

DETERMINANTS OF THE INTENTION TO ADOPT A
DIGITAL BANK AMONG GENERATION Z IN
MALAYSIA

BY

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LIST OF ABBREVIATIONS

| | |
|------|--|
| DV | Dependent Variable |
| EC | Environmental Concern |
| IV | Independent Variable |
| IADB | Intention to adopt a digital bank among Generation Z |
| PU | Perceived Usefulness |
| SC | Security Concern |
| SPSS | Statistical Package for Social Sciences |
| T | Trust |
| TAM | Technology Acceptance Model |
| TPR | Theory of Perceived Risk |
| VBN | Value – Belief Norms Theory |

PREFACE

A research project is one of the main requirements for graduating students of the Bachelor of Finance (Financial Technology) with honours to complete the study at University Tunku Abdul Rahman (UTAR). First and foremost, the research topic is supervised by Ms. Ung Leng Yean with the title “Intention to Adopt a Digital Bank among Generation Z in Malaysia”. Selecting this topic is due to Generation Z being tech-savvy and increasingly using sustainable products. Nowadays, the digital bank has a significant trend in Malaysia. Although there has been a rise in security issues with digital banks, Generation Z continues to adopt them. This study aims to examine the determinants influencing their intention to adopt a digital bank in Malaysia. This study examines four key factors: perceived usefulness, trust, security concern, and environmental concern. The objective of this study is to provide a better understanding of how these factors influence Generation Z’s intention to adopt a digital bank in Malaysia. In addition, the findings of this study are beneficial to the financial sector, providing insights into enhancing digital bank services and addressing issues aligned with Generation Z’s preferences.

ABSTRACT

This study examines the determinants of Generation Z's intention to adopt a digital bank in Malaysia, focusing on perceived usefulness, trust, security concerns, and environmental concerns as key predictors. This study underlies three theories, which are the Technology Acceptance Model (TAM), Value-Belief-Norms theory (VBN) and Theory of Perceived Risk (TPR), to identify the intention to adopt a digital bank among Generation Z in Malaysia. Additionally, this study aims to address the research gap regarding Generation Z by examining the predictors of perceived usefulness, trust, security concern, and environmental concern identified in a past study. This study is conducted using a quantitative approach, utilising convenience sampling of 200 Generation Z respondents (aged 1997 - 2012) via an online questionnaire survey using ordinal, nominal, and Likert scales. In addition, this study uses SPSS as a data analysis tool to analyse the descriptive analysis, reliability testing, and inferential analysis. This study uses a multiple regression model to show that perceived usefulness, trust, security concern, and environmental concern are significantly related to the intention to adopt a digital bank among Generation Z in Malaysia. As a result, the findings show that perceived usefulness, trust, and environmental concern influence the intention to adopt a digital bank among Generation Z in Malaysia. However, security concerns do not affect it because to p-value is larger than the significance level. Thus, this study provides a comprehensive understanding of the digital bank context, especially trust, which is the highest indicator. However, the limitations of this study include a smaller sample size, a focus on Generation Z, and the use of quantitative research methods. Hence, future research is suggested to increase the sample size, focus on and compare with other generations, and conduct a mixed-methods approach to provide valuable insights into the digital banking context.

CHAPTER 1: RESEARCH OVERVIEW

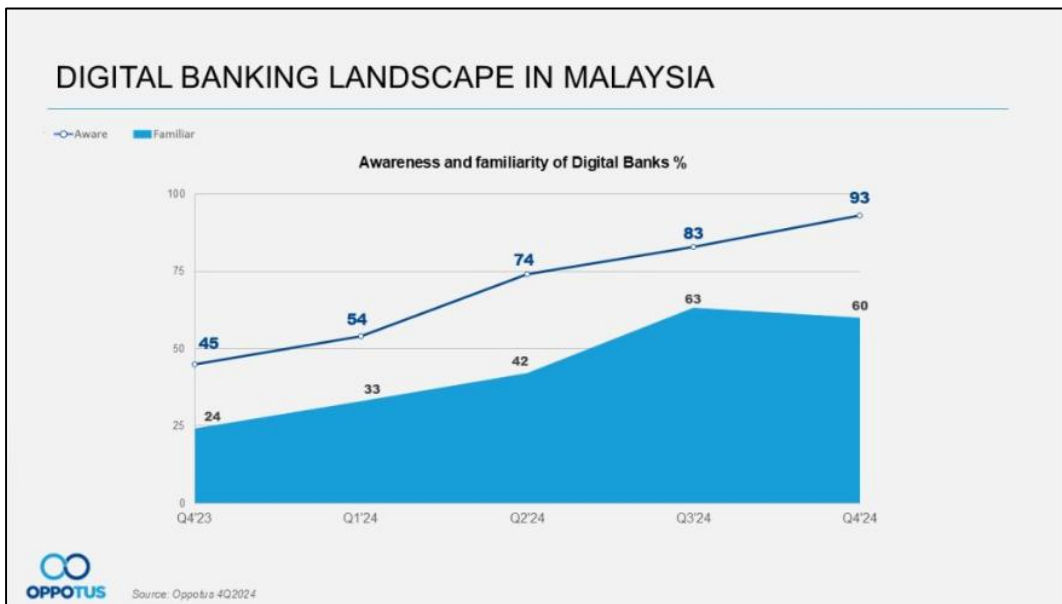
1.0 Introduction

The intention of Malaysia's Generation Z to use a digital bank is investigated in this study. It also identifies the challenges associated with digital bank adoption among this group and establishes the research problem. Furthermore, the chapter outlines the research objectives and questions, highlights the study's significance, and concludes with a chapter overview.

1.1 Research Background

To remain competitive amid rapid technological innovation, businesses worldwide are adopting digital transformation (Phunong et al., 2024). The banking sector sees digitalisation as essential for sustainable growth. A digital bank is to be a modernised traditional bank that uses mobile devices, internet services, artificial intelligence (AI), electronic payments, blockchain, APIs, and other innovations (Goh et al., 2024). According to Bank Negara Malaysia, digital banks primarily operate through online platforms such as mobile apps and websites, without physical branches (Abdullah, 2025). This allows them to reduce operating costs and deliver more efficient services than traditional banks.

Figure 1.1 Digital Banking Landscape in Malaysia.



Source: Cheong (2025)

According to Cheong (2025), Malaysia began a digital bank in 2022, and the trend has been consistently upward. As shown in Figure 1.1, the digital bank landscape in Malaysia's fintech industry expanded dramatically last year, following the establishment of the country's first digital banks in 2022. Since Q4'23, awareness and familiarity with digital banks have steadily increased, with 93% of customers stating that they were aware of them in Q4'24. While not many people are familiar with digital banks, we should expect to witness a steady increase as 2025 approaches. By doing so, it states that awareness and familiarity with the digital bank among Malaysian citizens are becoming more widespread. At the same time, digital banks have higher market penetration and are becoming increasingly popular year by year.

Additionally, the Malaysian financial system comprises two segments: monetary and non-monetary companies. Commercial banks and Bank Negara Malaysia, the country's central bank, are examples of monetary companies (Low et al, 2024). On the other hand, nonmonetary companies include finance companies, discount houses, government departments and agencies, insurance companies and others (Oh,

2000). Malaysia has a two-banking system, including conventional and Islamic banking (Low et al., 2024). A conventional bank usually provides an interest-based banking system, is like pay interest to depositors and receiving interest from the borrowers, whereas Islamic banking does not offer any interest as it emphasises on the syariah principles (Low et al., 2024). This is because interest-based Islamic finance is known as Riba and is prohibited under the Shariah (Ahmad, 2013).

Nowadays, the financial sector in Malaysia is undergoing a significant digital revolution, offering promising prospects for corporate innovation and expansion. Bank Negara Malaysia has updated its guidelines on the licensing Framework for digital banks (BNM, 2020). By doing so, it is to simplify the proposal of the regulatory framework for digital banks applicable during the foundational phase. The simplifications aim to protect the integrity and stability of the financial system while lowering the regulatory burden for new players with compelling value propositions for the growth of the Malaysian economy. For instance, the Basel II capital framework has simplified the risk categories used to determine the credit and market risk components for risk-weighted assets (BNM, 2020). It is called the capital adequacy requirement. In addition, simplifying the liquidity requirement, such as the digital bank must hold high-quality liquid assets equal to 25% of its on-balance sheet liabilities (BNM, 2020). Hence, once the foundational phase is complete, digital banks must adhere to all comparable regulatory rules that apply to other banks.

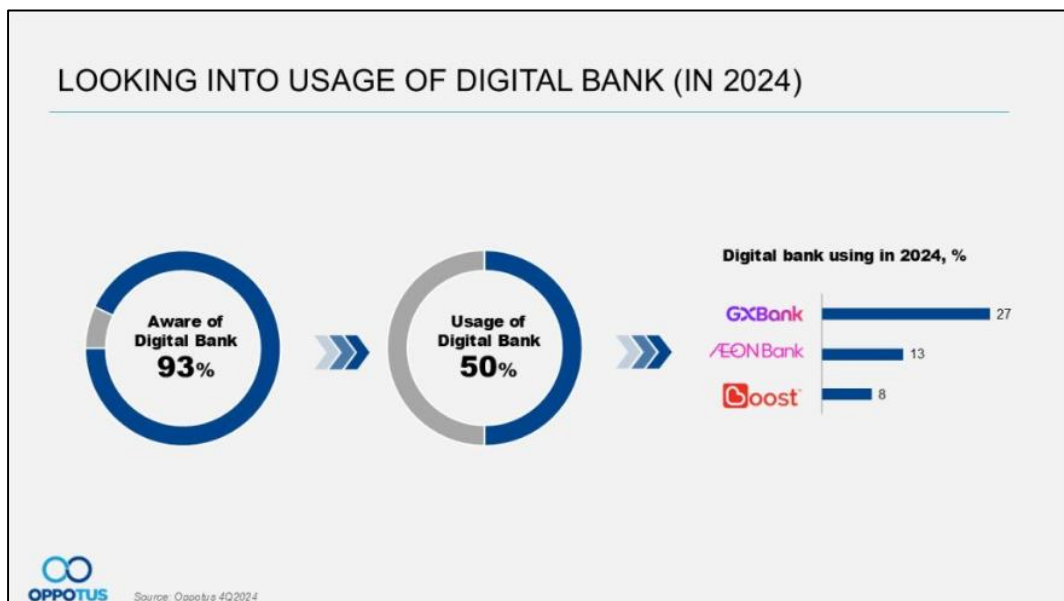
Figure 1.2 The Category of License, Approval, or Registration in Bank Negara
Malaysia.

| No. | Company Name | Category of License, Approval, or Registration |
|-----|---|--|
| 1 | AEON Bank (M) Berhad | <ul style="list-style-type: none"> • Licensed Islamic Digital Bank • Debit Card Issuer |
| 2 | Boost Bank Berhad | <ul style="list-style-type: none"> • Licensed Digital Bank |
| 3 | GX Bank Berhad | <ul style="list-style-type: none"> • Licensed Digital Bank • Debit Card Issuer |
| 4 | KAF Digital Bank Berhad | <ul style="list-style-type: none"> • Licensed Islamic Digital Bank • Debit Card Issuer |
| 5 | YTL Digital Bank Berhad (Ryt Bank) | <ul style="list-style-type: none"> • Licensed Digital Bank • Debit Card Issuer |

Source: Bank Negara Malaysia (BNM), 2022. Financial Sector Participants Directory

According to the GMO research & AI (2025), the finance sector in Malaysia is undergoing rapid digitalisation, accounting for 4.6% of GDP in 2022. This improvement is supported by the regulatory policies, such as Bank Negara Malaysia issuing a digital bank license and the regulatory sandbox, which enable innovation and competition. Malaysia has a promising market for digital bank solutions, as evidenced by its high internet penetration rate of 98% (2024) and bank account ownership rate of 92%. These statistics show that the populace is open to digital financial services. According to Figure 1.1, the Minister of Finance has approved five digital banks in Malaysia, each with a license (Low et al., 2024). The Financial Services Act 2013 (FSA) and the Islamic Financial Services Act 2013 (IFSA) are the two legal provisions that govern the legally granted licenses. For instance, the BNM license approvals under the Financial Services Act 2013 (FSA) include Boost Bank Berhad, GX Bank Berhad, and YTL Digital Bank Berhad. Since YTL Digital Capital Sdn Bhd and Sea Limited founded YTL Digital Bank Berhad, it operates under the brand name of Ryt Bank (Ryt bank, 2025). On the other hand, the BNM approved the license under the Islamic Financial Services Act 2013 (IFSA) encompassing Aeon Bank (M) Berhad and KAF Digital Bank Berhad (BNM, 2022).

Figure 1.3 Usage of Digital Bank



Source: Cheong (2025)

Gong (2025) claims that broadband usage in Malaysia soared over this period due to government-related COVID-19 movement restrictions, which restricted access to physical work and study environments and compelled many consumers to use digital tools to complete tasks from 2019 to 2022. This rapid increase in broadband consumption, particularly smartphone and mobile internet use, has also accelerated the growth of Malaysian digital bank services. Coupled with changing consumer behaviour seeking a safer, more convenient financial service, the number of digital bank services available to many Malaysians exploded (Teo, 2025). All of this has had an enormous impact on the national economy, due to increased trust in financial institutions and Fintech startups creating and expanding digital bank services. To reinforce this rapid growth, PwC conducted a “Virtual Banking: Malaysian clients take charge” survey in November 2019, outlining that 74% of Malaysians were ready to open accounts with a digital bank. However, Cheong (2025) states that 93% of Malaysian citizens are aware of digital banks, with 50% of users using them. According to Figure 1.3, the digital bank of GX has the highest number of users, followed by Aeon Bank and Boost Bank Berhad. Thus, the trend of the digital bank will continue upward in the future. At the same time, most consumers would be

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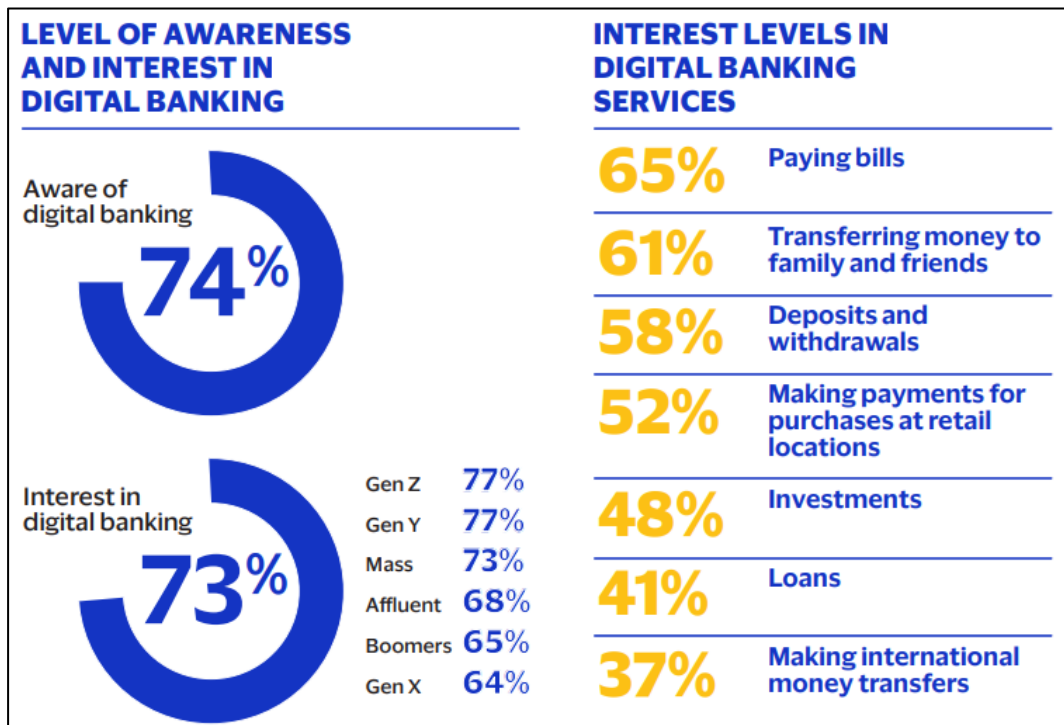
willing to share their data, as long as the security measures protecting it were trustworthy (Teo, 2020). All of this implies that consumers in Malaysia were more than ready for digital bank services as long as their safety concerns are addressed.

In Malaysia, Generation Z is the largest age group, accounting for 29% of the population and earning US\$327 million per month (Tjiptono et al., 2020). According to Tjiptono (2020), Generation Z in Malaysia is a tech-savvy generation that spends an average of 8 hours a day online and primarily relies on social media and cell phones. Nik et al (2024) state that individuals born between 1997 and 2012 comprise Generation Z, often known as the Centennial generation, and account for roughly 8.476 million people, or 19% of Malaysia's total population.

This generation is deeply familiar with digital technology, adopting a fast, practical approach as they encounter it. Not only that, but Generation Z experienced the effects of the 2008 Great Recession (HTEC, 2021). They witnessed their parents' financial hardships and the toll that economic uncertainty took on a family. At the same time, this generation is burdened by student loans such as PTPTN. Thus, it will help them spend the money more carefully and sustainably.

On top of that, Generation Z has a significant impact on fintech, digital banks, and traditional banks. One of the main factors influencing Gen Z's purchasing decisions is sustainability. 73% of Gen Zers are willing to pay more for sustainable items, and 62% prefer to purchase from sustainable brands (HTEC, 2021). Consequently, Gen Zers will likely seek banking services that help them invest in sustainable brands. Hence, Generation Z is aggressively transforming Fintech and traditional banking as "digital natives" will improve the financial services industry by emphasising efficiency, sustainability, trust, and personalisation.

Figure 1.4 Interest in digital banks and interest level in digital bank services



Source: Visa (n.d.)

According to Visa (n.d.), approximately 77% of Generation Z show awareness and interest in digital bank, indicating a firm intention to adopt it. This statistic measures the strong awareness and willingness of Generation Z towards financial solutions. Generation Z has the highest interest in digital bank among generations. It indicates that they are tech-savvy and comfortable with technology. However, the interest levels in digital bank services did not split by generation, but it provides an overview of which services have the most interest among Malaysian citizens. It can be assumed that Generation Z would like to pay bills (65%), transfer money to friends and family (58%), make deposits and withdrawals (58%), and use other services to improve their digital efficiency. In contrast, Generation Z shows a 77% interest in Islamic digital bank, indicating a greater willingness to use these services. Thus, there is a high level of interest in digital banks and Islamic digital banks among Generation Z. According to Kurniawan and Jesica (2024), 80% of Generation Z have shifted from traditional banks to digital bank services due to

digital efficiency. Consequently, Generation Z becomes a crucial group affecting the adoption and growth of digital bank services (Kurniawan and Jesica, 2024).

Although there is a strong adoption trend, consumers still prefer traditional banks. According to Finextra (2025), Malaysians still prefer conventional banks as their first choice of financial institutions. It provides strong security, trust, and physical branches for personal service. In addition, traditional banks also offer partnership networks that support business growth and digital transformation for SMEs (UOB, 2022). Thus, digital bank provides convenience to users whereas traditional banks remain helpful in public due to trust, usefulness, security and others.

1.2 Problem Statement

The recent COVID-19 pandemic has affected many other sectors, specifically the banking industry. Digital-only banks, which were at the rise point, had an adverse effect during the coronavirus pandemic. The pandemic has hit many business models, such as digital banks, which are "more vulnerable" than traditional banks. On top of that, S&P Global Ratings said it has been boosting its digital offerings during the pandemic (Paul, 2021). The digital banks depend on higher interest rates on deposits to attract consumers and frequently have smaller market shares than traditional banks. However, they have found it challenging to maintain this business model in ultra-low interest rates. Furthermore, many digital banks are tiny, inexperienced in the loan process, and have never gone through a complete credit cycle, which highlights the weaknesses in the business models (Paul, 2021). While some digital banks could not hold the economic consequences of the pandemic, others might need to change their business plans or find more reliable partners to combine with them. All the fact is supported by the news of Edge Malaysia in 2021 titled "Covid-19 hitting the digital bank hard".

The largest population in Malaysia is Generation Z (Chen et al., 2024). As mentioned, this generation is tech-savvy and spends much of its time playing reels or scrolling through social media daily (Tjiptono, 2020). Hence, this generation is

forced to adopt a digitalised bank to make daily transactions, although it has benefited Generation Z (Lee et al, 2023). As Laycock (2022) mentioned, Gen Z likely to have a digital bank account in Malaysia, as 20% of them had an active account than previous generations. For illustration, Maybank has noted that there is a 1.47 billion transactions during November 2021, representing a 35% increase from 1.15 billion in 2020. It shows that the rise of transaction volume has reflected the willingness of the generation to adopt a digitalised bank.

Firstly, consumers utilise a digital bank only when it is advantageous to them. The user might hold the uncertainty services, such as delayed transactions and inconvenience, to adopt a digital bank (Lee et al., 2023). Not only that, but sometimes digital banks are perceived as insufficient compared to the personalised customer service available at traditional bank branches (Nik, 2024). Furthermore, customers' access to digital bank services is restricted as digital banks do not offer the same financial services as traditional banks (Omar, 2023). For example, digital bank services do not offer notarisation and bank signature guarantees as routine services to the customer since they require many financial and legal transactions.

Another barrier to digital banks is the lack of trust (Lee et al, 2023). Besides that, Nik (2024) mentioned that digital banks' trust, reliability, and stability are critical barriers compared to traditional banks with good reputations and physical branches in Malaysia. This is attributed to low digital privacy awareness, the influence of trust, limited confidence in digital services, as well as minimal direct engagement between consumers and financial service providers. On top of that, the disadvantage of digital banks is that they feel less adopted by consumers due to financial decision-making (Windasari, 2022). Making financial decisions is crucial because of concerns about privacy, trust, and other potential hazards that bank customers may face. Thus, research found that trust was the crucial consideration for Generation Z in adopting a digital bank.

Nowadays, the growth of online transactions, e-commerce, and digital banks has given scammers new opportunities for attack. For instance, financial damages from these illegal acts, ranging from investment and phishing schemes to job fraud and love scams, total billions of Ringgit yearly (Beh, 2025). On top of that, Lee et al.

(2023) noted that security is a significant issue for digital banks, particularly for their customers. Thus, Generation Z is more aware of security issues to influence the use of the digital bank. Additionally, consumers fear that their data and privacy are being hacked by scammers (Windasari et al, 2022). Therefore, the consumer will be more concerned about security, especially with a digital bank, than with a traditional bank. Thus, consumers will suffer from financial loss due to security risk in a digital bank, which makes Generation Z unwilling to utilise.

Due to climate change, such as water pollution and deforestation of palm oil plantations, which endanger biodiversity, it has also become a current Malaysian environmental challenge (Eric, 2024). According to Windasari et al. (2022), a digital bank is environmentally friendly as it involves no paper, is pollution-free, and reduces vehicle traffic. It also helps to remove the need for an office and premises, saving to financial expenses for a digital bank. However, the study area for Generation Z remains underdeveloped in terms of environmental concerns. According to Saif et al. (2022), digital-only banks are becoming more popular worldwide, yet Malaysia's digital bank adoption rates remain low. In Malaysia, factors influencing the adoption intention of digital-only banks, such as environmental concerns, have not been sufficiently researched among Gen Z.

Therefore, this study investigates environmental concerns, perceived usefulness, trust, and security concerns related to Generation Z's intention to adopt a digital bank in Malaysia, as environmental concerns are a new independent variable to be examined among Generation Z to adopt the digital bank.

1.3 Research Question

1.3.1 General Question

This study's general question is: What are the determinants of Generation Z's intention to adopt digital banks in Malaysia?

1.3.2 Specific Question

The following research questions help to define the study:

Table 1.1 Specific Question

| | | |
|---|----------------------------|---|
| Is there a significant relationship between | Perceived usefulness (PU) | and intention to adopt a digital bank among Generation Z in Malaysia? |
| | Trust (T) | |
| | Security Concern (SC) | |
| | Environmental Concern (EC) | |

Source: Author's development

1.4 Research Objective

1.4.1 General Objectives

The objectives of this study are to identify the determinants of the intention to adopt digital banks among Generation Z in Malaysia, including perceived usefulness, trust, security, and environmental concerns.

1.4.2 Specific Objectives

To address the general objective, four specific objectives have been developed as follow:

Table 1.2 Specific Objective

Determinants of the Intention to Adopt a Digital Bank Among Generation Z In Malaysia

| | | |
|--|----------------------------|---|
| To determine whether there is a significant relationship between | Perceived usefulness (PU) | and intention to adopt a digital bank among Generation Z in Malaysia? |
| | Trust (T) | |
| | Security Concern (SC) | |
| | Environmental Concern (EC) | |

Source: Author's development

1.5 Hypothesis of the Study

Hypothesis 1:

H0: A negative relationship between perceived usefulness and intention to adopt a digital bank among Generation Z in Malaysia.

H1: A positive relationship between perceived usefulness and intention to adopt a digital bank among Generation Z in Malaysia.

Hypothesis 2:

H0: A negative relationship between trust and intention to adopt a digital bank among Generation Z in Malaysia.

H1: A positive relationship between trust and intention to adopt a digital bank among Generation Z in Malaysia.

Hypothesis 3:

H0: A negative relationship between security concerns and the intention to adopt a digital bank among Generation Z in Malaysia.

H1: A positive relationship between security concern and intention to adopt a digital bank among Generation Z in Malaysia.

Hypothesis 4:

H0: A negative relationship between environmental concern and intention to adopt a digital bank among Generation Z in Malaysia.

H1: A positive relationship between environmental concern and intention to adopt a digital bank among Generation Z in Malaysia.

1.6 Significance of the study

This study aims to understand how perceived usefulness, trust, security concerns, and environmental concerns affect Generation Z's willingness to use a digital bank in Malaysia. To focus specifically on Generation Z, this research offers more relevant insights into how this group is becoming a key customer segment for digital banks.

First and foremost, perceived usefulness plays a significant role for Generation Z, which is tech-savvy and constantly seeks practical, efficient digital services. They expect bank apps to offer the same level of efficiency to social media, e-commerce, and fintech platforms, as they use them daily (Windasari et al., 2022; Nurahmasari et al., 2023). If a digital bank can help them accomplish the task quickly and effectively, such as managing transactions online without needing to visit physical stores. Therefore, Generation Z is more willing to adopt digital bank services because they help them solve problems. Thus, perceived usefulness directly influences their intention to adopt a decision. This indicates why perceived usefulness is a crucial variable to study in relation to Generation Z's intention to adopt a digital bank.

In addition, trust plays a key role in shaping Generation Z's intention to use digital bank services within Malaysia. Nowadays, Generation Z heavily relies on networking, such as social media, and spends significant time on platforms like Instagram Reels and TikTok, where they usually review all the comments before committing to new services, compared to older generations (Sitit et al., 2021). Therefore, the decision-making is shaped by personal trust and institutional trust. For instance, Generation Z may adopt a digital bank after hearing about a positive experience from friends or family. Thus, trust is not only a basic requirement but also becomes a social norm for this generation as it is essential to explore the role in shaping intention to adopt.

Furthermore, security concerns remain a barrier to Generation Z adopting a digital bank. This generation is more aware of cybersecurity threats, despite their comfort with technology, due to increased fraud, phishing, and scams (Beh, 2025). In addition, if Gen Z users believe that digital financial services are at risk of attacks, they might be unwilling to utilise them. Therefore, examining this concern is important to understand how security can encourage or discourage the adoption of Generation Z.

In addition, environmental concern is an important but understudied factor among Generation Z in terms of digital bank. Previous research has been infrequent or rarely focused on Gen Z despite the trend towards increased environmental awareness (Saif et al., 2022). This is partly because digital-only banks have begun to view Gen Z as an attractive customer segment, actively promoting brands and services aligned with sustainability, such as policies that reduce paper consumption and carbon footprints (Windasari et al., 2022). The role that sustainability awareness can play in the adoption of a digital bank has been lacking. Thus, this study aims to fill the gap by determining environmental concern as a new independent variable among Gen Z in Malaysia.

Ultimately, although this study falls within the scope of Generation Z, it is also important for policymakers and financial service providers. With respect to the government and the regulators, the information will enable them to develop more relevant financial frameworks and policy recommendations for digitalisation. As for financial service providers, we will be able to draw up, for example, policies that align with Gen Z's trust-based values, highlight usefulness, enhance security, and address environmental concerns.

In short, this research might be advantageous for future research. Numerous studies on this topic have been carried out by earlier researchers, such as Saif et al (2022), Lee et al (2023), Chamaine et al (2023), Amy et al (2023), Low et al (2024), Goh et al (2024), and Shilpa et al (2020). However, no research has been conducted to analyse Generation Z's desire to use a digital bank in Malaysia, using independent variables such as perceived usefulness, trust, security concerns, and environmental concerns. Therefore, this study is advantageous for future researchers, as it provides

an insight into Generation Z's intention to adopt a digital bank in Malaysia and helps fill the existing research gap.

1.7 Layout of Chapters

Chapter 1: Introduction

Chapter 1 provides context for the topic with a comprehensive background overview. The problem statement will highlight key difficulties and gaps in current research that the study aims to address. This study's research questions and objectives are presented, providing a framework that directs the approach and analysis. Finally, the study's significance will be discussed, highlighting its potential impact and contributions. Chapter 1 provides a detailed foundation.

Chapter 2: Empirical Study

Chapter 2 presents a review of the literature, integrating key theoretical frameworks and empirical findings from previous studies that have contributed to the understanding of the topic. In addition, this chapter includes explanations of each variable and details on how previous studies' ideas and concepts apply to my research. Furthermore, it will assume the hypothesis based on the previous study's result or idea for this research. In short, it will develop a chapter summary for this study.

Chapter 3: Research Methodology

This study uses a quantitative research methodology to investigate the variables impacting Malaysian Generation Z's intention to use digital banking. Primary data is gathered from Generation Z respondents via an online survey using a standardized questionnaire. To choose appropriate study participants, a sampling technique is used. To evaluate the suggested hypotheses and accomplish the study goals, statistical software is used to analyse the gathered data in order to perform

descriptive and inferential analyses, such as reliability, correlation, and regression analyses.

Chapter 4: Data Analysis

First and foremost, SPSS software will be utilised in this chapter to create and analyse findings. Furthermore, this study will generate outcomes for the hypotheses and research questions and analyse the results once the data are collected. It will start with descriptive research, which provides an overview of each component, including the demographic section, the dependent variable, and the independent variable. By doing so, it will use a multiple regression model to investigate the relationships between independent factors and dependent variables. Furthermore, the findings will be presented in tables showing the coefficient estimates, p-values, and variable correlations.

Chapter 5: Conclusion of the Study

This chapter summarises the analysis of the research findings from Chapter 4. Thus, it provides an overview of the study's findings, conclusions, implications, limitations, and recommendations for future research. In addition, this chapter is concluded by the research's contribution to emphasise the importance of this study.

1.8 Chapter Summary

In short, it will discuss the background of the digital bank, Generation Z, the research problem, the research objective, the hypothesis, and the significance of the study in this chapter 1. Thus, the following chapter will analyse the theory and empirical study, identify the hypotheses and conceptual framework, and identify the research gap.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter will review previous studies that contributed to the development of the constructs used in this study. It will also discuss previous studies on the definition of the intention to adopt a digital bank among Generation Z in Malaysia (DV), as well as the key constructs of perceived usefulness (PU), trust (T), security concerns (SC), and environmental concerns (EC). In addition, the chapter will introduce a new conceptual framework for this research and address the research gaps identified in the study. In short, a summary of the chapter will be provided.

2.1 Underlying Theories

2.1.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is crucial for understanding the factors that determine the intention to adopt a digital bank among Generation Z in Malaysia. TAM, developed by Fred Davis in 1989, is used to describe consumers' use of technology based on ease of use and utility (Marikyan et al., 2022). This theory underlies variables such as perceived usefulness (PU) to influence Generation Z's desire to use a digital bank in Malaysia (Rahmadhani et al., 2022).

The degree to which an individual feels that using technology enhances their performance is known as perceived usefulness (PU) (Marikyan et al., 2022). This concept, based on Bandura's (1989) outcome-judgment theory, proposes that people's behaviour is motivated by their expectations of positive outcomes. In the context of a digital bank, PU denotes the conviction that employing a digital

platform will improve financial management or increase banking efficiency (Chen et al., 2023).

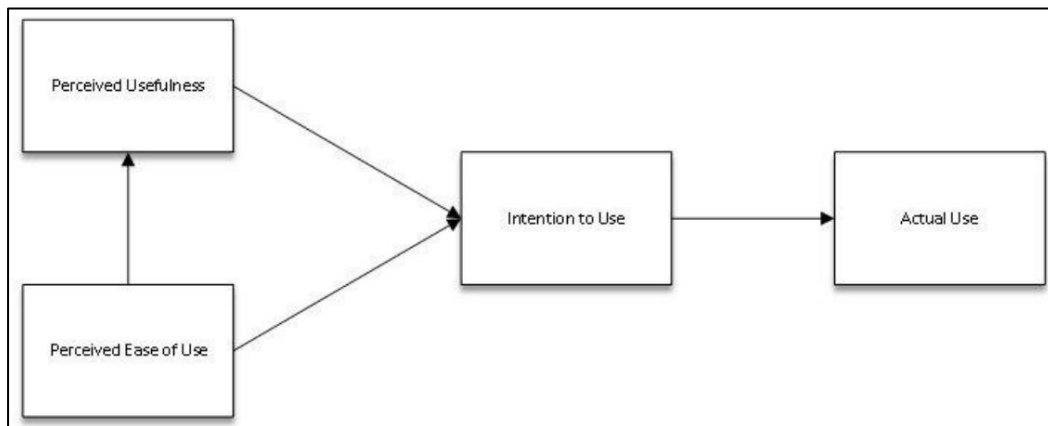
Behavioural intention relates to an individual's propensity to act; stronger intentions are more likely to be activated (Chen et al., 2023). Perceived ease of use refers to the extent to which individuals perceive a system to be simple and effortless to use (Marikyan et al., 2022). Both PU and PEOU play important roles in determining how new technologies are accepted.

However, TAM has its limitations. It frequently overlooks the more individualised impacts, such as environmental issues, that Gen Z must increasingly consider in favour of concentrating on user behaviour and technological specifications. (Lee et al., 2023). For instance, Generation Z is increasingly concerned about sustainability (HTEC, 2021), which affects not only their purchasing decisions but also their readiness to embrace innovations like a digital bank (Windasari et al., 2011). Therefore, TAM's evaluation of usability and utility by itself is insufficient to explain why Generation Z prefers digital banks. Also consider the effects of social norms, sustainability, and trust in technology.

Due to this limitation, additional constructs to be included in TAM are needed to develop a more complete model (e.g., environmental factors and other issues relevant to Generation Z). Lee et al. (2023) suggest that TAM can serve as a helpful tool for tracking the factors that influence the intent of Generation Z digital bank customers. However, it is in extending the model to include these facts that we need. That will provide a more in-depth understanding of the decision-making process for Generation Z in Malaysia.

The TAM offers a robust theoretical basis for investigating digital bank adoption, particularly in addressing Generation Z's needs. It has been widely applied and validated in previous studies (Lee et al., 2023; Chen et al., 2023; Soo et al., 2023; Rahmadhani et al., 2022). Within TAM, PU serves as a central construct, making it especially relevant for explaining technology adoption specifically for Generation Z.

Figure 2.1 The diagram of the Technology Acceptance Model (TAM).



(Source: Adapted from Marikyan, 2022)

2.1.2 Value – Belief Norms Theory (VBN)

Besides, value–belief–norm theory (VBN) is also important in understanding the factors that determine Generation Z’s intention to use a digital bank in Malaysia, like environmental concern. This was introduced by Stern et al. (1999). However, the VBN theory is appropriate than TPB and NAM for this study. It is also grounded on VBN, which justifies the need for presenting a causal sequence of pro-environmental behaviour related variables (Environmental behavior because of interaction between values, beliefs, individual characteristics), resulting in encouraging individuals to favour sustainability and environmental protection (Shang et al., 2023; Taneja & Ali, 2020). An ego ideal for all actions to be directed towards desired cross-situational goals with varying degrees of relative importance value (Ghazali et al., 2019). The value component also encompasses ecological, altruistic, and egoistic aspects. They are one’s values toward the biosphere, other people, and oneself (Liu & Wu, 2020).

Belief is a two-part concept that encompasses views about nature and human action (Ghazali et al., 2019). Additionally, this belief is grounded in the New Environmental Paradigm (NEP). According to Taneja & Ali (2020), NEP, which

considers natural balance, ecological boundaries, and human participation in nature, has been used to assess environmental concerns and goals. While Liu and Wu (2020) argue that the NEP challenges traditional social norms, suggesting that our lack of concern for environmental protection in favour of economic gain has contributed to environmental issues. We must reconsider our relationship with the natural environment. Ghazali et al. (2019) state that the Value-Belief-Norm (VBN) model posits that individuals develop an awareness of the consequences of environmental problems and the responsibility they may have in minimising these problems and environmental conditions. If they feel strongly responsible for protecting the environment, they can create personal norms that drive pro-environmental behaviour on their own behalf (Ghazali et al., 2019). Personal norms, attributed responsibility, environmental awareness, altruistic awareness, and egoistic awareness all influence pro-environmental behaviour intentions (Liu & Wu, 2020). Thus, a norm-activation includes three variables: awareness of consequences, accountability, and personal norms (Ghazali et al., 2019).

Additionally, the theory of planned behaviour (TPB) and norm-activation theories (NAT) are also commonly employed in research on environmental behaviours (Liu & Wu, 2020). For example, Norm Activation Theory (NAT) provides a better explanation for commuters' reduced use of personal vehicles than the Theory of Planned Behaviour (TPB). In addition, Stern et al. (1995) developed the Value-Belief-Norm (VBN) theory, which posits that egoistic, altruistic, and ecological values shape beliefs (e.g., ecological worldview, awareness of consequences, ascribed responsibility), leading to a personal norm. This personal norm determines pro-environmental behaviour (PEB) (Liu & Wu, 2020).

Thus, this theory has overcome the limitations of TAM, particularly in addressing the variable of environmental concern. VBN provides a foundation and comprehensive study to explore the factors influencing the intention to adopt a digital bank among Generation Z in Malaysia. Within this theory, environmental concern is a belief factor influencing the intention to adopt a digital bank. Digital banks that reduce paper use, limit physical infrastructure, and promote sustainable practices align with the environmental responsibility values of Generation Z (HTEC, 2021; Yahaya et al., 2025). In short, VBN is well-suited for explaining the impact

of environmental concerns on the adoption of digital bank among Generation Z in Malaysia. In contrast to the Theory of Planned Behaviour (TPB) and Norm Activation Theory (NAT), VBN provides a more comprehensive explanation of sustained adoption behaviour by capturing both the normative aspects of decision-making and deeper value-based reasons.

2.1.3 Theory of Perceived Risk (PRT)

Bauer (1960) introduced perceived risk theory, which suggests that a behaviour involves certain potential dangers that are anticipated before it is performed. In other words, perceived risk states that the unpredictability and possible drawbacks that could arise when implementing a product or service in consumer decision-making. Marafon et al (2018) defined risk as “the circumstance in which the decision maker is aware of both the outcomes of options and their likelihood of occurring.” This highlights the subjectivity of risk perception: different individuals perceive the same circumstance with varying degrees of risk, depending on their awareness, experience, and level of trust. Perceived risk is an important factor in adoption decisions because consumers are frequently loss-averse. It means that consumers place a higher value on potential adverse outcomes than on good ones.

Abikari (2023) describes perceived risk as a complex, second-order concept in the context of a digital bank. It includes performance risk, financial risk, privacy risk, time risk, and security risk (Abikari, 2023). Performance risk refers to the likelihood that the system or service fails to function as planned, which may depend on the client’s technological expertise and logic (Arora, 2021). The possibility of financial loss from online activities, such as fraud or unsuccessful transactions, is included in financial risk (Arora, 2021). Privacy risk refers to the fear of losing control over personal or sensitive information, or of its disclosure without permission (Abikari, 2023). The potential loss of time in fixing system faults, retrying unsuccessful operations, or figuring out how to use the system efficiently is known as time risk (Arora, 2021). Additionally, security risk refers to concerns about data and

transaction safety and protection, where customers expect stringent measures to ensure the integrity of digital bank systems.

Past studies have shown that the risks are interconnected. For instance, inadequate security can result in privacy violations, which can incur costs, and poor performance can prolong the time required to correct mistakes (Zhao & Khaliq, 2024). Because they directly destroy users' financial security and personal information, security and privacy threats are frequently identified as the most significant obstacles to the adoption of digital financial services (Alijaradat et al., 2024).

Thus, perceived risk theory (PRT) serves as the foundation for this study, which adopts a targeted methodology by examining security concern as a specific aspect of perceived risk. This highlights that online fraud and cybersecurity incidents have increased significantly in Malaysia in recent years, prompting a heightened awareness of security concerns in digital bank (Lee et al., 2023; Beh, 2025; Windasari et al., 2022). Due to constant exposure to digital platforms and cyber threats, Generation Z is highly concerned about security and privacy (Lee et al., 2023; Windasari et al., 2022). Therefore, this study examines the theory of perceived risk (PRT) of security concerns to gain insight into the desire to use a digital bank towards Generation Z in Malaysia.

2.2 Review of Variables

2.2.1 Dependent Variable

2.2.1.1 Intention to Adopt Digital Bank among Generation Z

Digital banks, also referred to as virtual banks or internet-only banks, enable customers to conduct all their banking activities online without physical branches

(Kurniawan et al., 2023). This shift to fully digitised services enables the management of accounts, loan applications, deposits, transfers, and investments, thereby reducing operating costs and enabling secure transactions (Kurniawan et al., 2023). Digital banks offer a wide range of financial services similar to traditional banks, including savings accounts, loans, and payment services, thereby benefiting both customers and institutions by saving time and money (Gong et al., 2022).

There are two types of electronic bank services, such as internet banking and digital bank. While internet banking operates through banks with physical branches, a digital bank operates without physical branches and relies on digital platforms (Low et al., 2024). Digitalisation of banking processes significantly changes customer experiences and spending behaviours, as users demand simplicity, accessibility, and transparency (Windasari et al., 2022). Typically, digital banks offer a range of financial management tools, including budgeting, spending tracking, and savings (Saif et al., 2022). In addition, digital banks also offer loans, investment portfolios, risk management, and improve financial services while minimising costs (Saif et al., 2022).

Iqbal et al. (2018) claimed that Banks are now incorporating environmental considerations into their lending and investment practices to help protect the environment. Besides that, Banks have implemented eco-friendly practices by utilising green technologies, commonly called green banking. Therefore, understanding the adoption and use of green technology is crucial to information systems research, as it is the foundation for green banking.

Generation Z represents a new demographic of customers who are more inclined to begin saving at an earlier age compared to older generations, who traditionally focus more on loans, mortgages, and insurance (Kurniawan et al., 2023). Gen Z's early financial involvement enables them to make more analytical, informed financial decisions. This generation places a high value on sustainability, preferring services that are efficient and aligned with their intention behaviour (HTEC, 2021). In a digital bank, sustainability is reflected in providing user-friendly platforms that ensure easy access to services and seamless transactions (Yahaya et al., 2025). As noted by Abdillah et al. (2024), Generation Z values digital banks for their

convenience, security, autonomy, and personalised benefits, preferring to manage their financial transactions independently without the need to visit physical branches.

Generation Z's preference for convenience and digital accessibility has led many to open accounts in multiple banks to ensure they receive the best services available. This generation is known for frequently switching banks to access superior financial services, which influences their intention to adopt the most efficient, user-centric digital bank platforms (Kurniawan et al., 2023). Financial institutions aiming to engage with Gen Z must offer digital bank services that are secure, easily accessible, and seamlessly integrated into daily life, much like social media platforms (Windasari et al., 2022). By doing so, Gen Z's digital preferences are essential for banks to remain competitive in the rapidly evolving digital bank landscape.

2.2.2 Independent Variable

2.2.2.1 Perceived Usefulness for Intention to Adopt Digital Bank

Perceived Usefulness (PU) represents a core component of the Technology Acceptance Model (TAM) and describes an individual's perception that utilizing a specific technology can improve their work performance (Marikyan et al., 2022; Rahmadhani et al., 2022; Noyandri et al., 2024). In a digital bank, consumers are more willing to accept services because they perceive that the services will provide benefits to their lives, for example, convenient online transactions, saving time, and easy money management (Rahmadhani et al., 2022; Nurahmasari et al., 2023). According to Bahtera et al. (2024), PU is primarily used to understand consumers' adoption of new technology.

Oktavia et al. (2023) have also described PU as the extent to which new technology reduces workload and increases effectiveness. Past studies found that users' desire to use a system is among the most important perceptions, as it relates to perceptions

of the system's capabilities and usability. Therefore, PU affects not only the actual usage of a product but also users' continued desire to use a system (Oktavia et al., 2023). Technology will be more widely embraced when users find it useful, usable, and aligned with their needs.

According to Abdillah et al. (2024), PU is significant to the digital bank adoption in Generation Z. The benefits of digital bank for Gen Z include the time-saving nature, convenience, and easy access. Transactions can be completed quickly, as they no longer have to visit a branch, aligning with their preference for fast, efficient services (Abdillah et al., 2024).

Additionally, Nguyen (2020) conducted a study in Vietnam, which found that consumers were more likely to adopt digital bank if they viewed it as convenient. This study emphasises the importance of digital bank services being easy to use and advantageous to consumers, since convenience and time savings are critical factors in customer decision-making.

In short, PU is a key factor in understanding Generation Z's intention to adopt a digital bank. Digital bank services that meet expectations for convenience, speed, and access are more likely to be widely adopted, which Generation Z values highly.

2.2.2.2 Trust for Intention to Adopt Digital Bank

Trust plays a key role in getting people, especially Generation Z, to use a digital bank. Lee et al. (2023) and Hew (2022) say that trust can come from personal beliefs, facts, or even religion. In the case of a digital bank, trust means believing that the bank will keep its promises and act in its customers' best interests (Lee et al., 2023). Trust is particularly important in digital transactions because there is no in-person interaction, and customers have to rely on the bank's security and reliability. Lee et al. (2023) also highlight that trust is closely tied to decision-making, meaning that people's choice to use a digital bank depends a lot on how much they trust the institution.

Trust is also important for lowering perceived risks, which makes users feel more confident about digital bank services. Nguyen et al. (2020) explain that when people feel less risk in using a service, their trust in the service provider grows. For example, if customers believe that the risk of problems like service failure or security issues is low, they are more likely to trust the bank and use its services more often. Hew (2022) agrees that trust is the belief that the bank will provide a safe platform and have the customer's best interest in mind. This belief is especially important for Generation Z, who tend to be more careful when it comes to online financial services.

Corporate Social Responsibility (CSR) is also a major factor in building trust with Generation Z. Yahaya et al. (2025) found that Generation Z expects banks to act ethically, treat customers fairly, and be transparent with pricing. As noted before, Generation Z cares about sustainability (HTEC, 2021), and CSR efforts help banks create a positive reputation. This is especially important in a digital bank, where consumers may worry about security, privacy, and ethical practices. Banks that show a commitment to CSR can address these concerns and build trust with Generation Z customers.

So, trust—covering aspects like security, CSR, and transparency—is essential for digital banks to attract and keep Generation Z customers in Malaysia. Oktavia et al. (2023) state that trust is crucial for customers to have confidence in the security of digital bank technologies. A lack of trust or dissatisfaction with digital bank services is a common reason why customers switch banks or consider alternatives like FinTech companies. In a study in Saudi Arabia, trust was found to affect internet banking adoption significantly. The more trust customers had, the more likely they were to use and accept internet banking services.

In short, trust is not just a factor but to essential driver of digital bank use, especially among Generation Z. Digital banks should focus on building and maintaining trust to ensure long-term success and growth among this group.

2.2.2.3 Security Concerns for Intention to Adopt Digital Bank

Generation Z is increasingly focused on security and privacy, especially when it comes to digital bank (Yahaya et al., 2025; Chan et al., 2024). Security features like encryption, multi-factor authentication, and fraud detection are essential to protect their financial data (Chan et al., 2024). Digital banks must continually enhance their security measures to ensure consumer data is protected in the digital financial market (Yahaya et al., 2025). Security protocols also need to address issues like user authorisation, identity verification, and secure communication to protect both the system and customer information (Chan et al., 2024). Security concerns are a major factor influencing Generation Z's intention to use a digital bank.

In addition, Lee et al. (2023) emphasise that for digital banks to gain customers' trust, they must implement strong safety protocols. Indriyarti et al. (2023) define security concerns as the sense of safety users feel when using an online service. Service providers must ensure that customers feel secure when using electronic services. If customers fear their financial data is at risk, they are less likely to trust and adopt a digital bank. Soo et al. (2023) identified threats like phishing, password cracking, and malware as major concerns for digital banks. Hackers can misuse customers' private information, leading to financial losses and a decline in trust in digital banks.

Consumers today are aware of the digital risks and data breaches that can be caused by the media (Chan et al., 2024). Many feel that the industry has not done enough to address these problems. This lack of action makes consumers hesitant to trust a digital bank, as their data security is at risk. Chan et al. (2024) found that severe security concerns contribute to high levels of mistrust and dissatisfaction with financial technology services. This, in turn, affects the adoption of digital banks.

In summary, security concerns are crucial for Generation Z's intention to adopt digital bank. Past studies show that a secure, trustworthy digital bank experience is key to earning Generation Z's confidence. If they feel that the technology is safe and stress-free to use, they are more likely to adopt it (Abdillah et al., 2024). As several studies have noted, security concerns play a significant role in whether

Generation Z chooses to use a digital bank (Lee et al., 2023; Yahaya et al., 2025; Indriyarti et al., 2023; Abdillah et al., 2024).

2.2.2.4 Environmental Concern for Intention to Adopt Digital Bank

In recent years, Generation Z and Generation Y have become increasingly aware of environmental issues (Siti et al., 2025). One of the benefits of a digital bank is that it helps reduce the carbon footprint and paper waste that come with a traditional bank. By shifting to digital-only services, banks can lower the costs of maintaining physical branches and create a more sustainable environment. Research shows that Generation Z, in particular, is attracted to sustainable brands (HTEC, 2021).

Additionally, digital banks help promote sustainability by offering financial products that support long-term environmental initiatives. For example, they may include environmental, social, and governance (ESG) considerations in their lending and investment decisions, supporting projects like sustainable agriculture, renewable energy, and green infrastructure. This financial support is vital for building a more sustainable economy.

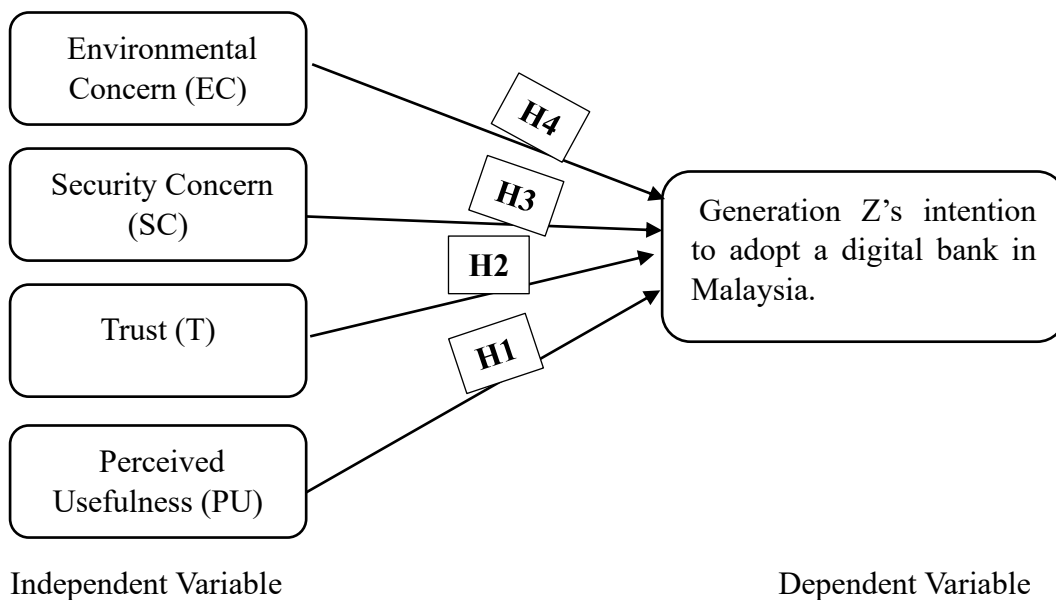
Environmental concerns (EC) are becoming a key driver of people's choice to digital-only banks. Alam et al. (2025) suggest that EC is a personal value that can influence a customer's decision to switch to a digital bank. In their study on Malaysians' preferences for digital-only banks, Saif et al. (2022) identified EC as a significant factor. EC refers to customers' awareness of how human behaviour impacts the environment and climate. It includes feelings like concern, anxiety, and a desire to take action to improve environmental quality (Saif et al., 2022).

The research by Yahaya et al. (2025), Saif et al. (2022), and Alam et al. (2025) shows that EC is increasingly influencing personal behaviour, especially in the choice of eco-friendly options. This is a vital factor when it comes to the desire to use a digital bank, particularly in Malaysia.

In short, environmental concerns are a growing factor shaping the decision to adopt a digital bank. This trend is particularly strong with Generation Z, who are likely to choose sustainable options. Given the limited research in this area, this study aims to explore how EC influences the adoption of digital banks and to help fill this gap in the literature.

2.3 Proposed Conceptual Framework

Figure 2.2 Conceptual Framework



(Sources: Authors' development)

According to Figure 2.1, four independent variables affect the dependent variable, which is Generation Z's intention to adopt a digital bank in Malaysia. These variables are perceived usefulness, Trust, Security Concern, and Environmental concern.

2.4 Hypothesis Development

Hypothesis 1:

H0: A negative relationship between perceived usefulness and intention to adopt a digital bank among Generation Z in Malaysia.

H1: A positive relationship between perceived usefulness and intention to adopt a digital bank among Generation Z in Malaysia.

Perceived usefulness (PU) refers to a person's belief that using a system will help them perform tasks more effectively. In the context of digital banking, individuals tend to adopt these services when they perceive that doing so will simplify financial management, enhance efficiency, or save time (Nurahmasari et al., 2023). For example, when customers see that digital bank services can save time and make their lives more convenient, they develop a positive attitude toward using these services (Nguyen et al., 2020). Research by Rahmadhani et al. (2022) also supports this idea, showing that customers are more willing to use digital payment services when they see clear benefits, such as easier transactions or better savings options.

A study conducted in Indonesia with 150 Generation Z respondents found that perceived usefulness strongly affects their attitude toward and intention to use a digital bank. PU had a bigger impact than other factors like perceived ease of use and self-efficacy (Nurahmasari et al., 2023). Similarly, a study in Vietnam with 201 consumers revealed that PU positively influences their decision to adopt a digital bank (Nguyen et al., 2020).

Furthermore, a recent survey in Malaysia by Goh et al. (2024) found that PU is positively related to the intention to adopt a digital bank among adults. A study involving 245 Generation Z respondents also reported a strong positive association between perceived usefulness (PU) and the adoption of e-wallets in Greater Jakarta. (Rahmandhani et al., 2022). These findings suggest that when people, especially from Generation Z, see a digital bank as beneficial, they are more likely to embrace it.

In summary, perceived usefulness significantly influences Generation Z's intention to adopt a digital bank. Generation Z is more inclined to embrace a digital bank if

they view it as a helpful tool that enhances their financial management and efficiency.

Hypothesis 2:

H0: A negative relationship between trust and intention to adopt a digital bank among Generation Z in Malaysia.

H1: A positive relationship between trust and intention to adopt a digital bank among Generation Z in Malaysia.

Trust is essential for businesses to maintain a good reputation and stay competitive (Musyaffi et al., 2024). For digital banks, building and maintaining trust is crucial, especially among Generation Z, who place high importance on trust when considering new services (Kurniawan & Jesica, 2024). Trust, in this context, refers to the customers' confidence that they can use digital bank services safely, without concerns about risks or security (Nguyen et al., 2020).

Past studies show that trust plays a significant role in adopting a digital bank. For instance, research conducted in Indonesia with 598 digital bank users indicated a significant positive link between trust and users' engagement with digital banking services (Musyaffi et al., 2024). This suggests that digital bank platforms must continuously work to build and maintain customer trust. Similarly, a study of 131 Generation Z university students in Indonesia highlighted that trust is a key factor in their decision to use digital bank platforms (Kurniawan & Jesica, 2024).

However, there are some mixed findings regarding the impact of trust. For instance, a survey conducted in Vietnam with 201 consumers found that while trust indirectly influences the intention to adopt a digital bank, it mainly affects perceived risk (Nguyen et al., 2020). In other words, when customers trust the bank, they feel safer using digital bank services.

Moreover, a study by Hew (2022) among Generation Z in Malaysia during the COVID-19 pandemic found a positive and significant relationship between trust and the intention to use a virtual bank. This shows that building trust is crucial for

Generation Z in adopting new digital bank services. Similarly, Kurniawan et al. (2023) found a significant relationship between trust and digital bank usage in Indonesia, specifically among Generation Z.

In summary, trust is a vital factor in the intention to adopt a digital bank, particularly for Generation Z. Past research, including studies by Kurniawan & Jesica (2024), Hew (2022), Kurniawan et al. (2023) and Lee et al (2023), all point to the importance of trust in the intention to adopt a digital bank.

Hypothesis 3:

H0: A negative relationship between security concerns and the intention to adopt a digital bank among Generation Z in Malaysia.

H1: A positive relationship between security concern and intention to adopt a digital bank among Generation Z in Malaysia.

According to Yahaya et al. (2025), security refers to the unauthorised access, use, disclosure, or destruction of sensitive personal information. Bank service providers must prioritise security when conducting digital transactions (Indriyarti et al., 2023). Therefore, Generation Z is intent on utilising these services, as they perceive them to be secure and confidential. Moreover, technical complications could act as a barrier to Generation Z adopting a digital bank (Indriyarti et al., 2023). Lee et al. (2023) state that security concerns are essential in digital bank among Generation Z, as it features vital aspects, such as ensuring that their bank accounts are secure without exploiting any personal data from Generation Z consumers.

Additionally, a survey of 384 Malaysian participants from Generation Z and Generation Y found a strong positive link between attention to data protection and privacy and the adoption of digital banking services across both age groups (Yahaya et al., 2025). Furthermore, another survey study conducted in Malaysia with 350 Generation Z participants revealed a significant relationship between security concern (SC) and the desire to use a digital bank (Lee et al., 2023).

Conversely, a study conducted in Malaysia indicated that 443 respondents experienced an insignificant relationship between data security and privacy and their behavioural intention to use a digital bank (Soo et al., 2023). Furthermore, a survey of 320 members of Jakarta's Generation Z who use digital banks shows that there is no significant relationship between security concerns and the distribution of digital bank channels, as the p-value is greater than the significance level. (Indriyarti et al., 2023).

In summary, SC should consider these factors while developing the digital bank to meet their needs of Generation Z (Lee et al., 2023; Yahaya et al., 2025).

Hypothesis 4:

H0: A negative relationship between environmental concern and intention to adopt a digital bank among Generation Z in Malaysia.

H1: A positive relationship between environmental concern and intention to adopt a digital bank among Generation Z in Malaysia.

Environmental concern (EC) refers to a customer's awareness of the impact of human activities on the environment and climate (Saif et al., 2022). It is a complex concept that encompasses how people think, feel, and react to environmental issues, as well as their attitudes towards addressing these challenges to improve the environment (Saif et al., 2022). Nowadays, EC influences consumers' choices to adopt eco-friendly products and services, such as a digital bank, which helps reduce paper waste and carbon emissions (Saif et al., 2022).

Studies have shown that younger generations, especially Generation Z and Generation Y, are more aware of environmental concerns and their role in reducing environmental harm (Yahya et al., 2025). This is important because eco-friendly choices, such as a digital bank, can help reduce the environmental impact of traditional banking.

In terms of digital bank, Saif et al. (2022) conducted a study in Malaysia with 420 respondents and found a strong positive relationship between EC and the intention

to adopt digital bank. Past research has shown that EC is a significant predictor of the desire to use a digital bank. Similarly, research conducted in Pakistan by Majeed et al. (2025) indicated that individuals with higher environmental awareness tend to prefer green banking services, including digital bank platforms.

Additionally, Hassan et al. (2025) investigated how environmental concern and religiosity influence switching behaviour towards Islamic digital-only banks in Indonesia. They found that environmental concern had a stronger effect on individuals' intention to switch to a digital-only bank than religiosity, with 99 respondents supporting this finding.

In a nutshell, environmental concern plays an important role in influencing Generation Z's decision to adopt a digital bank, as it aligns with their values of sustainability and eco-friendliness (Saif et al., 2022; Yahya et al., 2025; Majeed et al., 2025; Hassan et al., 2025).

2.5 Research Gap

First and foremost, a lack of comprehensive journals investigating the desire to use a digital bank in Malaysia towards Generation Z, focusing on perceived usefulness, trust, security concerns, and environmental concerns. Nowadays, Generation Z is not only tech-savvy but also increasingly aware of sustainability, showing a preference for environmentally responsible products and services (Saif et al., 2022; Yahya et al., 2025; Windasari et al., 2022). Additionally, uncertainty issues such as system downtime, delayed transactions, and inconvenience are the barriers to adopting a digital bank (Lee et al., 2023), whereas the digital banks' lack of trust, reliability, and stability as compared to traditional banks with established reputations and physical branches in Malaysia (Nik, 2024). Furthermore, risks such as romance scams, employment fraud, and cyberattacks underscore the importance of security when examining Gen Z adoption patterns. Considering these facts, there has been limited research examining these elements comprehensively in the Malaysian context.

In addition, few studies have directly applied perceived usefulness to the adoption of digital bank among Malaysian Gen Z, despite the fact that it is a well-established element in technological adoption. For instance, Saif et al. (2022), Hew (2022), Wong et al. (2024), and Nguyen et al. (2024) examine digital bank adoption, but they place little emphasis on perceived usefulness. Although past studies have mentioned the factors of perceived usefulness, the gap between Generation Z and perceived usefulness has not been examined. For instance, one Malaysian study expanded its framework to include environmental concerns, but it ignored perceived usefulness in favour of convenience, economic efficiency, and security risks. Simultaneously, Hew (2022) and Nguyen et al (2024) have overlooked perceived usefulness, although it emphasises the desire to use a digital bank, whereas Wong et al (2024) did not examine it among Generation Z in Malaysia. It indicates a gap in the perceived usefulness as a determinant for Generation Z in Malaysia.

Additionally, trust has been investigated in various digital bank and fintech adoption studies (Goh et al., 2024; Nurahmasari et al., 2023; Julia et al., 2024). However, some studies do not specifically apply to Generation Z in Malaysia. For instance, Wong et al. (2024) included trust, complexity, and relative advantage but did not consider environmental concern, security concern, or perceived usefulness. In addition, Kurniawan et al. (2023) studied Generation Z in Indonesia, focusing on factors such as trust, among other behavioural predictors. However, their findings can be considered as a reference, but they cannot be directly generalised to the Malaysian context. Thus, trust has been identified as a crucial determinant of intention to adopt a digital bank, yet limited research exists on Malaysian Generation Z's intention to use a digital bank.

On the other hand, security concerns have been explored in different ways, such as perceived risk, privacy, web security, or mobile payment adoption (Soo et al., 2023; Safari et al., 2020; Baraba et al., 2023; Ooi et al., 2021; Chan et al., 2024; Durst, 2024; Nawang et al., 2025; Phuong et al., 2022; Rahmadhani et al., 2022; Qudah et al., 2024). However, these studies emphasise mobile payments, e-wallets, and general Fintech services instead of digital banks among Generation Z in Malaysia. While Lee et al. (2023) examine digital bank adoption among Generation Z in

Malaysia, they did not consider environmental concerns. Thus, there is a gap in the study of the factors related to security and environmental concerns in the intention to adopt a digital bank among Generation Z.

The adoption of digital banks by Generation Z is rarely the focus of existing research, which often emphasises environmental concerns in relation to green banks. For instance, Taneja et al. (2020) examined environmental consciousness, trust, and behaviour among Indian customers, but did not explore Generation Z or digital bank adoption. Similar to the research by Saif et al. (2022, 2024), Majeed et al. (2025), Hussin et al. (2022), and Alan et al. (2025), which considers environmental concerns in digital banks that exclude the Generation Z demographic in Malaysia. Although Chan et al. (2024) examine fintech adoption among Malaysian Generation Z, environmental concern was not included. Thus, there is a gap in understanding how environmental concerns influence the intention to adopt digital banks among Generation Z.

In short, previous studies have either emphasised perceived usefulness, trust, environmental concern, or security concern, but rarely combined all these factors into a single framework. Furthermore, past studies have either been conducted overseas or have not taken into account the characteristics of Generation Z. Therefore, this study aims to address the gap between the intention to adopt a digital bank in Malaysia and its relationship with perceived usefulness, trust, environmental concerns, and security concerns.

2.6 Chapter Summary

In short, this chapter is to give a comprehensive study of the underlying theories that are related to my current research, such as the Technology Acceptance Model (TAM), value-belief norms (VBN) theory, and the theory of perceived risk (PRT). Furthermore, the chapter reviews the existing literature on Generation Z's intention to adopt digital banking in Malaysia, alongside the key factors examined in this study, including perceived usefulness, trust, security concerns, and environmental

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concerns. Moreover, this research has developed a conceptual framework to examine the relationships among perceived usefulness, trust, security concerns, environmental concerns, and intention to adopt a digital bank among Generation Z in Malaysia. On top of that, a hypothesis has been created based on the conceptual framework. In the following chapter, the research will test the developed hypothesis using appropriate techniques to determine its significance.

CHAPTER 3: RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents the methodology used to analyse the determinants influencing digital banking adoption among Malaysian Generation Z. It covers the research framework, methods of data collection, sampling techniques, measurement instruments, data preparation, analytical procedures, and concludes with a summary of the chapter. As a result, each section will provide a brief summary of the procedures used to validate and ensure the dependability of this study. This method gives a thorough comprehension of the research's structure and analysis.

3.1 Research Design

In this study, a quantitative research method will be employed to test the hypothesis, address the research question, and achieve the research objective. Additionally, this method will collect all numerical data through the survey and use statistical software to generate a summary of results for this study. According to this research, an online survey questionnaire is being utilised to be distributed to Generation Z respondents.

In addition, Hew (2022) stated that research aims to achieve its objectives through the guidance of information, decision-making, and the analysis of steps. Lee et al. (2023) emphasised that an appropriate research design is fundamental for producing structured, meaningful, and reliable research outcomes.

As mentioned earlier, quantitative research is used to formulate hypotheses that address the research question and objectives by collecting data through surveys (Hew, 2022; Wong et al., 2024). Furthermore, quantitative research requires time for organisation and must be well-prepared for analysis, offering multiple choices for respondents, as compared to qualitative research methods (Sardana et al., 2023).

In contrast, the qualitative research method examines existing data from past studies to test the hypothesis (Chen et al., 2023). Additionally, the qualitative research method is utilized, drawing on past studies and articles to inform the research (Sardana et al., 2023). Thus, quantitative research involves numerical data and graphs, whereas qualitative research is more descriptive, utilising words and meanings (Sardana et al., 2023). Therefore, both methods possess their strengths and weaknesses.

3.2 Data Collection Methods

The procedures for data collection consist of collecting, evaluating, and analysing reliable information through recognised and certified methods (Mazhar et al., 2021). As a result, the hypothesis proposed in this study can be tested by data gathering and analysis. Thus, data gathering methods are the most important step in the study process. Additionally, this study will use either primary or secondary data.

3.2.2 Primary Data

First and foremost, primary data are collected for the first time and are original, correct, and new (Mazhar et al., 2021). Primary data collection methods include surveys, observations, questionnaires, focus groups, case studies, and interviews (Victor, 2023). Thus, this study is conducted as a questionnaire survey of Malaysian Generation Z's intention to use a digital bank.

A questionnaire survey is one of the primary data collection techniques, where respondents are presented with a form designed to elicit their responses. Therefore, respondents need to select the appropriate answers for the questions (Victor, 2023). Additionally, collecting the data requires time and effort. However, the collected data is accurate and relevant to the research topic (Mazhar et al, 2021; Victor, 2023). Conversely, several challenges are associated with the survey, including the possibility of receiving limited feedback, the potential for language to influence

consumer responses in an impersonal manner, the need for a sampling specialist, and the risk that respondents may not fully understand the entire story (Wagh, 2025).

3.3 Sampling Design

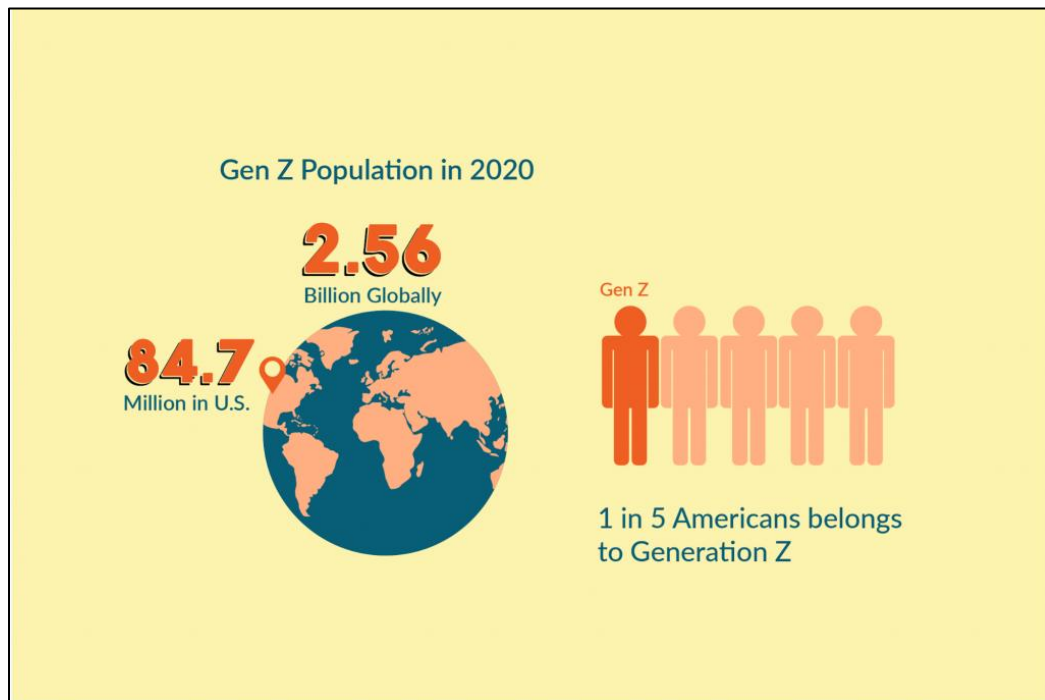
3.3.1 Target Population

The study concentrates on Generation Z in Malaysia as the population of interest. Therefore, the primary objective of this study is to determine the intention to adopt a digital bank among Generation Z in Malaysia. For instance, perceived usefulness (PU), trust (T), security concern (SC), and environmental concern (EC) are determinants influencing the intention to adopt digital bank among Generation Z. To achieve these objectives, the target population consists of Generation Z, born between 1997 and 2010, who represent the key target market (Lee et al., 2023; Hew, 2022).

However, under section 27(2)(a) of the Financial Services Act 2013, banks are not permitted to create accounts for consumers under 18 years old, except with a consent form from their parents or guardians (Wong et al., 2024). Additionally, consumers under 18 years of age who wish to open an account are required to obtain parental consent, in accordance with Section 3(3) of Malaysia's Personal Data Protection Act 2013 (Wong et al., 2024; Hew, 2022). Thus, Generation Z, whose members are under 18, is excluded from this research to prevent the study from becoming complex.

In summary, this study seeks to gather data from the target population to examine Generation Z's intention to use a digital bank in Malaysia. By doing so, it aims not only to achieve the research objective but also to contribute to understanding Generation Z's intention to adopt a digital bank in Malaysia by examining the factors of perceived usefulness (PU), trust (T), security concern (SC), and environmental concern (EC).

Figure 3.1 Generation Z's population in 2020.



(Sources: Adapted from Vincent et al.,2021)

3.3.2 Sampling Frame and Sampling Location

The sampling frame refers to a comprehensive list of all individuals within the target population (Chen et al., 2023). Due to time and financial constraints that prevented the collection of complete data from all individuals in the target population, this research specifically examines the Malaysian context.

First and foremost, 13 Malaysian states were sampled, including Johor, Pahang, Melaka, Sarawak, Kelantan, Terengganu, Sabah, Perak, Selangor, Negeri Sembilan, Perlis, Kedah, and Pulau Pinang (Lee et al., 2023; Ministry of Foreign Affairs in Malaysia, 2025). Malaysia has three federal territories: Kuala Lumpur, Putrajaya, and Labuan (Lee et al., 2023; Ministry of Foreign Affairs, Malaysia, 2025).

3.3.3 Sampling Elements

First and foremost, research participants refer to the individuals drawn from the sampling frame for inclusion in the study. In other words, it means that the study will be more specific, such as the area or target consumers to be chosen.

In addition, this study will focus more on the Klang Valley location, specifically Kuala Lumpur (KL) and Selangor, as this area plays a crucial role in Malaysia's technological advancement, with a high penetration of the internet as well as device usage (Wong et al., 2024; GMO Research & AI, 2024). Moreover, Generation Z in Malaysia is tech-savvy, as mentioned earlier; therefore, they spend approximately 8 hours a day on social media or watching reels (Lee et al., 2023). Hence, these locations are suitable for studying Generation Z's intention to adopt a digital bank in Malaysia. Although the area has been more specific, it is impossible and insufficient in terms of time and cost to distribute the questionnaire survey through them, given their large population. Thus, areas of the 13 states and federal territories will be selected in the research to determine Generation Z's intention to adopt a digital bank in Malaysia.

3.3.4 Sampling Technique

First and foremost, sampling techniques form the foundation of research, as they are vital and beneficial to the research's findings (Creswell et al., 2017). There are two types of sampling techniques: probability and non-probability sampling (Makwana et al., 2023). Moreover, probability sampling involves selecting each person in the population with a known probability of inclusion in the sample. Probability sampling includes simple random sampling, cluster sampling, systematic sampling, and stratified sampling. On the other hand, non-probability sampling implies that not every individual in the population is included in the sample (Makwana et al., 2023). Non-random sampling methods include purposive sampling, snowball sampling, quota sampling, convenience sampling, sequential sampling, double sampling, matched-pair sampling, and volunteer sampling

(Shukla, 2023). As a result, this study will focus more on non-probability sampling, notably convenience sampling.

3.3.4.1 Non-Probability Sampling

As previously stated, non-probability sampling is not. Not all members of the population picked for the sample are known. Aside from that, non-probability sampling includes a variety of approaches, such as purposive sampling, snowball sampling, quota sampling, convenience sampling, sequential sampling, double sampling, matched-pair sampling, and volunteer sampling. As a result, this study will use convenience sampling to distribute the questionnaire to Generation Z.

3.3.4.1.1 Convenience Sampling

First and foremost, convenience sampling is a technique for selecting participants who are easily accessible, referred to as a convenient, incidental, or accidental sampling approach (Shukla, 2023). In other words, it describes a data collection procedure from a research population that the researcher can easily access (Golzar, 2022). Besides that, convenience sampling requires the researchers to visit public “locations” and request participation to fill out the questionnaire survey form, and this method applies to any research (Golzar, 2022). Moreover, convenience sampling is often employed in education and the social sciences when conducting qualitative studies.

First, convenience sampling has many benefits, such as helping save time, cost, and effort (Shukla, 2023). Secondly, a list of every population element is not necessary, and this is also an advantage of convenience sampling. Thirdly, it takes little time as the sample is readily available (Golzar, 2022). Last but not least, it takes little work because the researcher is not involved in the complexity of using a randomised sample.

Conversely, several challenges are associated with convenience sampling. For instance, this sampling method may introduce biases and systematic errors (Golzar, 2022; Shukla, 2023). Additionally, Golzar (2022) has stated that the p-value does not provide meaningful information when interpreting the findings. Apart from that, the variability cannot be measured or controlled. Furthermore, this method is not recommended for large populations (Shukla, 2023).

In short, convenience sampling has pros and cons. Therefore, this research will utilise this method to distribute the questionnaire survey among Generation Z consumers in Malaysia to determine their intention to adopt a digital bank.

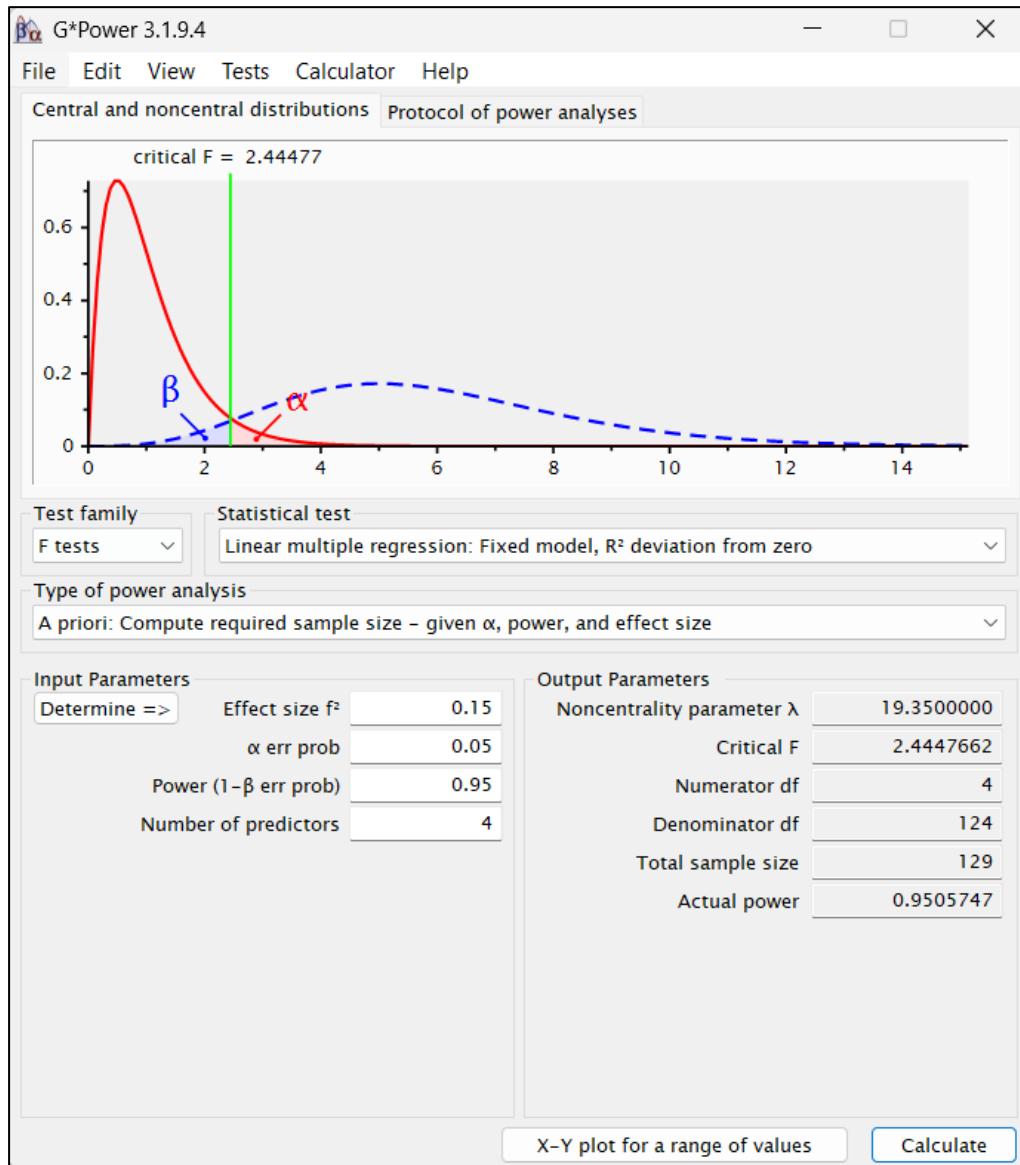
3.3.5 Sampling size

First and foremost, sample size refers to a subset of a population selected to yield sufficient information to conclude (Memon et al., 2020). In other words, it denotes the number of respondents, participation, or observations that will be included in this research study. Therefore, the sample size is crucial for this study, as it contributes to a comprehensive understanding of the research topic based on the collected data. However, this research cannot collect all the data from the list of respondents in the population due to time and cost constraints, as mentioned earlier. Additionally, this study will utilise G*Power to calculate the minimum number of respondents required for this research. Previous studies have strongly recommended G*Power for calculating sample sizes and power for many statistical methods, and it is free and easy to use (Kang, 2021).

Based on a statistical power analysis, the minimum required sample size for this study is 129 respondents. This study will be more accurate in identifying the factors influencing Generation Z's intention to adopt a digital bank in Malaysia with the estimated sample size, since the sample size will affect the relationship between perceived usefulness, trust, security concerns, and environmental concerns regarding Generation Z's intention to adopt a digital bank in Malaysia. Future researchers will also benefit from it. As result, although G*Power recommended a

minimum sample size of 129, this study will gather 200 respondents in total through a questionnaire survey among Generation Z.

Figure 3.2 Sample Size Calculation of G*Power.



(Sources: Author's development from G*Power)

3.4 Research Instrument

A research instrument is a tool that helps collect, measure, and analyse data for a study (Kani, 2022). These tools are most frequently used to evaluate patients, clients, students, instructors, and staff in the social sciences, health sciences, and education (Columbia University, n.d.). The illustration of research instruments includes surveys, interviews, tests, or checklists. In addition, good research instruments include a valid, reliable, unbiased, and contextually appropriate instrument for the research site's culture and diversity, along with precise, unambiguous instructions for using the device. Additionally, a good research instrument is capable of testing hypotheses or responding to suggested research questions, as well as being suitable for collecting data on a relevant research topic (Columbia University, n.d.).

In summary, this study employs a questionnaire as the data collection tool to examine Generation Z's intention to use digital banking services in Malaysia, considering predictors such as perceived usefulness, trust, security concerns, and environmental concerns. Additionally, this study will develop closed-ended questions for the questionnaire rather than open-ended ones. This is because closed-ended questions tend to yield higher response rates, as respondents are more willing to answer multiple-choice questions than open-ended ones (Chen et al., 2023). With this approach, the questionnaire can be made straightforward to answer, resulting in faster responses, and it does not require any interviews or skilled personnel to administer the questionnaire (Hyman & Sierra et al., 2016). However, it requires respondents to spend around 5–10 minutes filling out the form.

3.4.1 Questionnaire Design

For this study, a three-section questionnaire survey form is employed. Each respondent's demographic profile is the main topic of Section A. This part includes 10 demographic profile questions, including those on gender, age, ethnicity, state, employment status, income level, education level, and familiarity with the digital bank.

Section B includes five questions designed to determine the dependent variable, specifically the intention of Generation Z in Malaysia to adopt a digital bank for this research topic. This questionnaire is designed to provide insight into the adoption intentions of Generation Z in Malaysia regarding digital bank. Additionally, Section C of the questionnaire evaluates the four predictors: perceived usefulness, trust, security concern, and environmental concern. This section contains 15 questions, with each independent variable comprising five questions designed to understand the factors influencing the intention to adopt a digital bank.

To create a thorough questionnaire for Generation Z, the researchers will first determine the dependent and independent variables from previous studies (Chen et al., 2023). Second, after the questionnaire is finished, this study will create a survey using Google Forms. After that, all Generation Z participants will receive the Google Forms via email and social media. Given that Generation Z is tech-savvy and uses social media for about eight hours per day (Tjiptono, 2020). Social media is also a good way to distribute the questionnaire and get quick answers. These techniques, to put it briefly, describe the main steps involved in this study.

3.4.2 Pilot Study

A feasibility study, sometimes referred to as a pilot study, is a small-scale exploratory investigation conducted prior to the primary research to assess its viability or enhance the research design (Simkus, 2023; Dayanand et al., 2024). Additionally, pilot studies are an important fundamental step in the research process. As it clarifies the questionnaire's problems and evaluates the study's reliability, validity, practicality, time, and cost before distributing a full version to Generation Z participants (Simkus, 2023).

Chen et al. (2023) suggest that an initial trial with at least 20 respondents is sufficient to assess the validity and reliability of the survey questions. Furthermore, a pilot analysis must fulfil the research requirements, according to Rahim and Kamal (2021). Additionally, this test helps determine the reliability of the alpha for

each instrument used to accomplish the research objectives. As a result, before the main study begins, 30 respondents who can understand the questions are included in the pilot study (Rahim & Kamal, 2021). Guidelines for dependability levels, Cronbach’s Alpha ranges, and their interpretation are so shown in the picture below.

Figure 3.3 Cronbach’s Alpha Interpretations

| Reliability Level | Cronbach’s Alpha Range | Interpretation |
|--------------------------|-------------------------------|---|
| Excellent | 0.90 and above | Indicates very high internal consistency. |
| Good | 0.80 - 0.89 | Reflects strong internal consistency. |
| Acceptable | 0.70 - 0.79 | Indicates acceptable internal consistency. |
| Questionable | 0.60 - 0.69 | Reflects questionable internal consistency. |
| Poor | Below 0.60 | Indicates poor internal consistency. |

(Sources: Adapted from Ahmad et al., 2024)

Thus, this study is a pilot test by using 20 respondents. Based on the SPSS reliability analysis, the Cronbach’s Alpha ranges between 0.861 to 0.964, indicating excellent and good internal consistency as presented in Table 3.1. In short, the result recommended that the questionnaire is reliable and suitable to be used for the main data collection.

Table 3.1 Reliability Test Result for Pilot Study

| Intention to adopt a digital bank among generation Z | Perceived usefulness (PU) | Trust (T) | Security Concern (SC) | Environmental Concern (EC) |
|---|----------------------------------|------------------|------------------------------|-----------------------------------|
| Number of items | | 5 | | |

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Malaysia

| | | | | | |
|-------------------------------|-----------|-------|-----------|-----------|-----------|
| Cronbach's Alpha (α) | 0.916 | 0.861 | 0.964 | 0.921 | 0.911 |
| Level of Reliability | Excellent | Good | Excellent | Excellent | Excellent |

Source: Author's development

3.5 Construct Measurement (Scale and Operational Definitions)

3.5.1 Origin of Construct Measurement

Table 3.2 Origin of construct measurement

| Variable | Questions | Original Sources | Amendment |
|---------------------------------------|---|---------------------|---------------------|
| Perceived Usefulness (PU – IV) | The usefulness of a digital bank also helps me save money and time. | Goh et al (2024) | Paraphrase sentence |
| | Digital banking makes me more efficient by preventing me from queuing for long hours. | Soo et al (2023) | Paraphrase sentence |
| | I believe that the usefulness of digital banking services is simple and easy to use | Lee et al (2023) | Paraphrase sentence |
| | Digital banking makes it easier and quicker for me to complete tasks. | Safari et al (2020) | Paraphrase sentence |

| | |
|--|--|
| <p>The digital bank is useful and allows me to access various services and perform them during a public holiday.</p> | <p>Baraba & Paraphrase Mahmudi sentence (2023)</p> |
|--|--|

| Variable | Questions | Original Sources | Amendment |
|-----------------------|---|-------------------------|---|
| Trust (T – IV) | I am confident that digital banks have a legal and technological policy in place to secure me from any problems that may affect their services. | Bong et al (2023) | Changed the word "protect" to "secure" |
| | I am confident that digital banking is secure from hackers and scams. | | Changed the word "safe" to "secure" and "scam issues" to scams |
| | I genuinely trust digital bank services and depend on them for banking services. | Saif et al (2022) | Changed the word "rely" to "depend on" |
| | I feel comfortable and trustworthy conducting financial services through a digital bank. | | Paraphrase sentence |
| | I trust that digital banking delivers the best advantages that customers always find. | Lee et al., (2023). | Changed the word "provide" to "deliver", "benefit" to "advantage" |

| Variable | Questions | Original Sources | Amendment |
|-------------------------|---|-------------------------|-------------------------------|
| Security Concern | I am confident that the digital bank service will not | Lee et al (2023). | Changed the word “believe” to |

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Malaysia

| | | | |
|------------------|--|-------------------------|---|
| (SC – IV) | have security issues while using | | “confidence” and “utilise” to use " |
| | I am confident in sending sensitive information through digital banking. | Baraba & Mahmudi (2023) | Changed the word “secure” to “confidence” and “across” to “through” |
| | I am confident that Fintech services provide information that helps users reduce risk. | Chan et al (2024) | Changed the word “allows” to “help” |
| | I am confident that a digital bank will prevent unauthorised transactions. | Soo et al (2023) | Changed the word “believe” to digital |
| | I am confident that the digital bank transaction process is trustworthy and secure. | | Changed the word “believe” to “confidence.” |

| Variable | Questions | Original Sources | Amendment |
|---|--|----------------------|---|
| Environmenta I Concern (EC – IV) | I am aware that using environmentally sustainable services helps minimize environmental impact, as they use less paper and energy. | Taneja & Ali (2020). | Changed the word "due to" to "as" and "reduce pollution" to "minimize environmental impact" |
| | I am concerned that digital services have more environmental benefits, such as fewer emissions than traditional banking services. | | Changed the word "technology" to "digital" |
| | I am aware of my bank's environmentally sustainable initiatives and services. | | |

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I am aware that using eco-friendly products and services is a primary way to reduce the environmental impact. Saif et al (2022) Changed the word "environmentally sustainable" to "eco-friendly"

I believe that digital banks are actively taking steps to implement environmentally sustainable initiatives. Paraphrase sentences

| Variable | Questions | Original Sources | Amendment |
|--|---|-----------------------|--|
| Intention to adopt a digital bank (IADB – DV) | I would recommend digital banking service to my friend to utilise it daily | Lau (2022). | Paraphrase sentences |
| | I decided to use a digital banking application within the next 6 months. | Ivanova & Kim (2022). | Changed the word “mobile banking application” to “digital bank application” and “plan” to “decide” |
| | I plan to use digital banks for payment, collecting money, and accessing digital assets. | Bong et al (2023) | Changed the word “intend” to “decide” and “cheque” to “money” |
| | I am comfortable adopting digital banking services once others have had good experiences. | | Paraphrase sentences |

| | | |
|---|-------------------------|----------------------|
| I am satisfied with the benefits that digital banking offers. | Baraba & Mahmudi (2023) | Paraphrase sentences |
|---|-------------------------|----------------------|

Sources: Authors' development

3.5.2 Scale of Measurement

First and foremost, classification, order, distance, and zero origin are the four basic levels of measuring (Dalati, 2018). According to Ajana (2021), measurement is the process of using rules to assign numbers to things or events. Different types of scales were produced by assigning such numbers. The nominal, ordinal, and interval scales are the other three measurement scales (Dalati, 2018). Therefore, the nominal, ordinal, and interval scales will be used in this study.

The nominal scale is the easiest level, as it does not require order, distance, or an absolute zero level to apply (Dalati, 2018). For example, gender. In addition, ordinal scales are applied with classification and order, whereas interval scales are applied with classification, order, and distance, but do not include absolute zero (Dalati, 2018). An example of an interval scale is temperature.

3.5.2.1 Nominal Scale

Nominal scale, or categorical variable scale. It indicates that a variable is labelled with many categories (Ajana, 2021). Nominal data, according to Dalati (2018), is information on a variable that may be separated into two or more mutually exclusive and collectively exhaustive categories. As a result, this scale is frequently used in surveys when the data originates from significant demographic subgroups. For instance, nationality, gender, marital status, and other variables. This investigation is shown in Figure 3.4. Questions 1, 2, 4, 5, 6, 9, and 10 in Section A will all be evaluated using the nominal scales.

Figure 3.4 Examples of a nominal scale in a questionnaire



2. What is your gender *

Female

Male

Sources: Authors' development

3.5.2.2 Ordinal Scale

Additionally, this study will make use of an ordinal scale. First and foremost, an ordinal scale arranges and classifies items according to their degree of position in an ordered sequence (Delati, 2018). Respondents are typically asked to rank objects on an ordinal scale, ranging from good to poor. As a result, this study employed an ordinal scale for Questions 3, 7, and 8 in Section A. Respondents were also asked to share their thoughts or preferences regarding the factors.

Figure 3.5 Examples of an ordinal scale in a questionnaire



3. What is your age? *

under 18

18 - 22

23 - 28

Sources: Authors' development

3.5.2.3 Interval Scale

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Delati (2018) states that the interval scale is made up of predetermined intervals that should have equal distances, such 1 and 2 and 2 and 3. As a result, the questionnaire's parts B and C use a 5-point Likert scale. These scales allow researchers to assess how strongly respondents agree with the statement. For instance, one denotes "strongly disagree," two "disagree," three "neutral," four "agree," and five "strongly agree" (Philippi, 2021). As a result, depending on how much they agree with each statement in parts B and C of the questionnaire, respondents can make the best choice.

Figure 3.6 Examples of an interval scale in a questionnaire

| | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|--------------------------|-----------------|----------------|--------------|-----------------------|
| 1. Intention to adopt digital bank | | | | | |
| 1.1 I would recommend the digital banking service to my friend to utilise it daily. | 1 | 2 | 3 | 4 | 5 |
| 1.2 I decided to use a digital banking application within the next 6 months. | 1 | 2 | 3 | 4 | 5 |
| 1.3 I plan to use digital banks for payment, collecting money, and accessing digital assets. | 1 | 2 | 3 | 4 | 5 |
| 1.4 I am comfortable adopting digital banking services once others have had good experiences. | 1 | 2 | 3 | 4 | 5 |
| 1.5 I am satisfied with the benefits that digital banking offers. | 1 | 2 | 3 | 4 | 5 |

Sources: Authors' development

3.5.2.3 Summary of Scale of Measurement

Table 3.3 Summary of Scale of Measurement

| Section | Item / Construct | Measurement Scale |
|----------------|-------------------------|--------------------------|
|----------------|-------------------------|--------------------------|

| | | | |
|-----------------------------|---|--|----------|
| Section A | – | Heard about a digital bank | Nominal |
| Demographic Profile | | Gender | Nominal |
| | | Age | Ordinal |
| | | Ethnicity | Nominal |
| | | State | Nominal |
| | | Work status | Ordinal |
| | | Income level | Ordinal |
| | | Education level | Ordinal |
| | | Opened an account for a digital bank | Nominal |
| | | Which digital bank are you currently using? | Nominal |
| Section B | – | Intention to adopt a digital bank among Generation Z in Malaysia | Interval |
| Dependent Variable | | | |
| Section C | – | Perceived Usefulness (PU) | Interval |
| Independent Variable | | Trust (T) | Interval |
| | | Security Concerns (SC) | Interval |
| | | Environmental Concern (EC) | Interval |

Sources: Authors' development

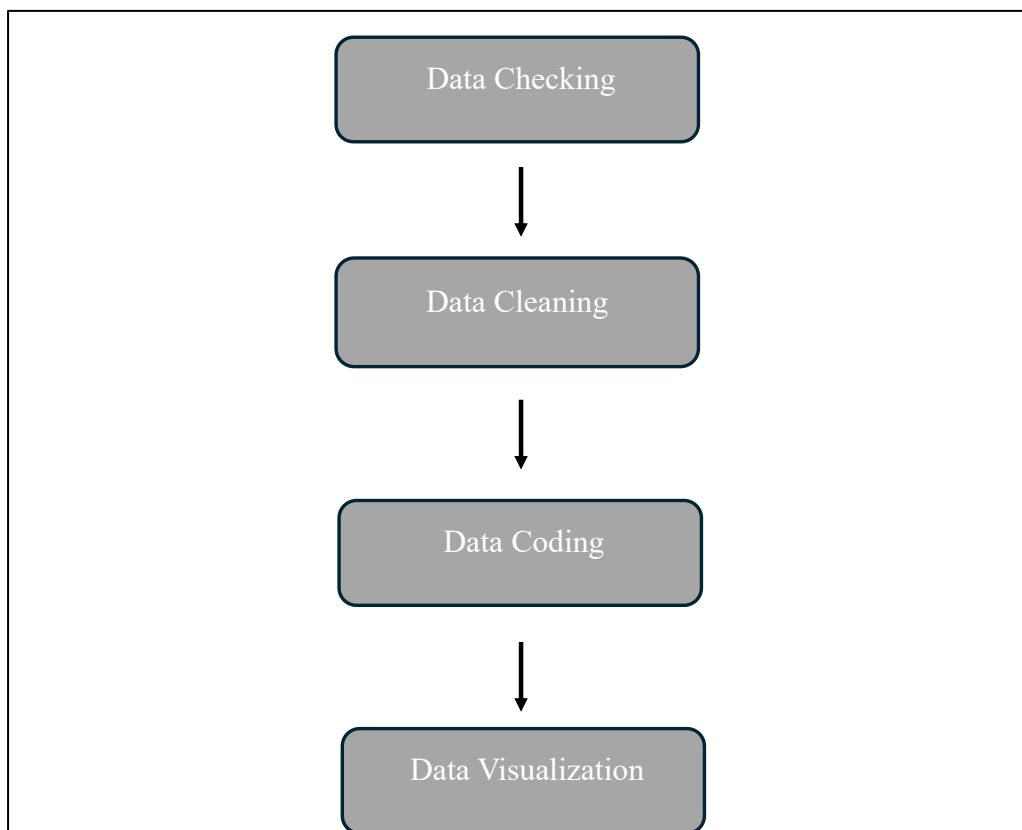
3.6 Data Processing

According to Huang (2019) and Olaitan (2024), data processing (DP) is the process of organising, indexing, and transforming data to extract information. The data also reveals key relationships and patterns that can be used to tackle major issues. The possibilities and effectiveness of data processing have increased along with technological advancements. However, data processing, according to Olaitan (2024), is the process of converting data into meaningful information after it has been acquired. To prevent a negative effect on the finished product or data output,

data processing, which is usually carried out by a data scientist or team of data scientists, must be done correctly.

3.6.1 Data Processing Procedure

Figure 3.7 Data Processing Procedure



Source: Author's development

3.6.1.1 Data Checking

First and foremost, data verification is crucial to the study, as it provides valuable insights. Furthermore, Tebbut (2014) asserts that although data checking is essential and simple to comprehend, it poses challenging problems to handle because there are several ways in which data may be inaccurate or in an unexpected format.

Therefore, after data collection, the first stage of this study is to confirm its accuracy. As a result, this step is essential for confirming the accuracy of the information gathered before sending it to data analysis software, especially SPSS (Taylor, 2024). Cross-checking also entails comparing recorded data to questionnaire replies in order to spot irregularities, including misaligned records, that could affect the accuracy of further study.

3.6.1.2 Data Cleaning

The primary goal of data cleaning is to fix or remove erroneous, corrupted, incorrectly formatted, duplicate, or missing data from a dataset (Tableau, 2024). In other words, there are opportunities for the collected data to be repeated or mislabelled when gathered from different data sources. Therefore, if the data is inappropriate, the results will not be reliable, even though it appear to be in order. Hence, data cleaning is vital to implement after collecting data from the questionnaire survey form.

All data cleaning activities will be thoroughly documented. This includes the number of respondents removed due to outliers, the number of respondents with mean substitutions for missing data, and the number of respondents eliminated due to biased or uninformed responses (Tableau, 2024). This research will provide a comprehensive report detailing all procedures in a table that outlines the data-cleaning process. The total number of respondents at the start ($N = 200$) will be reported, along with the numbers deducted at each subsequent stage. The count of respondents identified as outliers using the 99% confidence interval in SPSS will reflect the number that would have been removed. The number of cases managed in this manner will be available if mean substitution is used to address the missing data. This step will report the number of respondents eliminated in a table. In summary, the research will report on the valid respondents.

3.6.1.3 Data Coding

Table 3.4 Data Coding

| Section | Variable Questions | / Number of items | of Data Coding |
|----------------------------|-------------------------------------|--------------------------|--|
| Demographic Factors | Have you heard about digital banks? | - | 1=Yes 2=No |
| | Gender | | 1 = Male 2 = Female |
| | Age | | 1 = Under 18 2 = 18 – 22 3 = 23 – 28 |
| | Ethnicity | | 1 = Chinese 2 = Indian 3 = Malay 4 =Others |
| | State | | 1 = Johor 2 = Kedah 3 = Kelantan 4 = Kuala Lumpur 5 = Labuan 6 = Malacca 7 = Negeri Sembilan 8 = Pahang 9 = Penang 10 = Perak 11= Perlis 12 = Putrajaya 13 = Sabah 14 = Sarawak 15 = Selangor 16 = Terengganu |
| | Work Status | | 1 = Full-time |

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| | |
|---|--|
| | 2 = Part-time |
| | 3 = Student |
| | 4 = Self-employed |
| | 5 = Unemployed |
| | 6 = Others |
| Income level per month | 1 = Do not have income |
| | 2 = Below RM 1500 |
| | 3 = RM 1501 – RM 2500 |
| | 4 = RM 2501 – RM 3500 |
| | 5 = Above RM 3500 |
| Education Level | 1 = SPM |
| | 2 = Foundation |
| | 3 = Diploma |
| | 4 = STPM |
| | 5 = bachelor's degree |
| | 6 = Others |
| Have you opened an account with a digital bank? | 1 = Yes |
| | 2 = No |
| | 3 = Planning to open a new account in the future |
| Which digital bank are you using currently? (Can select more than one option) | 1 = Aeon Bank (M) Berhad |
| | 2 = Boost Bank Berhad |
| | 3 = GX Bank Berhad |
| | 4 = KAF Digital Bank Berhad |
| | 5 = YTL Digital Bank Berhad (Ryt Bank) |

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6 = Not using any digital bank
7 = Other

| | | | |
|-----------------------------|--|---|----------------------|
| Dependent Variable | Intention to adopt a digital bank among Generation Z | 5 | |
| Independent Variable | Environmental Concern (EC) | 5 | 1= Strongly Disagree |
| | Trust (T) | 5 | 2 = Disagree |
| | Security Concern (SC) | 5 | 3 = Neutral |
| | Perceived Usefulness (PU) | 5 | 4 = Agree |
| | | | 5 = Strongly Agree |

Sources: Authors' development

3.6.1.4 Data Visualisation

Data visualisation is the transformation of data into a visual representation. Once the data has been coded, this study will make use of SPSS software. This method entails examining the data obtained from a questionnaire survey. Charts, graphs, infographics, and other visual aids are used to convey the results of data cleaning and coding (IBM, 2021). Furthermore, this section covers all research topics and hypotheses. Addressing the questions and hypotheses in the order stated in earlier sections of the study is common practice.

3.7 Data Analysis Methods

Research is a scientific domain that provides new knowledge and addresses existing concerns. Therefore, data analysis is a key area of research that yields meaningful outcomes from the study (Dibekulu, 2020). In other words, it is defined as the

process of collecting, transforming, cleaning, and modelling data to discover and extract useful information. Thus, this study will utilise SPSS software tools to analyse the collected data.

3.7.1 Software for Data Analysis

First and foremost, this research will utilise the SPSS software tool. The Statistical Package for the Social Sciences (SPSS) is a software programme employed by researchers for various purposes in the quantitative analysis of complex data. Furthermore, SPSS is designed for users with little or no technical background (particularly in the social sciences, thus requiring no knowledge of programming, making it user-friendly (Arkkelin, 2014). It can manage extensive data, generate reports, and offer some flexibility for the quantitative data analysis required (Wagner, 2019). The capacity to handle authorisation, collaborative efforts, and strategic data mining renders SPSS an ideal choice for the social sciences (Rahman & Muktadir, 2021). A basic understanding of SPSS will enable a researcher to analyse quantitative data and address research issues effectively. SPSS requires the researcher to define the variables used to create cases. There are four types of variables: independent, dependent, intervening, and moderating variables (Bala, 2016). The researcher must grasp the variables involved in their analysis, as they can significantly influence the results. In summary, this study will utilise SPSS to examine the relationships between the independent variables (perceived usefulness, trust, security concern, and environmental concern) and the dependent variable (intention to adopt a digital bank), as well as to conduct descriptive analyses.

3.7.2 Descriptive Analysis

First and foremost, Sarmento and Costa (2017) defined descriptive statistics as the foundational steps in analysing data to describe and summarise the data. Large amounts of data and highly effective computational techniques strengthened this

statistical area. Additionally, descriptive analysis is the most crucial step in providing a comprehensive understanding of the data (Rawat, 2021).

SPSS will be used to analyse demographic information, including gender, ethnicity, state, work status, and knowledge of digital banks, which will be measured on a nominal scale. Ordinal levels are used to assess age, income, and educational attainment. Thus, there are three ordinal scale questions and seven nominal scale questions in Section A. The bar chart can be used for a variety of problems since it can be applied to both nominal and ordinal variables when graphing frequency distributions. As a result, the nominal variables—such as Questions 1, 2, 4, 5, 6, 9, and 10 in Section A of the questions—will be represented by the pie chart. On the other hand, the bar chart will show the ordinal variable found in Section A, Questions 3, 7, and 8.

3.7.3 Reliability Analysis

First and first, reliability is critical, as assessing a test's reliability is a prerequisite for determining its scientific validity and use (Segal & Coolidge, 2018). Reliability is a requirement for test validity, which is a test's ability to assess the construct it is intended to measure. As a result, a reliability analysis based on Cronbach's alpha is necessary. Cronbach's alpha is a reliability coefficient used to assess the internal consistency of a group of items (Chen et al., 2023). In other words, Cronbach's alpha is calculated by averaging the intercorrelations of items measuring the same idea. For example, a higher Cronbach's alpha indicates more internal consistency (Chen et al., 2023).

Table 3.5 Coefficient Alpha

| Coefficient of Cronbach's Alpha | Reliability Level |
|--|--------------------------|
| More than 0.90 | Excellent |
| 0.80 – 0.89 | Good |
| 0.70 – 0.79 | Acceptable |

| | |
|----------------|--------------|
| 0.6 – 0.69 | Questionable |
| 0.5 – 0.59 | Poor |
| Less than 0.59 | Unacceptable |

Sources: Adapted from Arof & Latif (2018).

3.7.4 Inferential Analysis

First and foremost, inferential analysis, often known as deductive statistics, is a broad category of procedures that go beyond just summarising a data set. In other words, it can be advantageous to do research that delivers a thorough summary of a sample to a community. Furthermore, inferential analysis can identify many types of correlations between variables (Guetterman, 2019). Examples of inferential analysis include the t-test, the Pearson correlation coefficient, and multiple regression models. Similarly, Chen et al. (2023) described it as the use of analytical procedures to random samples in order to test hypotheses and draw conclusions about the population. As a result, this study uses inferential analysis to identify the link between the dependent variable (DV) and the independent variable (IV) proposed in Chapter 2, which includes four hypotheses. This study's data is also analysed using Pearson's correlation coefficient and multiple regression analyses.

3.7.4.1 Pearson Correlation Coefficient Analysis

The Pearson correlation coefficient, commonly known as the product-moment correlation coefficient, is denoted by the symbol r in a sample. In contrast, ρ represents the population from which the sample was collected (Sedgwick, 2012). Furthermore, the coefficient can range from -1 to +1 and is measured on a unitless scale. For example, a positive correlation coefficient indicates that people who care about the environment are more likely to engage in environmentally beneficial actions (Alam et al., 2025). If the correlation coefficient were negative, a negative

correlation would arise (Sedgwick, 2012), implying that digital bank penetration rises as paper consumption falls dramatically (Kuosuwan et al., 2024).

Table 3.6 Coefficient Range

| Coefficient Range | Interpretation |
|--------------------------|------------------------|
| 0.00 – 0.10 | Negligible correlation |
| 0.10 – 0.39 | Weak Correlation |
| 0.40 – 0.69 | Moderate correlation |
| 0.70 – 0.89 | Strong Correlation |
| 0.90 – 1.00 | Powerful correlation |

Sources: Adapted from Schober & Boer (2018).

3.7.5 Multiple Regression Analysis

First and foremost, multiple regression is an effective regression technique with diverse applications (Sun et al., 2023). Multiple linear regression is a statistical method for predicting a dependent variable using two or more independent variables (Hew, 2022; Lau, 2022). Furthermore, multiple regression analysis is used to investigate the relationship between the dependent variable (DV) and the independent variable (IV) (Lee et al.; Hew, 2022). As a result, this study aims to use multiple linear regression to identify the four independent factors that explain variation in the dependent variable, thereby verifying the hypothesis. Thus, the multiple regression equation has the following formula:

$$y = b_0 + b_1C_1 + \dots + b_nX_n + e$$

Where,

Y = dependent variable

b_0 = y-intercept (Constant term)

C_1 = regression's first independent variable

b_n = slope coefficient of each explanatory variable

e = model's error term

In short, these studies utilise a multiple regression model with a similar research topic (Lee et al., 2023; Hailu et al., 2025; Hew, 2022; Goh et al., 2024; Lee et al., 2020). Therefore, this study also employed a multiple regression model to investigate the predictors of perceived usefulness, trust, security concern, and environmental concern among Generation Z, thereby filling the research gap.

3.8 Chapter Summary

In short, this chapter offered a complete explanation of the study methodology, including the sampling design, questionnaire structure, and measuring scale types. This chapter also describes the essential data processing procedures, such as checking, editing, coding, and transcribing, to ensure that raw data can be transformed into meaningful information. The chapter also described how SPSS was used for data analysis. SPSS enables various types of analysis, including descriptive analysis to summarise data and present it clearly and understandably, as well as reliability analysis to assess the consistency and validity of measurement instruments, and inferential analysis to test hypotheses and examine relationships between variables. SPSS enables researchers to generalise to a larger population based on sample data. This consistent research process planning should lead the researcher to meaningful, valid, and reliable conclusions about the research, as well as effectively address the study's objectives.

CHAPTER 4: RESEARCH RESULTS

4.0 Introduction

First and foremost, SPSS software will be utilised in this chapter to create and analyse findings. Furthermore, this study will generate outcomes for the hypotheses and research questions and analyse the results once the data are collected. It will start with descriptive research, which provides an overview of each component, including the demographic section, the dependent variable, and the independent variable. By doing so, it will use a multiple regression model to investigate the relationships between independent factors and dependent variables. Furthermore, the findings will be presented in tables showing the coefficient estimates, p-values, and variable correlations.

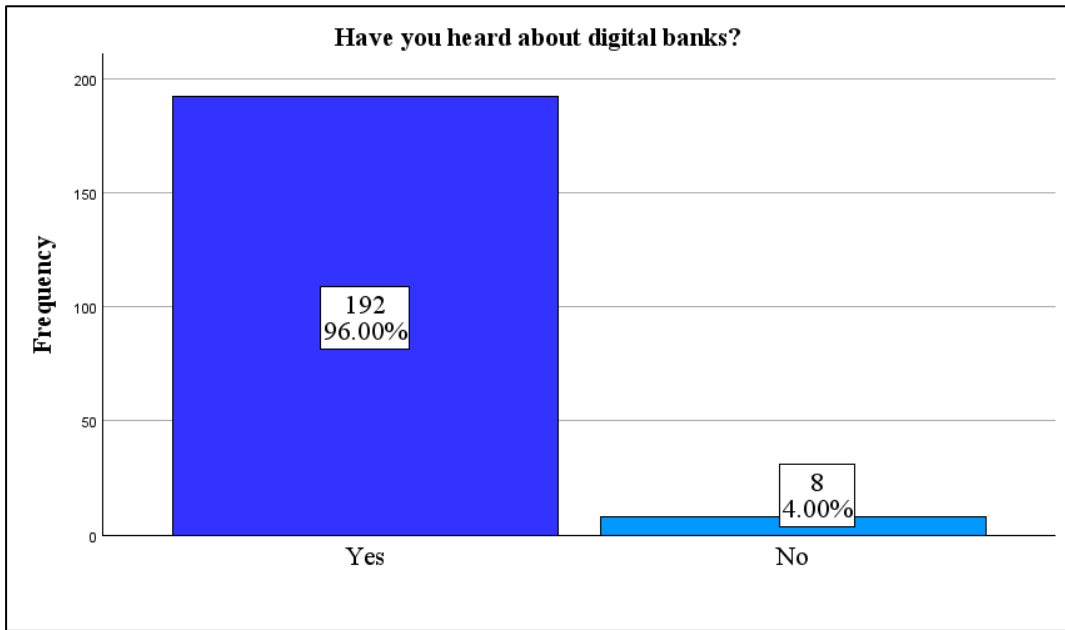
4.1 Descriptive Analysis

Descriptive analysis is the process of summarizing data so that it is easier to interpret (ScienceDirect, n.d.). Descriptive analysis will look at the questionnaire format, which includes section A, the respondents' demographic profile, section B, the dependent variable (intention to use a digital bank in Malaysia), and section C, the independent variables (PU, T, SC, EC). Section A has 10 questions, section B has five, and section C has 20.

4.1.1 Demographic Profile of the Respondent

4.1.1.1 Digital Bank Experiences

Figure 4.1: Statistics of Respondents' Awareness of Digital Bank

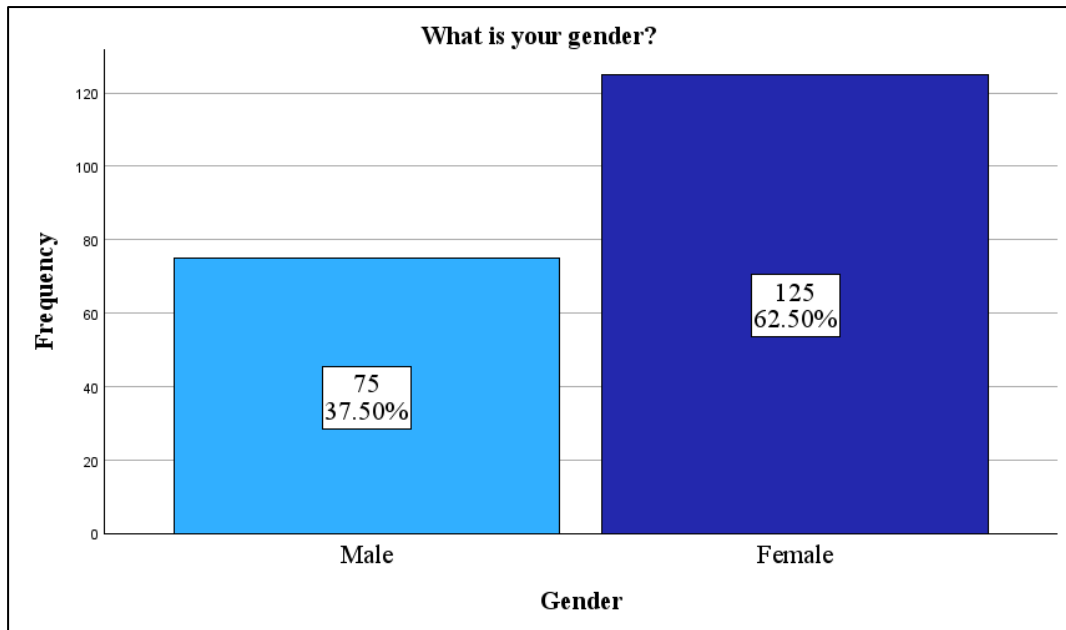


Sources: Authors' development

According to Figure 4.1, the level of awareness of digital banks among Generation Z in Malaysia is illustrated. The result shows that 192 (96%) Generation Z individuals are aware of digital banks. However, there is 8 (4%) of Generation Z are not aware of it. It indicates that the majority of Generation Z in Malaysia have a high level of awareness about digital banks.

4.1.1.2 Gender

Figure 4.2: Statistics of Respondents' Gender

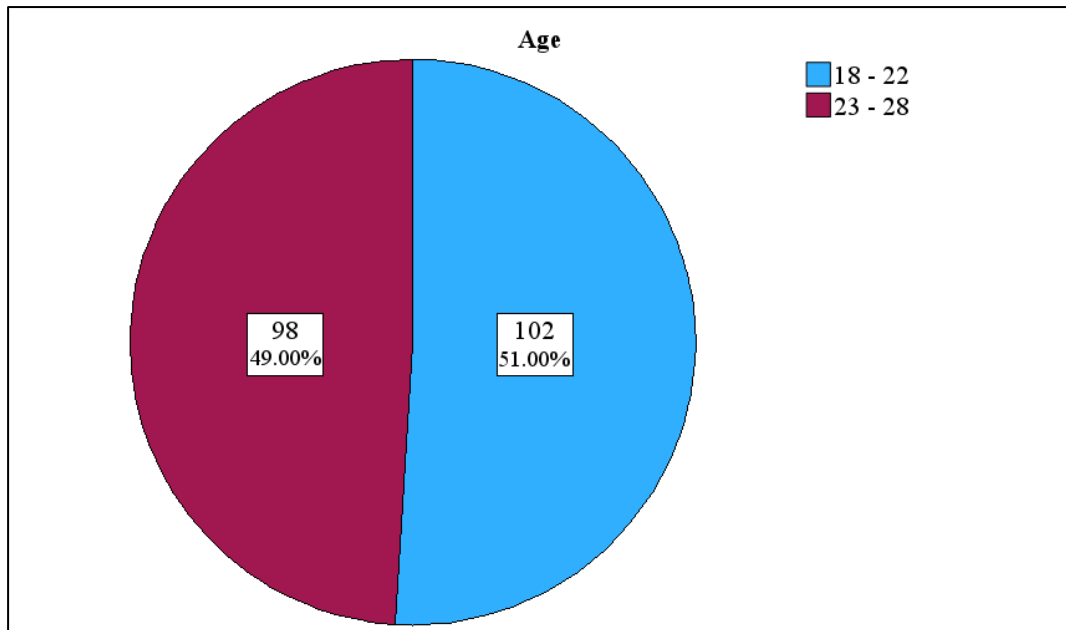


Sources: Authors' development

According to Figure 4.2, the gender distribution of respondents is presented. The results show that 75 respondents (37.5%) of Generation Z are male, whereas 125 respondents (62.5%) are female. This indicates that the majority of respondents in this study are female compared to males.

4.1.1.3 Age

Figure 4.3: Statistics of Respondents' Age

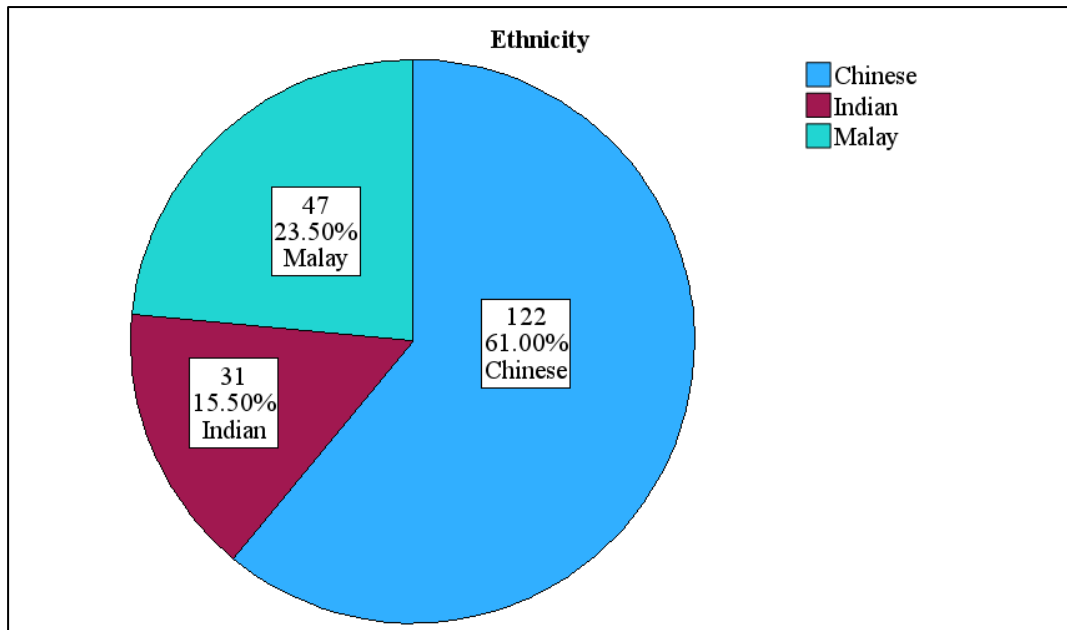


Sources: Authors' development

According to Figure 4.3, the age distribution is illustrated. The results show that 98 respondents (49%) are between 18 and 22 years old, while 102 respondents (51%) are between 23 and 28 years old. It means that the majority of the respondents are within the 23 – 28 age group. Thus, the results indicate a high level of intention to adopt among Generation Z in Malaysia, regardless of age.

4.1.1.4 Ethnicity Group

Figure 4.4: Statistics of Respondents' Ethnicity Group

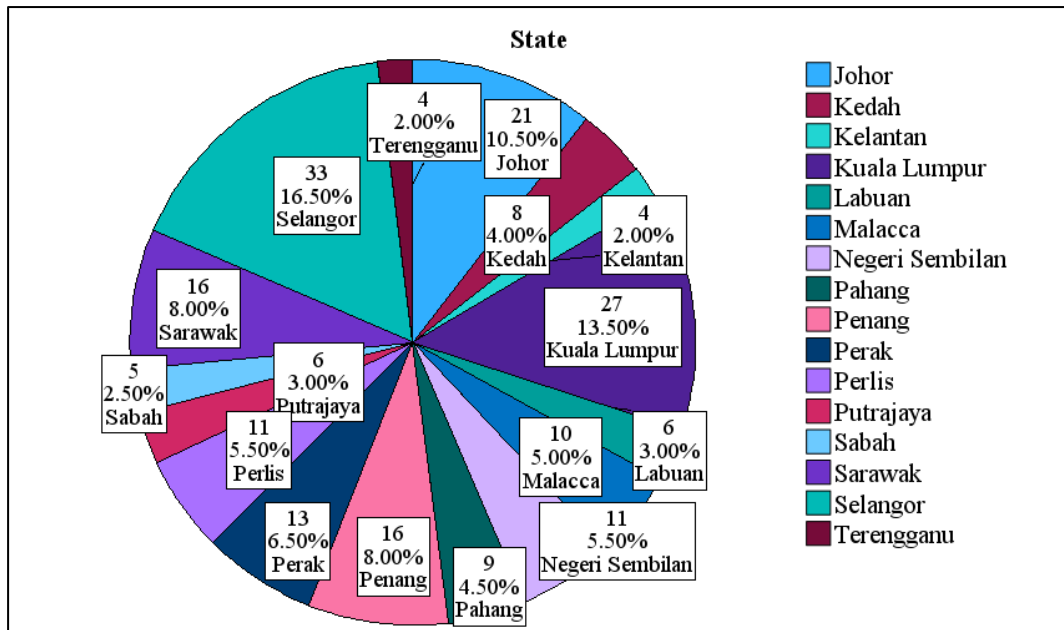


Sources: Authors' development

Figure 4.3 shows the ethnic distribution of the respondents. The results show that 122 respondents (61%) are Chinese, 47 (23.50%) are Malay, and 31 (15.50%) are Indian. It indicates that the majority of Generation Z in Malaysia intend to use a digital bank, with Chinese, Malay, and Indian respondents following suit. As a result, there is an ethnic difference in the study, regardless of whether the individuals are Chinese, Malay, or Indian.

4.1.1.5 State

Figure 4.5: Statistics of Respondents' State



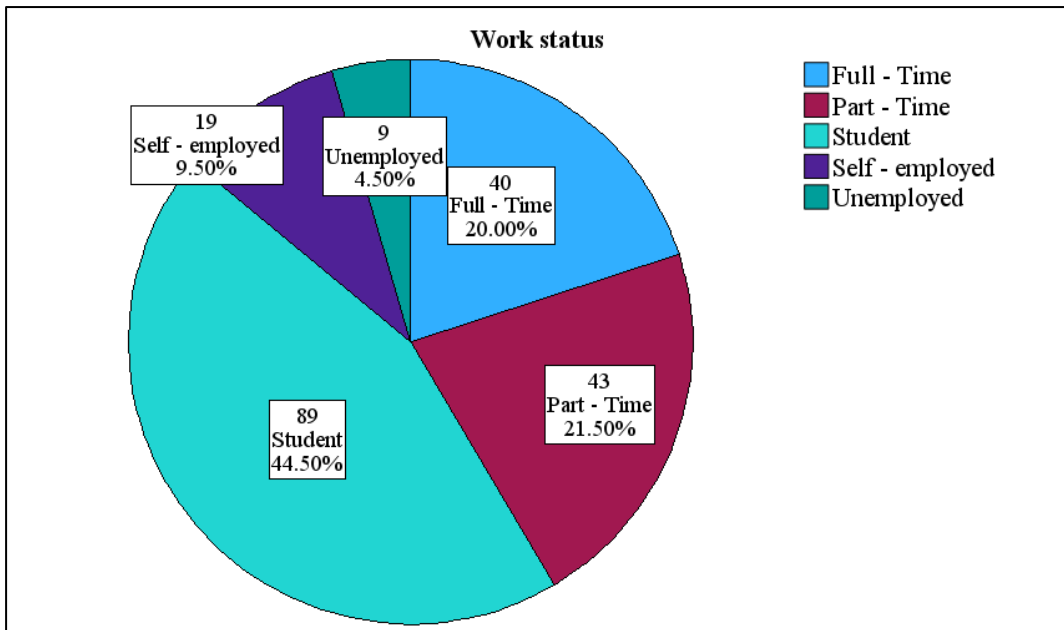
Sources: Authors' development

Figure 4.5 illustrates the distribution of respondents' states. The findings indicate that the highest proportion of respondents is from Selangor, with 33 respondents (16.5%), followed by Kuala Lumpur with 27 respondents (13.5%) and Johor with 21 respondents (10.5%). Both Penang and Sarawak have the same 16 respondents (8%), while Perak has 13 respondents (6.5%). Additionally, Perlis and Negeri Sembilan each had 11 respondents (5.5%), while Malacca had 10 respondents (5%).

On the other hand, smaller proportions of the respondents were from Pahang (9 respondents, 4.5%), Kedah (8 respondents, 4%), Labuan and Putrajaya (each with six respondents, 3%), Sabah (5 respondents, 2.5%), Terengganu and Kelantan, each with four respondents (2%). Thus, it indicates that different states across Malaysia have intended to use digital banks among Generation Z and in rural areas.

4.1.1.6 Work Status

Figure 4.6: Statistics of Respondents' Work Status



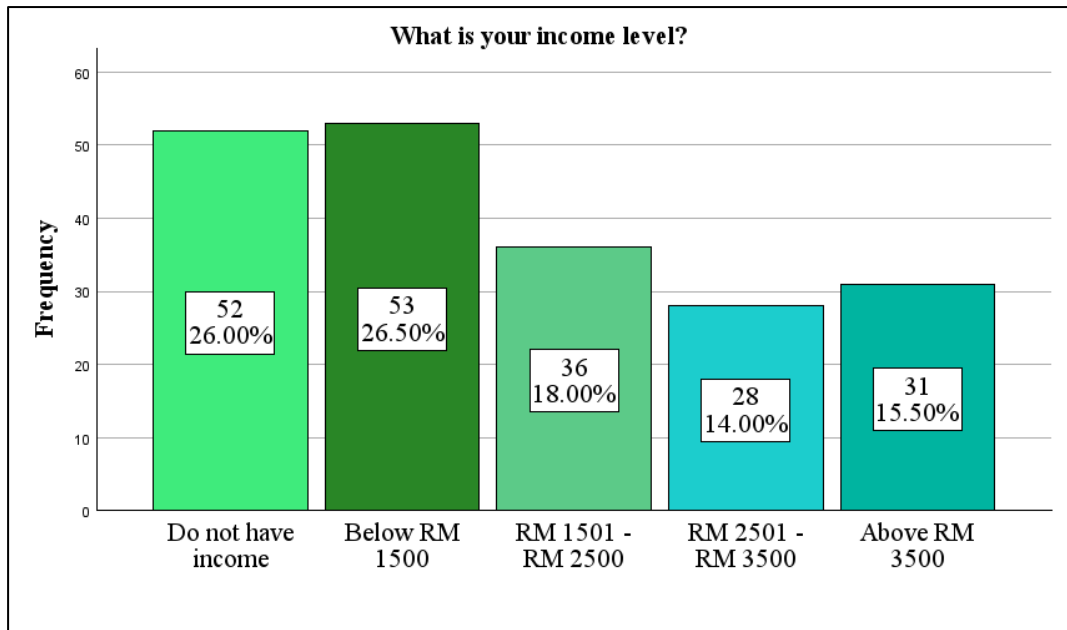
Sources: Authors' development

Figure 4.6 illustrates the distribution of work status as presented above. First and foremost, the results indicate that the majority of students (89 respondents, 44.5%) were followed by part-time employees (43 respondents, 21.5%) and full-time employees (40 respondents, 20%).

In addition, 19 respondents (9.5%) are self-employed, and 9 respondents (4.5%) are unemployed. Hence, the results suggest that, regardless of their employment status, Generation Z respondents intend to adopt a digital bank.

4.1.1.7 Income Level

Figure 4.7: Statistics of Respondents' Income Level



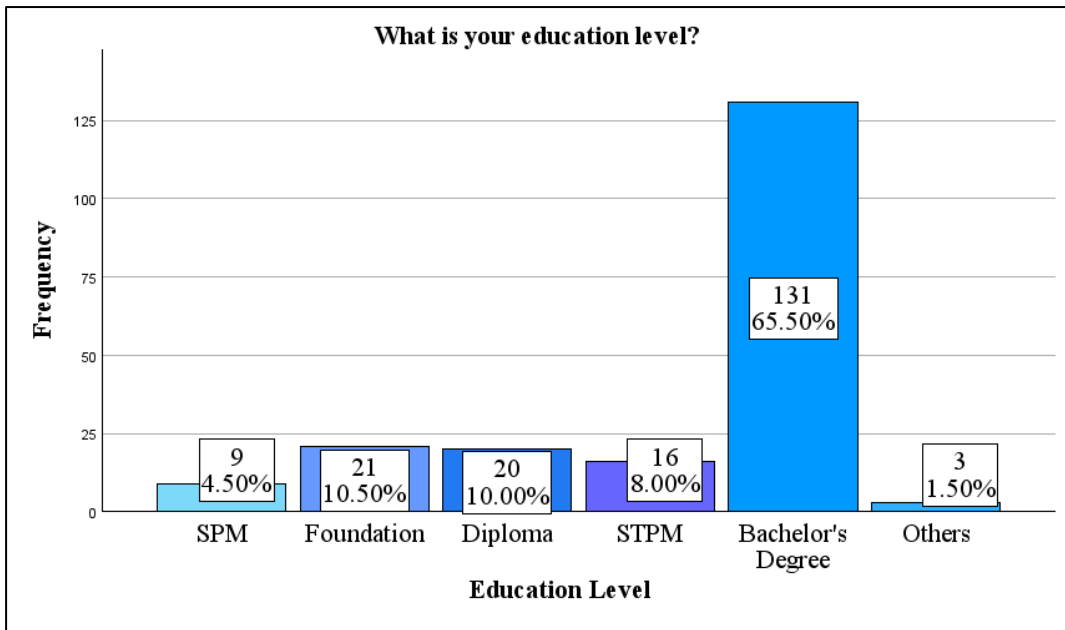
Sources: Authors' development

Figure 4.7 presents the distribution of respondents by monthly income. The results show that 53 respondents (26.5%) earn below RM 1500, and 52 respondents (26%) have no income. In addition, 36 respondents (18%) earn between RM 1,501 and RM 2,500, 28 respondents (14%) earn between RM 2,501 and RM 3,500, and 31 respondents (15.5%) earn above RM 3,500.

In short, the results indicate that a large portion of the respondents belong to lower-income groups or have no income. By doing so, it is consistent with the majority of respondents being students. Thus, Generation Z intends to adopt a digital bank regardless of income level.

4.1.1.8 Education Level

Figure 4.8: Statistics of Respondents' Education Level

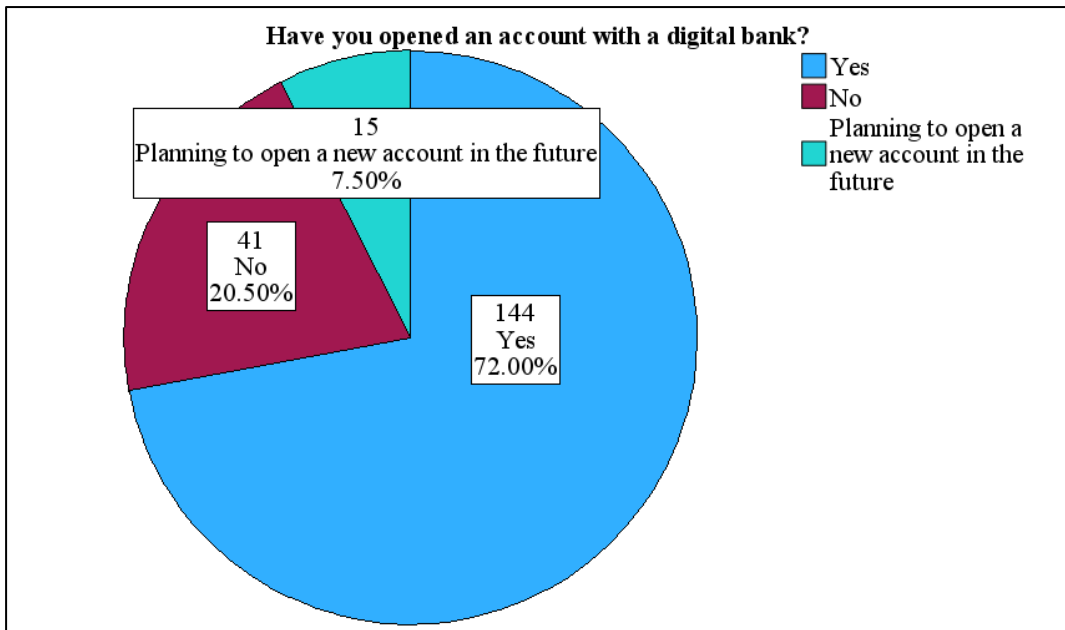


Sources: Authors' development

Figure 4.8 shows the distribution of respondents by educational level. According to the findings, the majority of respondents had a bachelor's degree (131, 65.5%), followed by foundation (21, 10.5%), diploma (20, 10%), and STPM (16, 8%). In addition, 9 respondents (4.5%) are SPMs, while 3 respondents (1.5%) are classified as others. In short, the findings suggest that Generation Z is well-educated, which may influence their knowledge and desire to use a digital bank.

4.1.1.9 Digital Bank Account Status

Figure 4.9: Statistics of Respondents' Digital Bank Account Status

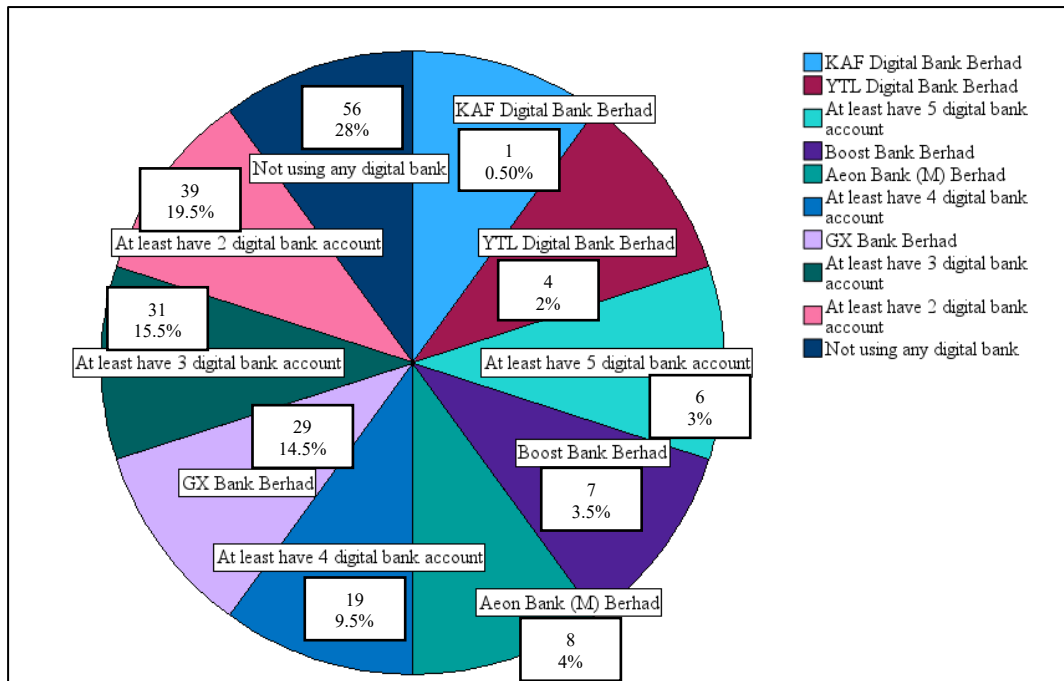


Sources: Authors' development

Figure 4.9 presents the distribution of respondents by digital bank account status. The findings show that the majority of respondents who have opened an account with a digital bank are 144 individuals (72%). In addition, 41 respondents (20.5%) report not having a digital bank account, and 15 respondents (7.5%) indicate they plan to open a new account in the near future. In short, the results show that Generation Z respondents have adopted a digital bank; however, a small proportion plan to open an account in the future.

Figure 4.10: Statistics of Respondents' Digital Bank Account Status

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Sources: Authors' development

Figure 4.10 presents the distribution of respondents by digital bank account status. The result shows that GX bank is the most well-known choice by the Generation Z, with 29 respondents (14.5%) utilising the digital bank. On top of that, other banks are used less frequently, such as Aeon Bank (M) Berhad, which has eight users (4%), Boost Bank Berhad has seven users (3.5%), YTL Digital Bank Berhad has 4 users (2%), and KAF Digital Bank Berhad is used by only one respondent (0.5%). In addition, several respondents have adopted more than one digital bank account. In particular, 39 respondents (19.50%) reported having at least two digital bank accounts, 31 respondents (15.50%) have at least three, 19 Generation Z respondents (9.50%) have at least four, and 6 respondents (3%) have at least five. However, 56 respondents (28%) indicated that they are not currently using any digital bank. In short, the findings indicate that the majority of respondents have experience with utilising digital banks, with GX Bank Berhad being the most preferred among Generation Z users.

4.1.2 Central Tendencies Measurement of constructs

Determinants of the Intention to Adopt a Digital Bank Among Generation Z In Malaysia

This section will examine the mean and standard deviation values for both the independent (IV) and dependent variables (DV) in the study. The questionnaire contains 25 questions, divided into parts B and C, and will be evaluated using SPSS. It offers tools for calculating descriptive statistics. By doing so, the study hopes to obtain insight into the data's primary patterns and variability for further inferential analysis. This strategy ensures that the data contribute effectively to the research objectives.

4.1.2.1 Intention to Adopt Digital Bank (IADB)

Table 4.1: Central Tendencies Measurement of Constructs of Intention to Adopt Digital Bank

| No | Items | Means | Standard Deviation |
|-------|---|-------|--------------------|
| IADB1 | I would recommend the digital banking service to my friend to utilise it daily. | 3.90 | 1.326 |
| IADB2 | I decided to use a digital banking application within the next 6 months. | 3.87 | 1.298 |
| IADB3 | I plan to use digital banks for payment, collecting money, and accessing digital assets. | 3.85 | 1.389 |
| IADB4 | I am comfortable adopting digital banking services once others have had good experiences. | 3.94 | 1.251 |
| IADB5 | I am satisfied with the benefits that digital banking offers. | 3.96 | 1.352 |

Source: Author's development

According to Table 4.1, the mean scores for intending to use a digital bank among Generation Z range from 3.85 to 3.96. It indicates that the overall intention to adopt a digital bank is high. Therefore, IADB5 has the highest mean score (3.96) and the highest standard deviation (1.352). It is recommended that the majority of

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respondents prefer to adopt a digital bank. In addition, the second-highest means (3.94) and standard deviations (1.251) are IADB4. As follows, IADB1 (mean = 3.90, standard deviation = 1.326) and IADB2 (mean = 3.87, standard deviation = 1.298) indicate that the respondents are willing to adopt a digital bank account in the future. Additionally, IADB3 (means = 3.85, standard deviation = 1.298) indicates the lowest mean and represents a positive response. In short, the results show that respondents in Generation Z intend to adopt a digital bank due to their future usage intentions, experiences, and perceived benefits.

4.1.2.2 Perceived Usefulness (PU)

Table 4.2: Central Tendencies Measurement of Constructs of Perceived Usefulness

| No | Items | Means | Standard Deviation |
|-----|---|-------|-----------------------|
| PU1 | The usefulness of a digital bank also helps me save money and time. | 3.95 | 1.243 |
| PU2 | Digital banking makes me more efficient by preventing me from queuing for long hours. | 3.99 | 1.317 |
| PU3 | I believe that the usefulness of digital banking services is simple and easy to use | 4.01 | 1.242 |
| PU4 | Digital banking makes it easier and quicker for me to complete tasks. | 4.00 | 1.332 |
| PU5 | The digital bank is useful and allows me to access various services and perform them during a public holiday. | 4.01 | 1.218 |

Source: Author's development

According to Table 4.2, the mean scores for intending to use a digital bank among Generation Z range from 3.95 to 4.01. It indicates that the overall intention level is high. The highest means and standard deviation is PU3 (means = 4.01 standard

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deviation = 1.242) and PU5 (means = 4.01, standard deviation = 1.218). It indicates that the majority of Generation Z respondents are willing to use a digital bank due to its simplicity and ease of use, as well as the variety of services it offers.

In addition, PU4 has the second-highest mean (4) and standard deviation (1.332). It shows that respondents are willing to use the digital bank when it is simpler and faster to perform the activity. Additionally, PU2 has a mean of 3.99 and a standard deviation of 1.317. It implies that respondents are willing to utilise a digital bank because it is more efficient and eliminates long lines. Furthermore, PU1 has a mean of 3.95 and a standard deviation of 1.243. It suggests that respondents agree to use a digital bank to save time and money nowadays.

In short, the overall result indicates that Generation Z respondents have a high intention to adopt a digital bank due to its perceived usefulness, such as being easier to use, saving time and money, and being more efficient compared to traditional banks.

4.1.2.3 Trust (T)

Table 4.3: Central Tendencies Measurement of Constructs of Trust

| No | Items | Means | Standard Deviation |
|----|--|-------|--------------------|
| T1 | I am confident that digital banks have a legal and technological policy to secure me from any problems that may affect the services. | 3.91 | 1.375 |
| T2 | I am confident that digital banking is secure from hackers and scams. | 3.74 | 1.250 |
| T3 | I genuinely trust digital bank services and depend on them for banking services | 3.83 | 1.380 |
| T4 | I feel comfortable and trustworthy conducting financial services through a digital bank | 3.86 | 1.234 |

| | | | |
|----|---|------|-------|
| T5 | I trust that digital banking delivers the best advantages that customers always find. | 3.87 | 1.412 |
|----|---|------|-------|

Source: Author's development

Table 4.3 presents the central tendency measurement for the trust construct. The mean scores for the intention to adopt a digital bank, with the trust factor, range from 3.74 to 3.91. This indicates that trust is a strong predictor of intention to adopt a digital bank.

The highest mean score for T1 is 3.91 (standard deviation = 1.375), indicating that respondents in Generation Z are confident that a digital bank is legitimate and has technological policies in place to protect consumers from potential issues. The second-highest is T5 (means = 3.87, standard deviation = 1.412), indicating that Generation Z respondents trust the digital bank because it delivers significant advantages to customers.

Additionally, T4 (means = 3.86, standard deviation = 1.234) and T3 (means = 3.83, standard deviation = 1.380). It indicates that Generation Z respondents trust digital banks due to their convenience and reliability in conducting financial transactions. Lastly, T2 (mean = 3.74, standard deviation = 1.25) indicates that respondents are confident and trustworthy about the digital bank. In short, the findings indicate that Generation Z respondents are willing to adopt a digital bank due to their trust in legal protection, confidence in and comfort with the services, and assurance that they will be free from scams and hackers.

4.1.2.4 Security Concern (SC)

Table 4.4: Central Tendencies Measurement of Constructs of Security Concern

| No | Items | Means | Standard Deviation |
|----|-------|-------|-----------------------|
|----|-------|-------|-----------------------|

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| | | | |
|-----|---|------|-------|
| SC1 | I am confident that the digital bank service will not have security issues while using it | 3.59 | 1.418 |
| SC2 | I am confident in sending sensitive information through digital banking. | 3.53 | 1.520 |
| SC3 | I am confident that Fintech services provide information that helps users reduce risk. | 3.70 | 1.375 |
| SC4 | I am confident that a digital bank will prevent unauthorised transactions. | 3.61 | 1.480 |
| SC5 | I am confident that the digital bank transaction process is trustworthy and secure. | 3.66 | 1.362 |

Source: Author's development

According to Table 4.4, the central tendency measurements for the security concern construct. The mean scores for the intention to adopt a digital bank, by security concern, range from 3.53 to 3.70. This suggests that security concerns are a significant predictor of intention to adopt a digital bank.

The highest mean score is observed for SC3 (mean = 3.70, standard deviation = 1.375), indicating that Generation Z respondents are confident that the digital bank provides reliable information to help mitigate risk. SC5 has the second-highest mean (3.66) and standard deviation (1.362), indicating that Generation Z respondents believe the digital bank's transactions are trustworthy and secure.

Additionally, SC4 (mean = 3.61, standard deviation = 1.480) and SC1 (mean = 3.59, standard deviation = 1.418) indicate that Generation Z respondents are confident in a digital bank's ability to prevent unauthorised transactions and believe they are protected from security issues. Lastly, SC2 (mean = 3.53, standard deviation = 1.52) indicates that the respondents are comfortable sending sensitive information through a digital bank.

In short, the findings show that Generation Z is willing to adopt a digital bank due to their confidence in its security features, such as protection and the ability to reduce risk.

4.1.2.5 Environmental Concern (EC)

Table 4.5: Central Tendencies Measurement of Constructs of Environmental
Concern

| No | Items | Means | Standard Deviation |
|-----|---|-------|-----------------------|
| EC1 | I am aware that using environmentally sustainable services will help to minimize environmental impact, as they use less paper and energy. | 4.04 | 1.381 |
| EC2 | I am concerned that digital services have more environmental benefits, such as fewer emissions than traditional banking services. | 3.97 | 1.200 |
| EC3 | I am aware of my bank's environmentally sustainable initiatives and services. | 3.98 | 1.324 |
| EC4 | I am aware that using eco-friendly products and services is a primary way to reduce the environmental impact. | 4.08 | 1.219 |
| EC5 | I believe that digital banks are actively taking steps to implement environmentally sustainable initiatives. | 4.04 | 1.337 |

Source: Author's development

Table 4.5 presents the central tendency measurements for the environmental concern. The mean scores for the intention to adopt a digital bank, across the environmental concern range, range from 3.97 to 4.08, indicating that

environmental concerns are a significant predictor of intention to adopt a digital bank.

The highest mean score is recorded for EC4 (mean = 4.08, standard deviation = 1.219). It suggests that Generation Z respondents are aware that using eco-friendly products, such as a digital bank, helps to reduce environmental impacts. The second-highest means are EC1 (means = 4.04, standard deviation = 1.381) and EC5 (means = 4.04, standard deviation = 1.337), indicating that Generation Z respondents are confident that digital banks implement environmental sustainability practices to minimise paper and energy consumption.

In addition, EC3 (mean = 3.98, standard deviation = 1.324) and EC2 (mean = 3.97, standard deviation = 1.2) suggest that Generation Z respondents are aware and concerned that digital banks are more environmentally sustainable and contribute lower emissions as compared to traditional banks.

In short, the results show that Generation Z respondents are willing to adopt a digital bank due to their confidence in its environmental impact, particularly in reducing paper use, energy consumption, and carbon emissions.

4.2 Scale Measurement

4.2.1 Reliability Test

Table 4.6: Reliability Test of The Study

| Variable | Cronbach's Alpha (α) | Item | Number | of |
|--|---|-------------|--------------------|-----------|
| | | | Respondents | |
| Intention to adopt a digital bank (IADB) | 0.969 | 5 | 200 | |

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| | | | |
|----------------------------|-------|---|-----|
| Perceived usefulness (PU) | 0.971 | 5 | 200 |
| Trust (T) | 0.968 | 5 | 200 |
| Security Concern (SC) | 0.970 | 5 | 200 |
| Environmental concern (EC) | 0.968 | 5 | 200 |

Source: Author's development

Table 4.6 displays the Cronbach's Alpha values from the reliability test conducted in this study. According to the reliability standard, Cronbach's Alpha must be 0.50 or higher. According to Table 4.16, all Cronbach's alphas for the dependent and independent variables in this study are greater than 0.70. Each variable has five items, and the reliability test results show Cronbach's Alpha values of 0.968 for trust and environmental concerns. The ambition to utilise a digital bank came next (0.969), followed by security concerns (0.970), and perceived usefulness (0.971). All items show high reliability, with values ranging from 0.968 to 0.971.

4.3 Inferential Analysis

4.3.1 Pearson Correlation Coefficient

The Pearson correlation coefficient will be used in this study to determine the relationship among the variables. As a result, it is the best measurement to analyse their relationship because both independent and dependent variables are scored on a Likert scale.

Table 4.7 Pearson Correlation Coefficient Table

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Malaysia

| | | Perceived usefulness (PU) | Trust (T) | Securit y Concer n (SC) | Environm ental Concern (EC) | Intenti on to adopt a digital bank (IADB) |
|---|---|--|----------------------|--|--|--|
| Perceived usefulness (PU) | Pearson Correlation (r) Sig. (2 tailed) (p) | 1 | | | | |
| Trust (T) | Pearson Correlation (r) Sig. (2 tailed) (p) | | 1 | | | |
| Security Concern (SC) | Pearson Correlation (r) Sig. (2 tailed) (p) | | | 1 | | |
| Environm ental Concern (EC) | Pearson Correlation (r) Sig. (2 tailed) (p) | | | | 1 | |
| Intention to adopt a digital bank (IADB) | Pearson Correlation (r) Sig. (2 tailed) (p) | 0.826** < 0.001 | 0.888** < 0.001 | 0.598 < 0.001 | 0.844** < 0.001 | 1 < 0.001 |

**correlation is significant at the 0.01 level (2-tailed)

Source: Author's development

Table 4.7 illustrates the relationship between perceived usefulness (PU) and intention to use a digital bank (IADB). The Pearson correlation coefficient for these two variables is 0.826. It signifies a strong, favourable relationship. It means that perceived usefulness grows, as does a desire to utilise a digital bank. Furthermore, the p-value < 0.001 shows a significant association. Thus, perceived usefulness has a high, positive association with Generation Z respondents' intention to utilise a digital bank.

Table 4.7 displays the relationship between trust (T) and the desire to use a digital bank (IADB). The Pearson correlation coefficient for the two variables is 0.888, showing a significant positive relationship. This means that as trust grows, so does the intention to use a digital bank. Furthermore, the association is statistically significant (p-value < 0.001). Thus, it can be inferred that trust has a substantial, positive link with Generation Z respondents' inclination to use a digital bank.

Table 4.7 represents the relationship between security concerns (SC) and intention to use a digital bank (IADB). The Pearson correlation coefficient for these two variables is 0.598. This suggests a moderately good relationship between them. It suggests that higher security concerns are related to a greater willingness to use a digital bank. The relationship is statistically significant (p-value < 0.001). As a result, there is a large, moderately favourable association between security concerns and Generation Z respondents' willingness to use a digital bank.

Table 4.7 shows the relationship between environmental concern and the intention to use a digital bank. The Pearson correlation coefficient for the two variables is 0.844, showing a strong positive association. In other words, as people become more concerned about the environment, they are more likely to use a digital bank. The p-value of < 0.001 shows a significant association. In short, environmental concern is strongly and positively associated with Generation Z respondents' intention to use a digital bank.

4.4 Multiple Linear Regression

Table 4.8: Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|--------------------|----------|-------------------|----------------------------|
| 1 | 0.915 ^a | 0.837 | 0.833 | 0.542 |

a. Predictors: (Constant), PU, T, SC, EC

Source: Author's development

Table 4.8 illustrates the regression analysis, which shows the model's strength and effectiveness in predicting intent to use a digital bank among Generation Z, with independent variables including perceived usefulness, trust, security concern, and environmental concern.

The model shows a significant positive correlation between the observed and predicted values of the dependent variable ($R = 0.915$). According to the coefficient of determination ($R\text{-squared} = 0.837$), the four independent variables perceived usefulness, trust, security concern, and environmental concern represent approximately 83.7% of the variance in intention to use a digital bank among Generation Z.

Additionally, the adjusted $R\text{-squared}$ is 0.833, indicating that it gives support to the robustness and reliability of the model after adjusting for the number of predictors. The standard error of estimate is 0.542, which is relatively low, indicating that the model's predictions are accurate with minimal deviation from the actual values.

Table 4.9: Anova Table

| Model | Sum of Squares | df | Mean square | F | Sig |
|--------------|-----------------------|-----------|--------------------|----------|------------|
| Regression | 292.790 | 4 | 73.198 | 249.494 | < 0.001 |
| Residual | 57.210 | 195 | 0.293 | | |
| Total | 350.00 | 199 | | | |

Source: Author's development

The regression model is statistically significant in the ANOVA table. First, the F-statistics of 249.494 is high; this indicates a significant amount of variance in intention to adopt digital bank among Generation Z, explained by the independent

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variable in the aggregate. The p-value indicates that the model is statistically significant, suggesting that the observed results are unlikely to occur by chance.

The sum of squares signifies how the variability in intention to adopt a digital bank among Generation Z is around the corner. The regression sum of squares is 292.790, indicating the variability accounted for by the predictors, and the residual sum of squares is 57.210, indicating the unexplained variation. In short, the overall sum of squares is 350, which indicates the amount of variance in the dependent variable.

In addition, the degrees of freedom (df = 4 for the regression and 195 for the residuals) correspond to the number of predictors and the residual degrees of freedom. Thus, the findings indicate that the regression model provides a statistically significant explanation of the variance in the intention to adopt a digital bank among Generation Z.

Table 4.10: coefficients table

| Model | Unstandardize d | Coeffic ient std. error | Standardise d coefficient Beta | t | Sig |
|---------------------------------|----------------------------|--|---|----------|------------|
| Constant | 0.110 | 0.132 | | 0.832 | .406 |
| Perceived usefulness (PU) | 0.230 | 0.061 | 0.216 | 3.797 | < 0.001*** |
| Trust (T) | 0.491 | 0.057 | 0.509 | 8.567 | < 0.001*** |
| Security concern (SC) | 0.020 | 0.036 | 0.021 | 0.551 | 0.582 |
| Environm ental | 0.220 | 0.057 | 0.229 | 3.828 | < 0.001*** |

concern

(EC)

Notes: * $p < 0.050$, ** $p < 0.010$, *** $p < 0.001$

Source: Author's development

Table 4.10 presents the coefficients for the predictors. The table illustrates the extent to which perceived usefulness, trust, security concern, and environmental concern influence Generation Z's intention to adopt a digital bank.

The results indicate that perceived usefulness ($\beta = 0.216$, $t = 3.797$, $p < 0.001$), trust ($\beta = 0.509$, $t = 8.567$, $p < 0.001$), and environmental concern ($\beta = 0.229$, $t = 3.828$, $p < 0.001$) are statistically significant predictors of the intention to adopt a digital bank. It suggests that Generation Z is more likely to adopt digital bank services when they perceive them as useful and trustworthy. Thus, trust is the strongest predictor to influence the intention to adopt a digital bank among Generation Z in Malaysia, as it has the largest value of 0.509.

However, a security concern ($\beta = 0.021$, $t = 0.551$, $p = 0.582$) was found to be a statistically insignificant predictor. It indicates that this factor does not have a meaningful influence on the intention to use a digital bank among Generation Z in this study.

In addition, the standardised beta coefficients further indicated that perceived usefulness ($= 0.216$), trust ($= 0.509$) and environmental concern ($= 0.229$) have equal strength in predicting the dependent variable. It suggested that both factors play important roles in influencing intention to adopt a digital bank among Generation Z.

In short, the regression analysis indicated that perceived usefulness, trust, and environmental concern are the factors influencing to use of a digital bank among Generation Z in Malaysia. In contrast, security concerns appear to have a minimal impact on the study.

4.5 Conclusion

In summary, this chapter presents a descriptive study of the respondents' demographic profile, completed using SPSS. This study provides information on the mean and standard deviation. Furthermore, Cronbach's alpha, which is used to assess the study's reliability, is greater than 0.90, indicating high reliability. Pearson's correlation analysis demonstrates the substantial association between variables, whereas multiple regression analysis demonstrates the covariance between dependent and independent variables. The following chapter will include a more in-depth explanation of the findings.

CHAPTER 5: DISCUSSION, CONCLUSION, AND IMPLICATION

5.0 Introduction

According to Chapter 4, the linear regression model will be analysed using data acquired from 200 survey respondents. As a result, this chapter will present a summary of the statistical analysis from Chapter 4 and examine the study's findings, implications, limitations, recommendations for future research, and conclusion.

5.1 Discussion of Major Findings

The discussion of major findings will summarise the hypothesis test results in Chapter 4.

Table 5.1: Hypothesis test results' summary table

| Hypothesis | Beta Value & Significant Level (p-value) | Results |
|--|---|----------------|
| H1: A positive relationship between perceived usefulness and intention to adopt a digital bank among Generation Z in Malaysia. | $\beta = 0.216$ p-value < 0.001 | Supported. |
| H2: A positive relationship exists between trust and the intention to adopt a digital bank among Generation Z in Malaysia. | $\beta = 0.509$ p-value < 0.001 | Supported. |
| H3: A positive relationship exists between security concern and the intention to adopt | $\beta = 0.021$ p-value = 0.582 | Not supported. |

a digital bank among Generation Z in
Malaysia.

H4: A positive relationship between $\beta = 0.229$ Supported.
environmental concern and the intention to P-value < 0.001
adopt a digital bank among Generation Z in
Malaysia.

Source: Author's development

5.1.1 Perceived usefulness and intention to adopt a digital bank among Generation Z

The summary of the hypothesis test results showed that perceived usefulness (H1) has a substantial positive link with Generation Z's intention to utilise a digital bank. In other words, for every unit rise in perceived usefulness, there is a 0.230 increase in the desire to use a digital bank among Malaysia's Generation Z. These findings are consistent with previous research by Goh et al (2024), Nurahmasari et al (2023), Kaulu et al (2024), Novtandri et al (2024), Rizkyla (2024), and Soo et al (2023). Thus, this study's conclusion is similar to that of Generation Z's likelihood of using a digital bank. As a result, Generation Z will use the system efficiently and find it beneficial for daily transactions, which will have a substantial impact on the desire to use a digital bank in Malaysia.

Furthermore, the results are consistent with the empirical findings in Chapter 2, which show that perceived usefulness has a significant and favourable effect on Generation Z's intention to use a digital bank in Malaysia. It is also compatible with the previously described Technology Acceptance Model (TAM), which defines perceived usefulness as an individual's opinion that utilising technology will improve their performance and work quality (Rizkyla et al., 2024). Thus, Generation Z is more likely to use a digital bank to save time and money, boosting their efficiency in daily tasks.

5.1.2 Trust and intention to adopt a digital bank among Generation Z

According to Table 5.1, the summary of the hypothesis test results indicates that trust (H2) is significantly related to the desire to use a digital bank among Generation Z. In other words, for every 1-unit increase in trust, the intention to use a digital bank among Malaysia's Generation Z rises by 0.491. The findings are similar to those of prior studies by Musyaffi (2024), Saif (2022), Amy et al. (2023), Lee and Kim (2019), Kurniawan et al. (2023), and Yahya (2023). These findings also reveal that Generation Z has higher trust in digital banks and thus a greater willingness to use them. According to Kurniawan et al. (2023), building trust between customers and service providers is critical throughout the relationship.

Furthermore, the results are consistent with the literature analysis in Chapter 2, which found that trust has a large and favourable influence on Generation Z's intention to use a digital bank in Malaysia. According to Yahya et al. (2023), digital banks maintain a trustworthy relationship with their users. Furthermore, Hew (2022) observes that Generation Z can develop trust when a digital bank meets their expectations, particularly regarding service quality. Thus, it is established that trust has a positive, significant and strongest predictor of the intention to use a digital bank among Malaysia's Generation Z population.

5.1.3 Security concerns and intention to adopt a digital bank among Generation Z

According to Table 5.1, the summary of the hypothesis test results indicates that security concern (H3) has an insignificant negative relationship with to intention to use a digital bank among Malaysia's Generation Z. In other words, for every one unit increase in security concern, the intention to use a digital bank among Malaysia's Generation Z falls by 0.020. This is because the p-value is bigger than 0.001, indicating that the association is not statistically significant. The findings are similar to previous research, such as Saif et al. (2022), Lee and Kim (2019), Lee et

al. (2024), Indriyarti (2023), and Soo et al. (2023), indicating that security concerns continue to be a challenge to the adoption of digital banking. These studies show that Generation Z is less inclined to use digital banks due to concerns about fraud, data privacy, cyber threats, and other factors. Similarly, Saif et al. (2023) reported that consumers typically believe their personal and financial information can be easily exploited by others, which reduces their intention to use a digital bank in Malaysia.

Furthermore, the findings contradict an empirical study that discovered that security concerns are likely to have a significant positive relationship with the desire to use a digital bank among Malaysia's Generation Z population. As a result, it can be stated that security concerns have a negative and inconsequential association with the intention to use a digital bank among Malaysia's Generation Z population.

5.1.4 Environmental concern and intention to adopt a digital bank among Generation Z

According to Table 5.1, the summary of hypothesis test results shows that environmental concern (H4) has a significant positive relationship with Generation Z's intention to use a digital bank in Malaysia. In other words, for every one unit increase in environmental concern, the intention to use a digital bank among Malaysia's Generation Z increases by 0.220. The results are consistent with empirical studies such as Saif (2022), Kuosuwan (2024), Majeed and Rasheed (2025), and Alam et al. (2025). Thus, these studies similarly suggest that Generation Z tends to utilise digital banks that incorporate environmental concern features, and it shows a stronger intention to adopt them. Hence, Saif (2022) also states that environmental concerns are a strong indicator of the adoption of the digital bank in Malaysia. However, some studies, such as Taneja and Ali (2020) and Chan et al. (2024), reported a different result, indicating an insignificant relationship between environmental concerns and the desire to use a digital bank among Generation Z in Malaysia.

Furthermore, the findings are consistent with the literature analysis in Chapter 2, which shows that environmental concerns have a significant and favorable influence on Generation Z's inclination to use a digital bank in Malaysia. According to Majeed and Rasheed (2025), people who care deeply about the environment are more likely to use a digital bank. Furthermore, consumers who are strongly concerned about environmental issues and emotionally attached to their country's heritage are more likely to invest in digital bank products and services. As a result, it is possible to conclude that environmental concern has a positive and significant association with the intention of Malaysian Generation Z to use a digital bank.

5.1.5 Summary of Key Findings

This overview of major findings will show whether the study topics described in Chapter 1 were addressed. As a result, it is possible to determine whether elements have a greater or lesser effect on Malaysian Generation Z's desire to use a digital bank.

Table 5.2 Summary of key findings

| Research Questions | Key Findings |
|--|--|
| RQa. Is there a significant relationship between perceived usefulness and intention to adopt a digital bank among Generation Z in Malaysia? | Perceived usefulness (H1) is significantly related to the intention to adopt a digital bank among Generation Z in Malaysia. |
| RQb. Is there a significant relationship between trust and intention to adopt a digital bank among Generation Z in Malaysia? | Trust (H2) shows that a significant relationship between the intention to adopt a digital bank among Generation Z in Malaysia. |
| RQc. Is there a significant relationship between security concerns and Generation Z's intention to adopt a digital bank in Malaysia? | Security concerns (H3) have an insignificant relationship with Generation Z's intention to adopt a digital bank in Malaysia. |

RQd. Is there a significant relationship between environmental concern and intention to adopt a digital bank among Generation Z in Malaysia? Environmental concern (H4) shows that a significant relationship exists between the intention to adopt a digital bank among Generation Z in Malaysia.

Source: Author's development

5.2 Implication of the study

5.2.1 Theory Implication

This study provides vital insights into the theoretical implications of the relationship between perceived usefulness, trust, security issues, and environmental concerns for Generation Z's inclination to utilise a digital bank in Malaysia. This study uses the Technology Acceptance Model (TAM), the Value-Belief-Norms (VBN) theory, and the Theory of Perceived Risk (TPR) to investigate digital bank use in Malaysia.

The findings show that perceived usefulness, trust, and environmental concern all have a beneficial impact on Generation Z's desire to utilize a digital bank in Malaysia. These findings support the theory stated in Chapter 2 and are consistent with previous research on the roles of usefulness and trust in digital banks. According to Lee et al. (2025), perceived usefulness and trust have a major impact on Malaysian Generation Z's adoption of digital banking.

Specifically, the significant and favorable effects of perceived usefulness and trust lend support to the Technology Acceptance Model (TAM). It shows that Generation Z is more willing to adopt technology if they believe it would improve their performance and trust the system (Davis, 1989). The findings indicate that Generation Z prioritizes the practical benefits of a digital bank as a key element affecting adoption.

In addition, environmental concern has a significant positive relationship with the intention to adopt a digital bank, supporting the theory of Value-Beliefs-Norms. This suggests that Generation Z is motivated to adopt technology within a digital bank. In other words, Generation Z not only serves as a convenience tool for digital banks but also contributes to sustainability by reducing paper use, emissions, and the carbon footprint (HTEC, 2021; Windasari et al., 2011).

Additionally, security concerns might negatively impact the intention to adopt a digital bank, as supported by the theory of perceived risk. However, the study's findings indicate that there is an insignificant and negative relationship among Generation Z. Since Gen Z is more aware of security risks, including cyber fraud and scams, these concerns create a substantial barrier to adoption. By doing so, Generation Z requires higher digital literacy and greater confidence in managing risks.

In short, the result integrates existing theories by combining the technology acceptance model (TAM), value-belief norms (VBN), and the theory of perceived risk (TPR). This integration provides an overview of the different factors influencing Generation Z's intention to adopt digital bank in Malaysia. It also recommends that future studies consider multiple theories to better explain technology adoption.

5.2.2 Practical Implications

5.2.2.1 Perceived Usefulness (PU)

This study shows that among Malaysia's Generation Z, the intention to join a digital bank is positively correlated with their perceived usefulness. When Generation Z considers a digital bank as really useful, their intention to use it increases (Bong et al., 2023). It is recommended that Generation Z adopt digital banks to better their

financial management, reduce time, and increase efficiency when compared to traditional banks.

According to the findings, digital banks are concentrating more on improving functional features such as real-time transfers, rapid transaction approvals, budgeting tools, auto-savings features, and tailored spending insights (Bong et al., 2023). Enhancing these features can increase Generation Z's willingness to adopt a digital bank, as they emphasise convenience and efficiency in their daily routines (Soo et al., 2023). In addition, digital bank developers and founders can utilise these insights to enhance the system's performance by ensuring it is fast, stable, and user-friendly, as this can contribute to strong performance, a positive user perception, and a greater perceived usefulness.

In addition, marketing teams should highlight the digital bank's useful features on social media, targeting Generation Z. By doing so, the digital bank can strengthen perceptions of usefulness, increasing Generation Z's desire to use and continue using it.

5.2.2.2 Trust (T)

This study shows that among Malaysia's Generation Z, trust and the intention to use a digital bank are positively and significantly correlated. Generation Z is more likely to adopt a digital bank when they feel comfortable using it. Strong trust can also positively influence their decision to accept and use it (Bong et al., 2023). In order to create a powerful and sustainable connection, it is crucial to increase Customer confidence in the digital bank through the innovation diffusion process (Saif et al., 2023).

Moreover, trust is crucial for sustaining customer–financial institution relationships, as noted in the prior study. Furthermore, the results indicate that digital banks should strengthen their policies, including issuing clear, transparent security certificates. Additionally, digital banks can offer 24/7 customer service through features like chatbots, FAQs, and problem-solving tools, thereby increasing users' confidence

and perception of reliability (Olabiyi, 2025). Additionally, the government and Bank Negara Malaysia (BNM) should raise awareness of a digital bank and promote it through a programme to help Generation Z become more confident in adopting it (Bank Negara Malaysia, n.d.). By doing so, it will lead to a higher increase in trust and a greater willingness to register, deposit money, and perform transactions.

5.2.2.3 Security Concern (SC)

This study finds that among Malaysia's Generation Z, security concerns have little bearing on their intention to use a digital bank. It shows that while Generation Z values security, it has little bearing on the choice to use a digital bank (Lee et al., 2023). To put it another way, Generation Z has become used to using digital banks and believes that all financial apps follow the same fundamental security protocols. Therefore, their intention to adopt is not greatly affected by security concerns.

The findings suggest that digital banks should maintain basic security criteria. However, according to a Malaysian Communication and Multimedia Commission (MCMC) report, 17% of internet users do not feel secure, 23% feel neutral, and 47% feel secure. Thus, it can be confirmed that cybercrimes have decreased since 2016, except for online fraud. Due to the lack of human assistance, the digital bank should prioritise a clear banking procedure and improved security measures because Malaysians are less concerned about it (Saif et al., 2022). As a result, digital banks can use online chat and video conferencing to act as virtual advisors on their websites. Customers' and Generation Z's security concerns can be addressed in this way.

Additionally, the government and Bank Negara Malaysia should collaborate to strengthen security regulations and raise awareness of digital banks' security practices. For instance, the Cyber Security Act 2024 (CSA, 2024), "E-Duit" campaign helps to enhance public confidence. Thus, Digital banks and authorities need to maintain trust while emphasising the variables that drive Generation Z adoption.

5.2.2.4 Environmental Concern (EC)

According to this study, environmental concern and the intention to adopt a digital bank among Generation Z in Malaysia are positively related. When Generation Z is aware of environmental concerns, the intention to adopt a digital bank will increase accordingly. It suggests that Generation Z will consider digital banks due to their tech-savviness and familiarity with sustainability (HTEC, 2021; Windasari et al., 2011).

The findings suggest that Generation Z remains aware of environmental concerns, including carbon emissions and climate change (Saif et al., 2022). Therefore, the digital bank supports sustainability by offering paperless banking, e-statements and green initiatives to reduce environmental impact. According to Saif et al. (2022), establishing the link between environmental concern and adoption intention is important because adoption can reflect an “adopt or reject” behaviour, and environmental concern has a significant influence on Generation Z.

Furthermore, the government department should encourage all citizens to use digital banks, as it can help protect the country’s natural resources and reduce paper usage, thereby mitigating concerns related to climate change.

5.2.2.5 Academia

This study is important because it offers an academic understanding of the variables that affect Malaysian Generation Z’s intention to adopt a digital bank, including perceived usefulness, trust, security concerns, and environmental concerns.

The results show that while security concerns are a major predictor of the desire to adopt, perceived usefulness, trust, and environmental concern are not. This shows that Generation Z members choose to use digital banks despite unresolved security concerns. It also explains the high level of digital familiarity. Furthermore, prior research has shown that the intention to adopt a digital bank is not significantly

correlated with security concerns (Saif et al., 2022; Lee & Kim, 2019; Lee et al., 2024; Indriyarti, 2023; Soo et al., 2023). Therefore, future research can choose an appropriate variable associated with the inclination to join a digital bank and address or eliminate security problems in the following study.

As a result, future researchers will be able to apply this knowledge in comparable contexts and gain a deeper understanding of the factors influencing the adoption of digital banks, especially among Generation Z in Malaysia.

5.3 Limitations of the study

It is important to recognise that this study has several limitations that could affect the generalisability and accuracy of the findings. First and foremost, the 200 respondents in the sample are quite small and might not fairly represent Malaysians. The Department of Statistics Malaysia estimates that 34.1 million people were living in Malaysia in 2025, with Generation Z making up 23% to 26% of the country's overall population. This implies that the sample size is small, which makes it difficult to find important relationships in the data. As a result, a small sample size may not be able to fully represent the variety of viewpoints and experiences seen in a large group of individuals, which could lead to a sample that is skewed. Hence, it is necessary to conduct a more comprehensive study in Malaysia, encompassing diverse ethnicities, different regions, and other factors, to determine the desire to use a digital bank.

Targeted groups are the second limitation. Since this study focuses solely on Generation Z in Malaysia, the sample size is minimal. Although this group is considered an important segment of digital banks, they are tech-savvy and emphasise sustainable products. Moreover, the behaviours, perceptions, and adoption decisions of Generation Z may not reflect those of other demographic groups, including Generation X, millennials, or others. Different age groups may significantly affect their trust, security, attitudes towards environmental concerns, and perceptions of the usefulness of the digital bank. As a result, this study provides

insight into only Generation Z's perceptions. It does not accurately reflect the Malaysian population's perceptions of Generation Z; therefore, the findings should be interpreted within the context of this demographic constraint.

In addition, this study is limited by its quantitative research design. Although the numbers and statistics indicate the patterns and relationships, it do not provide a deeper understanding or real-life insights into the digital bank context. Thus, this study was unable to conduct a mixed-methods study that included an interview with the digital bank manager due to time and resource constraints. This is because, from the perspective of the digital bank operation, the challenges they face, customer service issues are essential criteria that are not included in the digital bank context. Therefore, the findings are less complete and may not fully reflect the digital bank environment. Thus, future researchers should consider both quantitative and qualitative methods to gain insights into digital bank adoption among Generation Z in Malaysia.

5.4 Recommendation for Future Research

Additionally, future research is advised to overcome the constraints mentioned above.

To address the sample size limitation, future research should gather a larger sample. Increasing the sample size would improve the reliability of the statistics and better identify significant relationships (Memon et al., 2020). Past studies typically involve around 300–400 Generation Z respondents (Lee et al., 2023; Lau, 2022; Hew, 2022; Wong, 2024; Kurniawan, 2023; Chan, 2024). Therefore, future researchers should enlarge the sample to gain a deeper understanding of the digital bank context. While this study's sample size has been achieved, the minimum number of respondents calculated by G*Power is still smaller compared to previous studies. Additionally, future research should extend to other states and regions in Malaysia, especially rural areas, due to the limited respondent numbers in this study. Conducting surveys across different geographical areas would offer insights into

cultural and socioeconomic factors. This would contribute to a more comprehensive understanding of the digital bank context in Malaysia.

Future research should include other generations, such as Generation X and millennials, to expand its coverage, given the age restrictions in this study. This study focuses on individuals aged 18–28 years (Generation Z). According to HTEC (2021) and Windasari et al. (2011), Generation Z is tech-savvy and more focused on sustainable products, such as digital banks. However, the majority of digital bank consumers are over 27 years old, and their life experiences and challenges may influence their adoption of digital bank services. Therefore, future studies should target different age demographics to provide a comprehensive perspective and explore the adoption intentions of various generations for a digital bank. This can help financial institutions develop better strategies and modify their digital bank platforms to meet the requirements and preferences of Bank Negara Malaysia and consumers. In addition, future researchers are recommended to compare the different generations in this digital bank context. By doing so, it can make a comprehensive reference for future researchers to gain insights into the digital bank context.

Furthermore, given the limitations of using a quantitative research approach, it is recommended that future studies employ both qualitative and quantitative research methods. A mixed-methods approach allows researchers to collect data while also gaining insight into the management perspective. For instance, conducting a survey and face-to-face interviews with digital bank managers or customer service officers can provide a comprehensive understanding of digital bank adoption. This interview provides valuable information about the challenges, daily operation, security issues, and customer behaviours related to the digital bank's usage. Thus, a mixed-methods approach can help future studies yield more comprehensive findings in the digital bank context.

5.5 Conclusion

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In summary, this study examined perceived usefulness, trust, security concerns, and environmental concerns in relation to Generation Z's desire to use digital banks in Malaysia. The findings show that the intention to enrol in a digital bank is positively impacted by perceived usefulness, trust, and environmental concern, whereas security concerns have little effect. By integrating TAM, VBN, and TPR, this study advances the theory and provides an in-depth understanding of digital bank adoption. In practical terms, the results provide digital banks with guidance on how to improve functionality, foster trust, and encourage sustainable behaviours to attract Generation Z. However, this study's drawbacks include its small sample size, its focus on Generation Z, and its reliance on quantitative research. These constraints serve as a foundation for future research. As a result, future studies should use a larger sample, diverse generations, and a mixed-methods approach to investigate the digital bank's desire to embrace it in Malaysia.

References

- Abdillah, A., Basuki, H., Santoso, W. I., Sukresna, I. M., & Indriani, F. (2024). Utilisation of Digital Banking Services for Generation Z Economic Sustainability. *Research Horizon*, 4(4), 11–22. <https://lifescifi.com/journal/index.php/RH/article/view/298>
- Abdullah, I. N. (2025, February 13). *The Full List of Digital Banks in Malaysia and Their Top Benefits (2025)*. Fintech News Malaysia. <https://fintechnews.my/48009/digital-banking-news-malaysia/list-of-digital-banks-in-malaysia-2025/>
- Abikari, M. (2024). Emotions, perceived risk and intentions to adopt emerging e-banking technology amongst educated young consumers. *International Journal of Bank Marketing*, 42(5). <https://doi.org/10.1108/ijbm-01-2023-0004>
- Ahamed, A. J., Sandu, M. C., & Durst, S. (2024). Exploring Online Banking Adoption Intention Among Millennials and Generation Z: A Qualitative Comparative Analysis. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4912772>
- Ahmad, A., Kashif-Ur-Rehman, & Humayoun, A. (2014). In tern a tio n a l Sch o la rs Jo u rn a ls Islamic banking and prohibition of Riba/interest. *Global Journal of Business Management*, 8(4), 1-005. <https://www.globalscienceresearchjournals.org/articles/islamic-banking-and-prohibition-of-ribainterest.pdf>
- Ahmad, N., Alias, F., Hamat, M., & Mohamed, S. (2024). *RELIABILITY ANALYSIS: APPLICATION OF CRONBACH'S ALPHA IN RESEARCH INSTRUMENTS*. https://appspenang.uitm.edu.my/sigcs/2024-2/Articles/20244_ReliabilityAnalysis-ApplicationOfCronbachsAlphaInResearchInstruments.pdf
- Al-Qudah, A. A., Al-Okaily, M., Shiyyab, F. S., Taha, A. A. D., Almajali, D. A., Masa'deh, R., & Warrad, L. H. (2024). Determinants of Digital Payment Adoption Among Generation Z: An Empirical Study. *Journal of Risk and Financial Management*, 17(11), 521. <https://doi.org/10.3390/jrfm17110521>
- Alam, A., Diajeng, D. M., Ashfahany, A. E., Hassan, F., & Javed, M. Y. (2025).

Determinants of the Intention to Adopt a Digital Bank Among Generation Z In
Malaysia

- Examining the impact of religiosity and environmental concern on switching behaviour of Islamic digital-only bank users. *Banks and Bank Systems*, 20(1), 109–121. [https://doi.org/10.21511/bbs.20\(1\).2025.10](https://doi.org/10.21511/bbs.20(1).2025.10)
- Aljaradat, A., Sarkar, G., & Shukla, S. K. (2024). Modelling cybersecurity impacts on digital payment adoption: A game theoretic approach. *Journal of Economic Criminology*, 5, 100089–100089. <https://doi.org/10.1016/j.jeconc.2024.100089>
- Anjana , B. S. (2021). *Scales of Measurement in Research*. ResearchGate. https://www.researchgate.net/publication/358149225_Scales_of_Measurement_in_Research
- Aruf, K. Z. M., Ismail, S., & Latif Saleh, A. (2018). Contractor’s Performance Appraisal System in the Malaysian Construction Industry: Current Practice, Perception and Understanding. *International Journal of Engineering & Technology*, 7(3.9), 46. <https://doi.org/10.14419/ijet.v7i3.9.15272>
- Arora, R., & Reepu, R. (2022). The Effect of Perceived Risk on Intention to Use Online Banking. *Universal Journal of Accounting and Finance*, 10(1), 62–71. <https://doi.org/10.13189/ujaf.2022.100107>
- August 2024 McKinsey Explainers. (n.d.). https://www.mckinsey.com/~/_media/mckinsey/featured%20insights/mckinsey%20explainers/what%20is%20gen%20z/what-is-gen-z.pdf
- Bahtera, N. T., Salsabilla, A. I., Candika, Y. I., Zulfa, V. R., Bascha, U. F., Srimulyani, N. E., & Soleh, M. (2024). *Analysis of the Influence of Perceived Usefulness, Perceived Ease of Use, and Social Influence on Interest to Use Digital Banks by Generation Z*. <https://doi.org/10.2139/ssrn.4921621>
- BANDURA, A. (1982). *Welcome To Zscaler Directory Authentication*. Wunu.edu.ua. <https://pis.wunu.edu.ua/index.php/enpis/article/view/1275>
- Bank Negara , M. (2025). *Financial Sector Participants Directory* . Bank Negara Malaysia Digital Bank List . https://www.bnm.gov.my/regulations/fsp-directory?p_p_id=com_liferay_asset_publisher_web_portlet_AssetPublisherPortlet_INSTANCE_jXC730NRlqU0&p_p_lifecycle=0&p_p_state=normal&p_p_mode=view&p_r_p_tag=digital-bank
- Bank Negara Malaysia. (2022, April 29). *Five successful applicants for the digital bank licences - Bank Negara Malaysia*. [Www.bnm.gov.my](http://www.bnm.gov.my).

Determinants of the Intention to Adopt a Digital Bank Among Generation Z In
Malaysia

<https://www.bnm.gov.my/-/digital-bank-5-licences>

Bank Negara Malaysia (BNM). (n.d.). *E - Duit* . Bank Negara Malaysia (BNM).

<https://www.bnm.gov.my/eduit>

Baraba, R. A. A., & Mahmudi, M. (2023). Understanding The Millennial Generation Behavior In Using Digital Banking. *Asean International Journal of Business*, 2(1), 1–13. <https://doi.org/10.54099/aijb.v2i1.394>

Beh, M. T. (2025, March 19). *Combating Scam Syndicates in Malaysia and Southeast Asia – Penang Institute*. Penanginstitute.org. <https://penanginstitute.org/publications/issues/combating-scam-syndicates-in-malaysia-and-southeast-asia/>

Bong, A., Ling, Y., Hwee, C., Soh, L., Soh, M., & Sin, Y. (2023). *A STUDY ON MALAYSIAN'S INTENTION TO ACCEPT DIGITAL BANK* . http://eprints.utar.edu.my/6056/1/fyp_FN_2023_ABYL.pdf

Chan, J., Chin, Y., Hun, C., & Shen, K. (2024). *FINTECH ADOPTION AMONG GENERATION-Z IN MALAYSIA*. http://eprints.utar.edu.my/6777/1/Chan_Jian_You_2003548.pdf

Chen , L. yin , Saw, W. R., Ding, Z. wei , & Lean, R. yi. (2023). *ONLINE FRAUD: FACTORS AFFECTING CONSUMERS' ONLINE PURCHASING BEHAVIOUR IN MALAYSIA*. http://eprints.utar.edu.my/5549/1/fyp_BA_2023_CLY.pdf

Cheong, S. (2025, February 13). *Malaysia's E-Wallet and Digital Banking Usage in 2024: Going Cashless Reigning Supreme*. Oppotus.com. https://www.oppotus.com/malysias-e-wallet-and-digital-banking-usage-in-2024/?utm_source=chatgpt.com

Columbia University. (n.d.). *Research Instrument Examples*. https://www.tc.columbia.edu/media/administration/institutional-review-board-/guide-amp-resources---documents/Published_Study-Material-Examples.pdf

Creswell, J. W. (2017). *Research Design*. Google Books. <https://books.google.com.my/books?hl=en&lr=&id=335ZDwAAQBAJ&oi=fnd&pg=PT16&dq=Creswell>

Dalati, S. (2018). (PDF) *Measurement and Measurement Scales*. ResearchGate. https://www.researchgate.net/publication/324117390_Measurement_and_Measurement_Scales

Determinants of the Intention to Adopt a Digital Bank Among Generation Z In
Malaysia

- Dayanand, Anupama. K., & Chaudhary, D. P. (2024). Introduction of a Pilot Study. *ResearchGate*, 9(2), 33–35. https://www.researchgate.net/publication/378303766_Introduction_of_a_Pilot_Study
- Dibekulu, D. (2020, January). *An Overview of Data Analysis and Interpretations in Research*. ResearchGate. <https://doi.org/10.14662/IJARER2020.015>
- Eric, K. (2024, April 4). *Climate Change in Malaysia - Environmental Issues and Solutions*. Energy Tracker Asia. <https://energytracker.asia/climate-change-in-malaysia-environmental-issues-and-solutions/>
- Finextra . (2025, March 23). *Neobanks vs. Traditional Banks: The Battle for Gen Z Customers: By Nanne Parmar*. Finextra Research; Finextra. <https://www.finextra.com/blogposting/28121/neobanks-vs-traditional-banks-the-battle-for-gen-z-customers>
- GARGOURI, O. (2023). DIGITAL BANKING SERVICES: CUSTOMERS' PROS AND CONS. A THEORETICAL LITERATURE REVIEW. *Business Excellence and Management*, 13(2), 5–13. <https://doi.org/10.24818/beman/2023.13.2-01>
- Ghazali, E. M., Nguyen, B., Mutum, D. S., & Yap, S.-F. (2019). Pro-Environmental Behaviours and Value-Belief-Norm Theory: Assessing Unobserved Heterogeneity of Two Ethnic Groups. *Sustainability*, 11(12), 3237. <https://doi.org/10.3390/su11123237>
- GMO Research & AI. (2024, April 19). *Unveiling the Future of Digital Banking in Malaysia: Trends and Entry Strategies*. <https://gmo-research.ai/en/resources/articles/2024-articles-insights-unveiling-the-future-of-digital-banking-in-malaysia>
- Goh, K., Hen, J., Jia, X., Loh, M., Hao, S., Lee, Q., & Yang. (2024). *FACTORS AFFECTING THE ADOPTION OF DIGITAL BANKING AMONG MALAYSIANS*. http://eprints.utar.edu.my/6890/1/Sean_Lee_Qing_Yang_21ABB07134.pdf
- Golzar, J., Tajik, O., & Noor, S. (2022, December 16). *Convenience sampling*. ResearchGate. <https://doi.org/10.22034/ijels.2022.162981>
- Gong, R. (2025). Bridging Border I: Malaysia's Digital Payment Growth . *Khazanah Research Institute*.

Determinants of the Intention to Adopt a Digital Bank Among Generation Z In
Malaysia

<https://www.krinstitute.org/assets/contentMS/img/template/editor/Fintech%20Views%201%20Malaysia%E2%80%99s%20Digital%20Payments%20Growth.pdf>

- Gong, R., & Kirk, M. H. (2022). *Digital Banking and Financial Inclusion*. Khazanah Research Institute. <https://www.krinstitute.org/assets/contentMS/img/template/editor/20220826%20Digital%20Banking%20Views%20pub.pdf>
- Guetterman, T. C. (2019). Basics of Statistics for Primary Care Research. *Family Medicine and Community Health*, 7(2). <https://doi.org/10.1136/fmch-2018-000067>
- Hailu, A. Y., Esa, H. J., & Abenet, D. (2025). Factors Affecting Customer Intention to Use Digital Banking services: A Case Study of the Commercial Bank... *ResearchGate*, 0044-0477, 2025. https://www.researchgate.net/publication/388968801_Factors_Affecting_Customer_Intention_to_Use_Digital_Banking_services_A_Case_Study_of_the_Commercial_Bank_of_Ethiopia
- Hew, J. H. (2022). Factors affecting generation z's intention to use virtual banking in Malaysia: a study in the post covid-19 pandemic - UTAR Institutional Repository. *Utar.edu.my*. http://eprints.utar.edu.my/4858/1/24._Hew_Jun_Hung_1802770.pdf
- HTEC. (2021, June 14). *How Gen Z is influencing fintech and banking* | HTEC. HTEC. <https://htec.com/insights/blogs/how-gen-z-is-reinventing-fintech-and-banking/>
- Huang, F. (2019). Data Processing. *Encyclopedia of Big Data*, 1–4. https://doi.org/10.1007/978-3-319-32001-4_314-1
- Hyman, M., & Sierra, J. (2016). *Open- versus close-ended survey questions*. Business Outlook. https://www.researchgate.net/publication/282249876_Open-versus_close-ended_survey_questions
- IBM. (2021, September 28). *Data Visualization*. Ibm.com. <https://www.ibm.com/think/topics/data-visualization>
- INDRIYARTI, E. R., CHRISTIAN, M., YULITA, H., ARYATI, T., & ARSJAH, R. J. (2023). Digital Bank Channel Distribution: Predictors of Usage Attitudes in Jakarta's Gen Z. *Journal of Distribution Science*, 21(2), 21–34.

<https://doi.org/10.15722/jds.21.02.202302.21>

- Iqbal, M., Nisha, N., Rifat, A., & Panda, P. (2018). Exploring Client Perceptions and Intentions in Emerging Economies: The Case of Green Banking Technology. *International Journal of Asian Business and Information Management*, 9(3), 14–34. <https://doi.org/10.4018/ijabim.2018070102>
- Ivanova, A., & Kim, J. Y. (2022). Acceptance and Use of Mobile Banking in Central Asia: Evidence from Modified UTAUT Model. *The Journal of Asian Finance, Economics and Business*, 9(2), 217–227. <https://doi.org/10.13106/jafeb.2022.vol9.no2.0217>
- Julia, L., Linggam, P. S., Hibatullah, R., & Justianto, J. S. (2023). The Impact of Perceived Risk and Technology Acceptance Model on Gen Z's Adoption of Digital Banking. *WSEAS TRANSACTIONS on COMPUTER RESEARCH*, 12, 1–18. <https://doi.org/10.37394/232018.2024.12.1>
- Kang, H. (2021). Sample Size Determination and Power Analysis Using the G*Power Software. *Journal of Educational Evaluation for Health Professions*, 18(17), 17. <https://doi.org/10.3352/jeehp.2021.18.17>
- Kani, A. M. -. (2022, September 27). *Research Methodologies: Research Instruments*. Paperpile.libguides.com. <https://paperpile.libguides.com/c.php?g=1235589&p=9041188>
- Kaulu, B., Kaulu, G., & Chilongo, P. (2024). Factors influencing customers' intention to adopt e-banking: a TAM and cybercrime perspective using structural equation modelling. *Journal of Money and Business*. <https://doi.org/10.1108/jmb-01-2024-0007>
- Kuosuwan, B., Risman, A., Dudukalov, E., & Kozlova, E. (2024). Digital banking and environmental impact: How Fintech supports carbon footprint reduction. *BIO Web of Conferences*, 145, 05017–05017. <https://doi.org/10.1051/bioconf/202414505017>
- Kurniawan, Y., Dumais, S. M., & Anwar, N. (2023). An Empirical Study on the Factors Affecting the Usage of Digital Banking in Generation Z. *Journal of System and Management Sciences*, 13(5). <https://doi.org/10.33168/jsms.2023.0503>
- Kurniawan, Y., & Jesica, L. (2024). Unpacking the Digital Banking Preferences of Generation Z Students: Empirical Evidence from Indonesia. *Journal of System and Management Sciences*.

<https://doi.org/10.33168/jsms.2024.1104>

- Lau, Y., & Yin. (2022). *FACTORS INFLUENCING ADOPTION OF MOBILE PAYMENT APPS AMONG GENERATION Z WITHIN KLANG VALLEY*.
http://eprints.utar.edu.my/4882/1/90._Lau_Yan_Yin_1803657.pdf
- Laycock, R. (2022, April 15). *The rise of digital banks*. Finder Malaysia.
<https://www.finder.com/my/digital-banking-statistics>
- Lee, C. K., Lee, M. L., Lim, W. L., Ong, S. Z., & Wee, G. S. (2023). *Adoption of Digitalised Banking Among Generation Z in Malaysia*.
http://eprints.utar.edu.my/5419/1/fyp_BF_2023_LCK.pdf
- Lee, J.-M., & Kim, H.-J. (2020). Determinants of adoption and continuance intentions toward Internet-only banks. *International Journal of Bank Marketing*, 38(4), 843–865. <https://doi.org/10.1108/ijbm-07-2019-0269>
- Liu, C., & Wu, Y. (2020). The Impact of Value-Belief-Norm Theory and Technology Acceptance Model on Use Intention of Green Design Packaging. *International Journal of Business and Management*, 15(7), 158.
<https://doi.org/10.5539/ijbm.v15n7p158>
- Maduku, D. K. (2014). Customers' adoption and use of e-banking services: The South African perspective. *Banks and Bank Systems*, 9(2), 67–77.
https://www.researchgate.net/publication/263051724_Customers
- Majeed, A., & Rasheed, A. (2025). Environmental Responsibility, Environmental Concerns, and Green Banking Adoption in Pakistan: Using the Unified Theory of Acceptance and Use of Technology. *Human Behavior and Emerging Technologies*, 2025(1). <https://doi.org/10.1155/hbe2/7268813>
- Makwana, D., Engineer, P., Dabhi, A., & Chudasama, H. (2023). *Sampling Methods in Research: A Review*. ResearchGate.
https://www.researchgate.net/publication/371985656_Sampling_Methods_in_Research_A_Review
- Malaysia, B. N. (2020, March 3). *Regulatory Framework for Digital Banks [UPDATE] - Bank Negara Malaysia*. [Www.bnm.gov.my](http://www.bnm.gov.my).
<https://www.bnm.gov.my/-/regulatory-framework-for-digital-banks-update->
- Marafon, D. L., Basso, K., Espartel, L. B., de Barcellos, M. D., & Rech, E. (2018). Perceived risk and intention to use internet banking. *International Journal of Bank Marketing*, 36(2), 277–289. <https://doi.org/10.1108/ijbm-11-2016->

- Marikyan, D., & Papagiannidis, S. (2022). *Technology Acceptance Model Theory Factsheet*. <https://open.ncl.ac.uk/theory-library/technology-acceptance-model.pdf>
- Mazhar, S. A., Anjum, R., Anwar, A. I., & Khan, A. A. (2021). Methods of Data Collection: a Fundamental Tool of Research. *Journal of Integrated Community Health*, 10(1), 6–10. [researchgate. https://doi.org/10.24321/2319.9113.202101](https://doi.org/10.24321/2319.9113.202101)
- Memon, M. A., Ting, H., Cheah, J.-H., Thurasamy, R., Chuah, F., & Cham, T. H. (2020). Sample size for survey research: Review and recommendations. *Journal of Applied Structural Equation Modeling*, 4(2), i–xx. https://jasemjournal.com/wp-content/uploads/2020/08/Memon-et-al_JASEM_-Editorial_V4_Iss2_June2020.pdf
- Ministry of Foreign Affairs, Malaysia. (2025). *History - Portal*. [Kln.gov.my. https://www.kln.gov.my/web/gha_accra/history](https://www.kln.gov.my/web/gha_accra/history)
- Musyaffi, A. M., Johari, R. J., Sobirov, B., Oli, M. C., & Afriadi, B. (2023). Examining Initial Trust in Adoption of Digital Banking Platform: A Personal Innovativeness and Security Perspective. *Journal of System and Management Sciences*, 14(1). <https://doi.org/10.33168/jsms.2024.0105>
- Nawang, W. R. W., Abdillih, M. A. A. M., & Mursidi, A. (2025). Embracing e-wallet applications among Generation Z in Malaysia: The mediating role of trust. *Journal of Nusantara Studies (JONUS)*, 10(1), 373–398. <https://doi.org/10.24200/jonus.vol10iss1pp373-398>
- NGUYEN, O. T. (2020). Factors Affecting the Intention to Use Digital Banking in Vietnam. *The Journal of Asian Finance, Economics and Business*, 7(3), 303–310. <https://doi.org/10.13106/jafeb.2020.vol7.no3.303>
- Nguyen, T. P. L., Muthaiyah, S., & Mohamed2, H. (2024). What Drives the Intention to Adopt Digital Banking in Malaysia? *Journal of Logistics, Informatics and Service Science*, 11(3). <https://doi.org/10.33168/jliss.2024.0306>
- Nik Hasfizul Safuri, Devi, R., & Sing, K. K. (2024). Key Drivers of Gen Z's Digital Banking Adoption in Malaysia: The Roles of Relative Advantage, Trust, and Perceived Value as a Mediator. *International Journal of Academic Research in Business and Social Sciences*, 14(12).

<https://doi.org/10.6007/IJARBSS/v14-i12/24237>

- Nurahmasari, M., Silfiyah, S. N., & Pangaribuan, C. H. (2023). The Intention to Use Digital Banking Services among Gen Z in Indonesia Based on Technology Acceptance Model (TAM). *Jurnal Manajemen Dan Bisnis Madani*, 5(1), 15–31. <https://doi.org/10.51353/jmbm.v5i1.692>
- Oktavia, T., Yahya, E. T., Adiscaputri, M. G., & Wijaya, Z. Z. (2023). Analysis of the Intention to Use Digital Banking as Personal Financial Services among Gen X. *Journal of System and Management Sciences*, 13(3). <https://doi.org/10.33168/jsms.2023.0312>
- Olabiyyi, W. (2025). *The Impact of AI-Based Chatbots and Virtual Assistants on Customer Experience in Digital Banking*. ResearchGate. https://www.researchgate.net/publication/396689606_The_Impact_of_AI-Based_Chatbots_and_Virtual_Assistants_on_Customer_Experience_in_Digital_Banking
- Olaitan, O. 'Lanre. (2024). DATA PROCESSING. *ResearchGate*. <https://doi.org/10.13140/RG.2.2.34785.68960>
- Ooi , S. M., Hartini, H., & Loo , H. Y. (2021). Investigating Factors Influencing Consumers' Intention to Adopt E-Wallet among Generation Z in Selangor, Malaysia. *Research Gate*, 5(1), 32–41. https://www.researchgate.net/profile/Hartini-Husin/publication/364653451_Investigating_Factors_Influencing_Consumers
- Paul Raj, A. (2021, March 31). *Covid-19 hitting digital banks hard*. The Edge Malaysia. <https://theedgemaalaysia.com/article/covid19-hitting-digital-banks-hard>
- Philippi, C. L. (2021). On Measurement Scales: Neither Ordinal nor Interval? *Philosophy of Science*, 88(5). <https://doi.org/10.1086/714873>
- Phuong, N. T. H., Dieu, N., Tran, T., Giang, L., Thi, B., Han, N., Hoang, T., Nguyen, H., & Long, T. (2022). DETERMINANTS OF INTENTION TO USE FINTECH PAYMENT SERVICES: EVIDENCE FROM VIETNAM' GENERATION Z. *International Journal of Business, Economics and Law*, 26, 1. https://www.ijbel.com/wp-content/uploads/2022/06/IJBEL26.ISU1_301.pdf
- Rahim, R. A., & Kamal, K.-A. M. -. (2021). Impact of Social Media on Consumer

Determinants of the Intention to Adopt a Digital Bank Among Generation Z In
Malaysia

- Purchasing Behaviour in Sarawak. *International Journal of Academic Research in Business and Social Sciences*, 11(5), 367–375. <http://dx.doi.org/10.6007/IJARBSS/v11-i5/9935>
- Rahmadhani, S. D., Buchdadi, A. D., Fawaiq, M., & Prasetya, B. A. (2022). Determinants of intention to use e-wallet in Generation Z. *BISMA (Bisnis Dan Manajemen)*, 15(1), 60–77. <https://doi.org/10.26740/bisma.v15n1.p60-77>
- Rahman, A., & Muktadir, G. (2021, October). *SPSS: An Imperative Quantitative Data Analysis Tool for Social Science Research*. ResearchGate; www.researchgate.net. <https://doi.org/10.47772/IJRISS.2021.51012>
- Rawat, A. S. (2021, March 31). *An Overview of Descriptive Analysis*. Analytic Steps. <https://www.analyticsteps.com/blogs/overview-descriptive-analysis>
- Safari, K., Bisimwa, A., & Buzera Armel, M. (2020). Attitudes and intentions toward internet banking in an under developed financial sector. *PSU Research Review*, ahead-of-print(ahead-of-print). <https://doi.org/10.1108/prr-03-2020-0009>
- Saif, M. A. M., & Hussin, N. (2024). Predictive Insights Into Digital-Only Banking Adoption in Malaysia using Artificial Neural Networks. *NLP & Information Retrieval*, 15–31. <https://doi.org/10.5121/csit.2024.140602>
- Saif, M. A. M., Hussin, N., Husin, M. M., Alwadain, A., & Chakraborty, A. (2022). Determinants of the Intention to Adopt Digital-Only Banks in Malaysia: The Extension of Environmental Concern. *Sustainability*, 14(17), 11043. <https://doi.org/10.3390/su141711043>
- Sardana, N., Shekoochi, S., Cornett, E. M., & Kaye, A. D. (2023). Qualitative and quantitative research methods. *Substance Use and Addiction Research*, 1(1), 65–69. <https://doi.org/10.1016/b978-0-323-98814-8.00008-1>
- Sarmiento, R., & Costa, V. (2017). Descriptive Analysis. *Comparative Approaches to Using R and Python for Statistical Data Analysis*, 83–113. <https://doi.org/10.4018/978-1-68318-016-6.ch004>
- Schober, P., & Boer, C. (2018). *Correlation Coefficients: Appropriate Use and Interpretation*. ResearchGate. https://www.researchgate.net/publication/323388613_Correlation_Coefficients_Appropriate_Use_and_Interpretation
- Science Direct. (2024). *Generation Z - an overview* | *ScienceDirect Topics*.

Www.sciencedirect.com. <https://www.sciencedirect.com/topics/social-sciences/generation-z>

- Sedgwick, P. (2012). Pearson's correlation coefficient. *BMJ*, *345*, e4483–e4483. <https://doi.org/10.1136/bmj.e4483>
- Segal, D. L., & Coolidge, F. L. (2018). Reliability. *The SAGE Encyclopedia of Lifespan Human Development*. <https://doi.org/10.4135/9781506307633.n683>
- Shang, D., Wu, W., & Schroeder, D. (2023). Exploring determinants of the green smart technology product adoption from a sustainability adapted value-belief-norm perspective. *Journal of Retailing and Consumer Services*, *70*, 103169. <https://doi.org/10.1016/j.jretconser.2022.103169>
- Shukla, S. (2023). NON-PROBABILITY SAMPLING METHOD 1. *National Faculty Development Programme*. https://www.researchgate.net/publication/372724527_NON-PROBABILITY_SAMPLING_METHOD_1
- Simkus, J. (2023, July 31). *What is a Pilot Study?* SimplyPsychology. <https://www.simplypsychology.org/pilot-studies.html>
- Siti, N., & Mira, M. (2021). *Factors affecting the intention to adopt digital banking by digital savings customes (case study of syariah mandiri bank)*. <https://www.ijisrt.com/assets/upload/files/IJISRT21JUN364.pdf>
- Slepian, R. C., Vincent, A. C., Patterson, H., & Furman, H. (2024). “Social media, wearables, telemedicine and digital health,”—A Gen Y and Z perspective. *Elsevier EBooks*, *1*, 524–544. <https://doi.org/10.1016/b978-0-12-824010-6.00072-1>
- Soo, C. M. X., Lew, S. W., Liew, C. Y., Lim, Y. D., & Ng, J. W. (2023, June 1). *Malaysian expectation towards digital banking*. Eprints.utar.edu.my. <http://eprints.utar.edu.my/5967/>
- Stewart, L. (2024). *Random Sampling in Research*. ATLAS.ti. <https://atlasti.com/research-hub/random-sampling>
- Tableau. (2024). *Data cleaning: the Benefits and Steps to Creating and Using Clean Data*. Tableau Software. <https://www.tableau.com/learn/articles/what-is-data-cleaning>
- Taneja, S., & Ali, L. (2020). Determinants of customers' intentions towards environmentally sustainable banking: Testing the structural model. *Journal*

- of Retailing and Consumer Services*, 59, 102418.
<https://doi.org/10.1016/j.jretconser.2020.102418>
- Taylor, S. (2024, September 11). *Data Analysis*. Corporate Finance Institute.
<https://corporatefinanceinstitute.com/resources/data-science/data->
- Tebbutt, I. (2014). *Types of Data Checks*. Github.io.
<https://datadesignbook.github.io/english/DataChecks.html>
- Teo, P.-C. (2025). Exploring Digital-Only Banking in Malaysia: Technological Advancements, Regulatory Landscape, and Business Implications. *Business Management and Strategy*, 16(1), 46.
<https://doi.org/10.5296/bms.v16i1.22498>
- Teo, R. (2020, July 4). *Covid-19's push on digital banking*. Borneo Post Online.
<https://www.theborneopost.com/2020/07/05/covid-19s-push-on-digital-banking/>
- Tjiptono, F., Khan, G., Yeong, E. S., & Kunchambo, V. (2020). Generation Z in Malaysia: The Four “E” Generation. *The New Generation Z in Asia: Dynamics, Differences, Digitalisation*, 149–163.
<https://doi.org/10.1108/978-1-80043-220-820201015>
- UOB. (2022). *Why traditional banks are still relevant in the age of digital banking*. Uob.com.my. <https://www.uob.com.my/business/sme-hub/insights/traditional-banks.page>
- Victor, O. A. (2023, May). *A Review on Primary Sources of Data and Secondary Sources of Data*. ResearchGate.
https://www.researchgate.net/publication/370608670_A_Review_on_Primary_Sources_of_Data_and_Secondary_Sources_of_Data
- Vincent, R. J. S., & Ahmad, F. S. (2021). Gen-Z Effect: New Opportunities of Employee Collaboration and Knowledge Sharing on Service Innovation in Malaysia. *Journal of Advanced Research in Business and Management Studies*, 25(1), 6–16.
<https://www.akademiabaru.com/submit/index.php/arbms/article/view/4388/3224>
- Wagh, S. (2024, July 9). *Research Guides: Public Health Research Guide: Primary & Secondary Data Definitions*. Researchguides.ben.edu; Benedictine University. <https://researchguides.ben.edu/c.php?g=282050&p=4036581>
- Windasari, N. A., Kusumawati, N., Larasati, N., & Amelia, R. P. (2022). Digital-

Determinants of the Intention to Adopt a Digital Bank Among Generation Z In
Malaysia

only banking experience: Insights from gen Y and gen Z. *Journal of Innovation & Knowledge*, 7(2), 100170. Sciencedirect. <https://doi.org/10.1016/j.jik.2022.100170>

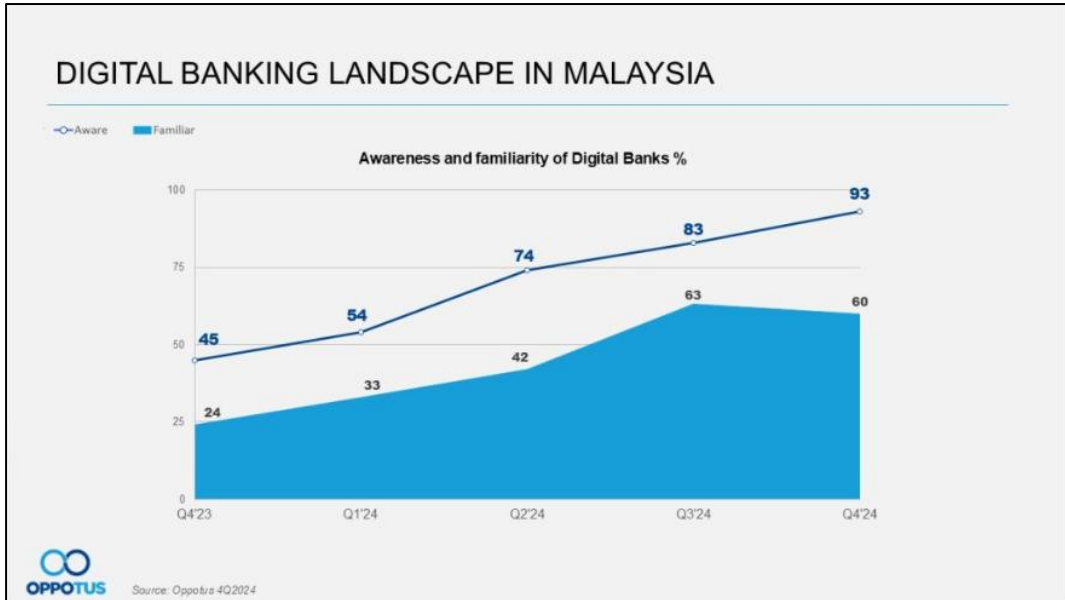
Wong , C. H., Marthyna, A., Wolor, C. W., Liang, G. T. P., & Prompanyo, M. (2024). Factors Influencing Intention to Accept Digital Banks Among Generation Z in Malaysia. *Journal of Lifestyle and SDGs Review*, 4(3), e01815–e01815. <https://doi.org/10.47172/2965-730x.sdgsreview.v4.n03.pe01815>

Yahaya, S. N., Bakar, M. H., Bakri, M. H., Jaafar, J. A., & Hishamudin, N. S. (2025). Unveiling the Digital Revolution: Assessing the Dynamic Impact of E-Banking Adoption among Generations Y and Z in Malaysia. *Journal of Ecohumanism*, 4(4), 43–56. <https://doi.org/10.62754/joe.v4i4.6703>

Zhao, H., & Khaliq, N. (2024). In quest of perceived risk determinants affecting intention to use fintech: Moderating effects of situational factors. *Technological Forecasting and Social Change*, 207, 123599–123599. <https://doi.org/10.1016/j.techfore.2024.123599>

Appendix

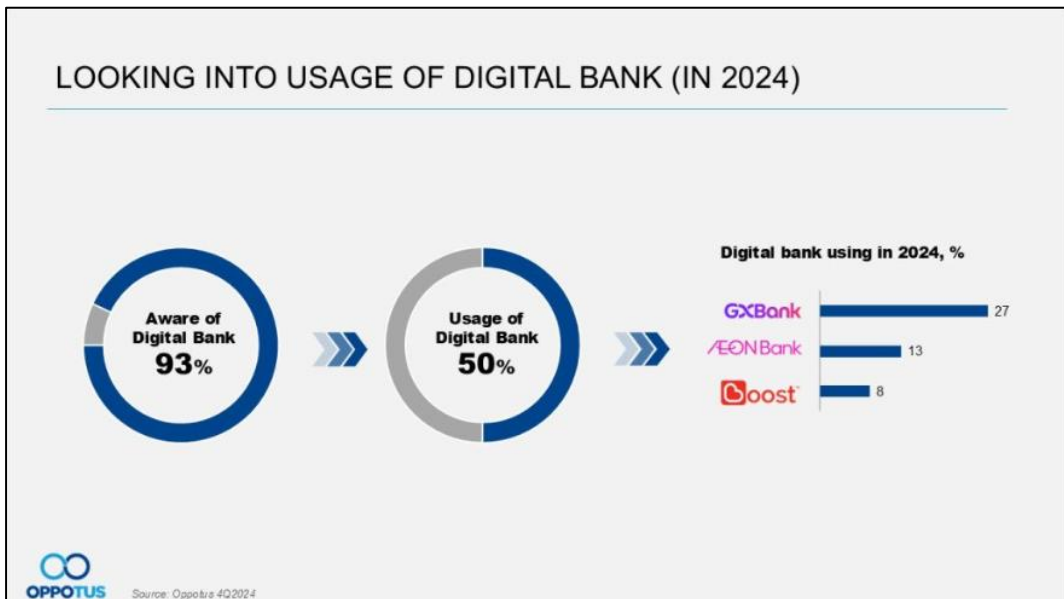
Appendix 1.1 Digital Banking Landscape in Malaysia.



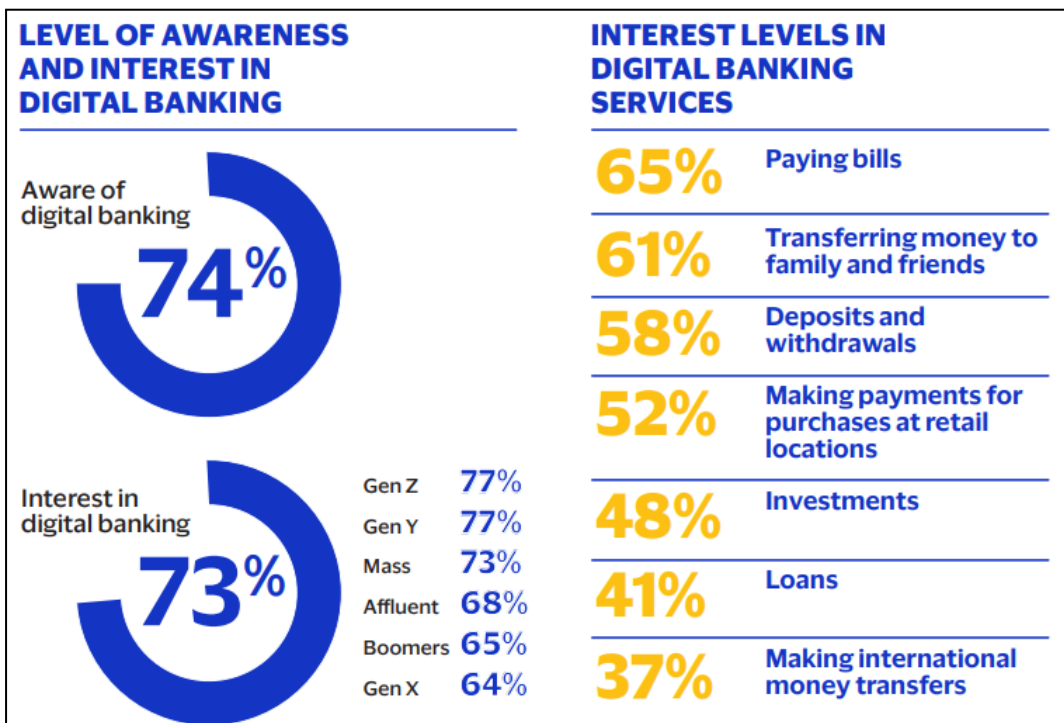
Appendix 1.2 The Category of License, Approval, or Registration in Bank Negara Malaysia. Adopted from Bank Negara Malaysia, 2022. Financial Sector Participants Directory.

| No. | Company Name | Category of License, Approval, or Registration |
|-----|---|--|
| 1 | AEON Bank (M) Berhad | <ul style="list-style-type: none"> Licensed Islamic Digital Bank Debit Card Issuer |
| 2 | Boost Bank Berhad | <ul style="list-style-type: none"> Licensed Digital Bank |
| 3 | GX Bank Berhad | <ul style="list-style-type: none"> Licensed Digital Bank Debit Card Issuer |
| 4 | KAF Digital Bank Berhad | <ul style="list-style-type: none"> Licensed Islamic Digital Bank Debit Card Issuer |
| 5 | YTL Digital Bank Berhad (Ryt Bank) | <ul style="list-style-type: none"> Licensed Digital Bank Debit Card Issuer |

Appendix 1.3 Usage of Digital Bank

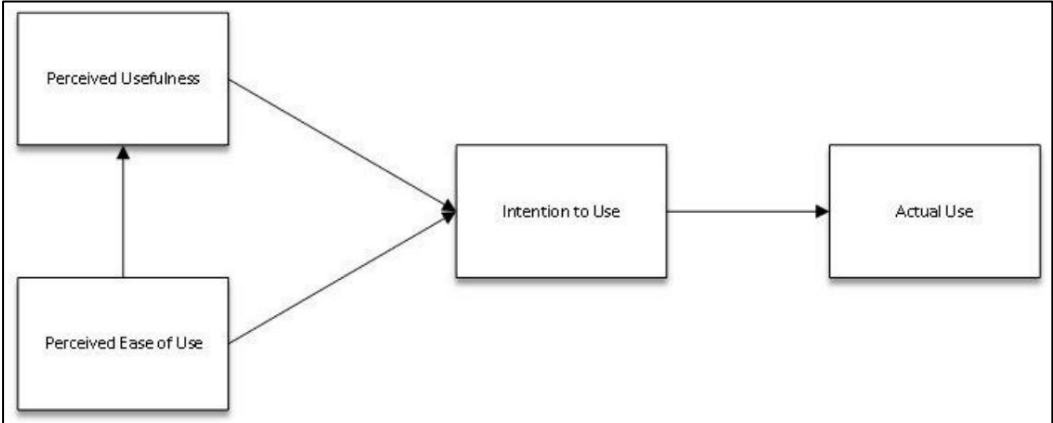


Appendix 1.4 Interest in digital banks and interest level in digital bank services

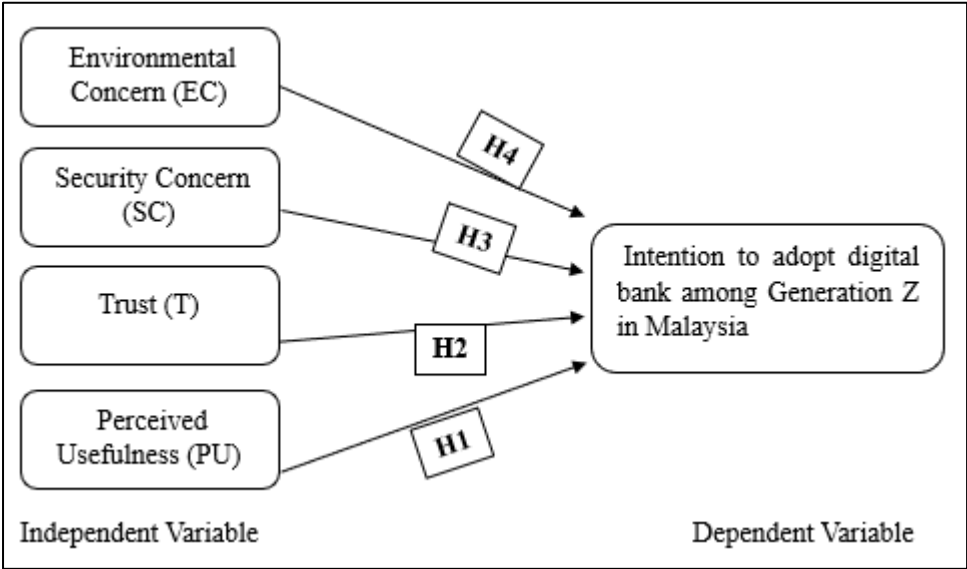


Determinants of the Intention to Adopt a Digital Bank Among Generation Z In Malaysia

Appendix 2.1 Technology Acceptance Model (TAM).



Appendix 2.2 Conceptual Framework for this study



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Appendix 3.0.1 Permission to conduct survey



UNIVERSITI TUNKU ABDUL RAHMAN DU012(A)

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Re: U/SERC/78-607/2025

6 October 2025

Dr Lim Boon Keong
Head, Department of Finance
Faculty of Accountancy and Management
Universiti Tunku Abdul Rahman
Jalan Sungai Long
Bandar Sungai Long
43000 Kajang, Selangor

Dear Dr Lim,

Ethical Approval For Research Project/Protocol

We refer to your application for ethical approval for your students' research project from Bachelor of Finance (Financial Technology) with Honours programme enrolled in course UKFN3026. We are pleased to inform you that the application has been approved under Expedited Review.

The details of the research projects are as follows:

| No. | Research Title | Student's Name | Supervisor's Name | Approval Validity |
|-----|--|------------------------|-------------------|---------------------------------|
| 1. | Exploring the Adoption of Digital Finance Among University Students in Malaysia Using the Technology | Chong Ming Fatt | Dr Agha Jahanzeb | 6 October 2025 – 5 October 2026 |
| 2. | The Impact of Buy Now Pay Later (BNPL) Services on Financial Behaviour (Delinquency Rate): A Study Based on UTAR | Khoo Jia Wen | Dr Fok Kuk Fai | |
| 3. | Exploring the Digital Finance Literacy and AI Fintech Adoption Nexus Among Malaysian Youth Using UTAUT2 | Teoh Yee Xin | Dr Agha Jahanzeb | |
| 4. | Decoding Cryptocurrency Intentions in Malaysia: A Trust-Driven TAM Model with Digital Financial Literacy as a Moderator | Chen Chloe | | |
| 5. | From Innovation to Adoption: Effects of Leveraging AI and TAM to Elevate Security, Trust, and Service Quality in Malaysia's Digital Bankin | Ho Yong Yi | Ms Ung Leng Yean | |
| 6. | The Adoption of Mobile Payment Apps Among University Students in Malaysia: The Roles of Overspending Risk, Personalization, In-App Purchase Expectation, Campus Influence, and Ease of Use | Joshua Choy Chee Foong | | |
| 7. | Determine the Intention to Adopt a Digital Bank Among Generation Z in Malaysia | Tang Ping Yee | | |
| 8. | BNPL Lead Financial Distress Among Youngsters | Vanessa a/p Siva Balan | Dr Fok Kuk Fai | |
| 9. | Drivers of Cryptocurrency Adoption in Malaysia Among Young Generation | Law Jun Khai | Dr Bui Quoc Huy | |
| 10. | Factor Influencing Consumer Intention to Adopt Biometric Authentication | Ivy Lu Zi Ying | Dr Eaw Hooi Cheng | |

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| No. | Research Title | Student's Name | Supervisor's Name | Approval Validity |
|-----|--|-----------------------|---------------------------------------|------------------------------------|
| 11. | A Study of Cybersecurity Practices on User Behavior in Malaysia's Mobile Banking Services | Lee Mei Shi | Dr Eaw Hooi Cheng | 6 October 2025 – 5 October 2026 |
| 12. | Investigating Young Adults' Perceptions of the Adoption of AI-Driven Investment Tools | Yap Ion Sze | Dr Sia Bik Kai | |
| 13. | Agentic AI Attributes in Hedonic, Utilitarian, and Systematic Processes: Trust Shaping Agentic AI Robo-Advisory User Acceptance | Lee Khai Xin | Dr Tang Kin Leong | |
| 14. | Acceptance of AI Tools in Investment Strategies: Evidence from Universiti Tunku Abdul Rahman (UTAR) | Helen Tee Xin Ye | Dr Sia Bik Kai | |
| 15. | Antecedents of Understanding the Investors Acceptance of Artificial Intelligence | Yoong Shi Qi | | |
| 16. | Trust Level of Digital Assets Among Consumer in Malaysia | Kenneth Liew Zhe Jian | Dr Ooi Bee Chen | |
| 17. | The Effect of Service Quality on Competitive Advantage: A Case Study of Starbucks and ZUS Coffee in Malaysia | Choo Yan Hua | | |
| 18. | Financial Literacy and the Money Management Behaviour Among Young Adults in Malaysia | Hiew Shan Yuan | Ms Salizatul Aizah Binti Ibrahim | |
| 19. | Cryptocurrency Adoption Behaviour Among Gen Z in Malaysia: Unified Theory of Acceptance and Use of Technology | Lim Keng Kit | Dr Agha Jahanzeb | |
| 20. | The Impact of Food Price Inflation on Household Budget Allocation in Malaysia | Foo Jia Mun | Dr Ooi Bee Chen | |
| 21. | Measuring Traditional and Digital Financial Literacy Levels Among Malaysian University Students | Jesslyn Nggui Hui Wen | Dr Bui Quoc Huy | |
| 22. | From Intention to Action: Exploring Actual Usage Behaviour of Digital Money Management Tools Among Malaysian Youth | Song Yun Ting | | |
| 23. | Factors Influencing Acceptance of Stock and Bonds: A Behavioral Perspective | Lai Yee Jun | Dr Agha Jahanzeb | |
| 24. | Financial Literacy Accessing Digital Financial Services Among University Students in Malaysia | Kimberly Ong Sue Ern | Mr Low Choon Wei | |
| 25. | The influence of Cybersecurity Awareness on Financial Fraud Prevention Among the Young Generation | Tang Xin Yi | Dr Ngooi Yee Ting | |
| 26. | Examining the Influence of Green Financial Initiatives on the Automation and Performance Growth of Malaysia's Eco-conscious SMEs | Tan Yuki | Dr Eaw Hooi Cheng | |
| 27. | The Role of Trust in Adoption of Digital Insurance Services in Malaysia | Lim Xian Ting | Pn Farida Bhanu Binti Mohamed Yousoof | |

The conduct of this research is subject to the following:

- (1) The participants' informed consent be obtained prior to the commencement of the research;
- (2) Confidentiality of participants' personal data must be maintained; and
- (3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.
- (4) Written consent be obtained from the institution(s)/company(ies) in which the physical or/and online survey will be carried out, prior to the commencement of the research.

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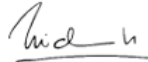


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Should the students collect personal data of participants in their studies, please have the participants sign the attached Personal Data Protection Statement for records.

Thank you.

Yours sincerely,



Professor Dr Zuraidah Abd Manaf
Chairman
UTAR Scientific and Ethical Review Committee

c.c. Dean, Faculty of Accountancy and Management
Director, Institute of Postgraduate Studies and Research

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Appendix 3.1: Survey Questionnaire

Section A: Demographic Profile

Please select the most appropriate option for each of the following:

1. Have you heard about digital banks?
 - Yes
 - No
2. What is your gender?
 - Female
 - Male
3. What is your age?
 - Under 18
 - 18 – 22
 - 23 - 28
4. What is your ethnicity?
 - Chinese
 - Indian
 - Malay
 - Others, please specify: _____
5. What is your state?
 - Johor
 - Kedah
 - Kelantan
 - Kuala Lumpur
 - Labuan
 - Malacca
 - Negeri Sembilan
 - Pahang
 - Penang
 - Perak
 - Perlis
 - Putrajaya
 - Sabah

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- Sarawak
 - Selangor
 - Terengganu
6. What is your current work status?
- Full-Time
 - Part-Time
 - Student
 - Self-employed
 - Unemployed
 - Others: _____
7. What is your income level per month?
- Do not have income
 - Below RM 1500
 - RM 1501 – RM 2500
 - RM 2501 – RM 3500
 - Above RM 3500
8. What is your education level?
- SPM
 - Foundation
 - Diploma
 - STPM
 - Bachelor's Degree
 - Others: _____
9. Have you opened an account with a digital bank?
- Yes
 - No
 - Planning to open a new account in the future
10. Which digital bank are you using currently? (You can select more than one option.)
- Aeon Bank (M) Berhad
 - Boost Bank Berhad
 - GX Bank Berhad

- KAF Digital Bank Berhad
- YTL Digital Bank Berhad (Ryt Bank)
- Not using any digital bank
- Other: _____

Section B: Dependent Variable

Please select the most appropriate option that best describes your intention to adopt digital banking services at the level from the following statement:

Level of intention to adopt digital banking services:

1 – Strongly Disagree

2 – Disagree

3 – Neutral

4 – Agree

5 – Strongly Agree

| | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|------------------------------|-----------------|----------------|--------------|---------------------------|
| 1. Intention to adopt digital bank | | | | | |
| 1.1 I would recommend the digital banking service to my friend to utilise it daily. | 1 | 2 | 3 | 4 | 5 |
| 1.2 I decided to use a digital banking application within the next 6 months. | 1 | 2 | 3 | 4 | 5 |
| 1.3 I plan to use digital banks for payment, collecting money, and accessing digital assets. | 1 | 2 | 3 | 4 | 5 |
| 1.4 I am comfortable adopting digital banking services once others have had good experiences. | 1 | 2 | 3 | 4 | 5 |
| 1.5 I am satisfied with the benefits that digital banking offers. | 1 | 2 | 3 | 4 | 5 |

Section C: Independent Variable

Please select the most appropriate option that best describes the external factors of the digital bank level from the following:

The level of external factors of the digital bank:

1 – Strongly Disagree

2 – Disagree

3 – Neutral

4 – Agree

5 – Strongly Agree

| | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|--|------------------------------|-----------------|----------------|--------------|---------------------------|
| 1. Perceived usefulness (PU) | | | | | |
| 1.1 The usefulness of a digital bank also helps me save money and time. | 1 | 2 | 3 | 4 | 5 |
| 1.2 Digital banking makes me more efficient by preventing me from queuing for long hours. | 1 | 2 | 3 | 4 | 5 |
| 1.3 I believe that the usefulness of digital banking services is simple and easy to use | 1 | 2 | 3 | 4 | 5 |
| 1.4 Digital banking makes it easier and quicker for me to complete tasks. | 1 | 2 | 3 | 4 | 5 |
| 1.5 The digital bank is useful and allows me to access various services and perform them during a public holiday. | 1 | 2 | 3 | 4 | 5 |
| 2. Trust (T) | | | | | |
| 2.1 I am confident that digital banks have a legal and technological policy to secure me from any problems that may affect the services. | 1 | 2 | 3 | 4 | 5 |
| 2.2 I am confident that digital banking is secure from hackers and scams. | 1 | 2 | 3 | 4 | 5 |

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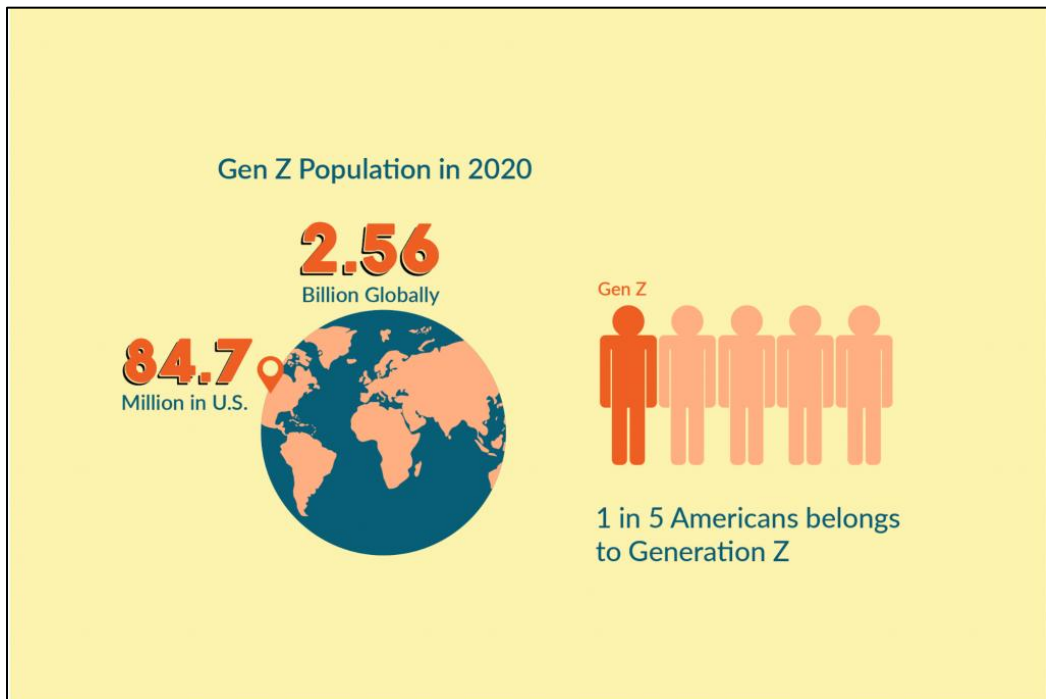
| | | | | | |
|---|---|---|---|---|---|
| 2.3 I genuinely trust digital bank services and depend on them for banking services | 1 | 2 | 3 | 4 | 5 |
| 2.4 I feel comfortable and trustworthy conducting financial services through a digital bank | 1 | 2 | 3 | 4 | 5 |
| 2.5 I trust that digital banking delivers the best advantages that customers always find. | 1 | 2 | 3 | 4 | 5 |
| 3. Security Concern (SC) | | | | | |
| 3.1 I am confident that the digital bank service will not have security issues while using it | 1 | 2 | 3 | 4 | 5 |
| 3.2 I am confident in sending sensitive information through digital banking. | 1 | 2 | 3 | 4 | 5 |
| 3.3 I am confident that Fintech services provide information that helps users reduce risk. | 1 | 2 | 3 | 4 | 5 |
| 3.4 I am confident that a digital bank will prevent unauthorised transactions. | 1 | 2 | 3 | 4 | 5 |
| 3.5 I am confident that the digital bank transaction process is trustworthy and secure. | 1 | 2 | 3 | 4 | 5 |
| 4. Environmental concern (EC) | | | | | |
| 4.1 I am aware that using environmentally sustainable services will help to minimize environmental impact, as they use less paper and energy. | 1 | 2 | 3 | 4 | 5 |
| 4.2 I am concerned that digital services have more environmental benefits, such as fewer emissions than traditional banking services. | 1 | 2 | 3 | 4 | 5 |

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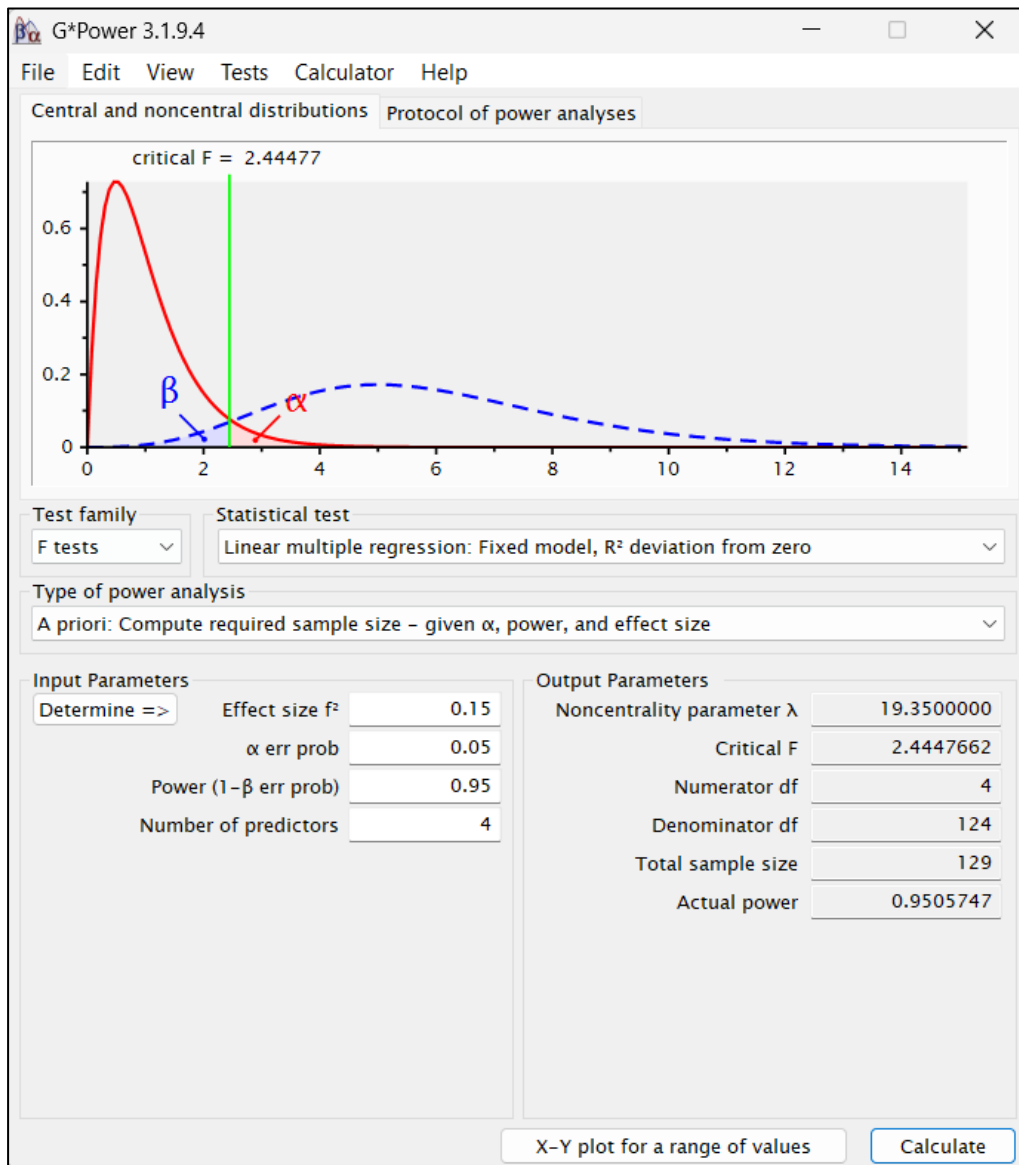
| | | | | | |
|---|---|---|---|---|---|
| 4.3 I am aware of my bank's environmentally sustainable initiatives and services. | 1 | 2 | 3 | 4 | 5 |
| 4.4 I am aware that using eco-friendly products and services is a primary way to reduce the environmental impact. | 1 | 2 | 3 | 4 | 5 |
| 4.5 I believe that digital banks are actively taking steps to implement environmentally sustainable initiatives. | 1 | 2 | 3 | 4 | 5 |

Thank you for your participation

Appendix 3.2 Generation Z's population in 2020.



Appendix 3.3 Sample Size Calculation of G*Power.



Appendix 3.4 Cronbach's Alpha Interpretations

| Reliability Level | Cronbach's Alpha Range | Interpretation |
|-------------------|------------------------|---|
| Excellent | 0.90 and above | Indicates very high internal consistency. |
| Good | 0.80 - 0.89 | Reflects strong internal consistency. |
| Acceptable | 0.70 - 0.79 | Indicates acceptable internal consistency. |
| Questionable | 0.60 - 0.69 | Reflects questionable internal consistency. |
| Poor | Below 0.60 | Indicates poor internal consistency. |

Determinants of the Intention to Adopt a Digital Bank Among Generation Z In Malaysia

Appendix 3.5 Examples of a nominal scale in a questionnaire

2. What is your gender *

Female

Male

Appendix 3.6 Examples of an ordinal scale in a questionnaire

3. What is your age? *

under 18

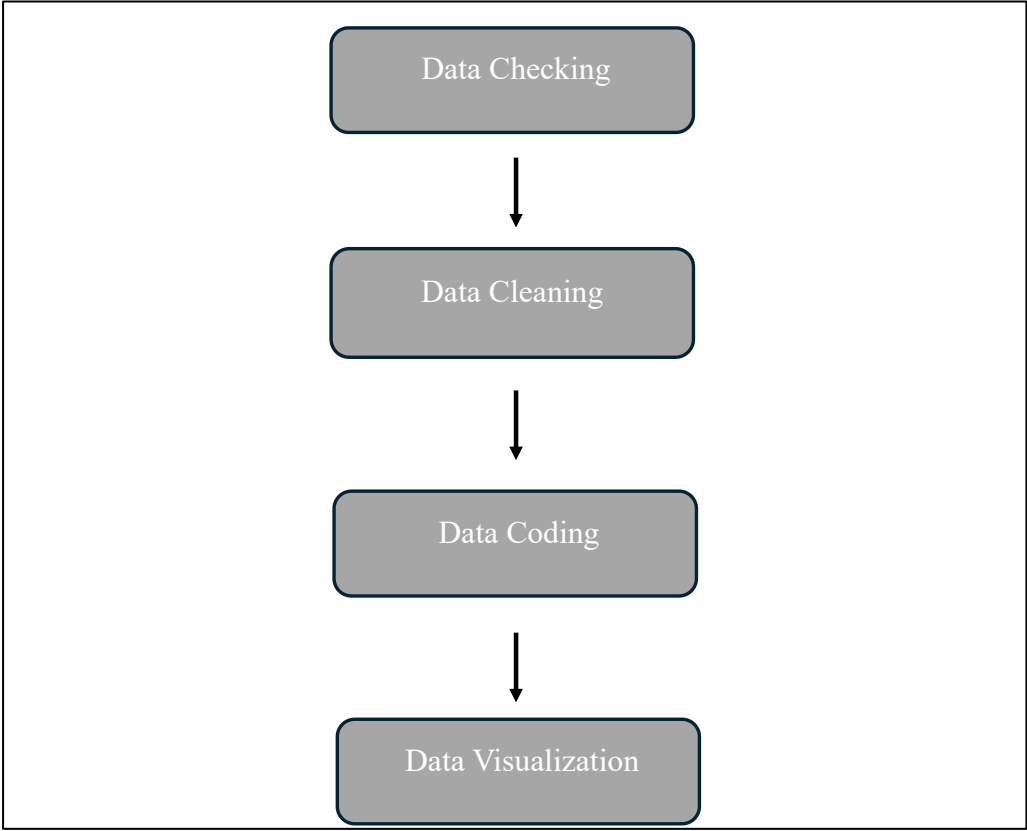
18 - 22

23 - 28

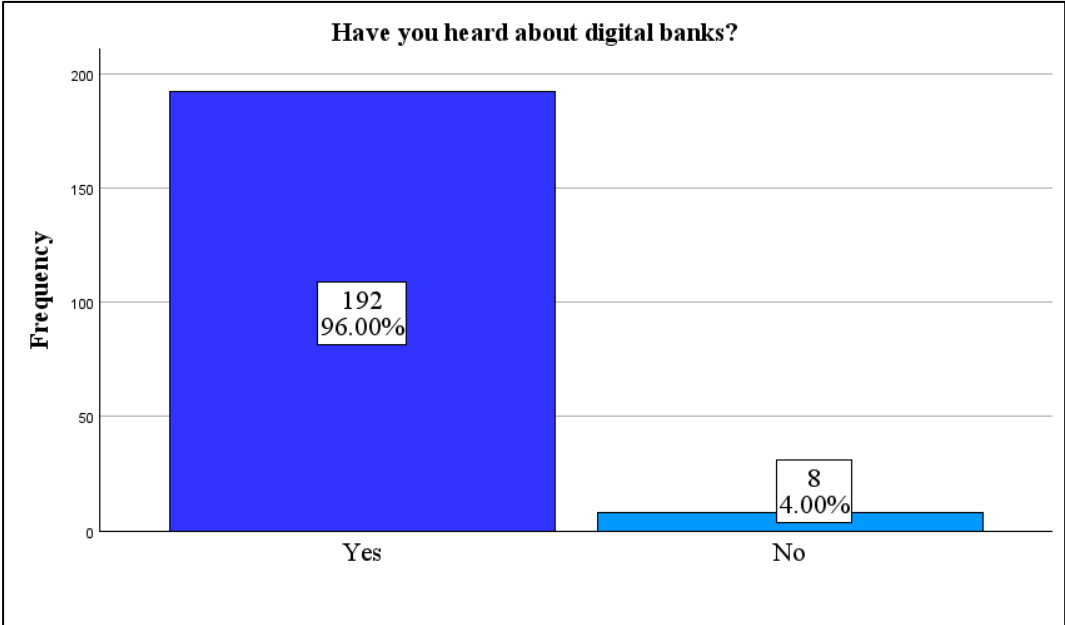
Appendix 3.7 Examples of an interval scale in a questionnaire

| | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|-------------------|----------|---------|-------|----------------|
| 1. Intention to adopt digital bank | | | | | |
| 1.1 I would recommend the digital banking service to my friend to utilise it daily. | 1 | 2 | 3 | 4 | 5 |
| 1.2 I decided to use a digital banking application within the next 6 months. | 1 | 2 | 3 | 4 | 5 |
| 1.3 I plan to use digital banks for payment, collecting money, and accessing digital assets. | 1 | 2 | 3 | 4 | 5 |
| 1.4 I am comfortable adopting digital banking services once others have had good experiences. | 1 | 2 | 3 | 4 | 5 |
| 1.5 I am satisfied with the benefits that digital banking offers. | 1 | 2 | 3 | 4 | 5 |

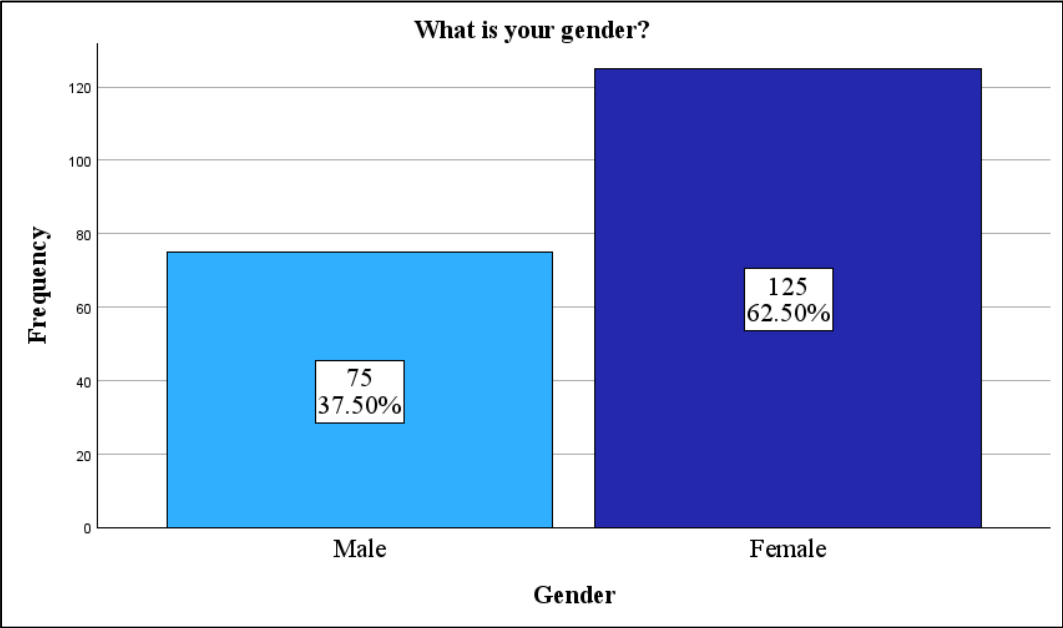
Appendix 3.8 Data Processing Procedure



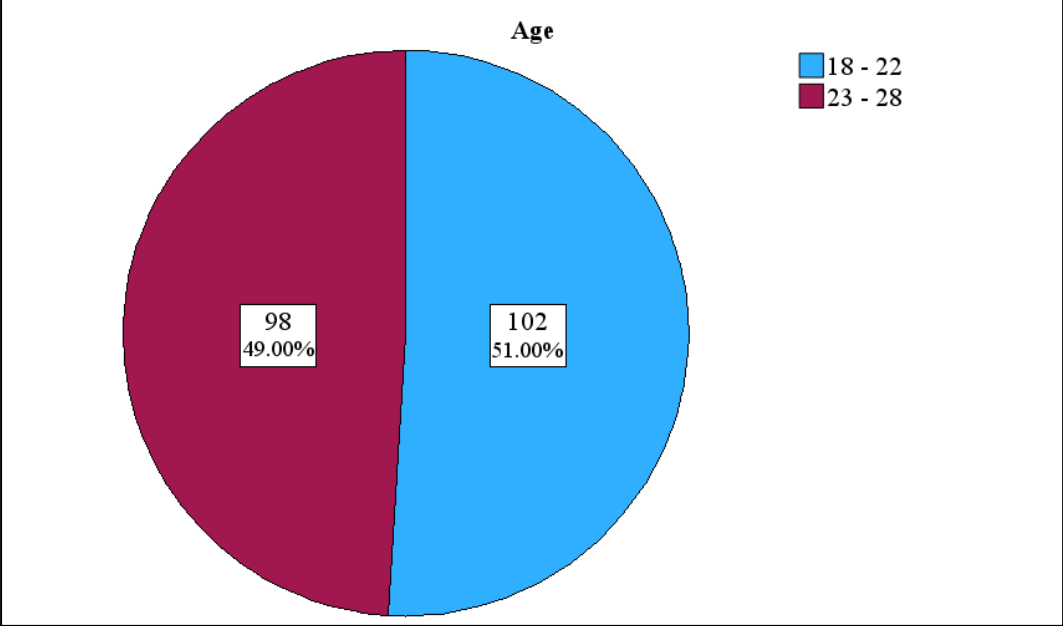
Appendix 4.1: Statistics of Respondents' Awareness of Digital Bank



Appendix 4.2: Statistics of Respondents' Gender

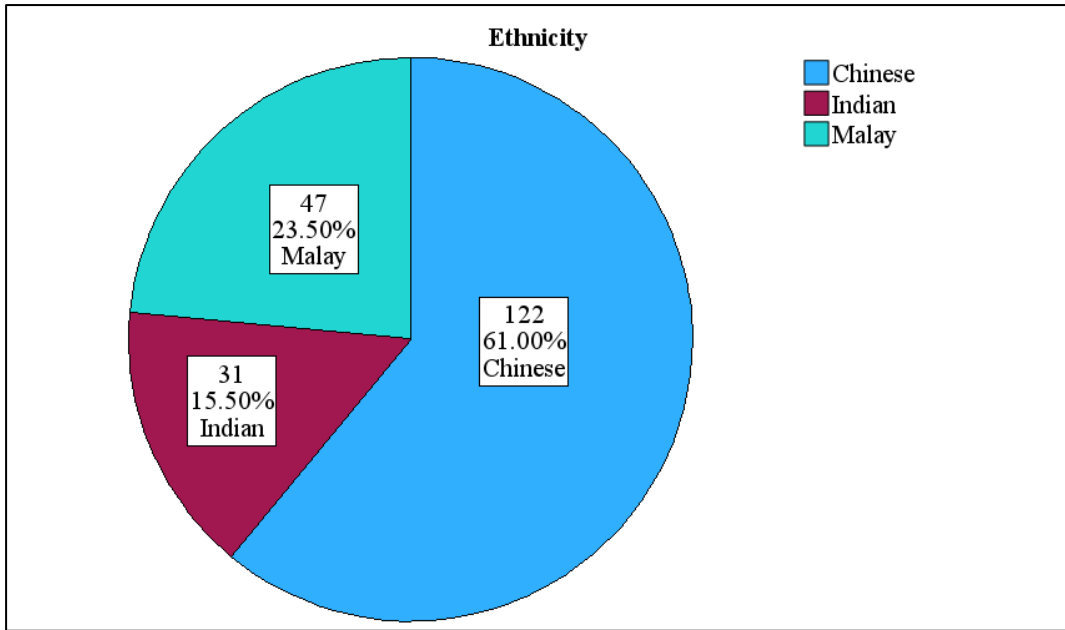


Appendix 4.3: Statistics of Respondents' Age

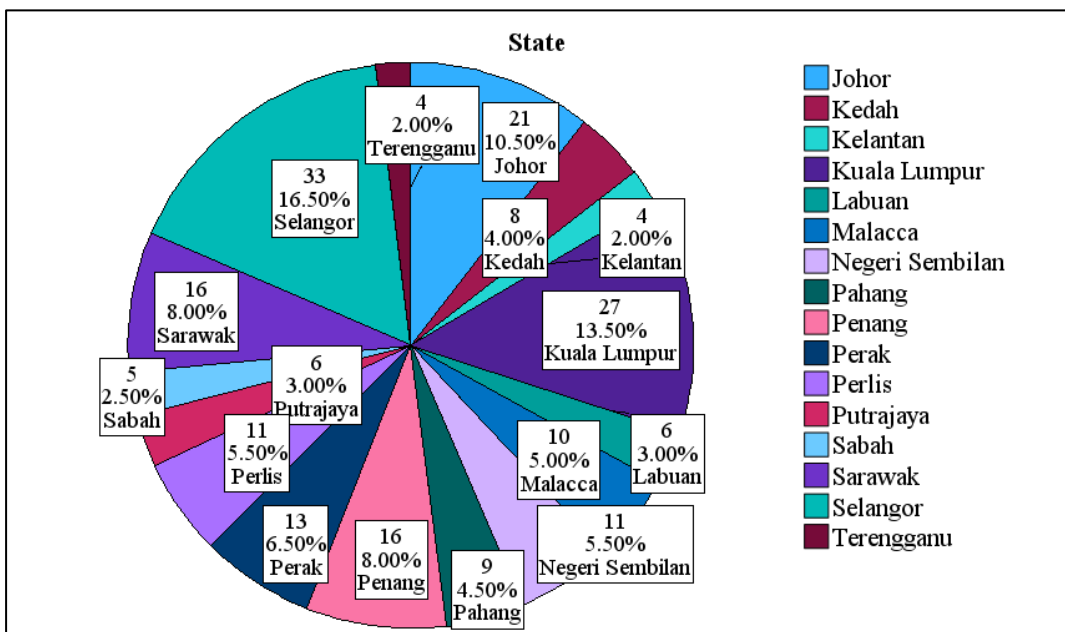


Appendix 4.4: Statistics of Respondents' Ethnicity Group

Determinants of the Intention to Adopt a Digital Bank Among Generation Z In Malaysia

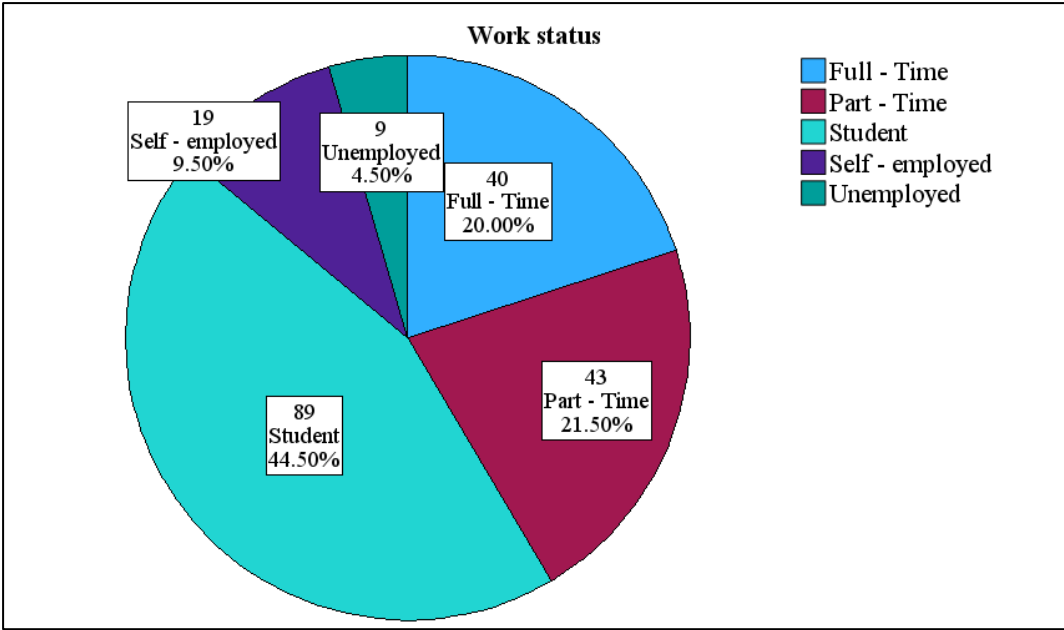


Appendix 4.5: Statistics of Respondents' State

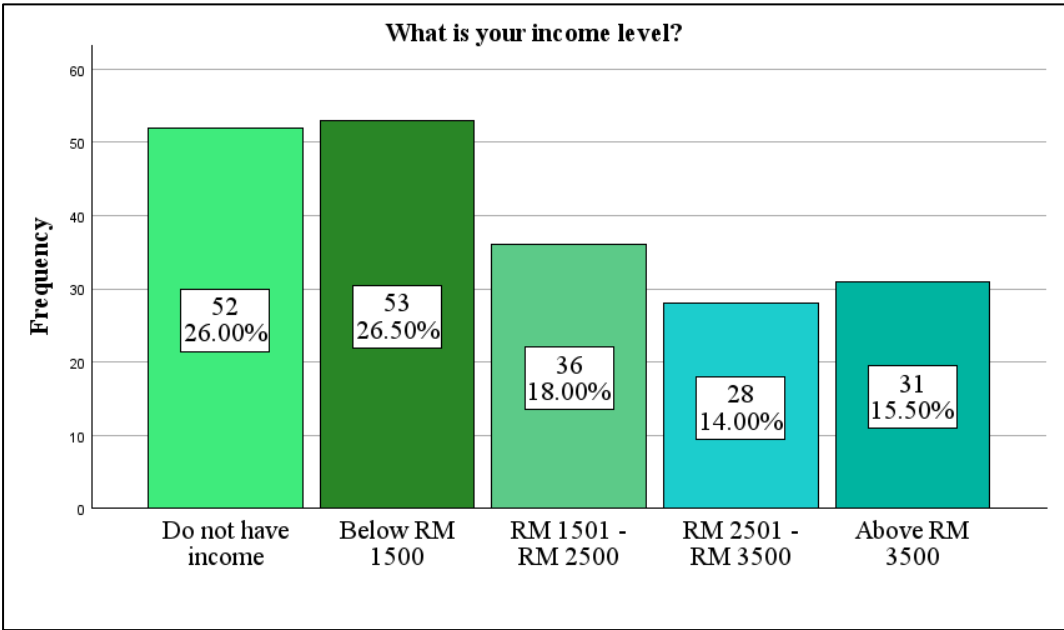


Appendix 4.6: Statistics of Respondents' Work Status

Determinants of the Intention to Adopt a Digital Bank Among Generation Z In Malaysia

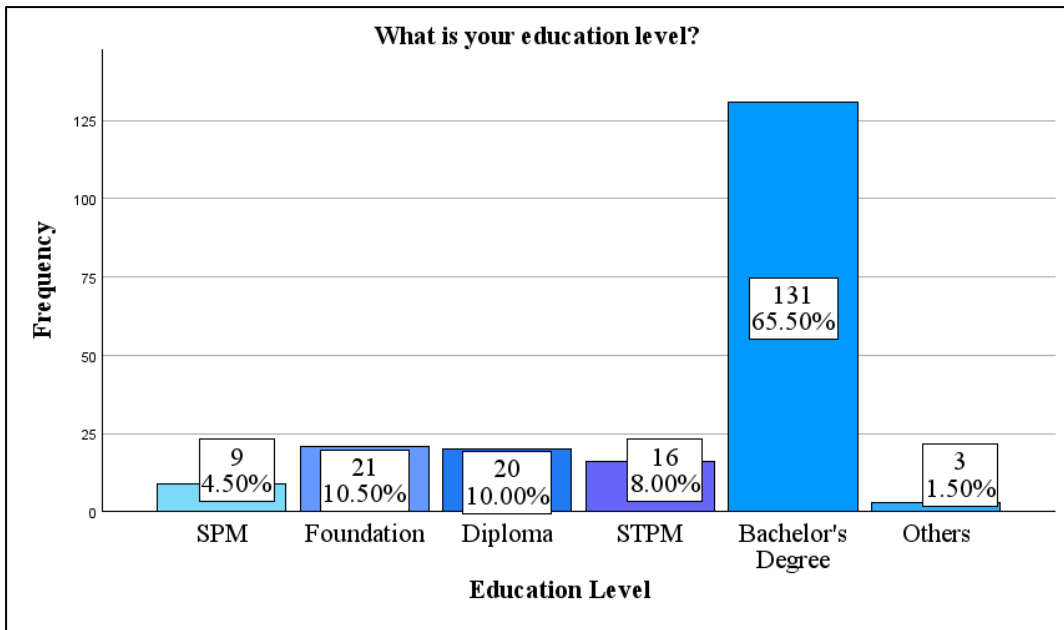


Appendix 4.7: Statistics of Respondents' Income Level

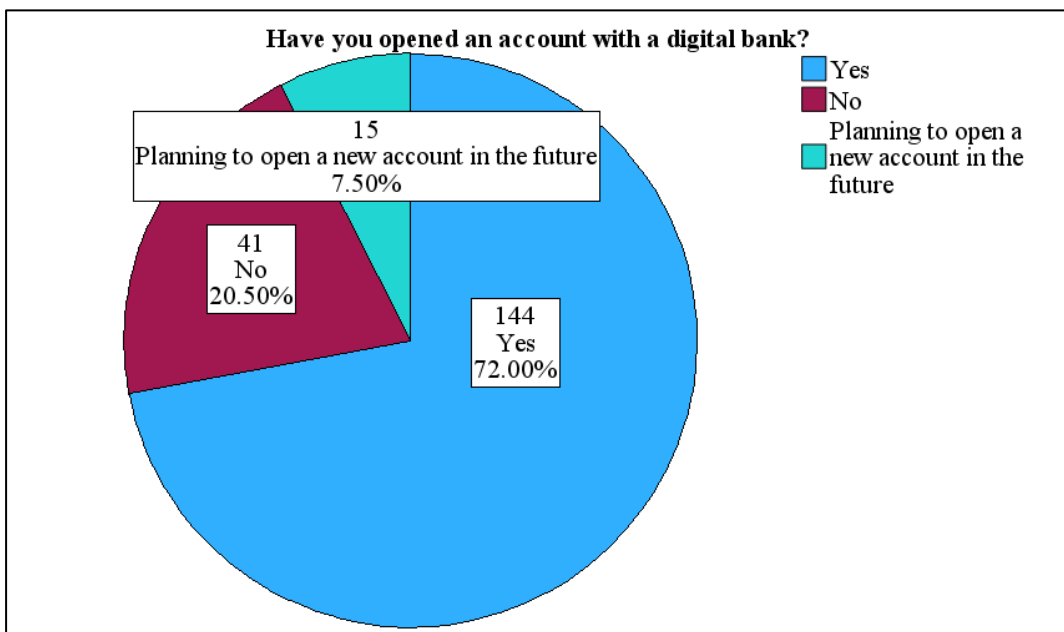


Appendix 4.8: Statistics of Respondents' Education Level

Determinants of the Intention to Adopt a Digital Bank Among Generation Z In Malaysia

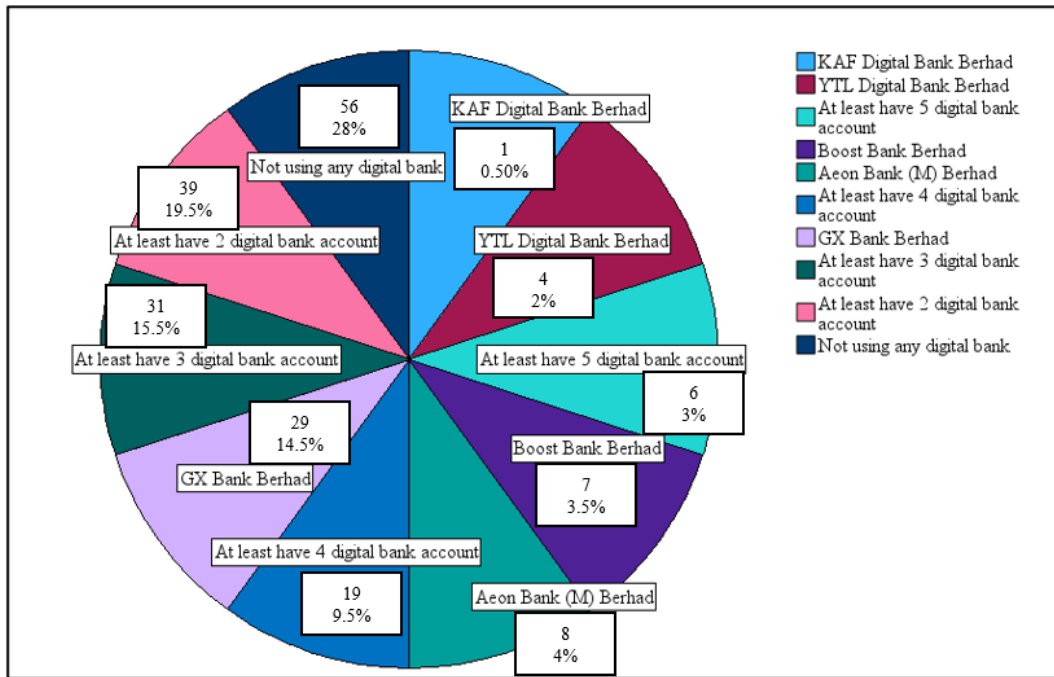


Appendix 4.9: Statistics of Respondents' Digital Bank Account Status



Appendix 4.10: Statistics of Respondents' Digital Bank Account Status

Determinants of the Intention to Adopt a Digital Bank Among Generation Z In Malaysia



Appendix 4.11: Central Tendencies Measurement of Constructs of Intention to Adopt Digital Bank

| | | Statistics | | | | |
|----------------|---------|------------|-------|-------|-------|-------|
| | | IADB1 | IADB2 | IADB3 | IADB4 | IADB5 |
| N | Valid | 200 | 200 | 200 | 200 | 200 |
| | Missing | 0 | 0 | 0 | 0 | 0 |
| Mean | | 3.90 | 3.87 | 3.85 | 3.94 | 3.96 |
| Std. Deviation | | 1.326 | 1.298 | 1.389 | 1.251 | 1.352 |

Appendix 4.12: Central Tendencies Measurement of Constructs of Perceived Usefulness

| | | Statistics | | | | |
|----------------|---------|------------|-------|-------|-------|-------|
| | | PU1 | PU2 | PU3 | PU4 | PU5 |
| N | Valid | 200 | 200 | 200 | 200 | 200 |
| | Missing | 0 | 0 | 0 | 0 | 0 |
| Mean | | 3.95 | 3.99 | 4.01 | 4.00 | 4.01 |
| Std. Deviation | | 1.243 | 1.317 | 1.242 | 1.332 | 1.218 |

Appendix 4.13: Central Tendencies Measurement of Constructs of Trust

| | | Statistics | | | | |
|----------------|---------|-------------------|-------|-------|-------|-------|
| | | T1 | T2 | T3 | T4 | T5 |
| N | Valid | 200 | 200 | 200 | 200 | 200 |
| | Missing | 0 | 0 | 0 | 0 | 0 |
| Mean | | 3.91 | 3.74 | 3.83 | 3.86 | 3.87 |
| Std. Deviation | | 1.375 | 1.250 | 1.380 | 1.234 | 1.412 |

Appendix 4.14: Central Tendencies Measurement of Constructs of Security
Concern

| | | Statistics | | | | |
|----------------|---------|-------------------|-------|-------|-------|-------|
| | | SC1 | SC2 | SC3 | SC4 | SC5 |
| N | Valid | 200 | 200 | 200 | 200 | 200 |
| | Missing | 0 | 0 | 0 | 0 | 0 |
| Mean | | 3.59 | 3.53 | 3.70 | 3.61 | 3.66 |
| Std. Deviation | | 1.418 | 1.520 | 1.375 | 1.480 | 1.362 |

Appendix 4.15: Central Tendencies Measurement of Constructs of Environmental
Concern

| | | Statistics | | | | |
|----------------|---------|-------------------|-------|-------|-------|-------|
| | | EC1 | EC2 | EC3 | EC4 | EC5 |
| N | Valid | 200 | 200 | 200 | 200 | 200 |
| | Missing | 0 | 0 | 0 | 0 | 0 |
| Mean | | 4.04 | 3.97 | 3.98 | 4.08 | 4.04 |
| Std. Deviation | | 1.381 | 1.200 | 1.324 | 1.219 | 1.337 |

Appendix 4.16: Reliability Test of The Study

Intention to adopt digital bank

| Case Processing Summary | | | |
|--------------------------------|-----------------------|-----|-------|
| | | N | % |
| Cases | Valid | 200 | 100.0 |
| | Excluded ^a | 0 | .0 |
| | Total | 200 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

| Reliability Statistics | |
|-------------------------------|------------|
| Cronbach's Alpha | N of Items |
| .969 | 5 |

Perceived usefulness

| Case Processing Summary | | | |
|--------------------------------|-----------------------|-----|-------|
| | | N | % |
| Cases | Valid | 200 | 100.0 |
| | Excluded ^a | 0 | .0 |
| | Total | 200 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

| Reliability Statistics | |
|-------------------------------|------------|
| Cronbach's Alpha | N of Items |
| .971 | 5 |

Trust

| Case Processing Summary | | | |
|--------------------------------|-----------------------|-----|-------|
| | | N | % |
| Cases | Valid | 200 | 100.0 |
| | Excluded ^a | 0 | .0 |
| | Total | 200 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

| Reliability Statistics | | |
|-------------------------------|------------|--|
| Cronbach's Alpha | N of Items | |
| .968 | 5 | |

Security concern

| Case Processing Summary | | | |
|--------------------------------|-----------------------|-----|-------|
| | | N | % |
| Cases | Valid | 200 | 100.0 |
| | Excluded ^a | 0 | .0 |
| | Total | 200 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

| Reliability Statistics | | |
|-------------------------------|------------|--|
| Cronbach's Alpha | N of Items | |
| .970 | 5 | |

Environmental concern

| Case Processing Summary | | | |
|--------------------------------|-----------------------|-----|-------|
| | | N | % |
| Cases | Valid | 200 | 100.0 |
| | Excluded ^a | 0 | .0 |
| | Total | 200 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

| Reliability Statistics | | |
|-------------------------------|------------|--|
| Cronbach's Alpha | N of Items | |
| .968 | 5 | |

Appendix 4.17: Statistics of the correlation between perceived usefulness and intention to adopt a digital bank

| Correlations | | | |
|---------------------|---------------------|--------|--------|
| | | PU | IADB |
| PU | Pearson Correlation | 1 | .826** |
| | Sig. (2-tailed) | | <.001 |
| | N | 200 | 200 |
| IADB | Pearson Correlation | .826** | 1 |
| | Sig. (2-tailed) | <.001 | |
| | N | 200 | 200 |

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

Appendix 4.18: Statistics of the correlation between trust and intention to adopt a digital bank

| Correlations | | | |
|---------------------|---------------------|--------|--------|
| | | T | IADB |
| T | Pearson Correlation | 1 | .888** |
| | Sig. (2-tailed) | | <.001 |
| | N | 200 | 200 |
| IADB | Pearson Correlation | .888** | 1 |
| | Sig. (2-tailed) | <.001 | |
| | N | 200 | 200 |

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

Appendix 4.19: Statistics of the correlation between security concern and intention to adopt a digital bank

| Correlations | | | |
|---------------------|---------------------|--------|--------|
| | | SC | IADB |
| SC | Pearson Correlation | 1 | .598** |
| | Sig. (2-tailed) | | <.001 |
| | N | 200 | 200 |
| IADB | Pearson Correlation | .598** | 1 |
| | Sig. (2-tailed) | <.001 | |
| | N | 200 | 200 |

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

Appendix 4.20: Statistics of the correlation between environmental concern and
intention to adopt a digital bank

| Correlations | | | |
|---------------------|---------------------|--------|--------|
| | | EC | IADB |
| EC | Pearson Correlation | 1 | .844** |
| | Sig. (2-tailed) | | <.001 |
| | N | 200 | 200 |
| IADB | Pearson Correlation | .844** | 1 |
| | Sig. (2-tailed) | <.001 | |
| | N | 200 | 200 |

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

Appendix 4.21: Model Summary

| Model Summary | | | | |
|----------------------|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .915 ^a | .837 | .833 | .542 |

a. Predictors: (Constant), EC, SC, PU, T

Appendix 4.22: Anova Table

| ANOVA^a | | | | | | |
|--------------------------|------------|----------------|-----|-------------|---------|--------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 292.790 | 4 | 73.198 | 249.494 | <.001 ^b |
| | Residual | 57.210 | 195 | .293 | | |
| | Total | 350.000 | 199 | | | |

a. Dependent Variable: IADB
b. Predictors: (Constant), EC, SC, PU, T

Appendix 4.23: coefficients table

| Coefficients^a | | | | | | |
|---------------------------------|------------|-----------------------------|------------|---------------------------|-------|-------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .110 | .132 | | .832 | .406 |
| | PU | .230 | .061 | .216 | 3.797 | <.001 |
| | T | .491 | .057 | .509 | 8.567 | <.001 |
| | SC | .020 | .036 | .021 | .551 | .582 |
| | EC | .220 | .057 | .229 | 3.828 | <.001 |

a. Dependent Variable: IADB