of 5% indicates that the data exhibits statistical significance.

## 4. Result and Discussion

### 4.1 Respondent Data

The objective of this study was to find out the factors that influence the utilization of E-wallets among individuals belonging to Generation Z and the Millennial generation. The research focuses on the target population of E-wallet users residing in the specific regions of Jakarta, Bogor, Depok, Tangerang, and Bekasi. The researchers have disseminated the data and acquired approximately 137 respondents, yet only 136 of these data points can be deemed valid for analysis. The characteristics of respondents can be categorized into various dimensions, encompassing gender, employment status, educational attainment, age, and residential location.

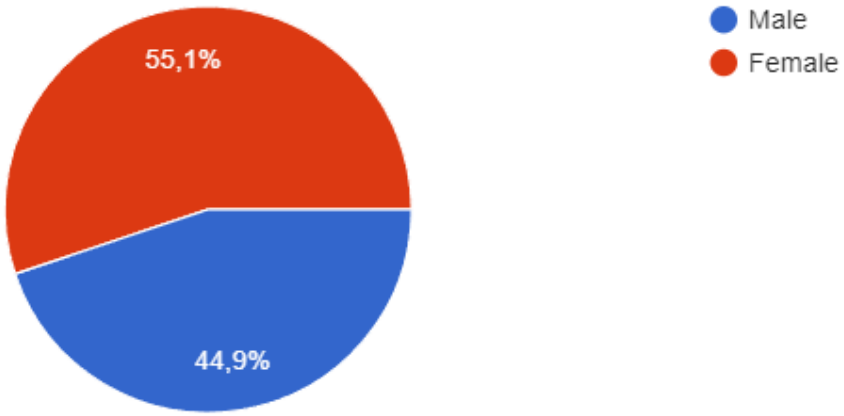


Figure 4.1.1 *Measurement Scale.*
*Source: Questionnaire, processed by SmartPLS 4 (2023).*

According to the summary of respondents' genders presented in Figure 4.1.1, most respondents are female. The data presented in Figure 4.1.1 show that 75 female respondents were present, representing 55.1% of the total, while 61 male respondents were present, representing 44.9% of the total.

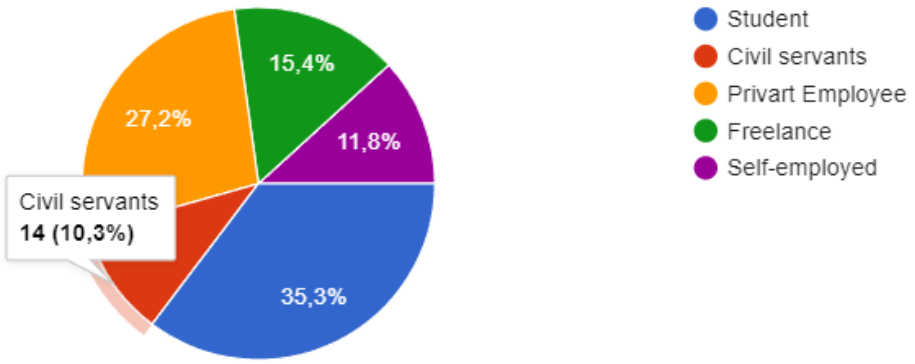


Figure 4.1.2 Employment *Status.*
*Source: Questionnaire, processed by SmartPLS 4 (2023).*

The diagram presented in Figure 4.1.2 offers an extensive representation of the employment status distribution among all participants involved in this research. The findings indicate a notable disparity in the employment status of the participants. Students constitute the largest proportion, representing 35.3% of the total. 27.2% of individuals were engaged in private employee work, while 15,4% were freelance work. Additionally, 11.8% of the population were self-employed, and 10.3% were civil servants. The varied distribution observed in this study indicates the diverse occupational backgrounds of the respondents. This diversity could influence the outcomes of other research studies examining the investigated factors. The sample size for this study consisted of 136 participants.

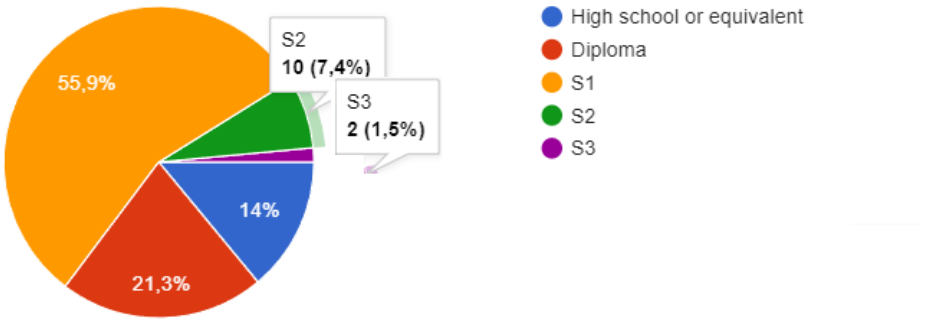


Figure 4.1.3. *Respondents Education.*
*Source: Questionnaire, processed by SmartPLS 4 (2023).*

The statistics presented in Figure 4.1.3 comprehensively depict the respondents' highest level of education, referred to as the Last Education, as observed in this study. The findings indicate a notable disparity in the educational attainment of the participants. A significant proportion of participants, 55.9%, have successfully obtained a bachelor's degree (S1). The data reveals that 21.3% possessed a diploma, while 14% held a high school degree or equivalent. Furthermore, 7.4% of the respondents had completed a master's degree, and a mere 1.5% had attained a doctorate. The varied distribution observed in this context indicates individuals possessing distinct educational backgrounds. The educational attainment of survey participants can serve as a significant variable in comprehending the potential impact of other factors being investigated. The study involved a total of 136 respondents.

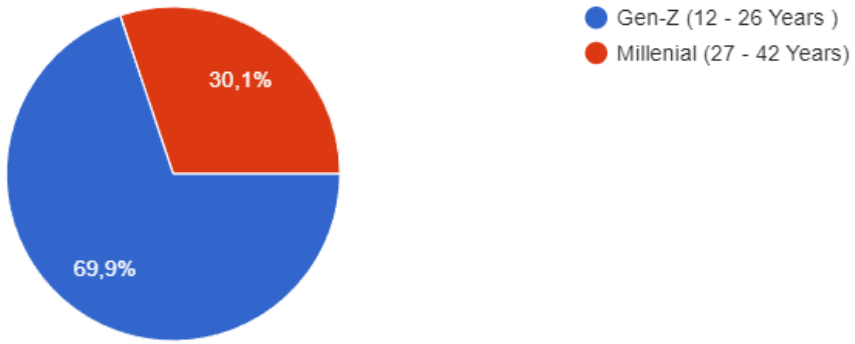


Figure 4.1.4. *Generational Classifications.*
*Source: Questionnaire, processed by SmartPLS 4 (2023).*

Figure 4.1.4, presented above, comprehensively depicts the generational classifications utilized in this research investigation. The findings indicate that a significant % of participants, precisely 69.9%, are affiliated with Generation Z, whereas the remaining 30.1% are associated with the Millennial Generation. Therefore, it can be inferred that within the scope of this research, a significant proportion of participants belong to the Generation Z demographic. The data above holds significance for conducting a comprehensive examination of the variables being investigated, as consumer predilections and actions have the potential to differ based on age and generational cohorts. The study included 136 respondents who were successfully included in the sample.

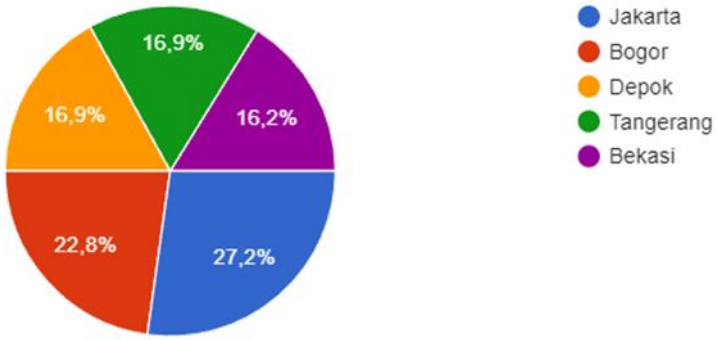


Figure 4.1.5. *Participants are distributed based on domicile.*
*Source: Questionnaire, processed by SmartPLS 4 (2023).*

Figure 4.1.5, presented above, comprehensively summarizes the distribution of participants' place of residence (domicile) in the current study. The findings demonstrate notable disparities in the residential locations of the survey participants. Most participants, comprising 27.2%, are located in Jakarta, followed by 22.8% from Bogor, 16.9% from Depok, 16,9% from Tangerang, and 16.2% from Bekasi. The findings of this study demonstrate that the participants in the survey are representative of diverse geographical areas. Nevertheless, the diversity in residential locations plays a significant role in examining consumer preferences and behavior within a geographical framework. The study included 136 respondents who were successfully included in the sample.

### 4.2 Descriptive Analysis

**Table 4.1. Descriptive Statistics of Variables**

| Variables | N | Mean | Median | Min | Max | Standard deviation |
|---|---|---|---|---|---|---|
| Perceived Ease to Use | 136 | 8.774 | 9.000 | 1.000 | 10.000 | 0.983 |
| Perceived Usefulness | 136 | 8.697 | 9.000 | 1.000 | 10.000 | 1.125 |
| Perceived Trust | 136 | 8.739 | 9.000 | 1.000 | 10.000 | 1.026 |
| Perceived Risk | 136 | 3.089 | 3.000 | 1.000 | 10.000 | 0.786 |
| Perceived Attitude Towards the Service | 136 | 8.793 | 9.000 | 1.000 | 10.000 | 1.166 |
| Perceived Convenience | 136 | 8.649 | 9.000 | 1.000 | 10.000 | 1.155 |
| Intention to Use | 136 | 8.934 | 9.000 | 1.000 | 10.000 | 1.046 |

Table 4.1 shows a descriptive analysis with 136 respondents. The table shows that the most frequently occurring value (median) is dominated by the number 9, except for perceived risk, which has a median value of only 3. This is reasonable because people are perceived as more careful about risking their finances. The standard deviation value is below the mean, meaning the data is less varied.

### 4.3 SEM Analysis

The quantitative approach employed in this investigation was Structural Equation Modelling (SEM). The Researcher employed Smart PLS 4 software to conduct Structural Equation Modelling (SEM). The present study incorporates multiple variables, specifically Perceived ease to use, Perceived usefulness, Perceived Trust, Perceived risk, and Perceived Convenience, which function as independent variables. Perceived Attitude towards the service is identified as a mediating variable that influences Perceived Intention to use, which is the dependent variable in the analysis.

#### 4.3.1. Outer Model Analysis

A research framework can contain latent components that encompass reflective indicators and formatives. The validity and reliability of these indicators have been assessed by testing. The present study employs the PLS Algorithm in SmartPLS v.4.0.9.7 to conduct a validity and reliability assessment of the reflective indicators within the overall model.

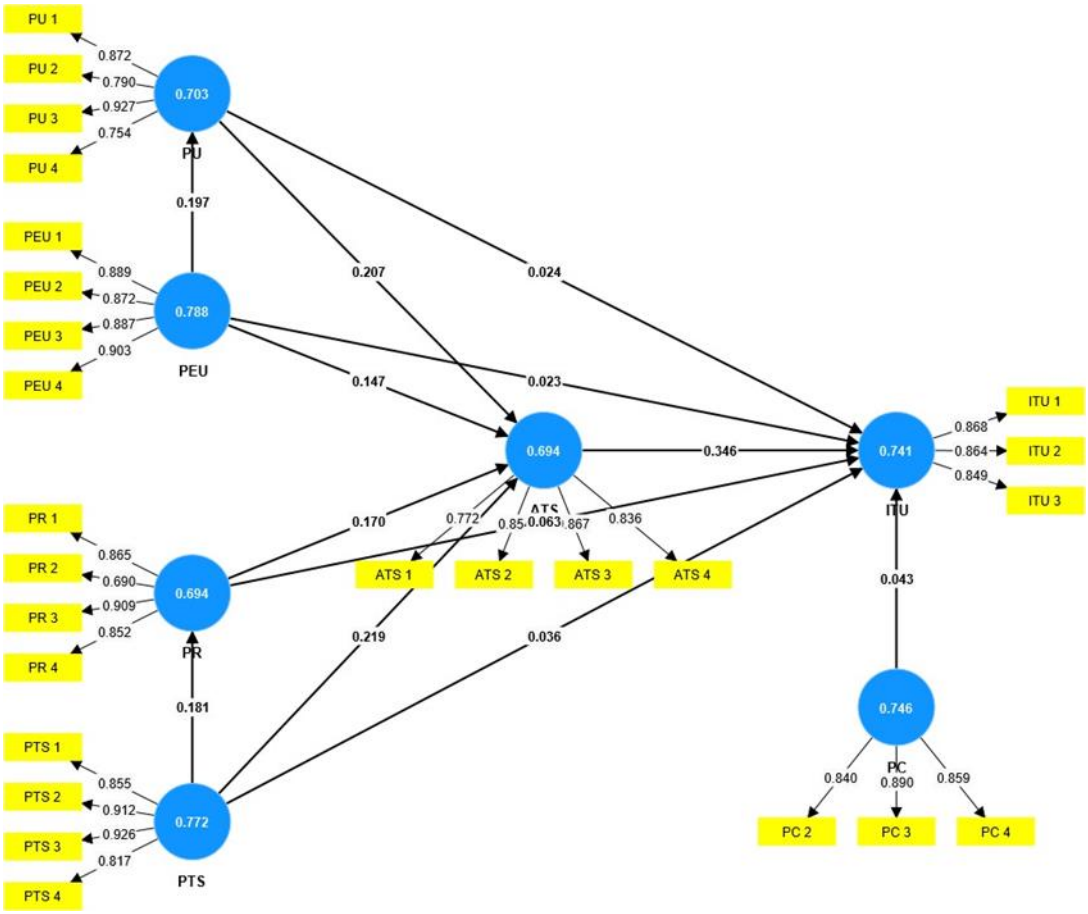


Figure 4.3.1. Outer Model Analysis.
Source: Questionnaire, processed by SmartPLS 4.

#### 4.3.1.1. Convergent Validity

The researchers must assess convergent validity to ascertain a relationship between the interconnected constructs. The present study assesses the convergent validity by employing specified benchmarks, namely the factor loading value and the Average Variance Extracted (AVE), according to Hair (2010). The requirements specify that the factor loading value should meet or exceed 0.5. Hair (2018) also states that the average variance extracted (AVE) should meet or exceed 0.5. Table 4.2 below presents the factor loading values for each indicator in the examination of convergent validity.

**Table 4.2. Convergent Validity.**

| Latent Variable | Indicator | Item loading | AVE | Remarks |
|---|---|---|---|---|
| Perceived Ease to Use | | | 0.788 | Reliable |
| | PEU 1 | 0.889 | | Valid |
| | PEU 2 | 0.872 | | Valid |
| | PEU 3 | 0.888 | | Valid |
| | PEU 4 | 0.902 | | Valid |
| Perceived Usefulness | | | 0.703 | Reliable |
| | PU 1 | 0.872 | | Valid |
| | PU 2 | 0.790 | | Valid |
| | PU 3 | 0.927 | | Valid |
| | PU 4 | 0.753 | | Valid |
| Perceived Trust | | | 0.772 | Reliable |
| | TS 1 | 0.854 | | Valid |
| | TS 2 | 0.912 | | Valid |
| | TS 3 | 0.926 | | Valid |
| | TS 4 | 0.818 | | Valid |

| | | | | |
|---|---|---|---|---|
| Perceived Risk | | | 0.694 | Reliable |
| | PR 1 | 0.865 | | Valid |
| | PR 2 | 0.689 | | Valid |
| | PR 3 | 0.910 | | Valid |
| | PR 4 | 0.852 | | Valid |
| Perceived Attitude towards the Service | | | 0.693 | Reliable |
| | ATS 1 | 0.771 | | Valid |
| | ATS 2 | 0.839 | | Valid |
| | ATS 3 | 0.870 | | Valid |
| | ATS 4 | 0.846 | | Valid |
| Perceived Convenience | | | 0.746 | Reliable |
| | PC 1 | 0.826 | | Valid |
| | PC 2 | 0.857 | | Valid |
| | PC 3 | 0.861 | | Valid |
| | PC 4 | 0.831 | | Valid |
| Perceived Intention to Use | | | 0.740 | Reliable |
| | ITU 1 | 0.860 | | Valid |
| | ITU 2 | 0.871 | | Valid |
| | ITU 3 | 0.851 | | Valid |

Upon individual examination of the latent variables, Perceived Ease to Use (PEU) demonstrates robust reliability, as evidenced by its average variance extracted (AVE) of 0.788. Furthermore, all its indicators (PEU1, PEU2, PEU3, and PEU4) exhibit factor loadings that are exceedingly valid at 0.7. Similarly, the factor loadings for all of the perceived usefulness (PU) indicators (PU1, PU2, PU3, and PU4) are valid, and the average variance extracted (AVE) for PU is 0.703. With all indicators (PR1 to PR4 except PR 2) surpassing the 0.7 threshold, Perceived Risk (PR) maintained a high level of validity despite its marginally lower AVE of 0.694. With valid factor loadings for all indicators (PTS1 through PTS4) and an AVE of 0.772, Perceived Trust (PTS) demonstrates robust validity and reliability. With an AVE value of 0.746 and valid factor loadings for all indicators (PC1 to PC4), Perceived Convenience (PC) ensures validity and reliability. With valid loading factors for its indicators (ATS1, ATS2, ATS3, and ATS4), Perceived Attitude toward the service (ATS), an intermediate variable with an AVE value of 0.693, possesses such loading factors. In conclusion, almost all indicators comprising Perceived Intention to Use (ITU), Perceived Usefulness, Perceived Trust, Perceived Convenience, and Perceived Intention to Use demonstrate robust validity, as evidenced by its AVE of more than 0.700 and reliability.

**Table 4.3 Discriminant Validity.**

| | ATS | ITU | PC | PEU | PR | PTS | PU |
|---|---|---|---|---|---|---|---|
| ATS | 0.833 | | | | | | |
| ITU | 0.397 | 0.860 | | | | | |
| PC | 0.345 | 0.198 | 0.845 | | | | |
| PEU | 0.229 | 0.113 | 0.118 | 0.888 | | | |
| PR | 0.214 | 0.150 | 0.389 | 0.047 | 0.833 | | |
| PTS | 0.310 | 0.176 | 0.372 | 0.166 | 0.183 | 0.879 | |
| PU | 0.274 | 0.150 | 0.350 | 0.197 | 0.008 | 0.173 | 0.838 |

This was used to examine the discriminant validity between categories, as shown in Table 4.3. The numbers in the table show the square root of the Average Variance Extracted (AVE) for each diagonal build (the numbers in bold). The numbers below the diagonal show the correlations between the constructs.

Looked at the square root of the AVE for each construct (along the diagonal) and the relationships between that construct and the others (below the diagonal) to see if the test was discriminant valid. When the square root of the AVE for a construct is higher than the association between that construct and the other constructs, the construct is discriminant validity. This table has:

- "ATS" represents the Perceived Attitude towards the Service construct.
- "ITU" represents the Perceived Intention to Use construct.
- "PC" represents the Perceived Convenience construct.
- "PEU" represents the Perceived Ease to Use construct.
- "PR" represents the Perceived Risk construct.
- "PTS" represents the Perceived Trust construct.
- "PU" represents the Perceived Usefulness construct.

In each case, the numbers on the diagonal are the square root of the AVE. The AVE square root for "ATS" is 0.833; for "ITU," it is 0.860; for "PC," it is 0.845; for "PEU," it is 0.888; for "PR," it is 0.833; for "PTS" it is 0.879 and for "PU" it is 0.838. The researchers checked the discriminant validity by comparing these values to the relationships between the concepts below the diagonal. In this case, the measured item has the highest ATS score of 0.888 compared to other factors. Similarly, all the other associations are smaller than the square root of the AVE. This table shows that the constructs can be distinguished from each other. The results (Henseler, 2014) clarify that the studied constructs are measured differently across factors. Change from one variable to another. Even though many of the variables' Fornell-Larcker ratios are close to the limit, they are still within the allowed range because they are less than 1. These factors also measure different things Henseler (2014). The researchers can now say that each variable of the idea has unique features when it comes to checking data for normality.

### 4.4 Construct Reliability

Researchers perform reliability tests on the tools and measures they use to ensure consistency and reliability and that they can be used repeatedly. This study uses the composite reliability method, which can be seen using Cronbach's Alpha (CA) and Composite Reliability (CR) metrics. The reliability level is set at CA> 0.7 and CR> 0.7.

**Table 4.4. Construct Reliability.**

| Variables | Cronbach's alpha | Composite reliability (rho_a) | Remarks |
|---|---|---|---|
| ATS | 0.853 | 0.866 | Reliable |
| ITU | 0.825 | 0.828 | Reliable |
| PC | 0.868 | 0.877 | Reliable |
| PEU | 0.912 | 0.944 | Reliable |
| PR | 0.851 | 0.861 | Reliable |
| PTS | 0.902 | 0.919 | Reliable |
| PU | 0.856 | 0.878 | Reliable |

It can be seen that the Cronbach's Alpha score for each variable is higher than the minimum value of 0.7 from the data in Table 4.4. Henseler (2014) set the standards that guide our analysis. These standards show that every sign in the variable is a valid measure that produces accurate results. Additionally, it can be seen that all factors have values higher than 0.7 for Composite Reliability. Taber (2017) results show that all the variables in Table 4.4 are reliable, and each signal accurately describes the variable it refers to.

### 4.5. Inner Model Analysis

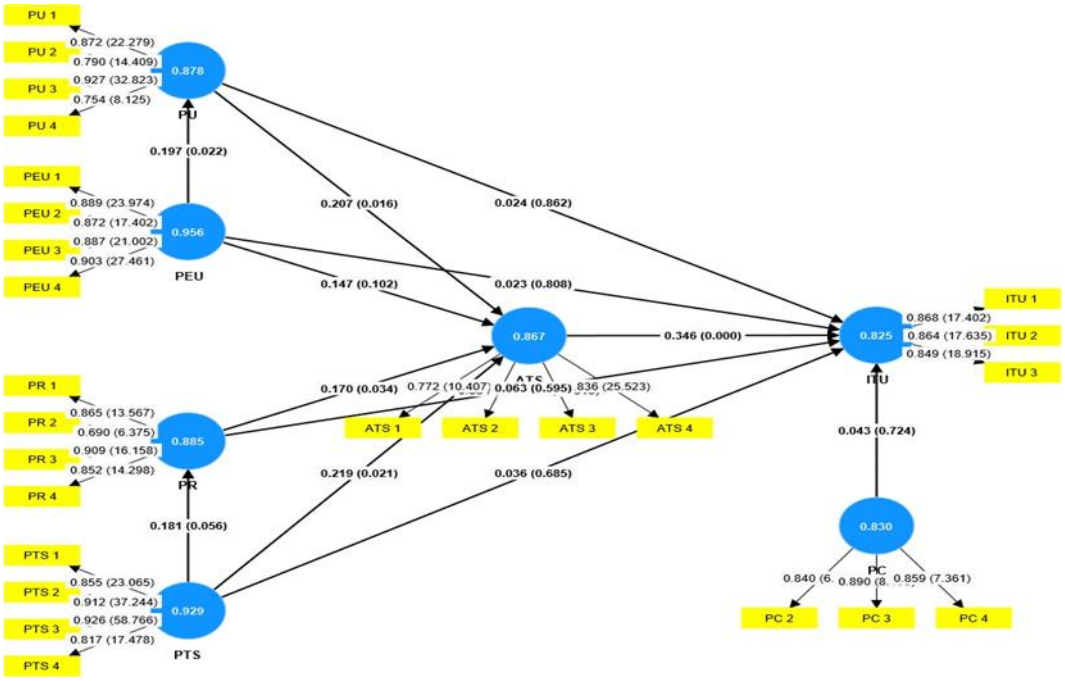


Figure 4.3.2. Inner Model Analysis.
Source: Questionnaire, processed by SmartPLS 4.

### 4.4.1 Coefficient of Determinant ($R^2$)

**Table 4.5 Coefficient of Determinant ($R^2$).**

| Variables | R-square | R-square adjusted | Result |
|---|---|---|---|
| ATS | 0.193 | 0.169 | No Effect |
| ITU | 0.162 | 0.143 | No Effect |
| PR | 0.034 | 0.026 | No Effect |
| PU | 0.039 | 0.032 | No Effect |

$R^2$ is a metric that quantifies how much the independent variable influences the dependent variable. The variable in question is a numerical value from 0 to 1. This value represents the degree to which a collection of independent factors collectively influences the value of the dependent variable. The $R^2$ value evaluates how much a specific independent latent variable affects the dependent latent variable.
According to Chin (2013), there are three categories for $R^2$ values: substantial model, moderate model, and weak model or no effect. A coefficient of determination ($R^2$) of 0.67 is classified as substantial, 0.33 as moderate, and 0.19 as weak. Table 4.5 classifies three out of the four endogenous variables, namely ATS (Attitude Towards the Service), PR (Perceived Risk), and PU (Perceived Usefulness), as having a Weak level of explanatory power. The endogenous variable ITU (Intention to Use) is classified as robust.

The analysis results show in Table 4.5 that the R-square adjusted value for ATS is 0.169, which indicates that ATS can explain 16.9% of the variation in ITU. Upon accounting for the number of variables in the model, the adjusted R-square value is determined to be 0.143. This result signifies that 14.3% of the variation in ITU can be attributed to ATS. The adjusted R-square value for PR is 0.026, indicating that PR can account for 2.6% of the variation in ITU. The adjusted R-square value for PU is 0.032, which means that PU can account for 3.2% of the variation in ITU. The R-square and adjusted R-square values were highest for ATS, with an R-square value of 0.193 and an adjusted R-square of 0.169. These findings indicate that the variables in the model can account for 16.9% of the variability in ATS. Furthermore, even considering the number of variables, 16.9% of the variability in ATS can still be explained. Therefore, according to this analysis, the variable with the most significant impact on ITU is ATS, followed by PR and PU.

### 4.4.2. Coefficient of Determinant ($F^2$)

**Table 4.6 Coefficient of Determinant ($F^2$).**

| Variables | F-square | Result |
|---|---|---|
| ATS -> ITU | 0.138 | Weak Effect |
| PC -> ITU | 0.004 | No Effect |
| PEU -> ATS | 0.024 | Weak Effect |
| PEU -> PU | 0.040 | Weak Effect |
| PEU -> ITU | 0.001 | No Effect |
| PR -> ATS | 0.033 | Weak Effect |
| PR -> ITU | 0.004 | No Effect |
| PTS -> ATS | 0.055 | Weak Effect |
| PTS -> PR | 0.035 | Weak Effect |
| PTS -> ITU | 0.001 | No Effect |
| PU -> ATS | 0.050 | Weak Effect |
| PU -> ITU | 0.001 | No Effect |

Equation Modelling (PLS-SEM) study to assess the quality of the structural model. The F-Square value quantifies how much the R-Square changes when an external variable is eliminated from the model. Hair (2019), as referenced by Nugraha & Masithoh (2023), define f-square as a measure of effect size. A value of 0.02 or greater indicates a small impact size, 0.15 or greater indicates a moderate effect size, and 0.35 or greater indicates a strong effect size.

Table 4.6 shows the F-Square value for each association with the ITU variable for the ATS, PC, PEU, PR, PU, and PTS variables. ATS (Attitude Toward the Service) has the highest and largest F-Square value on ITU (Intention to Use), which is 0,138. Subsequently, there was a correlation of 0.055 between Perceived Trust (PTS) and Attitude Toward the Service (ATS).

### 4.6 Discussion and Findings

This study aims to investigate the Perceived usefulness, Perceived ease to use, Perceived risk, Trust, Convenience, and intention to use the service, with Attitude towards the service operating as a mediator. Based on the results obtained from the study, it is possible to derive the following conclusions:

**Table 4.7 Direct Effect.**

| Hypothesis | Path Coefficient | T Statistics | P-value | 95% Confidence Interval Path Coefficient | | F-square | Remarks |
|---|---|---|---|---|---|---|---|
| | | | | Lower Limit | Upper Limit | | |
| ($H_{1a}$) PU -> ATS | 0.206 | 2.384 | 0.017 | 0.037 | 0.375 | 0.050 | Significant |
| ($H_{1b}$) PU -> ITU | 0.027 | 0.208 | 0.835 | -0.262 | 0.253 | 0.001 | Not Significant |
| ($H_{2a}$) PEU -> PU | 0.197 | 2.306 | 0.021 | 0.035 | 0.368 | 0.040 | Significant |
| ($H_{2b}$) PEU -> ATS | 0.145 | 1.610 | 0.108 | -0.032 | 0.321 | 0.024 | Not Significant |
| ($H_{2c}$) PEU -> ITU | 0.082 | 0.728 | 0.466 | -0.156 | 0.288 | 0.007 | Not Significant |
| ($H_{3a}$) PR -> ATS | 0.165 | 2.041 | 0.041 | -0.005 | 0.314 | 0.033 | Significant |
| ($H_{3b}$) PR -> ITU | 0.112 | 0.916 | 0.360 | -0.151 | 0.330 | 0.011 | Not Significant |
| ($H_{4a}$) PTS -> PR | 0.183 | 1.960 | 0.050 | -0.010 | 0.367 | 0.035 | Not Significant |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ($H_{4b}$) PTS -> ATS | 0.220 | 2.348 | 0.019 | 0.036 | 0.403 | 0.055 | Significant |
| ($H_{4c}$) PTS -> ITU | 0.102 | 1.052 | 0.293 | -0.096 | 0.283 | 0.010 | Not Significant |
| ($H_5$) PC -> ITU | 0.062 | 0.546 | 0.585 | -0.133 | 0.306 | 0.004 | Not Significant |
| ($H_6$) ATS -> ITU | 0.368 | 4.233 | 0.000 | 0.194 | 0.536 | 0.138 | Significant |

1. Hypothesis one, part one ($H_{1a}$) is significant because there is enough data to show that perceived usefulness affects attitude towards the service. This result is shown by the path coefficient (0.206) and p-value (0.017<=0.050). Changing how valuable people think the service is makes a big difference in how people feel about it. There is a 95% chance that the effect of Perceived Usefulness on improving attitude towards the service will be between 0.037 and 0.375. At the structural level (f square = 0.050), perceived value has a small effect on how people feel about the service. It is also essential to consider how helpful something is when upgrading the E-wallet system. More specifically, when people think using the updated e-wallet is more valuable, they also feel better about the service.
2. Hypothesis one part two ($H_{1b}$) is not significant by the data because there is no statistically significant link between how valuable people think the service is and their plans to use it. This effect is not significant because the p-value is 0.835, higher than the significance level of 0.050, and the path coefficient is 0.027. If people change how useful they think the service is, it has a negligible effect on their decision to use it. Perceived usefulness likely impacts the desire to use the service between -0.262 and 0.253, based on the 95% confidence interval. There is little impact on the willingness to use the service from how valuable people think it is (f square = 0.001). People also believe that perceived usefulness is somewhat essential, as shown by the fact that the desire to use the service went up to 0.027 after the change from E-wallet to perceived usefulness of use.
3. Hypothesis two, part one (H2a), which shows a statistically significant link between perceived ease of use and how useful it is thought to be, was accepted. A path coefficient of 0.197 and a p-value of 0.021 is less than the significance level of 0.050. If people believe something is easier to use, they will also think it is more useful. Between 0.035 and 0.368 is the range of values that can be used to estimate the effect of perceived ease to use on the improvement of perceived worth. What people think about how easy something is to use has a small effect on how important they think something is (f square = 0.040). Whenever an update is made to an e-wallet, the importance of perceived ease to use is given much thought. With a magnitude of 0.197, this improvement makes people feel more useful.
4. Hypothesis two, part two (H2b), is not accepted because the path coefficient (0.145) and p-value (0.108 <=0.050) show that perceived ease to use does not have a significant effect on attitude towards the service. As the observed ease of use increases, people's feelings about the service will only sometimes increase. Based on the 95% confidence interval, perceived ease to use does not affect improving attitudes towards the service, which runs from -0.032 to 0.321. furthermore, Perceived ease to use does not significantly impact how people feel about the service at the structure level (f square = 0.024). People think that how easy someone thinks something is to use is unimportant when upgrading their e-wallet. As a result, a 0145 magnitude rise in the observed ease of use leads to a corresponding increase in the attitude towards the service.
5. Hypothesis two part three ($H_{2c}$) has been validated, indicating a not statistically significant relationship between Perceived ease to use and the Intention to use hypothesis ($H_{2c}$), showing a statistically significant relationship between Perceived ease to use and the Intention to use. The p-value is 0.466, above the significance level of 0.050, and the route coefficient is 0.082. Any change that makes the service easier will make people more likely to use it, even though it is not significant. The 95% confidence interval says that Perceived ease to use increases the likelihood of someone using the service. This effect is between -0.156 and 0.288. At the structure level, however, Perceived ease to use has a small effect on people's plans to use the service (f square = 0.007). The importance of Perceived ease to use is a critical factor in the change from an e-wallet to a ease of service. With a coefficient of 0.082, this change is linked to a significant rise in the desire to Perceived ease to use.
6. Hypothesis three, part one ($H_{3a}$) is accepted due to statistical significance in the relationship between perceived risk and attitude towards the service. There is a significant effect of perceived risk on attitude

towards the service, as shown by the path coefficient (0.165) and p-value (0.041<0.050). Shifting the perceived risk does have a significant effect on how people feel about the service. Perceived risk significantly improves attitudes towards the service, with values ranging from -0.005 to 0.314 in the 95% confidence interval. Although perceived danger does have a small effect on how people feel about the service, it lacks statistical significance at the structural level (f square = 0.033). According to the research, the importance of imagined risk also has a small effect. By a factor of 0.165, people's feelings about the service change when they go from using an e-wallet to a higher level of perceived risk in terms of usage.

7. Hypothesis three part two ($H_{3b}$) has been validated, indicating a not statistically significant relationship between Perceived risk and the Intention to use hypothesis ($H_{3b}$), showing a statistically significant relationship between Perceived risk and Intention to use. The p-value is 0.360, above the significance level of 0.050, and the route coefficient is 0.112. Any change that makes the service riskier will not make people more likely to use it, even though it is insignificant. The 95% confidence interval says that Perceived risk increases the likelihood of someone using the service. This effect is between -0.151 and 0.330. At the structure level, however, Perceived risk has a negligible effect on people's plans to use the service (f square = 0.011). Perceived risk is a critical factor in the change from an e-wallet to an ease of service. With a coefficient of 0.112, this change is linked to a significant rise in the desire to Perceived risk.

8. Hypothesis four-part on (H4a) is not accepted because Trust does not have a significant effect on how risky things seem, as shown by the path coefficient (0.165) and the p-value (0.050 <= 0.050). Any change in how much people trust each other will make the risk seem bigger. The 95% confidence interval says that Perceived Trust makes people think that risk is higher by -0.010 to 0.367. Even so, Perceived Trust significantly affects how risky things seem, which is statistically significant at the structure level (f square = 0.035). Trust is seen as very important in the change from an e-wallet to trust, as it leads to a 0.183 increase in perceived risk.

9. Hypothesis four, part two (H4b) is based on the observed significant effect of perceived trust on attitude towards the service, as indicated by a path coefficient of 0.220 and a p-value of 0.019, less than the predetermined significance level of 0.050. Anyone's feelings about the service will change if their perceived trust levels change. There is a 95% chance that perceived trust has a good effect on how people feel about the service, with an estimated effect range of 0.036 to 0.403. Still, perceived trust affects how people think about the service at the structural level (f square = 0.055). Most people agree that perceived trust is essential when switching from an e-wallet to a trust system. Users' opinions of the service show that these results have greatly improved, hitting a value of 0.220.

10. Hypothesis four part three ($H_{4c}$) has been validated, indicating a not statistically significant relationship between Perceived trust and the Intention to use hypothesis ($H_{4c}$), showing a statistically significant relationship between Perceived trust and the Intention to use. The p-value is 0.293, above the significance level of 0.050, and the route coefficient is 0.102. Any change that makes the service more trusted will make people more likely to use it, even though it is insignificant. The 95% confidence interval says that Perceived trust increases the likelihood of someone using the service. This effect is between -0.096 and 0.283. At the structure level, however, Perceived trust has a small effect on people's plans to use the service (f square = 0.010). Perceived trust is a critical factor in the change from an e-wallet to an ease of service. With a coefficient of 0.102, this change is linked to a significant rise in the desire for Perceived trust.

11. Hypothesis ($H_5$) has been validated, indicating a not statistically significant relationship between Convenience and the intention to utilize hypothesis (H5), showing a statistically significant relationship between Perceived Convenience and the Perceived Intention to utilize the service. The p-value is 0.585, above the significance level of 0.050, and the route coefficient is 0.062. Any change that makes the service more convenient will make people more likely to use it, even though it is insignificant. The 95% confidence interval says that Convenience increases the likelihood of someone using the service. This effect is between -0.133 and 0.306. At the structure level, however, Convenience has a small effect on people's plans to use the service (f square = 0.004). Ease of use is a critical factor in the change from an e-wallet to a comfortable service. With a coefficient of 0.062, this change is linked to a significant rise in the desire to use the service.

12. The Sixth hypothesis (H6) acceptance is based on the observed significant effect of attitude towards the service on intention to use the service, as indicated by the path coefficient of 0.368 and a p-value of 0.000, less than the predetermined significance level of 0.050. The service's decision will be strengthened if the attitude towards it changes well. The range of values in the 95% confidence interval for how someone feels about the service affects their chance of planning to use it. These values are 0.194 to 0.536. At the structural

level, however, the effect people's attitudes towards a service have on their desire to use it is very important (f square = 0.138). People think that attitude towards the service is critical, as shown by the fact that people's intentions to use the service went up to several 0.368 after they switched from E-wallet to attitude towards the service.

### 4.4.2 Indirect Effect

This study design looks at some variables' direct and indirect effects on the intention to use the service. The indirect effect is through attitude towards the service. Perceived usefulness (PU), Perceived ease of use (PEU), Perceived risk (PR), and Trust (TS) can all have indirect effects.

Table 4.8. Indirect Effect.

| Hypothesis | Path Coefficient | P values | 95% Confidence Interval Path Coefficient | | Upsilon V | Result |
|---|---|---|---|---|---|---|
| | | | Lower Limit | Upper Limit | | |
| ($H_7$) PU -> ATS -> ITU | 0.076 | 0.053 | 0.011 | 0.166 | 0.006 | Not Significant |
| ($H_8$) PEU -> ATS -> ITU | 0.053 | 0.149 | -0.011 | 0.135 | 0.003 | Not Significant |
| ($H_9$) PR -> ATS -> ITU | 0.061 | 0.069 | -0.002 | 0.132 | 0.004 | Not Significant |
| ($H_{10}$) PTS -> ATS -> ITU | 0.081 | 0.042 | 0.012 | 0.166 | 0.007 | Significant |

This study looked at the indirect effects of the total path coefficient for several theories ($H_7$, $H_8$, $H_9$, and $H_{10}$). The results are shown in Table 4.8

1. Hypothesis ($H_7$): PU -> ATS -> ITU A study called Hypothesis ($H_7$) looks at the connection between three variables: PU (perceived usefulness), ATS (attitude towards the service), and ITU (intention to use the service). With a P value of 0.053, the analysis shows no significant link between PU and ITU through ATS mediation. The path coefficient of 0.076 and UpsilonV of 0.006 shows that this relationship is weak. As for the direct effect of PU on ITU, there is no significant relationship between them. It can be concluded that PU directly and indirectly has no effect, and ATS is not a mediating variable.

2. Hypothesis ($H_8$): PEU -> ATS -> ITU A study called Hypothesis ($H_8$) looks at the connection between three variables: PEU (perceived ease to use), ATS (attitude towards the service), and ITU (intention to use the service). With a P value of 0.149, the analysis shows no significant link between PEU and ITU through ATS mediation. The path coefficient of 0.053 and UpsilonV of 0.003 shows that this relationship is weak. As for the direct effect, PEU and ITU do not have a significant relationship. It can be concluded that PEU directly and indirectly has no effect, and ATS is not a mediating variable.

3. Hypothesis ($H_9$): PR -> ATS -> ITU A study called Hypothesis ($H_9$) looks at the connection between three variables: PR (perceived risk), ATS (attitude towards the service), and ITU (intention to use the service). With a P value of 0.069, the analysis shows no significant link between PR and ITU through ATS mediation. The path coefficient of 0.061 and UpsilonV of 0.004 shows that this relationship is weak. As for the direct effect, PR and ITU have no significant relationship. It can be concluded that direct and indirect PR has no effect, and ATS is not a mediating variable.

4. Hypothesis ($H_{10}$): PTS -> ATS -> ITU, the investigation into Hypothesis ($H_{10}$) looks at the connection between the variables PTS (perceived trust), ATS (attitude towards the service), and ITU (intention

to use the service). The analysis results show a strong link between PTS and ITU through ATS, with a P value 0.042. the analysis shows a significant link between PTS and ITU through ATS mediation. The path coefficient of 0.081 and UpsilonV of 0.007 shows that this relationship is weak. As for the direct effect, PTS and ITU have no significant relationship. It can be concluded that although PTS does not have a significant relationship, indirectly, it has an effect, and ATS is a mediating variable.

## 5. Conclusions and Recommendations

### 5.1. Conclusions

In conclusion, the Structural Equation Modelling (SEM) analysis used in this study gives me helpful information about the things that affect the decision to use e-wallets among people of working age in Jabodetabek, especially those that affect the use of e-wallets. Smart PLS 4 software was used for this study, which looked at several factors, such as Perceived Usefulness, Perceived ease to use, Perceived Risk, Perceived Trust, Perceived Attitude Toward the Service, Perceived Convenience, and Perceived Intention to Use. Compared to what other studies have found, this one has some interesting findings, such as:

1. ($H_{1a}$) Perceived Usefulness significantly affects Perceived Attitude Toward the Service publicly.
2. ($H_{1b}$) Perceived Usefulness does not significantly affect Perceived Intention to Use publicly.
3. ($H_{2a}$) Perceived Ease to Use publicly affects Perceived Usefulness.
4. ($H_{2b}$) Perceived Ease of Use does not significantly affect Perceived Attitude Toward the Service publicly.
5. ($H_{2c}$) Perceived Ease to Use does not significantly affect Perceived Intention to Use publicly.
6. ($H_{3a}$) Perceived Risk significantly affects Perceived Attitude Toward the Service publicly.
7. ($H_{3b}$) Perceived Risk does not significantly affect Perceived Intention to Use publicly.
8. ($H_{4a}$) Perceived Trust does not significantly affect Perceived Risk in public.
9. ($H_{4b}$) Perceived Trust significantly affects Perceived Attitude Toward the Service in public.
10. ($H_{4c}$) Perceived Trust does not significantly affect Perceived Intention to Use publicly.
11. ($H_{5}$) Perceived Convenience does not significantly affect Perceived Intention to Use publicly.
12. ($H_{6}$) Perceived Attitude Toward the Service significantly affects Perceived Intention to use it publicly.
13. ($H_{7}$) Perceived Usefulness through Perceived Attitude Toward the Service does not significantly affect Perceived Intention to Use publicly.
14. ($H_{8}$) Perceived Ease to Use through Perceived Attitude Toward the Service does not significantly affect Perceived Intention to Use publicly.
15. ($H_{9}$) Perceived Risk through Perceived Attitude Toward the Service does not significantly affect Perceived Intention to Use publicly.
16. ($H_{10}$) Perceived Trust through Perceived Attitude Toward the Service significantly affects Perceived Intention to Use publicly.

    The results of a study on using e-wallets among working-age people in Jabodetabek have shown that Perceived Attitude Towards the Service plays a crucial role in determining Perceived Intention to Use. While Perceived Convenience and Perceived Usefulness are still important factors, they may not significantly impact users' intention to use e-wallets. The researcher assumes that as a result of insufficient sample size, the sample used is not representative enough, or the number is too small to detect a significant effect, resulting in a lack of significance in the hypothesis. Therefore, businesses and e-wallet makers who want to attract more users in this demographic should focus on how Perceived Ease of Use, Perceived Trust, Perceived Risk, and Perceived Attitude Towards the Service influence their marketing strategies. Understanding the relationship between Perceived Usefulness, Perceived Risk, and Perceived Attitude Toward the Service is also essential for effective marketing. In summary, this study provides valuable insights into the complex factors influencing using e-wallets among productive individuals in Jabodetabek.

### 5.2 Recommendations

According to a recent study, companies that aim to attract more active individuals in Jabodetabek should prioritize building Perceived Ease of Use, Perceived Trust, Perceived Convenience, and Perceived Comfort. To achieve this, companies can make their products more accessible by ensuring they are user-friendly,

staying true to their values, and providing people with a sense of comfort. By doing so, they can enhance brand trust, increasing the number of people using their E-wallet services.

### 5.2.1 Suggestions for Future Research

To improve the precision of the regression model in future studies, it is recommended that the range of independent variables be broadened. This might involve including variables that offer a more detailed comprehension of the dynamics of e-wallet adoption. Furthermore, to enhance the results' accuracy and dependability, future studies should consider increasing the sample size, guaranteeing a more inclusive and varied group of participants. Furthermore, expanding the research scope to incorporate additional areas or embrace the entire Indonesian territory will provide a more thorough comprehension of the aspects that influence the use of e-wallets. These modifications would enhance the study by providing a more comprehensive and detailed examination, yielding significant information for the progress of e-wallet adoption in Indonesia and guiding customized strategies for various areas within the country.

### 5.2.2 Suggestion for Business Actors

Boost self-assurance by upholding transparent information regarding security standards, transaction methods, and data protection rules linked to e-wallet services. Consistently communicating about improvements in security measures will help build and maintain confidence among users.

Enhance customer happiness by optimizing operations and ensuring accessibility while creating a positive perception of e-wallet services through an accessible interface. Collect user input to implement specific improvements and customize services to the preferences of the working-age population in the Jabodetabek region.


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### Author Contribution

Author 1: Writing an original draft, data curation, formal analysis, investigation, methodology.

Author 2: Conceptualization, review and editing, writing review and editing, supervision, validation, visualization.


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### Conflict of Interest

The authors declare that the research was conducted without commercial or financial relationships that could create a conflict of interest.

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