MALAYSIAN EXPECTATION TOWARDS DIGITAL BANKING

CHAMAINE SOO MIN XIN

LEW SWIT WAH

LIEW CHI YUN

LIM YUN DE

NG JIA WEN

BACHELOR OF BUSINESS ADMINISTRATION (HONOURS) BANKING AND FINANCE

UNIVERSITI TUNKU ABDUL RAHMAN

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DEPARTMENT OF BANKING AND RISK MANAGEMENT

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BY

CHAMAINE SOO MIN XIN

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LIEW CHI YUN

LIM YUN DE

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DECLARATION

We hereby declare that:

(1) This undergraduate FYP is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this FYP has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) Equal contribution has been made by each group member in completing the FYP.

(4) The word count of this research report is __28547__.

Name of Student:	Student ID:	Signature:
1.Chamaine Soo Min Xin	19ABB06059	*cha*
2.Lew Swit Wah	19ABB01677	*Lew*
3.Liew Chi Yun	19ABB06214	*Liew*
4.Lim Yun De	20ABB01448	*Lim*
5.Ng Jia Wen	19ABB03556	*Ng*

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LIST OF ABBREVIATIONS

AA	Attractiveness Alternative
AI	Artificial Intelligence
ANOVA	Analysis of Variance
AR	Augmented Reality
BNM	Bank Negara Malaysia
DB	Intention to use Digital Banking
DLT	Distributed Ledger Technologies
DS	Data security and Privacy
FCI	Financial Capability and Inclusion Demand Side
FSA	Financial Services Act 2013
GE	Government Expectations and Benefits
IBSDS	Internet Banking Service Delivery System
ICT	Communication Technology
IFSA	Islamic Financial Services Act 2013
IoT	Internet of Things
KPMG	Klynveld Peat Marwick Goerdeler
MCO	Movement Control Order
ML	Machine Learning

NFC	Near Field Communication
OBA	Online Brand Advocacy
OTP	One Time Password
PE	Perceived Ease of Use
PU	Perceived Usefulness
PV	Perceived Value
ROI	Return on Investment
SI	Social Influence
SME	Small Medium Enterprise
SPSS	Statistical Package for the Social Science
TAM	Technology Acceptance Model
UTAUT	Unified Theory of Acceptance and Use of Technology
VIF	Variance Inflation Factor
VR	Virtual Reality
βx	Slope Coefficient
$\mathcal{E}$	Error Term
$\beta 0$	Intercept

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PREFACE

In an era of rapid growth of technology, the banking and financial services landscape is undergoing profound changes. With Bank Negara Malaysia awarding five digital banking licenses, this indicates that the impending arrival of digital banks will accelerate the digitization of the Malaysian financial industry. The advent of digital banking has ushered in a new wave of possibilities, offering convenience, accessibility, and a variety of financial services at one's fingertips. In addition, the covid-19 and the need for social distancing have brought digital financial services into the spotlight. Digital financial services make social distancing possible, and transactions can be made with just a few clicks. Therefore, the emergence of digital banks may have a competitive advantage over traditional banks. While traditional and digital banks may offer similar financial products and services, the latter's digital architecture has critical advantages in speed, cost, convenience, and consumer reach. However, many factors beyond the technical realm influence the acceptance and adoption of these platforms. Therefore, this study aims to examine Malaysians' expectations towards digital banking. Lastly, this study will serve as a cornerstone for future discourse, research, and policy development to provide readers with a better understanding of Malaysians' adoption of digital banking.

ABSTRACT

Digital banking has emerged as a revolutionary force in the financial system worldwide, and Malaysia is no exception. Although digital banking has yet to be launched in Malaysia, Malaysia is on the cusp of introducing digital banking services to its citizens. The study uses the Technology Acceptance Model (TAM) to investigate the impact of perceived ease of use, usefulness, data security and privacy, government expectations and benefits, social influence, perceived value, and attractiveness of alternatives on Malaysians' expectations toward digital banking. This survey specifically targeted Malaysians aged 18 and above who use e-banking. There are 443 responders. However, only 400 sets may be utilized because 43 sets are invalid. The Statistical Package for the Social Science (SPSS) statistical software is used to analyze the collected data from the respondents, including demographic analysis, reliability test, and inferential analysis. The results show that perceived usefulness, perceived value, government expectations and benefits, social influence, and attractiveness of alternatives are the essential factors contributing towards the behavioural intention of digital banking. On the contrary, perceived ease of use and data security and privacy are unessential in the behavioural intention towards digital banking.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

This thesis aims to explore Malaysians' expectations towards digital banking by discussing the research background of digital banking from different perspectives. This study uses a problem statement to identify and explain the concerns of digital banking in Malaysia. The research objective and research questions are also stated in this study. This section also discusses the contribution of this study and the implications for the research field. Finally, this section also provides the outline of the chapter and a summary of Chapter 1.

1.1 Research Background

1.1.1 Fintech in Banking

Fintech, a combination of financial and technology, describes businesses that use technology to deliver financial services and products to consumers ("The History of Fintech", 2023). Fintech, digital natives, have revolutionised the traditional banking industry using big data, cloud computing, contextuality, personalisation, accessibility, and convenience (Kumar, Tiwari, & Zymbler, 2019). Fintech is altering how people pay, transfer money, lend, borrow, and invest and enhancing the financial consumer experience. Fintech has many possibilities as it can develop user-friendly and customisable ecosystems to their needs, motivate the development of new banking products and services, and enhance current ones. Over the past few years, the demand across all sectors for digital transformation has increased, ultimately catching up to the banking and financial services sector. Customers are broadly adopting fintech and digital banking, investors, and established institutions due to the irrevocable effects of advancing technology (Puntillo, 2021). Customers are reluctant to choose services offered by the traditional financial services sector in today's digital age. Instead, people prefer speedy and secure services, leading to fintech's popularity. With cutting-edge fintech products, banking sector functions are transformed from complicated to simpler.

Fintech evolution happened from 1866 until now, which has three phases. First, the period between roughly 1866 and 1967, referred to as Fintech 1.0, saw the financial services sector remain primarily analogue while closely connected to technology. Since 1967, the transition of the financial sector from an analogue to a digital industry has been accelerated by the development of digital technology for communications and transaction processing. At the latest, financial services had become highly globalised by 1987 and turned digital. Then, Fintech 2.0, which was from 1967, lasted until 2008. The traditional, regulated financial services sector dominated by fintech, which employed technology to deliver financial products and services.

It should be noted that the global financial crisis of 2008 catalysed Fintech 3.0's emergence, which was brought on by financial market participants switching to less capital-intensive business models adapted to meet today's market realities. The resulting rebalancing of economic conditions contributed to the growth of cutting-edge fintech startups as financial services industry participants. Hence, rapid digital transformations based on the spread of robotisation, artificial intelligence, and other advanced technologies identify the current situation of fintech (Thakor, 2020).

While traditional banking confronts a lot of tight regulations and criticisms for its cumbersome bureaucracy, fintech provides a wide range of advantages to the banking sector. First, it makes banking services accessible and affordable to everyone globally. Second, finTech businesses are facilitating people's access to the financial assistance they require by offering alternate financial services, especially for people who live in rural areas or have disabilities, new options for financial transactions and previously unavailable services (Sahay, Allmen, Lahreche, Khera, Ogawa, Bazarbash, & Beaton, 2020). Besides, fintech changes the way people interact with the bank sector. By providing convenient and user-friendly solutions, fintech makes interacting with financial institutions more straightforward. By way of illustration, the rise of mobile banking has made it possible to bank from anywhere at any time (“How FinTech Is Changing”, 2022).

Moreover, fintech offers new tools and technologies to consumers and businesses. Fintech offers seemingly limitless applications, ranging from mobile banking and insurance to cryptocurrency and investment apps, as it is transforming financial institutions' business practices as well as providing new tools and technologies for the businesses, such as offering people new ways to invest, save, and make payments more efficiently (Daley, 2022). The banking sector is supported by financial technology, enabling it to develop and function well. By centralising services on the network, cloud technologies allow access to data without requiring specialised applications to be installed on the gadget, enabling banks to offer their products anywhere in the world. As a result, big data offers personalised offers to customers based on examining heterogeneous and dynamic digital information from sources such as the internet and corporate document archival material. Next, artificial intelligence-enhanced tools are used to modify payment systems, defining the future of payments everywhere and on any device (“FinTech”, 2022). Fintech can forecast customers' future behaviour and suggest payment options with lower fees by evaluating their past transactions, spending patterns, and other actions. Besides, they call voice-activated trades an individual security and verification strategy, which is currently a significant area for development. Voice payments are becoming a realistic option as more people use smartphones for financial services. People can manage more complex activities such as making invoices, paying taxes, and obtaining loans. It can improve customer experiences, increase retention, and truly comprehend consumer shopping behaviour by merging payment solutions with other systems.

1.1.2 Digital Banking in the world

Along with the application of financial technologies such as artificial intelligence, big data, cloud computing and blockchain, the transformation of commercial banks has ushered in new opportunities and possibilities. The invisibility, transparency, and brilliance of the 4.0 era of digital banking arrive (Arsov, 2017). Looking at the general trend of the business environment, the focus of the whole business chain is constantly shifting from the supply side to the demand side, and customers are becoming more powerful than ever, making them more autonomous and digital (Schwab, 2017). Unfortunately, the customer experience provided by traditional financial institutions is far from keeping up with the ever-increasing customer expectations in the digital world. Hence, digital banking has emerged.

The concept of digital banking refers to the digitisation of all traditional banking products and services. It is a holistic ecosystem that includes the digital ecosystem used to enhance the overall banking experience, speed, accuracy and ease of use at the front and back end. Banks offer digital services, from traditional to digital banking, manual to automated processes, and offline to online transactions (Maiya, 2017). Based on the study by Ozili (2018), from the practitioner's perspective, digital banking is financial services provided through mobile devices, desktop computers, the internet, or cards connected to a reliable digital banking system. From the customer's perspective, digital banking is advantageous regarding time constraints. Customers do not need to spend time and expenses because they do not have to travel to a bank branch to carry out operational transactions (North, 2018). Additionally, the rise of digital banking has led several banks to scale back on their in-branch physical activities (Choi & Loh, 2021). Therefore, establishing digital banking has made bank customers less dependent on transactions within the bank branches.

Then, according to Kapfer (2023), China's WeZhong Bank, Ally Bank in the US and ING Group's retail division were ranked among the world's leading digital banks in 2022. In addition, Weizhong Bank, the biggest fully digital bank in China with $69 billion in assets, was named the finest digital bank in the world this year. Since its start in 2015, the company, which is tightly interwoven with the social media platform WeChat and the payment system WeChat Pay, has developed a solid financial balance sheet driven by its retail and small medium enterprise (SME) microfinance businesses. In 2021, WeChat Bank produced its best results, demonstrating growth momentum across all criteria. Furthermore, with its blockchain-open banking platform, the bank has become a super-connector for most financial institutions in China. Besides that, it is also the first bank in the world to build a large-scale, commercially viable blockchain infrastructure ecosystem that supports more than 360 million transactions per day.

Next, Ally Bank, the second-ranked digital bank globally with $173 billion in total assets, is the largest 100% digital direct bank in the United States. It has a robust balance sheet and a stable financial position, in addition to adjusting to shifting consumer preferences and the competitive environment. Since its rebranding with General Motors Acceptance in 2009, the bank has successfully moved to a comprehensive portfolio that increasingly caters to millennial

and Gen Z consumers. Then, following the outbreak, the growth of digital banking in the US has accelerated, with many users using it as their primary bank account. The global digital banking market is anticipated to develop quickly, reaching $1,400.3 billion by 2028. By 2030, the market for digital banking will be worth more than $19.2 million, expanding at a CAGR of 14.80%. After that, the top banks by country and region include Nubank of Brazil in South America, TymeBank of South Africa in Africa, Wise of the United Kingdom, Neobank of Mashreq Bank in the Middle East, and LINE BK of Thailand in Southeast Asia (“Digital Banking Size”, 2023).

Figure 1.1. Global top digital banks. Adapted from Kapfer, C. (2023). *Global top 100 digital-only banks ranking – No easy path to profitability.*

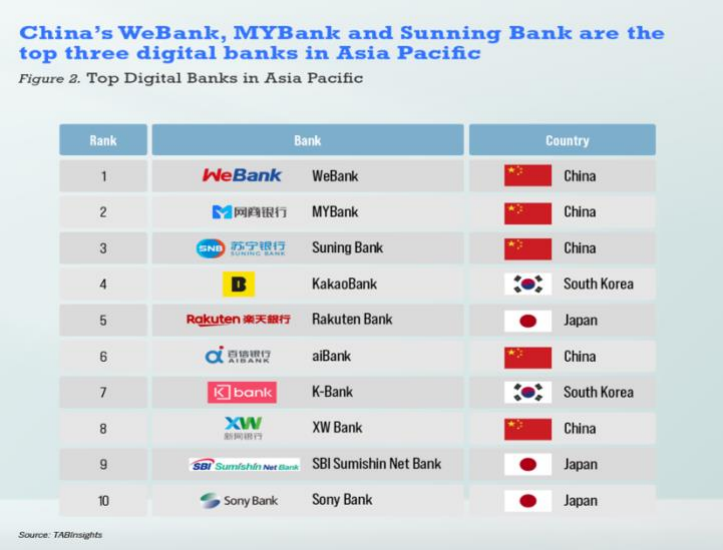

Figure 1.2. Top digital banks in Asia Pacific. Adapted from Kapfer, C. (2023). *Global top 100 digital-only banks ranking – No easy path to profitability*.

Then, as of 2021, 29 of the top 100 fully digital banks worldwide are profitable companies (Kapfer, 2023). The average Return on Investment (ROI) in this segment is 16%, with Russian bank Tinkoff leading the way with a 53% ROI and 55% of profitable banks located in Asia Pacific, making it the region with the largest share. According to Brand Finance's ranking of the top 500 global banks by brand value, these digital banks' brand worth increased 102.6% from $796 million in 2022 to $1,612 million in 2023. Thus, there is no doubt that digital banking has become known as the quintessential FinTech and a global trend (Nedelescu & Banita, 2021). The openness, invisibility and intelligence of digital banking will become the tendency to promote the in-depth development of digital banking to create a more significant financial ecosystem (Arsov, 2017).

Appendix 1.1 shows the differences between digital banking and traditional banking.

1.1.3 Malaysia Digital Banking Milestone

After the Malaysian Movement Control Order (MCO), Malaysian consumers have begun to reshape their perception of digital services (Md Yusoff, Quantaniah Jusoh, & Abu Seman,

2022). Based on Visa (2022) more than 74 percent of Malaysians are aware of digital banking, while 66 percent are interested in using such services. According to these figures, Malaysians are interested in using digital banking and other fintech services but are awaiting the development of the necessary infrastructure and technologies.

As more and more Asian countries are rolling out their versions of digital banking frameworks, Malaysia is joining them. The Bank Negara Malaysia digital banking framework, initially unveiled in March 2019 following a six-month public consultation period, is intended to start accepting applications in the middle of 2020. The Financial Services Act of 2013 (FSA) or the Islamic Financial Services Act of 2013 (IFSA) requirements, including prudential, Shariah, business conduct, consumer protection, and standards on anti-money laundering and terrorism financing, must be complied with by digital banks operating within this framework for digital banking (Visa, 2022). Then, successful applicants are currently going through operational readiness, which the national bank will validate through an audit before being allowed to start operations. This process could take 12 to 24 months.

Out of the 29 applications received, Bank Negara Malaysia (BNM) announced the five licensees for digital banking on April 29, 2022. These licensees are a consortium of RHB Bank Bhd and Boost Holdings Sdn Bhd; a consortium led by YTL Digital Capital Sdn Bhd and Sea Ltd; a consortium led by GXS Bank Pte Ltd and Kuok Brothers Sdn Bhd; a consortium led by KAF Investment Bank Sdn Bhd (Bank Negara Malaysia, 2020). In addition, Malaysia has become the fourth ASEAN country to issue digital banking licenses to potential operators, following Singapore, the Philippines and Indonesia. Furthermore, BNM Governor Nor Shamsiah pointed out that digital banking is anticipated to make progress towards financial inclusion even more rapidly. Additionally, digital banking can considerably raise societal and economic involvement by integrating more digital technologies into routine transactions.

1.1.4 Digital Banking, Online Banking, and Mobile Banking

Online banking allows financial transactions to be carried out over the internet, which can also be referred to as internet or web banking (Hammound, Bizri, & El Baba, 2018). Further explained, it is a service that allows people to start using banking services and transactions by logging into the banking system. The main difference between mobile and online banking is how users access their accounts (Garzaro, Varotto, & Pedro, 2021). Mobile banking is performed on an application using a portable smartphone or tablet. Online banking does not require the user to download any software because it can be done on any computer, laptop, smartphone, or tablet with an Internet connection. Not only that, but customers must register using a username and strong password and have a valid bank account to use both options. Therefore, depending on the customer's device, online banking also covers mobile banking.

The primary distinction between online and digital banking is that it involves digitising every programme and activity carried out by a financial institution and its clients. On the contrary, online banking concentrates on digitising the "core" elements of the banking industry (Melnychenko, Volosoyych, & Baraniuk, 2020). For example, online banking users check their account balance, pay their bills, apply for a loan or credit card, and more after logging into their account via a website or banking application. Therefore, online banking uses technology to optimise customers' banking experience when conducting transactions (Namahoot & Laohavihien, 2018).

On the other hand, "digital banking" refers to any financial transaction carried out using technology (Sardana & Singhania, 2018). Many innovative technologies are used in digital banking, such as artificial intelligence (AI), machine learning (ML), blockchain, biometrics, 5G, Internet of Things (IoT), augmented reality (AR), virtual reality (VR), and quantum computing. This means that digital banking describes the transfer of all traditional banking services to a virtual location. Due to this, it is better able to use AI and machine learning to enhance its banking systems and procedures, resulting in improved automation that creates a seamless customer experience (Wewege, J. Lee,& Thomsett, 2020).

On a security level, online banking typically ensures double authentication of the user's online banking account through the user's login credentials and OTP (One Time Password). However, security protections are more complex in digital banking transactions. It is partially due to mobile digital banking applications' handling of sensitive data. At different stages of digital banking transactions, additional biometric and password authentication levels are added (Vassilev, Phipps, Lane, Mohamed, & Naciscionis, 2020). Additionally, from the customer's point of view, digital banking offers a broader range of solutions than online banking (Jana, A.Khedkar, & C.Khedkar, 2021). Digital banking incorporates a personalised approach with tools to trace the customer journey and pinpoint essential preferences. Inevitably, this increases customer satisfaction as the accessibility of new and improved services improves. Besides that, compared to online banking, digital banking online chat support services and chatbot capabilities reduce response times to queries and simplify problem resolution even more (Gouveia, Perun, & Daradkeh, 2020).

1.2 Problem Statement

The digital banking services that Malaysians are most looking forward to are still stereotyped as "digital banking" services (“Visa’s New Findings”, 2021). It includes bill payments, transfers to family and friends, payments at commercial retailers, money transfers, deposits, and withdrawals. All these services are the automation of traditional banking services. It can be obtained using the existing online banking platforms and applications of conventional banks. Hence, this demonstrates that Malaysian public awareness of "digital banking" is still only at the "digital banking" stage. Malaysians are still unaware of the advanced digital financial services that can be offered by digital banking, such as Digital Assets, Digital Currencies, and Security Token Offerings, as well as new solutions built on cloud computing, digital platforms, distributed ledger technologies (DLT), crypto-assets, and spanning mobile payments (Agur, Peria, & Rochon, 2020).

Based on the Deloitte research paper on prerequisites for a fully digital bank, the following are essential for the success of any bank aiming to go digital. It includes the option to purchase currency, customisable standing options, analytics of customer behaviour and financial

management, and allowing the combination of accounts from various banks (Deloitte Digital, 2017). "Digital Banking" does not merely offer essential banking products and services online. It also consists of Personal or Business Financial Management tools, which help to conduct budgeting, classify expenses, to spend behavioural patterns and analysis, and aggregate accounts from various third parties. It also provides educational tools that allow customers to increase financial literacy and skills such as credit repair and monitoring ("The World's Biggest List", n.d.). Without the need for conventional brick-and-mortar locations, digital banks provide banking and financial services entirely online. Digital banks frequently use data on specific clients, enabling all banking activities to be conducted online and providing novel and readily available services that traditional banks do not. The services offered by digital banking can better cater to demographics that traditional banking excludes or underserves, such as rural people and gig workers, who might need more credit history to obtain loans or have limited access to financial services. Digital banks, unlike traditional banks, use a more extensive range of data, such as spending patterns, to generate credit scores (Koty, 2021). Digital banking is stereotyped by Malaysians, whereby the services it offers are the products and services provided by traditional banks. As a result, this perception tends to alter the degree of convenience, usefulness and the product's value.

Malaysia's DuitNow QR brings together over 30 banks, streamlining payments under Bank Negara Malaysia's Interoperable Remittance Credit Transfer framework. In South Korea, user-friendly digital banking apps accelerate nationwide digital adoption. Meanwhile, N26, operating in Europe and North America, offers comprehensive online banking services and features like savings goals, insurance, and bill splitting. These attributes enhance financial efficiency, productivity, and goal attainment, bolstering the perceived ease of use, usefulness, and value of digital banking (M. Strohm & Horton, 2023). Furthermore, the government's vision propels digital banking in Malaysia, aiming for reduced costs, strategic financial management, and data-driven solutions. Such involvement reduces risk, establishes technological standards, and encourages acceptance, fostering Malaysian confidence in government-backed digital banking support (Bank Negara Malaysia, 2022). In terms of data security, privacy safeguards usage while security prevents unauthorized access, a critical aspect considering that 87% of consumers prioritize data privacy, and 68% are wary of ethical data handling (KPMG, 2020).

In addition, the COVID-19 pandemic drives global digital banking adoption through social influence, exemplified by the utilization of QR codes for touchless transactions. Touch n Go users, for instance, gain incentives like cashback, fostering app adoption. Early and Late Majority customer segments, constituting a significant market share, are influenced by Early Adapters' opinions in decision-making ("Product Adoption Process," 2022). Alternative options abound, including e-wallets, SuperApps, and Banking Apps, each catering to distinct needs, although digital banking's novelty might retain a preference for familiar choices. Individuals' perceptions of digital banking stereotypes play a role in shaping preferences, with low alternative attractiveness preserving existing users while high attractiveness might prompt switches to other options.

1.3 Research Objective

i) To examine the effect of perceived ease of use on Malaysians' expectations towards digital banking.

ii) To examine the effect of perceived usefulness on Malaysians' expectations towards digital banking.

iii) To examine the effect of data security and privacy on Malaysians' expectations towards digital banking.

iv) To examine the effect of government expectations and benefits on Malaysians' expectations towards digital banking.

v) To examine the effect of social influence on Malaysians' expectations towards digital banking.

vi) To examine the effect of perceived value on Malaysians' expectations towards digital banking.

vii) To examine the effect of the attractiveness of alternatives on Malaysians' expectations towards digital banking.

1.4 Research Question

i) How does the perceived ease of use affect Malaysians' expectations towards digital banking?

ii) How does the perceived usefulness affect Malaysians' expectations towards digital banking?

iii) How do data security and privacy affect Malaysians' expectations towards digital banking?

iv) How do the government's expectations and benefits affect Malaysians' expectations towards digital banking?

v) How does the social influence affect Malaysians' expectations towards digital banking?

vi) How does the perceived value affect Malaysians' expectations towards digital banking?

vii) How does the attractiveness of alternatives affect Malaysians' expectations towards digital banking?

1.5 Significance of Study

Digital banking is prevalent in other countries, but not Malaysia, and its development is also in its early stages. Most Malaysians are still perplexed by the distinction between digital banking and mobile banking. Even though they provide similar services, digital banking is far more sophisticated. The study is significant for bankers because it better explains Malaysians' behaviour and expectations towards digital banking services. Bankers can also identify the market's trend and size in digital banking. Most citizens nowadays prefer easy-to-use services while also meeting their needs and desires. As such, it can serve as a blueprint for bankers to modify and ameliorate the digital bank's interface by studying perceived ease of use and perceived usefulness factors to cater towards overall customers' needs and wants.

Furthermore, the study is compelling for authorities, including the Central Bank of Malaysia. As we all know, consumers' confidence in adopting digital banking would decrease if the security risk were significant. As a result, citizens will be less likely to utilise digital banking and vice versa. Therefore, by studying Malaysians' concerns about security issues that may arise in digital banking, regulators can identify what needs to be improved when developing a more appropriate regulatory framework to protect customers from being victims of security data breaches and evolve a strong security culture in digital banking. Likewise, it is also important to investors as rapid digitalisation enables digital banking to be the future trend and is acknowledged to hasten financial inclusion, as stated by Governor Tan Sri Nor Shamsiah. Therefore, the study contributes some in-depth information to investors that enable them to gain confidence and invest in digital banking.

Moreover, it is crucial for future researchers. There is minimal information regarding digital banking in Malaysia because it has not yet been adequately developed owing to insufficient study. The findings are helpful to future researchers exploring or researching a relevant topic.

It gives further information about Malaysians' expectations of digital banking and may be served as an applicable reference for future research. Besides, it will also assist them in achieving a meaningful output and contributing to more research in the Malaysian digital banking business. It is also significant to academicians as they can explore and discover some uncertain crucial regions about digital banks through studying the research. It provides the facts that can support the academicians in guiding and enhancing their student's academic performance (Bank Negara Malaysia, 2020).

1.6 Chapter Layout

These are five chapters in this research. Chapter one will discuss the overview of the research paper, including the research background, problem statement, research objective and question, significance of the study, chapter layout, and summary.

Chapter two establishes a literature survey and a theoretical framework that includes previous researchers' perspectives that have introduced the research field. Additionally, this chapter consists of each variable's definition and information on how past ideas and concepts relate to the current project.

Chapter three includes the research design, sampling design, and data collection methods. In addition, this division exemplifies measuring constructions, the primary data processing procedure, and the data analysis methodology.

Chapter four demographic analysis of the questionnaire respondents and measures of central tendencies and dispersion. The critical components of this chapter are the reliability test results, diagnostic results, and results of multiple regression analysis.

Chapter five discusses the result and explains the managerial and theoretical implications of this study—the study's limitations, as well as suggestions for overcoming their effects.

1.7 Summary

The presence of digital banks has been rising and transforming financial services in this digitalisation era. Therefore, this research explores a review and direction for future research on Malaysian expectations of digital banking. This chapter explores broad comprehension of the background of financial technology and digital banking. The problem statement, research objectives, question, and significance of the study are also examined in this chapter. This study emphasises the significance of variables such as perceived ease of use, perceived usefulness, data security and privacy, government expectation and benefits, social influence, perceived value, and attractiveness of alternatives. More discussion on these variables will be probed in the following chapters.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Chapter two reviewed the relationship between a dependent and seven independent variables. The dependent variable is the intention to adopt digital banking. The seven independent variables are perceived ease of use, perceived usefulness, perceived value, government expectation and benefit, data security and privacy, social influence, and attractiveness of alternative. This section will review and discuss the literature, methodology, and theoretical frameworks. Lastly, hypothesis development will be developed to explore the relationship between the variables.

2.2 Review of the Literature

2.2.1 Expectation towards Digital Banking

The expectation of digital banking is based on the Malaysian consumer's continuous use of intention. This dependent variable can be used to determine if a user chooses to keep using a specific product or service after having a first encounter with it. It also determines if someone plans to conduct a particular conduct again (Amoroso & Chen, 2017). Continuous usage intention by the consumers is inherent in deliberate acts and decisions, such as through the ease of use, belief and anticipation based on experience, and an affective and emotional decision that includes satisfaction and cognitive absorption. Post-adoptive behaviour is the word used to describe continuation, which includes the purpose to continue, ongoing use, the intention to suggest, satisfaction, and loyalty (Chuah, Foo, Tan, L. Lee, & Yip, 2019). Malaysians will adopt a positive post-adoptive behaviour based on positive experiences adapting digital banking and vice versa.

Besides that, people expect perceived ease of use from digital banking. It is because the information on utilising digital banking is readily available. Moreover, the application

procedure is simple, straightforward, and comprehensive. In addition, digital banks offer greater access to funds and convenient payment options (Taufan & Yuwono, 2019).

Furthermore, the expectation of digital banking is perceived usefulness. People may save time and money by using digital banking. It is because digital banks do not have physical branches, do not impose additional fees, and do not require excessively long queues (O. Nguyen, 2020). In addition, digital banking expects to be more secure, ensuring consumers use the latest encryption technology to protect their information. Digital banks offer several security measures, including two-factor authentication and alerts if suspicious account activity. Thus, the most burdensome account security regulations are known to be found in digital banks (Taufan & Yuwono, 2019). Governmental engagement impacts people's risk-taking behaviour, value production and a sense of certainty, security, and structural quality. As a result, it increases confidence and intentions to use digital banking (Kimiagari & Baei, 2021). Digital banks anticipate that a customer's social contacts with friends, family and colleagues will impact their loyalty to any product or service (Mokhtar, Katan, & Imadadullah, 2018).

Consumers seek the most outstanding service possible from digital banks. Thus, these institutions go through a significant transition or transformation. Digital banking, which began as an app with standard transaction function, has evolved into an app with a variety of features, including opening savings and investment accounts, making cardless withdrawals, performing real-time gross settlement, redeeming points, conducting additional transactions, and so on (Mufarih, Jayadi, & Sugandi, 2020).

2.2.2 Perceived Ease of Use

Perceived ease of use is one of the constituents in the Technology Acceptance Model that postulates one's behavioural motive in using a system (Samuel, Onasanya, & Olumorin, 2018). Just as its name implies, ease of use denotes the extent to which people believe the technology is simple (Priyatma, 2022). Islami, Asdar, and Baumassepe clarified it in the same year, saying that individuals can use the system effortlessly and will not experience any aggravation. In other words, ease of use can be specified as how simple it is to get started with the services (Salihu, Metin, Hajrizi, & Ahmeti, 2019). In the Unified Theory of Acceptance and Use of Technology (UTAUT) model, effort expectancy can also be defined as perceived ease of use, and they use the same concept that influences people's behavioural intentions when using

technology (A.Ali & Arshad, 2018; Sair & R. Danish, 2018). Thus, the more one perceives that a technology system is easy to use, the more certain one will increase their interest in using it (Islami, Asdar, & Baumassepe, 2021). According to Jasin, perceived ease of use is frequently related to "convenience." A system that is easier to operate is highly associated with convenience. Individuals will be more willing to interact with a payment system if it is convenient to use (Jasin, 2022). Therefore, perceived ease of use is one of the crucial elements that scholars always use to affirm one's belief in using technology. The study conducted by Banu, Mohamed and Parayitam (2019) showed that ease of use is one of the critical influences on technology adoption in India. Karim, Haque, Ulfy, M.Hossain and Anis (2020) and Aisha and Rakesh (2022) found that hassle-free and effortless transactions have increased the satisfaction of using digital banking. On the other hand, complicated and time-consuming procedures discourage people from using e-banking services (Anouze & Alamro, 2020).

Referring to the study conducted by Tugade, Reyes, and Nartea (2021), the findings have shown that digital banking, which is easy to use, plays a significant role in determining people's behavioural intentions in using digital banking. Two hundred twenty-six respondents in the Philippines found that perceived ease of use positively affects the willingness of consumers to use a digital-only bank. The study shows that one's capability in using technology will influence them in using the technology. It also confirms the analysis of Alnemer (2022). The research has exploited the 2017 Global Financial Inclusion Survey data, in which 1009 respondents and 51.5% were from Saudi Arabia. Since Saudi consumers will accept digital banking if they believe it is not complex and user-friendly, this has proven that perceived ease of use positively influences the adoption of digital banking. The problems resulting from inefficient features and sophisticated financial transaction processes will discourage customers from using e-banking services (Anouze & Alamro, 2020). Perceived ease of use is thus identified as one of the main determinants of using a digital-only bank.

Besides, as reported by Windasari, Kusumaati, Larasati and Amelia (2022), digital banking is a rising trend, and its perceived ease of use tends to minimise human error when using technology. People will be willing to use digital banking if the application (app) is easy to navigate and straightforward. Four hundred two respondents who own a digital bank account in Indonesia further stated that they prefer brief instructions rather than spending additional effort learning the apps' functions that may confuse them. A technology feature influences one’s evaluative judgements and will affect an individual positively if one believes the

technology is easy to use. It has been proven that perceived ease of use will lead an individual to try new things (S. Ahmad, Bhatti, & Hwang, 2020). Thus, the perceived ease of use significantly affects the motivation to use digital banking. This fact has been reinforced by the study conducted by Musyaffi, Johari, Rosnidah, Respari, Wolof and Yusuf (2022), as the respondents prefer the transaction to be simple and prompt. The findings were also consistent with the study conducted by Owusu, Bekoe, AddoYobo and Otieku (2020), which claimed that mobile banking apps should be operated easily and utilised with minimal mistakes to encourage people to use them.

In a similar field on e-wallets, perceived ease of use is described as the acceptance of technology that is easy to use and will simplify one's exercise. Consumers expect to grasp new technology skills as they want fast and convenient transactions. Still, consumer scepticism towards a digital wallet that might be challenging to use has restrained them from using it. If the application is easy to learn and use, it will motivate them to try it and increase their willingness to use the digital wallet (Wardana, Saputro, Wahyuddin, & Abas, 2022). Wardana et al. (2022) examined 225 respondents in Surakarta in this study. The findings also hold a positive relationship between perceived ease of use and the intention to use a digital wallet.

On the other hand, other researchers claimed that perceived ease of use was not a robust predictor of people using e-wallets. Nowadays, more and more people, mainly Generation Z, are exposed to digitalisation technology and spend a significant amount of time online. They are also more likely to accept new technology. Hence, ease of use is no longer a concern due to people's familiarity with using an e-wallet. Marketers are encouraged to develop a facile digital banking system as Generation Z, which is slowly entering the labour pool, will have immense buying power and aims for quick transactions (Mustafa, Singh, & N. Ahmad, 2022).

Additionally, even though more than one previous study has highlighted the significance of perceived ease of use towards digital banking, the research conducted by Mufarih et al. (2020) also held contradictory findings. In this case, the author surveyed 300 Bank Rakyat Indonesia customers and found that perceived ease of use has an insignificant effect on behavioural intentions towards adopting digital banking. In detail, this is because the respondents think that digital banking application has become necessary. Hence, the impression of its simplicity of use no longer influences their behaviour towards the application, in line with the previous study conducted by A.Ali, R.Danish and Baig (2022), which found that effort expectancy, which is

similar to perceived ease of use, has an insignificant relationship to the adoption of digital banking. This result differs from expectations, as it only shows that customers will only use digital banking when they feel it is beneficial, which is not our goal. In conclusion, the review has proven that perceived ease of use is essential in influencing one's decision to adopt digital banking. However, there may be some inconsistent results as some studies are being conducted in Malaysia, where digital banking has not yet been fully developed.

2.2.3 Perceived Usefulness

Perceived usefulness is the degree of confidence that individuals believe using a particular information system will improve their productivity and performance (Shiau, Yuan, Pu, Ray, & Chen, 2020). According to Tahar, Riyadh, Sofyani and Purnomo (2020), using new technology can increase a user's perceived usefulness since the user's potential psychology subjectively agrees that using the latest technology can help them improve efficiency in work and life. In the context of digital banking, perceived usefulness refers to the perception of whether using a banking system will increase or enhance the customer's productivity. Customers have good sentiments towards services when they find them useful, increasing their willingness to use them (Fortes & Rita, 2016). From the perspective of both the customer and the bank, the experience gained through digital banking services will influence the redesign of the back end of banking through optimisation and digitisation (Omarini, 2017). Hence, digital banking provides a wealth of information that can be used to facilitate banking services at the client's convenience.

The global banking sector has exponentially adopted digital technology in the past ten years. Many studies have examined the elements affecting how people use digital banking services. In Alnemer's research (2022), 144 countries were surveyed using the 2017 Global Inclusive Fintech Index database. The survey was designed to understand how people access and use financial institutions and products worldwide. The Global Inclusion Index, including banking holdings, payments, savings, credit, digital banking, digital technology, and fintech security, cover more than 200 indicators on topics relevant to inclusive financing. Then, based on the study's findings, perceived usefulness has a positive and significant impact on the adoption of digital banking in the Kingdom of Saudi Arabia and exhibits a significant marginal effect (Alnemer, 2022). Moreover, this indicates that Saudi customers perceive digital banking as

more convenient than traditional banking and provides better overall service, thus increasing their willingness to use customer services.

Next, the procedure is connected to the internet through the internet since digital banking is a technology-based platform for information exchange and transaction execution between banks and their customers (Tsai & Su, 2021). This process is accomplished through digital devices connected to computer software in the Internet environment. Furthermore, it is also evident from O. Nguyen's study (2020) that perceived usability positively impacts Vietnamese consumers' intention to adopt digital banking. It is because banks can leverage technology advancements to improve the usability of their services and concentrate on promoting the development of their digital banking services. Not only that, but consumers are becoming increasingly aware of the benefits of digital services over counter transactions, including time savings and various services. Therefore, it highlights the requirement for the digital transformation of modern financial services (O. Nguyen, 2020). Besides that, using digital banking services increases customer satisfaction by allowing them to use more value-added services and reducing the technical errors they may encounter when conducting other traditional transactions (Mbama, Ezepue, Alboul & Beer, 2018). Furthermore, positive experiences over time significantly affect user satisfaction and subsequent usage (Rahi, Ghani, & Ngah, 2020). Raza, Umer, Qureshu and Dahri (2020) found that high satisfaction levels are associated with a higher willingness to continue utilising better services. Thus, satisfaction mediates between perceived value and continued use expectations.

In addition, through an online survey of 850 potential users selected from past usage and experience of the fintech technology service, Singh, Sahni and Kovid (2020) found that perceived usefulness is a key factor that positively influences the intention to use the fintech technology service. It is because the fintech service providers put more emphasis on enhanced interface functions to reduce task redundancy, faster information availability and fewer service intervention requirements to improve user experience. Not only that, but fintech companies provide customers with more financial service options than customers can only access through traditional banking models before (Chen, Li, Wu, & Luo, 2017). In this regard, N. Nguyen, Tapanainen and H. Nguyen’s research (2022) demonstrate that perceived usefulness (PU) positively affects the willingness to use fintech services. It implies that access to fintech technology services will significantly enhance the calibre of financial services. As such, these technological advancements have the potential to dramatically impact traditional banking

models in the highly regulated financial services industry to deliver a differentiated customer experience and boost the customer's willingness to use (I.Lee & Shin, 2018).

Finally, perceived usefulness is also considered a perceived relative benefit (Munoz-Leiva, Climent-Climent, & Liebana-Cabanillas, 2017). In some cases, perceived usefulness is also considered a comparative advantage and is regarded as "the way it is perceived to be 'better' than its predecessor" (Alalwan, Baabdullah, Rana, Tamilmani, & Dwivedi, 2018). In Pertiwi, Suprapto and Pratama's study (2020), a survey of 216 Gen Y found that perceived usefulness had a positive and significant effect on the intention to use e-wallets. It is because e-wallet users can carry small amounts of cash. They only need a smartphone with an appropriate balance in the e-wallet to make transactions. Thus, generation Y views e-wallet as a very beneficial transaction payment and is highly willing to utilise it instead of conventional cash payments (Pertiwi et al., 2020). The findings from this research are consistent with those of several earlier studies, including those by Camilleri (2019); Susanto, Chang, and Ha (2016); Upadhyay and Jahanyan (2016). In summary, perceived usefulness is essential for increasing the intention to use digital banking, fintech services, and e-wallets.

2.2.4 Data Security and Privacy

Security is a crucial element of any system for handling transactional data (Rath & A.Kumar, 2021) and is the likelihood that the personal and financial information given to digital-only banks may be utilised improperly or disclosed (Saif, Hussin, Husin, Alwadain, & A. Chakraborty, 2022). Privacy concerns act as a subclass of security vulnerabilities (Jain & Sarupia, 2019) and concentrate on the impermissible use of personal information (M.Kumar & Gupta, 2020). According to Rath & A. Kumar (2021), privacy concern means a person's freedom to govern their knowledge and the secrecy of their personal information. Thus, the user's decision to divulge private information is influenced by issues related to digital privacy concerns (Lappeman, Marlie, Johnson, & Poggenpoel, 2022). Besides, according to Aboobucker and Bao (2018), data privacy and security concerns lead to significant dissatisfaction and limit the adoption of e-banking applications (I.Ahmad, Iqbal, Jamil, & Kamran, 2021). The primary threat to e-banking is the Trojan Horse, in which the criminals exploit the customers' insufficient security knowledge to cause substantial losses. Besides,

malware is the second-most severe threat, while phishing and password cracking are among the top 10 lists.

In this digitalisation world, today's digital banking provides convenience. However, even though it is beneficial, people still have certain reservations about mobile banking due to the rising security issues (Apau & Lallie, 2022). When dealing with digital banking, the most concerning issue is the data security and privacy risks people face due to cybercrime, as the degree to which people use the internet and electronic devices is enormous (Apau & Lallie, 2022; Nayak, Singh, & Dave, 2021). There is a distinction between perceived security and the issues, as perceived security indicates the extent to which individuals believe online transactions are secure. Therefore, there is a positive relationship in the context of perceived security towards adopting digital banking. However, data security and privacy concerns contrast with the adoption of digital banking (Zhang, Luximon, & Song, 2019). It is because of the high perceived security impetus in using the system, as the users felt that digital banking is secure. Suppose the users are more convinced that digital banking offers increased security for their products and services. They will feel safe and believe they will be protected from that threat when performing a transaction online, and the user will be less concerned about the security and privacy matter.

Besides, digital banking does not directly interact with people when dealing with financial activities. Individuals must disclose their data via the internet when using internet banking (Lin, Wang, & Hung, 2020), and some of them believe that bankers will maintain the confidentiality of customers' personal information. However, there are some cases in which bankers have leaked customers' data (Rath & A.Kumar, 2021). Pew Research Centre has disclosed that 79% of Americans say they are not confident that the company will admit the mistake of data breaches (Auxier, Rainie, Anderson, Perrin, M. Kumar, & Turner, 2019). Data breaches and hacking will eventually discourage people from using digital transactions (Johri & S. Kumar, 2023). Besides, it is often linked with "trust," as any activities such as data breaches or fraud will eventually lower customers' trust towards the bank and make them less likely to use its services or products**.** It was proven that having higher security and privacy concerns would eventually lead to lower trust in online activities.

Based on J. Lee and Kim's (2020) findings found that there are inverse relationships between security and privacy issues with the adoption of internet-only banks. They surveyed a 672-

person sample from South Korea and found that a security system full of loopholes may intimidate customers' transactions (J. Lee & Kim, 2020). The study shows that it negatively affects the motive for internet-only banks. The issues will not only impede one in adopting internet-only banks but will also obstruct them even after using them if one finds out hidden security and privacy issues. It is obvious that individuals are not willing to use services or products from the bank if there are risks inside that may cause their money or security to disappear. In short, the higher the security and privacy concerns, the lower the adoption of internet-only banking. Moreover, security issues have been said to have a significant impact when it comes to using digital banking, and even though there is a higher affinity for using digital banking services after the pandemic outbreak, people are still aware of the security concern (Ramaswamy, Khande, Patil, & Kalkar, 2021). Consumers with higher self-consciousness will only adopt e-banking when they feel secure, especially regarding information privacy and criminality.

Conversely, the scholars (Saif et al., 2022) suggest that security concerns had no impact on adopting digital-only banks. It is mainly due to Malaysia having fewer security concerns as the risks of digital banking have been mitigated by the daily usage of internet transactions (J. Lee & Kim, 2020), which contrasts with the study of Yousuf and Shanyu (2021). Another survey by Lusaya and Kalumba (2018), which investigated 50 respondents from the banking sector in Kasama, found that security has no relationship to the adoption of e-banking services due to the customer's expectation of security guarantees on their account by the banker. They believe that their performance is safe because the banker protects it. Thus, security and data privacy issues are no concern for them, as they believe there will be no losses as the bank secures their account. In addition, 384 respondents in Klang Valley, Malaysia, were also probed, and it was found that there is only a weak relationship between intention to use and security and privacy concerns (Izni, Zainordin, Lu, Ng, & Annuar, 2022).

Consequently, although digital banking is developing worldwide, it is more prevalent among younger generations, as youth are inquisitive and enjoy trying new things (Windasari et al., 2022). Generalisation in the research is also limited as older generations, like those 55 or older, are reluctant to use digital banking services as they feel insecure due to a lack of knowledge about them (Apau & Lallie, 2022). Thus, the older generations are not ready to disclose their data online (Veena & Janarthananpillai, 2022). Furthermore, little research has been done on older people (those over 45), which may impact the findings. Thus, it is highly encouraged to

investigate the elderly (aged 45 years and older) to understand their attitudes toward mobile banking applications (Apau & Lallie, 2022). Digital banks continue to reinforce and develop their systems, as digital banking is said to be the next revolution.

2.2.5 Government Expectation and Benefit

Government support reflects the belief that the government entirely supports e-wallet usage to minimise physical contact between consumers and merchants. New electronic commerce applications, like internet transactions, are more likely to be adopted by potential users with government support since it makes them credible and feasible (S.Hossain, Bao, Hasan, & Islam, 2020). Ajmal and Yasin (2012, as cited in Kimiagari and Baei, 2021) stated that government support is also expressed as technical infrastructure. The adoption of specific rules simplifies the procedure of technology acceptance.

S.Hossain et al. (2020) highlighted that the government of Bangladesh has initiated multiple programmes and given a massive budget to prioritise the usage of Information and Communication Technology (ICT) to achieve digital Bangladesh's vision for 2021. As a result, digitalised banking is one of the top industries on the government's priority list for achieving sustainable development goals. Furthermore, Rahman's study (2012, as cited in S.Hossain et al., 2020) also indicated that the government's support is a crucial factor in the growth of online banking in Bangladesh. Aside from this, Tan and Teo's study (2020, as cited in S.Hossain et al., 2020) discovered in their research on Online Brand Advocacy (OBA) in Singapore that government support considerably affected consumer perceptions about online banking acceptance.

In the study of Hu, Ding, Li, Chen and Yang (2019), government support plays a critical role in fostering fintech adoption. As the government has high credibility, it can enhance the believability and dependability of products and services by increasing public awareness of using advanced technologies in financial innovation and committing to infrastructure projects such as communication network construction, making Fintech services more appealing to potential customers. Furthermore, Kiwanuka's study (2015, as cited in Hu et al., 2019) revealed that government support has a beneficial impact on technological adoption and intention to use

repeatedly. Thus, there is a relationship between government support towards financial technology.

In a further study, it is found that there is study conducted by Jaruwachirathanakul and Fink (2005) highlighted the government support related to internet banking adoptions in online businesses. It can take the form of government backing for operating internet business, as indicated by the Thai government's goal to promote electronic commerce. According to Kimiagari and Baei (2021), the collaboration between governmental and financial organisations can affect people's feelings and perspectives towards financial services. As a robust party that assists the bank, the government may persuade people that the bank is indeed very safe and that financial procedures are carried out ethically and sufficiently. Therefore, when customers perceive adequate government support, they could be more receptive to using e-wallets. According to the results presented in this research, government support significantly impacts actual e-banking usage.

A. Ojo, Fahwehinmi, O. Ojo, Arasanmi and Tan (2022) mentioned that government and industrial support are essential to internet banking adoption. It is because they can assure potential participants that internet banking happens in an organised and well-managed environment. To enhance user trust, government support for e-wallet services could include legislation, access speed, and security guarantees. Customers might be more willing to use e-wallets if they experience significant government support. According to Chen (2020, Ojo et al., 2022), government support could significantly influence intention by raising users' desire to adopt e-wallet services.

2.2.6 Social Influence

Social influence is the change in a person's opinions or behaviours due to the beliefs or actions of another person or group (Telzer, Van Hoorn, Rogers, & Do, 2018). K.Patel and J.Patel (2018) stated that social influence power is the amount to which an individual believes that others see their usage of new technology as necessary or that they satisfy their expectations. Hence, people interact in social contexts and are influenced by how their friends and family perceive the new technology. S.Singh et al. (2020) also show that social influence has a significantly higher impact on disruptive innovation because it is assumed that a person

consults their social circle about new technology and will be impacted by the information they supply. Hence, people place more weight on other people's opinions and impressions about the characteristics of the technology when they lack personal experience (S.Singh et al., 2020). In addition, the actions, statements, and attitudes of influential peers, friends, and family about the use of technology are essential. As a result, customers are more likely to adopt fintech technology services when they observe other members of society doing so (Belanche, Casalo, & Falvian, 2019).

In the context of digital banking adoption, social influence refers to the extent to which other people whom banking customers consider important believe they should accept and use digital banking services (Patel & Patel, 2018). Then, in Shahid, Islam, Malik and Hasan's (2022) study, 473 Indian respondents who regularly use mobile banking services found that social influence strongly influenced the intention to use mobile banking apps positively. It indicates that among Indian customers who like to associate personal choices with others, the views and opinions of others seem to be more prominent. Social influence and other perceived benefits help users engage in mobile banking. Thus, the experiences of their peers or family members may have an impact on their own (Shahid et al., 2022). Moreover, H. Hassan and Wood (2020) also indicate that consumers' social interactions are mutually influential, so banks should try to persuade relevant other people and well-known people in the community, as they can convince other customers to embrace mobile banking.

Next, de Blanes Sebastián, Antonovica, and Guede's (2023) research also show that social influences significantly affect users' intentions related to family values, co-workers, and behavioural expectations. In a study of 334 mobile payment platform users, social influences significantly affect behavioural intentions on mobile payment platforms. It is due to many routine use and social interactions associated with money manipulation and exchange, even daily transactions. Mobile payment is also a frequent and usual choice among the many payment choices offered (de Blanes Sebastián et al., 2023). In addition, Nur and Panggabean (2021) also stated that users of mobile payment platforms share positive experiences with them among friends and acquaintances, creating a favourable environment for each segment's use. Further, according to some researchers, social influence is the primary element influencing the use of mobile payment platforms, which means that social influence makes it easier for new services and technologies to be adopted (Marpaung, Dewi, Grace, Sudirman, & Sugiat, 2021; Migliore, Wagner, Cechella, & Liebana-Cabanillas, 2022; Nur & Panggabean, 2021).

Most studies have confirmed positive social influence intentions for mobile payment platforms. Intarot and Beokhaimook's study (2018) stated that the social influence power of e-wallet users in Thailand did not affect intentions. WeChat, for instance, serves as both a messenger and an electronic wallet in China. Therefore, they are integrated into the electronic wallet and Messenger application. WeChat has a social impact on Chinese people by encouraging them to transfer/pay directly from their messengers (Lisha, Goh, Yifan, & Rasli, 2017). Furthermore, WeChat has become a network community where users can chat and post in the real world. Intarot and Beokhaimook (2018) also indicate that it spreads quickly when a group of people believe in and are interested in something. However, Thailand's e-wallet is independent of any social network, in contrast to China, which may be why the social influence variant does not affect people's acceptance of and use of e-wallets. Thus, Thailand's adoption of electronic wallets has lagged behind the country's mobile and internet banking adoption.

Last, Lien, Doan, and Bui's (2020) study discovered a positive relationship between social influence and willingness to use fintech services. Customers are more likely to utilise a service if one observes their neighbours (e.g., relatives, friends, or co-workers) utilising it (Kizilcec, Parikh, & Bisaga, 2016). It is relevant to the reality in Vietnam, as people tend to be very conscious of others in society. Therefore, to increase the willingness of customers to use fintech technology services, banks need to focus on service characteristics such as availability and ease of use. Hence, this further validates that social influence may significantly influence willing users to use the service (Lien et al., 2020). In summary, social influences are essential for increasing the intention to use mobile banking, mobile payment platform and e-wallet.

2.2.7 Perceived Value

Value is a variable that can account for individual consumer behaviours and is used as a criterion for consumer cognitive and behavioural processes. Consumers prefer products and services that exemplify their worth or value (Ahn & Lee, 2019). Consumers' perceptions of the benefits they will receive from purchasing and using a product are perceived value (Wang, N. Nguyen, Jiang, H.Nguyen, & Saleem, 2023). In other words, perceived value, as defined by Ahn and S.Lee (2019); Kapoor, Sindwani, Goel and Shankar (2022); Karjaluoto, Shaikh, Saarijarvi and Saraniemi (2019); R.Kumar, Sachan and R.Kumar (2020); Ling, Teo, Ho and

Choo(2020) is referred to as the global evaluation of the consumer of a product's or services' quality based on their perception of what is being given and received. Shaw and Sergueeva (2019) summarised perceived value as the trade-off of "what I get for what I give" by the consumers' based qualitative study conducted, which emphasises that the product must possess good quality for the price paid and sacrifices made. This study also states that the dimension of perceived value has been decomposed into "get" and "give", as the upsides are the quality, convenience, and characteristics; the downsides are the effort and price. Perceived value also represents the aggregation of benefits that the customer is seeking, hoping for, or undergoing, as well as any unintended consequences that may arise (Karjaluoto et al., 2019).

Furthermore, S. Chakraborty and Mitra (2018) refer to perceived value as the trade-off between what customers perceive as benefits, such as service quality and the amount of money, time, and effort expended in receiving the service. Sacrifice is another term for perceived value, which is defined as the consumer's overall assessment of the utility of a product (or service) based on perceptions of what is received and what is given (Pham, Tran, Misra, Maskeliunas, & Damasecivius, 2018). The sacrifice includes monetary and non-monetary opportunity costs, known as behavioural price, which is the time and effort spent purchasing and using products and services (Pham et al., 2018). In a virtual environment, perceived value has proven to be an essential predictor of consumers' emotions and behaviour (Wang et al., 2023).

Ahn and S. Lee's (2019) study demonstrates that perceived value positively influences the behavioural intention of Internet-Only bank service. The study comprises college students in their 20s majoring in business administration in Seoul and Daejeon in Korea, who are familiar with IT services and are interested in internet-only banks. This study shows that perceived value's economic, convenience and emotional value increases usage intention. Convenience value is crucial in determining whether internet-only banking services are accepted. The ease of usage in the convenience value ultimately increases customers' intention to use services by helping them recognise their usefulness.

Additionally, Internet-Only bank service does not need physical branches or to hire staffs which eventually lowers the cost and, in turn, provides high-interest rates and low lending rates, which is the most significant advantage of internet-only banks. Hence, this finding suggests that managing and developing perceived value is a crucial marketing strategy and that perceived value is an attractive factor in using internet-only banks. The study by Alwi, Salleh,

Alpandi, Yaacob and Abdullah (2021) conducted on 200 respondents from Malaysia, Maldives, United Kingdom, India, Bangladesh, and others mentioned a favourable relationship between the rewards and the intention to use e-wallets as a higher reward system attracts more consumers. The findings by Alwi align with the study (Hsiao, 2020).

The study by Putri, Praswati, Muna and Sari (2022) reveals that perceived value significantly positively affects adopting e-wallets. The population in Surakarta, Indonesia, with a sample of 150 owners, responded that digital wallet benefits their business. The perceived value has been increased because the owners believed that payments using digital wallets allow a business to be more productive and efficient. This study also demonstrates that the e-Finance transformation level correlates with how much the business owner believes fintech can benefit the company. Therefore, that perceived value can improve business performance. The wide adaptation of digital wallets is mainly due to its highly competitive technological advancement nature, the government's encouragement to adopt a cashless society and the changes in the trend of consumer payment. However, the stability of the internet, the coverage area, and the system installation are the main issues in Indonesia.

Additionally, Muchardie, Gunawan and Lestari (2021) stated that the perceived value, personal enjoyment, personal innovation, switching cost and habit positively and significantly influence the continuance intention of Indonesian Generation X, Y, and Z in using an e-wallet. Habit is the most vital factor in Gen Z, followed by Y and X. Different generations were born and raised in different eras. Gen Z was born in the age of new technology, which made them tech-savvy and accustomed to using mobile wallets as the habit of using e-wallets is quickly adopted; Gen Y accepts new technology faster than Gen X as this generation is experienced the most technological changes; Gen X is the most reluctant generation on newly innovate brand names and technological advancements. This study is in line with the research result implemented in China, whereby perceived value, personal innovativeness and habit are the factors that influence consumers to adopt e-wallets (Amoroso & Chen, 2017). According to the study conducted by Sentanu, Sagala, Marjuki and Gunadi (2020) on respondents aged 20 to 30, 67% of the respondents who have never encountered any problem using e-wallet services evidenced that acceptance of e-wallets has a positive relationship with the perceived benefit. Consumers believe one will be able to minimise the negative utility and maximise the positive utility, such as ease in conducting transactions using mobile payment. Next, Amoroso and Chen (2017) stated that Chinese consumers greatly emphasise perceived value. Loyalty was also an indicator of perceived value. The results showed that maintaining the status quo while allowing Chinese

consumers to enjoy using their current apps is a powerful force for satisfaction. With paths from perceived value, habit, and perceived enjoyment, there was a significant variance in satisfaction that could be explained. It can be explained by the fact that Chinese consumers heavily rely on user reviews to determine perceived value. Ratings were discovered to be one of the most valuable inputs for figuring out perceived value (Amoroso & Chen, 2017).

According to the study conducted by Ling et al. (2020) with the targeted population of mobile phone users in Malaysia, perceived value is found to have a significant positive relationship with adoption intention. Higher perceived value translates into a stronger desire to adopt an electronic wallet, suggesting that this desire is motivated by its intrinsic rewards and extrinsic advantages. It includes various consumer benefits such as cash discounts, app download cash rewards and coupon codes. It is consistent with social psychology and psychology literature research, which found that intrinsic and extrinsic rewards could strengthen perceived benefits (Kapoor et al., 2022). Furthermore, Cha, Cheng, Cheu, and Fan (2021) mentioned that the perceived value of cashless payment positively affects the use intention whereby when the costs are agreeable and acceptable to the consumers, the likelihood of adaptation of the e-wallet increases. It is similar to the study proposed by Wang et al. (2023) conducted in the top 10 supermarkets in Ho Chi Minh City and Bien Hoa City, the two largest cities in South Vietnam, whereby consumers' perceived value of cashless payment positively influences the use of intention with psychological safety and trust propensity as the mediating role. A cashless society helps in physical distancing during covid-19 when shopping in retail stores. Consumers with high trust propensity have higher perceived value as they believe in the reliability, quality, and ability of cashless payment.

Karjaluoto et al. (2019) conducted a study on Finnish proved that the perceived value of mobile financial services apps yields strong positive effects on consumers' overall satisfaction and commitment towards the bank. Perceived value in this study includes utilitarian and hedonic values. It states that utilitarian value is the primary driver of overall satisfaction, whereas hedonic value strongly indicates consumers' commitment to using the product. S. Chakraborty & Mitra's (2018) findings on the respondents in Kolkata, Mumbai, and Bangalore in India show that perceived value positively influences consumers' attitudes towards e-wallet services. Consumers consider the various promotional offers such as cash back, free recharge, and other benefits digital wallet companies provide before using e-wallet services. In addition, Mbama et al. (2018) proposed that perceived value affects digital banking experiences, satisfaction,

and loyalty. Digital banking satisfies customers' needs and impacts profitability. Customers receive value-added services, save finances and time, and have a better overall experience. Hence, perceived value positively affects customer experience, in which customer loyalty and satisfaction positively affect the overall financial performance. This study is based on the result collected from the population of senior UK bank managers with at least 2 to 20 years of banking experience.

Next, Kapoor et al. (2022) conducted a study in India on the population of age above 18 familiars with mobile wallets using perceived value as a mediator. This finding revealed that perceived value mediates the relationship between antecedents and adoption intention as users benefit from mobile wallets. It is more effective and efficient than other electronic payment systems while reducing time spent and mental effort (Chawla & Joshi, 2020; P. Kaur, Dhir, Bodhi, T. Singh, & Almotairi, 2020). The study conducted by M.Kumar and Gupta (2020) on the Indian population, which has a minimum of six months of internet banking experience, states that the relationship between the internet banking service delivery system (IBSDS) process and customer satisfaction, as well as the relationship between customer satisfaction and behavioural intention, is moderated by perceived value. If customers perceive more excellent value from online banking services, they may be more content with the basic level of quality offered. Therefore, despite the service delivery process' perceived quality being lower, a high level of satisfaction can still be attained due to the perceived value. Compared to low-satisfied customers with high perceived value, low-satisfied customers with low perceived value will have a lower behavioural intention to continue using Internet banking. The findings suggest that even if consumers are dissatisfied with Internet banking, they will continue to use it if the perceived value is high. Chresentia and Suharto (2020) stated a positive relationship between price value and the adoption of e-wallet because consumers in Indonesia believes that the product has a reasonable price that offers a good value for money. It shows that customers will sacrifice expenses to use the e-wallet product. As perceived value positively influences the intention to use the e-wallet, companies should create marketing strategies that are centred on the user's holistic and internal mechanisms to provide meaning and elicit a response to the value prepositions of mobile payment, or even the brand that promotes the mobile payments (Liébana et al., 2020).

However, the study conducted by Abidin, Rivera, Maarop and N.Hassan (2017) stated that price value does not have a significant influence on behavioural intention because it is possible

that because most respondents were non-users, they had no idea what tools they might need to use mobile payments. Furthermore, it is because the population of this study targets adult Filipinos that do not have any registered bank accounts. As most of the empirical findings show a positively significant relationship between the perceived value and intention to use, inconsistent results state the opposite. It is mainly due to the different characteristics and number of respondents from other countries; some are developed, and some are urban areas that might bring inconsistent results.

2.2.8 Attractiveness of Alternative

The study of Liao, Lin, Luo and Chea (2017) states the meaning of the attractiveness of alternatives, which refers to the consumers' views about the viability of attractive competing alternatives in the marketplace. According to Cheng (2009, as cited in Sun et al., 2017), users are more inclined to move to an alternative service if they view its critical qualities as superior.

According to S. Chakraborty and Mitra's (2018) study conducted in India, with various respondents from educational institutions, offices, shops, and households. Regression analysis showed that the attractiveness of alternatives significantly impacts adopting the intention for e-wallets in India. However, a study by Yu and Chen (2022) conducted in Taiwan showed that the attractiveness of alternatives does not significantly affect consumers' intentions to convert from cash to digital payments. These might lead to risks and uncertainties while using mobile financial transactions, including safety and privacy concerns. The study pointed out that today's consumers are significantly more concerned about financial fraud and losing sensitive mobile payment data. In this study, the attractiveness of alternatives was believed to explore customers' intention to use Near Field Communication (NFC) mobile payments.

The attraction of mobile payment over cash can be seen in its accessibility, convenience, and quickness based on Porath's study (2017, as cited in Loh et al., 2020). These mobile-based traits highlight the attractiveness of alternatives, creating pull factors that drive users to move to mobile payment. In an analysis of Pham and Ho (2015), it studied the attractiveness of alternatives to analyse the intention to embrace NFC mobile payments. As a response, consumers examine more than just product-related considerations. However, they additionally compare several payment options before selecting one as their preference in the decision-

making process. Therefore, this study revealed that alternative attractiveness positively impacts the adoption of NFC mobile payment.

2.3 Review of Methodology Framework

2.3.1 Multiple linear regression

Linear regression analysis most frequently takes the form of multiple linear regression. As a predictive study, multiple linear regression describes the relationship between one dependent variable and two or more independent variables (Etemadi & Khashei, 2021). This method was also used by Chan, Chia, Loh, & Tong (2021); Chew, Parveen Kaur, Siew, Y.Tan and H.Tan (2021); Ding, Har, See, Teoh and Wong (2020) to explore Malaysia's expectations toward Digital Banking. The study used the R square and adjusted the R square to assess the goodness of fit of their model. This study also can determine the mean significance by applying the F statistic or p-value when utilising the Analysis of Variance (ANOVA). Through the analysis, one can figure out the exact number of dependent variables that change when an independent variable changes by one unit.

2.3.2 Factor analysis

According to Ding et al. (2020), factor analysis is a statistical method used to analyse the interrelationships among a large set of observed variables and identify the underlying factors that explain their common variance. The method involves extracting the elements that best represent the underlying structure of the observed variables based on their correlations. The identified factors can help reduce the data's complexity and reveal patterns that are not readily apparent from the independent variables. Factor analysis is widely used in social sciences and marketing research to uncover the latent dimensions underlying complex data sets, such as personality traits, attitudes, consumer preferences, and market segmentation.

2.3.3 Descriptive analysis

According to Chooi, Loh, S. Tan, Tang and Yu (2021), descriptive analysis is a statistical method used to describe and summarise data meaningfully. It involves examining and interpreting the features and characteristics of a dataset, such as the distribution, central tendency, variability, and relationships between variables. Descriptive analysis aims to comprehensively understand the data using various statistical measures and graphical tools, such as frequency tables, histograms, scatterplots, and summary statistics. The analysis can be performed on numerical and categorical data and can be used to identify patterns, outliers, and trends. Descriptive analysis is an essential first step in data analysis, as it provides a foundation for further statistical inference and modelling.

2.3.4 Partial least square

According to Pirouz (2016), partial least square is a method to create predictive models when the components are many and strongly collinear. It is important to note that the attention is on predicting the responses rather than trying to comprehend the underlying link between the variables. Multiple linear regression can be utilised with various variables. However, suppose the number of factors becomes very high, for example, more significant than the number of observations. In that case, one will likely have a model that fits nicely with the sampled data but needs to forecast new data accurately. Hence, it is referred to as over-fitting. In such circumstances, despite numerous manifest variables, there may be only a few underlying or hidden elements that account for the majority of the variation in reaction. The main idea behind partial least squares is to extract these underlying features while accounting for as much visible factor variance as feasible while accurately predicting the responses. As a result, the term partial least square has also come to stand for "projection to the latent structure."

2.3.5 Pearson Correlation Coefficient

Pearson correlation coefficient is a statistical metric used to determine the degree and direction of a linear relationship between two random variables. It has been applied to various statistical indices, including data evaluation and categorisation, analysis techniques, clustering, decision-

making, financial analysis, and biomedical sciences. The Pearson correlation coefficient compares the comparability of changes in expression levels between two profiles. It precisely measures the magnitude of the linear connection between two identities (Zhou, Deng, Xia, & Fu, 2016).

2.3.6 Structural equation modeling

Structural equation modeling is a robust multivariate method increasingly used in scientific research to investigate and assess multivariate causal links. Structural equation modeling differs from other modelling tools in examining direct and indirect impacts on previously postulated causal linkages. Structural equation modeling is an almost century-old statistical method that has evolved through three generations. The fit indices for a single path coefficient test and the overall model fit are used to evaluate structural equation modeling. According to the research, the applicability of model fit indices is flexible. Even though it was introduced to the biological community decades ago, it remains a challenge. Despite their increasing use in ecological research, well-established models must be revised. In reality, well-established models, extensively employed in psychometrics, behavioural science, business, and marketing research, might function as a prior model (Fan, Chen, Shirkey, John, Wu, Park, & Shao, 2016).

2.4 Review of the Theory

The Technology Acceptance Model (TAM) is a widely utilised theoretical model that Davis introduced in 1989 (M. Ahmad, 2018). The TAM is based on the rational behavioural theory, which is used to forecast people's attitudes and behavioural intentions adding perception factors, willingness to use technology and emotional aspects (Yu & Huang, 2020). Thus, this model strongly emphasises investigating the outside variables that affect users' opinions (Salloum, Alhamad, Al-Emran, Monem, & Shaalan, 2019). Perceived usefulness and perceived ease of use are two components of personal beliefs. These beliefs influence users' attitudes and intentions, which in turn affect the use of the information system (Mufarih et al., 2020). Notably, TAM has been adopted and extended to include many new technologies such as fintech, digital banking, online banking, mobile banking, and e-wallet (Alnemer; 2022; Firmansyah, Masri, Anshari, & Besar, 2023; Obaid, 2021; S.Hossain et al., 2020; S.Singh & Ghatak, 2021).

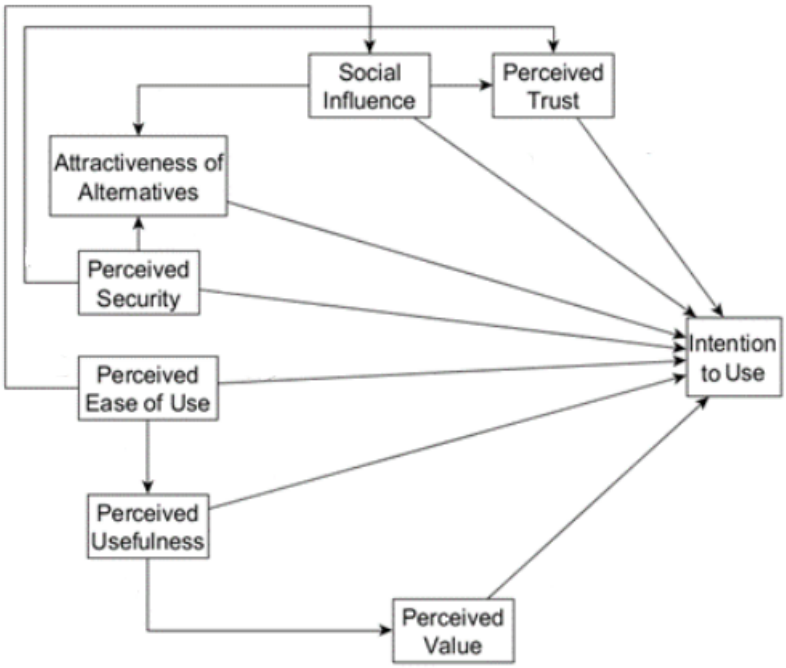

Figure 2.1. Technology Acceptance Model (TAM). Adapted from Taufan, A., & Yuwono, R. T. (2019). Analysis of factors that affect intention to use e-wallet through the technology acceptance model approach (case study: GO-PAY). *International Journal of Science and Research (IJSR)*, *8*(7), 413-419.

According to Karim et al. (2020), the TAM variable is the most suitable for deciding whether to accept new technologies. TAM is considered an acceptable extension in academic research to examine the intention to embrace and adopt new technologies (Aydin & Burnaz, 2016). Therefore, since fintech technology is an innovative form of retailing, the TAM construct is suitable for exploring the perceptions of users on the adoption and use of fintech technology services as they are essential determinants of technology use (S.Singh et al., 2020). Then, the TAM model was utilised in a study by Ni (2020) to examine the variables that affect users' intentions to use digital banking services. It was discovered that perceived availability and usability positively impact users' intentions. It is consistent with Ramayah's (2020) findings that consumers may adopt technology if they observe its use or success by other people. Thus, higher demand may stimulate the adoption of innovations. According to Nam, B.Lee and Z.Lee (2016), perceived ease of use influences perceived usefulness and attitudes towards products, whereas TAM focuses on perceived usability directly influencing attitudes. It may indicate that people's attitudes towards technology improve when they regard fintech companies' goods and services as practical and easy to use (Omarini, 2017).

Furthermore, the model also contends that users' attitudes and intentions towards using technology will be influenced by the ease of use when they believe it will improve work efficiency or performance (Tao, Shao, Wang, Yan, & Qu, 2020). A positive relationship between perceived value and intention to utilise the e-wallet was discovered in Taufan's et al. (2019) study utilising TAM. Moreover, M. Kumar and Gupta (2020) pointed out a link between consumer perception of value and behavioural intention to conduct online banking. Suppose customers receive higher value from online banking services. In that case, they may be more satisfied with the basic level of quality and have a higher behavioural intention to continue using online banking. Regarding government expectations and benefits, S.Hossain et al. (2020) used TAM to detect intentions to adopt online banking services. They found a significant correlation between government support and behavioural intentions to use online banking services. Additionally, it was discovered that one of the TAM's expanded variables, privacy and security, had a favourable effect on behavioural intention to utilise the new technology (Barry & Jan, 2018). According to Soodan and Rana (2020), in a study using TAM, it was discovered that privacy and security were among the factors that influenced the adoption of e-wallets, with the latter finding to be more suggestive. Also, according to Karim's et al. (2020) study on TAM, among the requirements that e-wallet providers should prioritise to foster favourable intent among customers are privacy and security. Therefore, the rapid development

of technology and its security is a significant concern for customers who use innovative technologies for transactions (I. Lee & Shin, 2018).

In addition, in S.Singh and Ghatak. (2021) study, the social influence behavioural structure was added as an extension of TAM and examined as a requirement for perceived ease of use and usefulness. The study showed that perceived usefulness emerged as the most potent indicator of usage intentions in support of previous TAM studies, while perceived ease of use and social influence were secondary determinants. Hence, additional technical characteristics like security and responsiveness, regulated by perceived usefulness and ease of use, positively impact actual use considerably (S.Singh & Ghatak, 2021).

Apart from all those determinants listed above, the attractiveness of alternatives is also included in the TAM model. According to the study by Taufan and Yuwono (2019), it has found that attractiveness of alternatives plays a significant role in affecting the intention of usage. Hence, Taufan and Yuwono (2019) added the attractiveness of alternatives as an indicator in the TAM model. As customers believe that there are still substitutes in the marketplace rather than just digital banking, their perceptions of reputation and service quality will be highly influential in determining the attractiveness of alternatives (Punwatkar & Verghese, 2018). Besides the alternatives to digital payment, such as e-wallets, e-banking is also being suggested as an alternative banking channel to meet the customer's needs. The necessity for customers to be physically present has been eliminated, and digital banking, which enables a cost reduction compared to traditional banks, serves as an attractive point for customers and will influence them to adopt internet-only banks (Malaquias & Hwang, 2019; Nandhini & Girija, 2019; Yoon & Lim, 2021).

2.5 Proposed Theoretical Framework

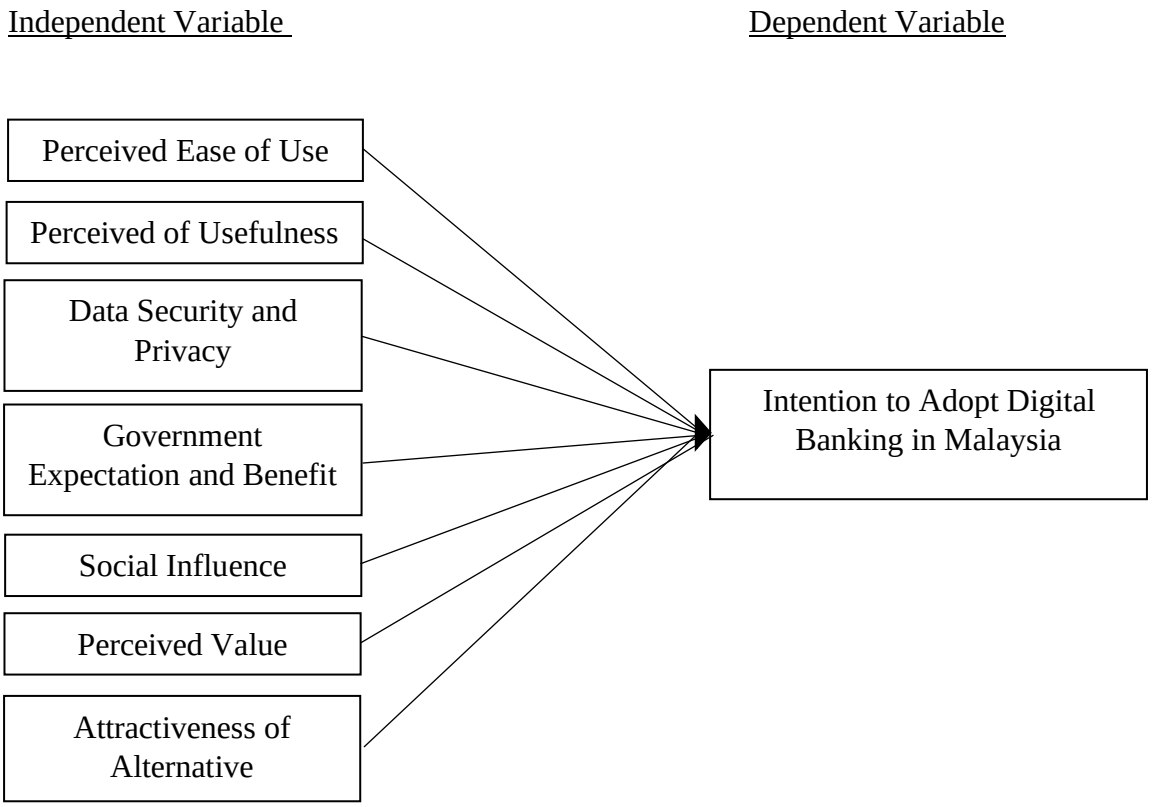

Figure 2.5. Proposed model of theoretical framework

Seven independent variables that have been selected include perceived ease of use, perceived usefulness, data security and privacy, government expectation and benefit, social influence, perceived value and attractiveness of alternative. In addition, the intention of Malaysians to adopt digital banking is the dependent variable. Therefore, the independent variables chosen are believed to influence the intention of Malaysians to adopt digital banking effectively, whereby all the independent variables whereby personal beliefs are made up of two components: perceived utility and perceived ease of use. These ideas shape users' attitudes and intents, shaping how the user uses the Technology Acceptance Model (TAM). TAM focuses on perceived usability directly impacting attitudes, whereas perceived ease of use impacts perceived usefulness and attitudes towards goods. It might imply that people's views towards technology improve when they see the goods and services provided by fintech businesses as practical and straightforward. In addition, the TAM model revealed a positive association between perceived value and intention to use the e-wallet. Privacy and security, one of the

TAM's extended factors, positively influenced behavioural intention to use the new technology, indicating that security is more suggestive than privacy itself. Furthermore, social influence was added to the TAM model as an extension and has been explored as a prerequisite for perceived ease of use and usefulness. Additionally, customers' judgements of reputation and service quality will be particularly relevant in deciding the desirability of alternatives since they feel there are still replacements in the marketplace other than digital banking due to the attractiveness of alternatives in the TAM model. Lastly, government expectation and benefit are something new in this study and have been added as one of the variables in this study's proposed model.

2.6 Hypothesis Development

2.6.1 Perceived ease of use

Perceived ease of use was demonstrated to be a significant predictor of intention to adopt digital banking in previous research. According to Priyatma (2022), perceived ease to use indicates how easily users perceive a technological device to be used. Perceived ease of use refers to how individuals perceive digital banking services as effortless. It might be defined as how easy it is to use the services once they are signed up (Salihu et al., 2019), and the perceived ease of use strongly influences the use of electronic banking services. It is more likely that someone will get more interested in utilising a technological system if they believe it to be a consumer (Islami et al., 2021). Therefore, online guidance applications positively influence the perceived ease of use and attitude. This explanation results in the following hypothesis for this study:

"H1: There is a significant relationship between perceived ease of use and behavioural intention to adopt digital banking among the Malaysians".

2.6.2 Perceived usefulness

According to Shiau et al. (2020), perceived usefulness refers to the degree to which an individual believes digital banking services will improve their ability to conduct banking transactions. Perceived usefulness is the belief that a banking system enhances or improves a customer's productivity. Once the customers find services valuable, they develop positive feelings about them and adopt digital banking services (Alnemer, 2022). Omarini (2017) perceived that digital banking services are helpful and are more likely to have a higher behavioural intention to adopt these services. Therefore, it is hypothesised that the perceived usefulness has a crucial association with the behavioural intention to adopt digital banking in this study:

“H2: There is a significant relationship between perceived usefulness and behavioural intention to adopt digital banking among the Malaysians".

2.6.3 Data Security and Privacy

Rath and A.Kumar (2021) define privacy concern as a person's right to control their information and the confidentiality of their private information. Digital privacy concerns impact users' decision to disclose personal information (Lappeman et al., 2023). The use of digital banking is positively correlated with the perception of security. However, the growth of digital banking contrasts with the worries about data security and privacy (Zhang et al., 2019). It is because high perceived security encourages users to use the system as the users believe that digital banking is secure. Suppose users are more convinced that digital banking provides a high level of security for the products and services. In that case, users will feel safe and believe they will be protected from those threats when conducting online transactions. Therefore, they will be less concerned about the problems. Thus, the hypothesis in this study is:

"H3: There is a significant relationship between data security and privacy and the behavioural intention to adopt digital banking in Malaysia."

2.6.4 Government Expectation and Benefit

Government support indicates that potential consumers are more inclined to embrace it since it gives them credibility and feasibility (S.Hossain et al., 2020). According to Hu et al. (2019) study's, the adoption of fintech is strongly encouraged by government backing. Furthermore, Jaruwachirathanakul and Fink (2017) stated that the government supported the adoption of internet banking by online businesses. Moreover, cooperation between governmental and financial institutions impacts how people feel and perceive financial services, claim Kimiagari and Baei (2021). Government assistance for e-wallet services may take the form of legislation, accelerated access, and security assurances to increase user trust. If there is considerable government support for e-wallets, consumers may be more likely to utilise them. Furthermore, a Hu et al. (2019) study contends that government support positively impacts intentions to use and reuse technology. This study found that government support considerably affects e-banking usage. Thus, the hypothesis in this study is:

“H4: There is a significant relationship between government expectation and benefit and behavioural intention to adopt digital banking among the Malaysians".

2.6.5 Social Influence

According to Telzer et al. (2018), social influence is the process by which someone's ideas or behaviours change due to those of another person or group. According to K. Patel and H. Patel (2018), social influence power is the degree to which an individual believes their use of new technology is essential to others or meets their expectations. H.Hassan and Wood (2020); de Blanes Sebastián's et al. (2023); Nur and Panggabean (2021): Migliore et al. (2022); Marpaung et al. (2021); Lien et al. (2020) discovered that social influence had a significant favourable influence on the intention to use mobile banking apps. It suggests that the views and opinions of others appear to be more prominent among customers who like to associate personal choices with others. Users engage in mobile banking because of social influence and other perceived benefits. As a result, their peers or family members' experiences may impact their own. Thus, the hypothesis in this study is:

"H5: There is a significant relationship between perceived value and behavioural intention to adopt digital banking among the Malaysians".

2.6.6 Perceived Value

Perceived value refers to how customers view the advantages they would experience after purchasing and using a product (Wang et al., 2023). In other words, perceived value is the overall evaluation of a product or service's quality made by consumers based on their perceptions of what is offered and received (Ahn & S.Lee, 2019; Kapoor et al., 2022; Karjaluoto et al., 2019; M.Kumar & Gupta, 2020; Ling et al., 2020). Based on Putri et al. (2022) study, the adoption of e-wallets is positively and significantly impacted by perceived value. Amoroso and Chen (2017) also indicated that perceived value, personal innovation and habit affect consumer adoption of e-wallets. Increased perceived value, such as cash discounts, cash incentives for downloading apps, and coupon codes, increases the incentive to use e-wallets. Moreover, Cha et al. (2021) observed that their perceived value positively influences the intention to use cashless payments. When consumers agree and accept the cost, the likelihood of e-wallet adaptation increases. Besides that, Mbama et al. (2018) contend that perceived value influences the pleasure and loyalty of digital banking customers. Digital banking meets clients' needs for value-added services, helps them save money and time, and improves their overall experience. Therefore, customer loyalty and satisfaction can positively impact overall financial success, positively influencing perceived value. Thus, the hypothesis in this study is:

"H6: There is a significant relationship between perceived value and behavioural intention to adopt digital banking among the Malaysians".

2.6.7 Attractiveness of Alternative

The term "attractiveness of alternatives" refers to consumers' perceptions of the feasibility of attractive competitive alternatives in the market (Liao et al., 2017). Consumers are more likely to switch to an alternative service if they believe it has superior critical features (Cheng, 2009, as cited in Sun et al., 2017). The accessibility, ease, and speed of mobile payment make it more appealing than cash (Loh, V. Lee, S. Tan, Ooi, & Dwivedi, 2020). These mobile-specific

characteristics underline the allure of alternatives and function as pull factors, encouraging customers to switch to mobile payment. Consumers additionally compare several payment options before selecting one as their preference in the decision-making process (Pham & Ho, 2015). This study also finds that adopting Near Field Communication mobile payments is positively impacted by alternative appeal (Pham & Ho, 2015). Thus, the hypothesis for this study is:

"H7: There is a significant relationship between attractiveness of alternative and behavioural intention to adopt digital banking among the Malaysians".

2.7 Summary

This chapter offers a more in-depth grasp of the study thesis to comprehend and examine behavioural intentions towards digital banking adoption. Chapter two's review of the prior literature led to the development of a relationship between behavioural intention towards digital banking and its seven independent variables, namely: perceived ease of use, perceived usefulness, data security and privacy, expectations and benefits of the government, social influence, perceived value, and attractiveness of alternatives. In addition, historical studies serve as a guide for developing the theoretical paradigm. As a result, we can also create the hypothesis and the conceptual structure.

CHAPTER 3: METHODOLOGY

3.1 Introduction

The study methodology's components are thoroughly addressed in this chapter. First, this chapter will outline the direction of the research's design and the data collection method. This study employs primary data to address the research question and objective in Chapter 1. Next, the rationale for the sampling design and the research instruments used in this research will be explained in detail for the reader to comprehend the methodology used in this research thoroughly. This section also covers the data analysis employed in the study. Finally, this chapter also includes a chapter summary from Chapter 3.

3.2 Research Design

The overall structures and procedures for linking conceptual research concerns to the study are identified as research design. Every research approach aims to investigate particular research problems and tackle the postpositivist method of challenging the traditional view of absolute truth (Williams, 2007). This research adopts the quantitative method to investigate Malaysian's expectations towards digital banking. According to Sukamolson (2007), quantitative research is a social research strategy that gathers numerical data through empirical methods and then analyses it using statistical and mathematical techniques. The information of this research will be collected by using primary data. Primary data, gathered for the first time by the researchers for a specific purpose under the study (Ajayi, 2017), is obtained through various methods such as surveys, questionnaires, experiments, and other standardised methods frequently used in quantitative research. In this research, the questionnaire method will be used for the data collection process. The questionnaires will be distributed online through google forms to the respondents in Malaysia. Choosing online questionnaires is incredibly beneficial because participants can answer the questionnaire and submit their results in a single visit to the site to answer the research question and objective of this study (Sukamolson, 2007).

3.3 Data collection method

The data collection technique aids in collecting the data required to gather precise data on pertinent research subjects. Two categories of data collection methods exist primary and secondary data (Taherdoost, 2021). In this study, quantitative data in a questionnaire will be used to determine people's behavioural intentions towards digital banking.

3.3.1 Primary Data

Primary data is first-hand information used to collect sample data from the targeted population. The most common method of gathering preliminary data is through surveys, interviews and questionnaires. This research adopted a close-ended questionnaire comprising 59 questions to collect primary data to collect feedback based on the participants' behaviour and factual data to achieve higher-quality results (Taherdoost, 2021). The questionnaire will be distributed through a QR code or link through an online platform. In addition, questions related to the independent and dependent variables, as discussed in Chapter 2, are constructed in the questionnaire to allow the information collected to be tailored for this specific study. Hence, the primary data collected in this research helps to answer this study's research questions and objectives.

3.4 Sampling Design

Sampling is a technique used to select a portion of a target population to gather data (Taherdoost, 2016). In other words, sampling is a statistical basis collected from respondents. The subset of units chosen is known as the sample, and this data is used to make inferences regarding the population as a whole (King et al., 2017). Then, based on Hubbard and Lin (2016) mentioned that a sampling design consists of a combination of sampling techniques that adhere to rules and procedures and estimations of the outcomes of the statistical sample. The purpose

of the sample design is to produce estimates that are sufficiently precise and accurate to meet the survey requirements.

Moreover, M.Pandey and P.Pandey (2021) assert that a sample design to get a representative sample of a particular community is a clear plan connected to the process or approach the researcher used to choose the sample subjects. In addition, the sample design should be straightforward so that the researcher can select a suitable sample from the planned sample design (I.Etikan & Bala, 2017). In this research, the chosen target population, the sampling techniques, and the sample size will all be discussed in detail.

3.4.1 Target Population

Asiamah, Mensah and Oteng-Abayie (2017) indicate that the target population is a collection of individuals with characteristics that can be classified appropriately to set them apart from the population. Therefore, the survey's target population is the entire set of units that the survey data is used to make inferences. In line with this research's objectives, the focus is on those who use electronic banking and are likely to use digital banking. Based on d, and Joshi (2017), the research shows that consumers being more acclimated to using mobile and Internet channels to access banking services in recent years. Hence, individuals who utilise e-banking may be more receptive to embracing technology and more willing to adopt digital banking. This is because digital banking not only offers the essential elements of online banking but also can deliver modern, simple to use services that commercial banks do not often offer. It also provides tools for managing finances for individuals or businesses, educational resources, categorisation of responses, spending behaviour patterns and analytics.

Next, as a potential user of purely digital banking in Malaysia, this study specifies that the target population must be Malaysians aged 18 years or above. It is because, as Rosales and Fernández-Ardèvol (2016) stated, individuals aged 18 and above rely on technology, smartphones, and electronic payments in their daily lives. Furthermore, younger customers tend to be sophisticated computer users, frequent Internet users, and more open to embracing

cutting-edge technology like full digital banking (Mogaji, Balakrishnan, Nwoba, & Nguyen, 2021). Another reason is that every man or woman who has achieved the age of 18 shall be regarded as an adult, as stated in Section 2 of the Age of Majority Act 1971. Therefore, in conclusion, the target population of this research is adult Malaysians who use electronic banking and are likely to use digital banking.

3.4.2 Sampling Techniques

The data used in this study are primary data gathered through questionnaires. According to Ajayi (2017), a questionnaire is an observational technique consisting of a sequence of items delivered to a participant who will answer the questionnaire voluntarily. Respondents are provided with a list of written forms toward which they answer by ticking the one they agree is appropriate. The online questionnaires were conducted and sent via Google form because the form can be distributed online and reach more people. In addition, the cost of distribution on the Internet is affordable and straightforward.

Furthermore, the convenience sampling technique will be employed in this research. Convenience sampling may be utilised to create hypotheses and objectives for further solid research studies where no other method is practical (Stratton, 2021). Convenience sampling, as well recognised as haphazard sampling or accidental sampling, is a category of non-probability or non-random sampling in which people in the population being studied who satisfy particular practical requirements, including such conveniently accessible, geographic location, availability at a given moment, or an interest in participating, are included for the goals of the study (I.Etikan, Musa, & Alkassim, 2016).

3.4.3 Sampling Size

Sim, Saunders, Waterfield and Kingstone (2018) mentioned that the sample size is the number of participants or observations included in the study. According to the Department of Statistics

Malaysia (2022), the total population of Malaysia in 2022 will be about 32.7 million. Then, based on Krejcie and Morgan (1970), the sample size will come to 384 when the population exceeds 100,000. Hence, the sample size for this research (32,700,000) is 384.

N	*S*	*N*	*S*	*N*	*S*
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size. *S* is sample size.

Figure 3.1. Table for Determining Sample Size. Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, *30*(3), 607-610.

Moreover, according to the literature on pure digital banking, a sample size of 400 is sufficient to complete the study (Y. Zhang, Chen, Liu, & Zhu, 2018; Lee & Kim, 2020). Besides that, the increase in sample size is intended to improve response rates and reduce potential bias by ensuring that the study meets the sample size requirements for a representative target population (Riley, Ensor, Snell, Harrell, Martin, Reitsma, Moons, Collins, & Van Smeden, 2020). Therefore, this research comprised at least 400 target participants.

3.5 Research Instruments

Research instruments, such as questionnaires and scales, are designed to collect data from research subjects based on the topic of interest. It is a layout designed to answer research questions and control variance (Chew, Parveen Kaur, Siew, H. Tan, Y. Tan, 2021).

3.5.1 Questionnaire design

In this study, the questionnaire is divided into three sections: Section A, Section B, and Section C. Ethical review for Personal Data Protection Statement has been included to allow respondents to acknowledge the clause before filling in the information required in the questionnaire. In addition, it aims to protect the researcher's and the participant's rights in enclosing personal data. Demographic information will be asked in Section A, it has ten questions such as gender, age, ethnicity, education, employment status, work industry, experience in using Internet banking, internet banking transaction frequency (monthly), internet banking transaction amount (monthly), and do you know or have any knowledge about digital banking. Section A of the questionnaire used the ordinary scale.

Besides that, Section B has seven questions designed for the dependent variable, the intention to use digital banking in the future. Finally, the independent variable is asked in Section C of the questionnaire. Each set of questionnaires has seven questions regarding the seven independent variables such as perceived ease of use, perceived usefulness, perceived value, government expectation and benefit, data security and privacy, social influence, and attractiveness of alternative. The questionnaire designed for this research is attached in *Appendix I*.

3.5.2 Construct Measure

Questionnaires are constructed according to the seven independent variables that affect the behavioural intention of Malaysians in adapting to digital banks. According to Neoh, Riri Andri Ani, S. Tan, Tean and Wong (2019), Likert-type scales are commonly used psychometric instruments in sociology, psychology, information technology, politics, economics and many other fields of study by providing a variety of responses to the statement while allowing the respondents to answer a type of inquiries. The Likert scale includes several statements that allow respondents to express either a favourable attitude towards the subject of the study or a negative attitude towards it. The questions based on the Likert scales are simple for respondents to comprehend and respond to, and responses are simple to code for compiling data. The Five Point Likert Scale is typically adopted in research because too many or too few options results in an inaccurate and imprecise data collection compared to a 2-to-4-point Likert scale or a 6-to-10-point Likert scale.

Five-point rating scales are more precise for the respondents and increase the response rate due to their practicality. Five-point Likert scale also results in a significantly higher estimate of the instrument's reliability. Hence, the five-point Likert scale facilitates this study to collect more valuable data. In addition, it includes several options that respondents can select from to gauge their level of agreement with a given statement. The options are "Strongly Disagree-1, Disagree-2, Neutral-3, Agree-4, and Strongly Agree-5," where "neutral" denotes a response of a neutral nature. According to Taherdoost (2019), odd numbers of response categories are generally preferred over even numbers because they allow the middle category to be interpreted as a neutral point, giving a person with a neutral position an option and preventing them from being forced to take a side. In addition, it gives respondents a neutral reaction option to reduce the likelihood of reacting with bias because they are not required to decide by being forced to agree or disagree.

3.6 Data Analysis

Data analysis is collecting and analysing data to obtain a deep insight into the meaning of the data using various techniques (Abdul Jabbar & Farhan, 2022).

3.6.1 Descriptive Analysis

Descriptive analysis is an approach for expressing the kind and degree of sensory properties empirically. It was a novel breakthrough for its time. It marked a significant step forward in giving sensory evaluation a scientific foundation by generating objective, statistically reliable, and statistically analysable data. Descriptive analysis is commonly used as the initial phase in data analysis. It is effective for obtaining insights into the data and detecting patterns or trends that may be interesting. It can also assist in detecting probable outliers, inaccuracies, or missing information in data. It is still a critical method in sensory analysis today. Since its inception, various descriptive analytic techniques have been established. Conventional descriptive procedures, such as profiling-based techniques and quantitative descriptive analysis, entail a panel of expert assessors systematically evaluating the robustness and quality of sample sensory qualities (Kemp, Ng, Hollowood, & Hort, 2018).

3.6.2 Reliability Test

Reliability is defined as the ability to achieve consistent scores when measuring the test, and it can assist in making more robust results. It is the degree to which the test scores will not be affected by unforeseen factors and obtain identical scores over time. In the simplest sense, high reliability denotes high accuracy. However, there will be different scores in the repeated test. Hence, the reliability test aims to maximise reliability and minimise the error of the external factors, which are random and systematic errors. Random error is an unexpected factor that will influence the observations, whereas systematic error acts as a bias in measurement. Internal consistency is necessary to measure the extent of the correlation between the variables (Nawi, Tambi, Samat & Mustapha, 2020). Hence, Cronbach's alpha is used to calculate the reliability of the respondent's feedback (Taherdoost, 2022).

Before the actual data collection, this set of questionnaires will be put through reliability testing via the pilot test, in which a group of 30 respondents, consisting of academics and the general public, will be invited to comment on the questionnaire. A pilot test was implemented to assess the viability of the questionnaire (Fraser, Fahlman, Arscott, & Guillot, 2018). It was used to consider that the scale items' have a high correlation with one another (Nawi et al., 2020). It also assists in measuring the strength of the consistency.

3.6.2.1 Cronbach Alpha

Cronbach's alpha is the most frequently used in measuring an instrument's internal consistency and reliability. It can help in test construction and identify the interrelationships of each test item. Cronbach's alpha will reveal the instrument's stability to evaluate the internal consistency of data that ensures the accuracy of respondent comments on a research instrument such as a questionnaire. In addition, the data is easy to interpret as the rule-of-thumb will be followed, and the coefficient alpha is generally on a scale of 0 to 1. A scale's internal consistency strengthens as the number alpha approaches 1. The alpha can be affected if the variables are inadequate or duplicate variables occur. The test duration will also affect the alpha value (Nawi et al., 2020).

Table 3.6.2.1: *Rule of Thumb of Cronbach's Alpha*

Alpha Coefficient range	Strength of Consistency
$\alpha < 0.6$	Poor
$0.6 < \alpha < 0.7$	Moderate
$0.7 < \alpha < 0.8$	Acceptable
$0.8 < \alpha < 0.9$	Good
$\alpha > 0.9$	Excellent

Note. From Nawi, F. A. M., Tambi, A. M. A., Samat, M. F., & Mustapha, W. M. W. (2020). A review on the internal consistency of a scale: The empirical example of the influence of

human capital investment on malcom baldridge quality principles in Tvet institutions. *Asian People Journal (APJ)*, *3*(1), 19-29.

The veracity of the data will be affected by a low Cronbach's alpha number indicates that the data is inconsistent, whereas the closer the alpha approaches 1, the higher the reliability. However, if the alpha number is excessively high, the items are duplicates because they assess the same variables in various items (Nawi et al., 2020).

3.6.3 Multicollinearity

Multicollinearity is one of the severe issues that must be addressed before beginning the data modelling process. It occurs when two or more indicators are associated; when this happens, the standard error of the coefficients increases. Multicollinearity can be addressed by grouping highly correlated variables using the analysis of principal components or by excluding a variable from the analysis that is substantially connected with the other variables (Daoud, 2017). Various solutions are available, such as excluding highly correlated variables, ridge regression, merging variables into an index, or extending the sample size. Considering merging factors is ineffective and expanding sample size is indeed a costly solution to multicollinearity, despite providing a valid answer, the researcher concentrates on removing highly correlated variables (Senaviratna & Cooray, 2019). Multicollinearity is primarily identified using tolerance and its reciprocal, known as the variance inflation factor (VIF). VIF gives an index which measures the degrees of increase of variance of regression coefficient with the increase of multicollinearity. The lowest possible value for VIF is 1, showing that collinearity is eliminated. As a rule of thumb, multicollinearity is considered a problem when VIF is more than 10 (Gwelo, 2019). This is also consistent with Jame's statement that a VIF of less than 5 implies that the variables have a poor correlation with each other. A VIF value in the range of 5 and 10 implies a moderate correlation, but VIF values greater than 10 imply an unacceptably high correlation of variables (James, Witten, Hastie, & Tibshirani, 2013). High VIF values indicate that the model may be volatile, and that multicollinearity is a potential problem that needs to be solved (Oguntunji & Makram, 2019).
The test hypothesis is as follows:

H0: There is no multicollinearity between the independent variables

H1: There is multicollinearity between the independent variables

Table 3.6.3 : *Rule of Thumb of Multicollinearity*

Value Of VIF	**Interpretation**
VIF > 10	High correlated
5 ≤ VIF ≤10	Moderate correlated
VIF ≤ 5	Not correlated

Note. From Afiezan, A., Wijaya, G., Priscilla., Claudia,C. (2020). The effect of free cash flow, company size, profitability and liquidity on debt policy for manufacturing companies listed on IDX in 2016-2019 periods. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, *3*(4), 4005-4018.

3.6.4 Inferential Analysis

Inferential analysis is a statistical method used to make inferences about a population from a sample of data. It is to develop predictions or conclusions about the broader population from which the sample was taken; it involves analysing and interpreting data. For example, means, variances, and proportions are estimated using inferential analysis, which is also used to test hypotheses and make predictions. It uses various methods, including regression analysis, confidence intervals, and hypothesis testing. Defining a research topic, collecting a sample of data, processing the data, and making inferences about the population are all steps in the inferential analytic method. It is a crucial tool in many fields, including the social sciences, business, and healthcare, and it is necessary for making decisions based on the best available data (Aldrich, 2019).

3.6.4.1 Multiple Regression Analysis

Many statistical tests and metrics can be applied to determine if a multiple regression analysis is legitimate. The primary goal is to score the model's performance and determine if it can correctly predict the dependent variable from the independent variables. The coefficient of determination, or R-squared, is a frequently employed metric that shows the percentage of variance in the dependent variable that the independent variables can explain. The model fits the data better when the R-squared value is high. Another metric is the modified R-squared, which penalises the model for having too many variables and considers the number of independent variables. The accuracy of the model's predictions may also be evaluated using the standard error of the estimate. It is also crucial to perform residual analysis, which entails checking the residuals' distribution for outliers and normality. Finally, to ascertain if the independent and dependent variables are significantly related, the significance of the coefficients may also be examined. Generally, a successful multiple regression model should have significant coefficients for the independent variables, low standard error of estimate, customarily distributed residuals, high R-squared and adjusted R-squared values, and high R-squared values (Morrissey & Ruxton, 2018). The regression modeling for this study is as follows:

$$DB = \beta_0 + \beta_1 PE + \beta_2 PU + \beta_3 DS + \beta_4 GE + \beta_5 SI + \beta_6 PV + \beta_7 AA + \mathcal{E}$$

Where,

DB = Intention to use Digital Banking

PE = Perceived Ease of Use

PU = Perceived Usefulness

DS = Data Security and Privacy

GE = Government Expectation and Benefit

SI = Social Influence

PV = Perceived Value

AA = Attractiveness of Alternative

β_0 *= Intercept*

$\beta_{1,2,3,4,5,6,7}$ *= Slope Coefficient*

$\mathcal{E}$ *= Error Term*

A P-value is used in hypothesis testing to prove that the null hypothesis can be rejected and provides a significant result. It is a substitute for rejection points to determine the lowest degree of significance at which the null hypothesis is denied. The significance level is fixed at 1, 5, and 10%, and 10% will be borderline. According to Olsson, a p-value in the range of 0.05 to 0.1 is considered a marginally significant relationship between the dependent and independent variables and vice versa (Olsson Collentine, Van Assen, & Hartgerink, 2019). Another study conducted by Rehman (2022) also stated that a p-value less than 10% indicates a strong significance model. The lower the p-value, the lower the probability of the null hypothesis occurring. In other words, the lower the p-value, the more substantial the evidence that the null hypothesis can be rejected. It can, therefore, provide a robust result on the relationship, which is significant (W. Zhang, 2022).

3.7 Summary

In short, Chapter 3 discusses the method of collecting data. This chapter uses quantitative research. Questionnaires will be distributed using primary data to the respondents aged 18 and above who are using e-banking or those with the potential to use the digital bank. All data will be processed and collected to run the test results, which will be discussed in Chapter 4.

CHAPTER 4: DATA ANALYSIS

4.1 Introduction

This chapter addresses the data and findings of this research through 400 valid online questionnaires. The Statistical Package for the Social Science (SPSS) statistical software is used to analyze the collected data from the respondents. Four sections in this chapter include descriptive analysis, followed by a reliability test to ensure the reliability of the scales. The data will be analysed using Multiple Linear Regression to identify the relationship and correlation of the variables.

4.2 Demographic Analysis

Table 4.2.1. Gender.

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	273	68.3	68.3	68.3
	Male	127	31.8	31.8	100.0
	Total	400	100.0	100.0	

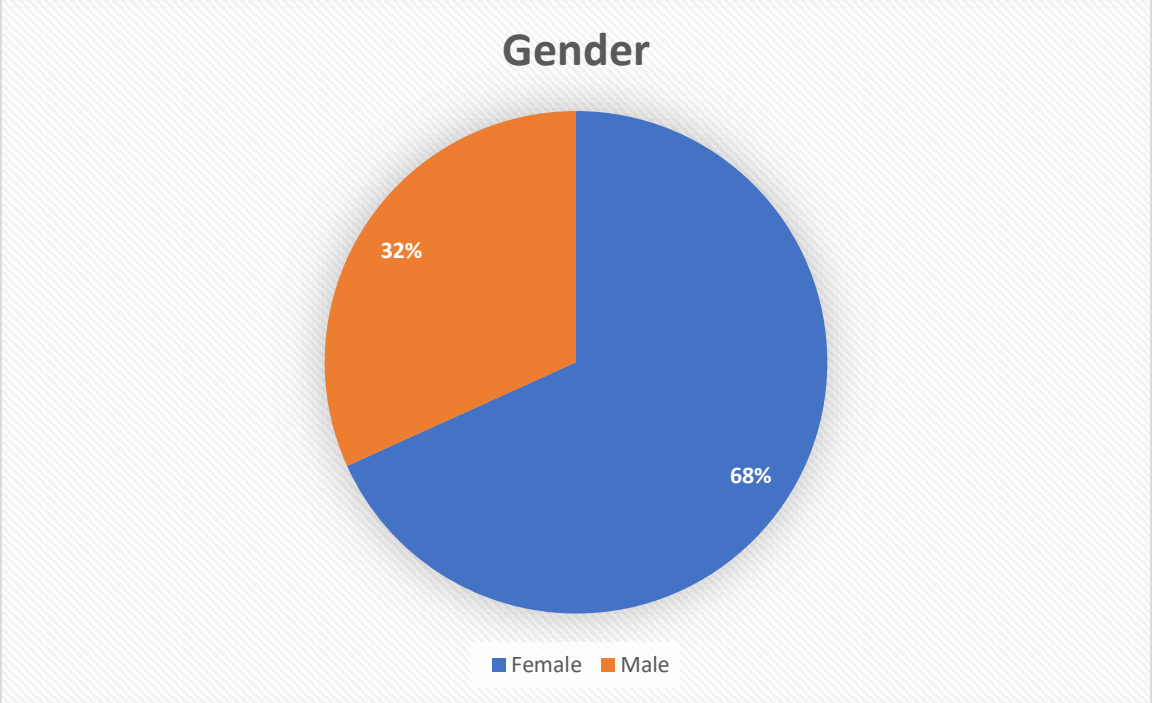

Figure 4.2.1. Gender.

The survey results on the gender ratio of respondents are shown in Table 4.2.1 and Figure 4.2.1. This study's target respondents are all Malaysians. The total number of respondents in this study is 400. This survey included 273 female respondents, accounting for 68.3% of the total respondents. The remaining 31.8% is made up of 127 male respondents.

Table 4.2.2. Age.

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 years old and above	46	11.5	11.5	11.5
	21 to 30 years	266	66.5	66.5	78.0
	31 to 40 years	29	7.2	7.2	85.3
	41 to 50 years	32	8.0	8.0	93.3
	Over 50 years	27	6.8	6.8	100.0
	Total	400	100.0	100.0	

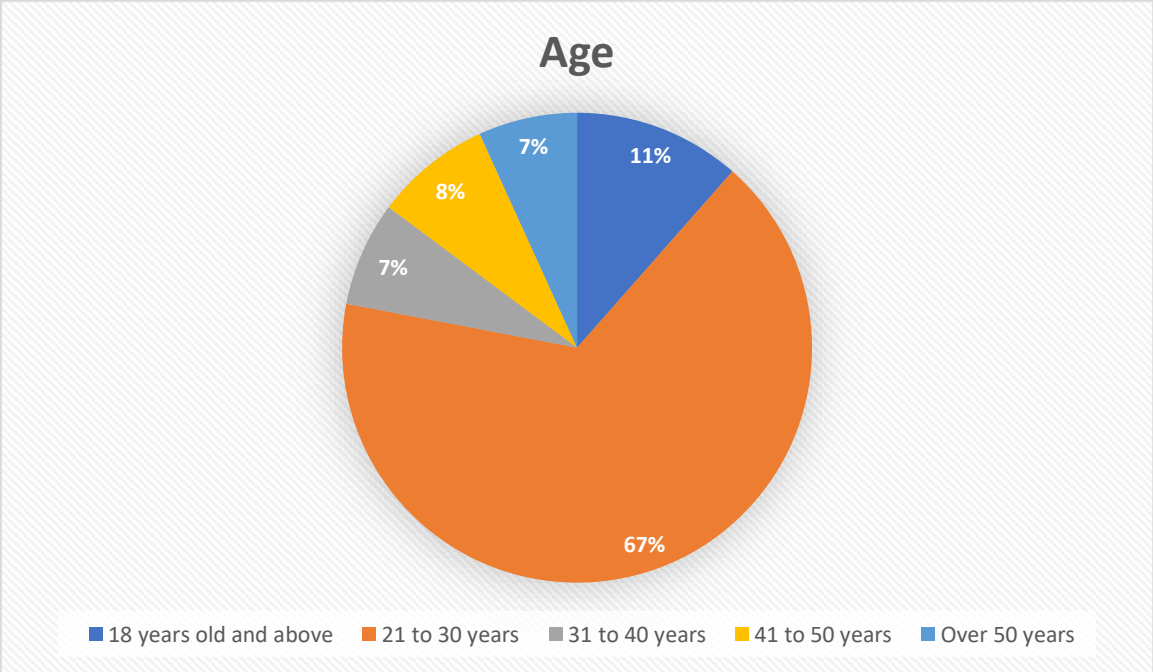

Figure 4.2.2. Age.

Table 4.2.2 and Figure 4.2.2 show the age ratio of respondents. The survey separated the population into five age groups. The respondent's majority are between the ages of 21 and 30, accounting for 66.5% of the 266 total respondents. The age group of 18 years and over received 11.5% of the 46 respondents, and the age group of 41 to 50 years received 8% of the 32 respondents. Furthermore, 29 respondents from the 31 to 40-year age group have a percentage of 7.2%, while the over-50-year age group has the lowest rate of 6.8% with 27 respondents.

Table 4.2.3. Ethnicity.

Ethnicity					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Chinese	381	95.3	95.3	95.3
	Indian	8	2.0	2.0	97.3
	Malay	9	2.3	2.3	99.5
	Others	2	.5	.5	100.0
	Total	400	100.0	100.0	

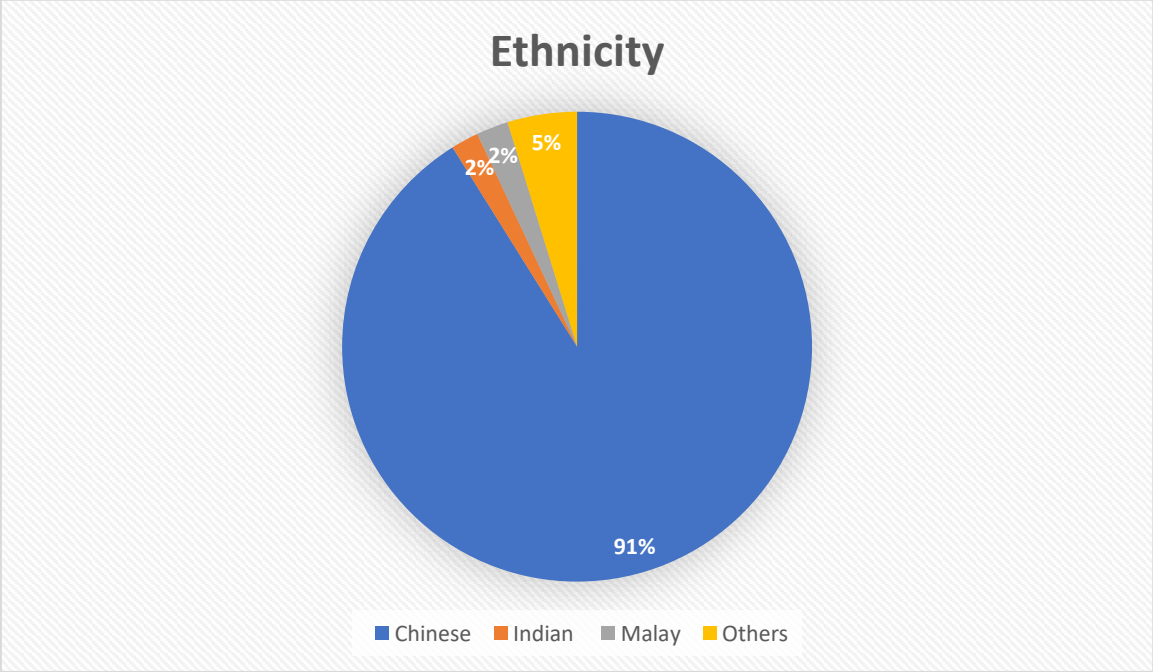

Figure 4.2.3. Ethnicity.

According to Table 4.2.3 and Figure 4.2.3, the participants are of four ethnicities: Chinese, Indian, Malay, and Other. Most respondents are Chinese, accounting for around 95.3% (381). The second highest is Malay, which accounts for 2.3% of the nine respondents, while the third highest is Indian, which accounts for just 2% of the total of 8 respondents. Finally, Other has the lowest number of ethnicities, accounting for only 0.5% of the 400 participants.

Table 4.2.4. Education.

Education					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Graduate	93	23.3	23.3	23.3
	High school	53	13.3	13.3	36.5
	Others	37	9.3	9.3	45.8
	Post-Graduate	23	5.8	5.8	51.5
	Undergraduate	194	48.5	48.5	100.0
	Total	400	100.0	100.0	

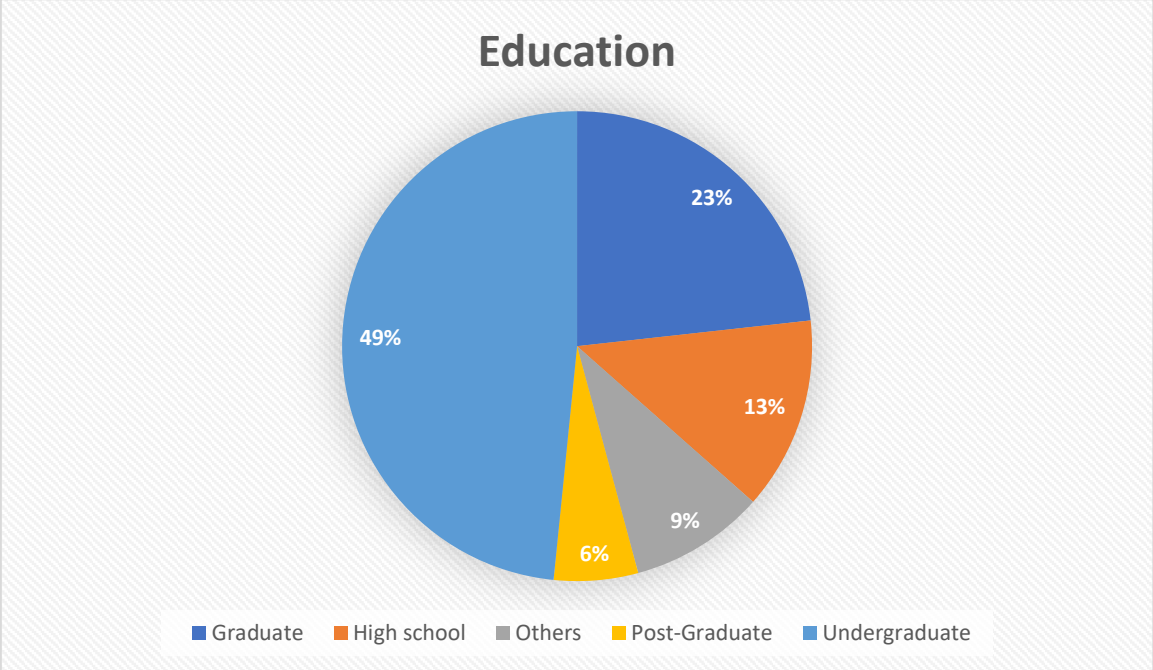

Figure 4.2.4. Education.

Table 4.2.4 and Figure 4.2.4 show the respondents' education level ratio results. The education level is divided into five groups: high school, undergraduate, postgraduate, and graduate. The most significant number of respondents is 194, of which 48.5% are undergraduates. The second largest number of respondents of education is 93 respondents who graduated, 23.3% of the education group followed by a high school 53 respondents and 23 respondents from postgraduate, which consists of 13.3% and 5.8%, respectively. Last but not least, the total respondents with other education groups consists of 37 respondents at 9.3%.

Table 4.2.5. Employment Status.

Employment status					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Full time	197	49.3	49.3	49.3
	Part time	34	8.5	8.5	57.8
	Retired	12	3.0	3.0	60.8
	Unemployed	157	39.3	39.3	100.0
	Total	400	100.0	100.0	

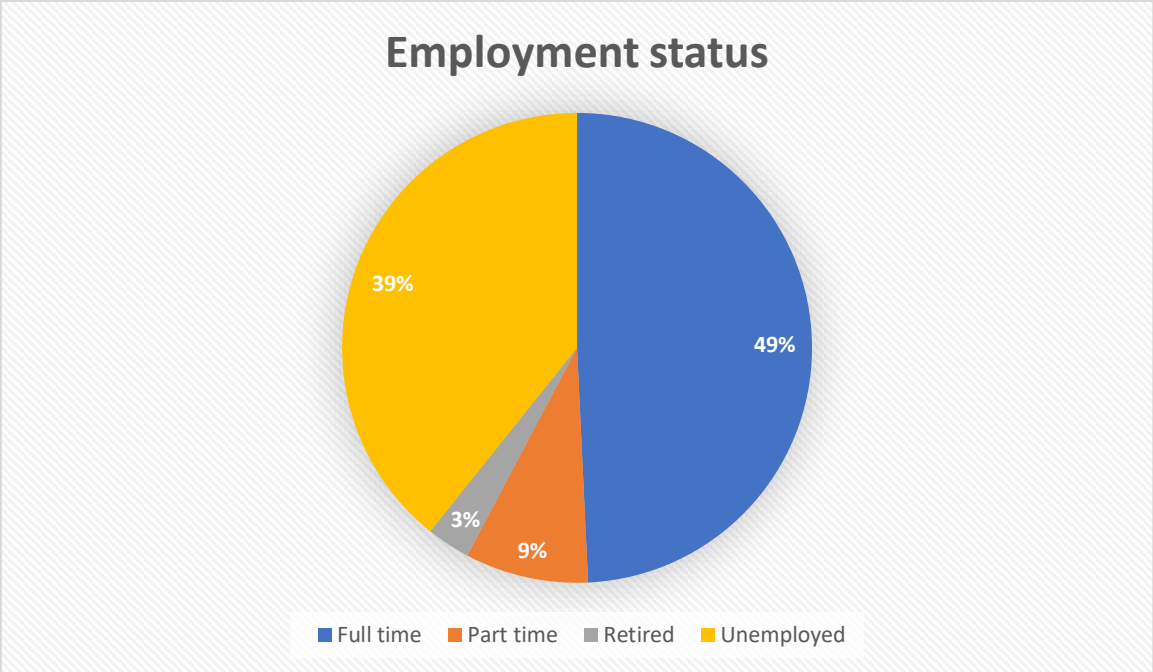

Figure 4.2.5. Employment Status.

Table 4.2.5 and Figure 4.2.5 show the respondents' employment status results. Among 400 respondents, 197 of the respondents are full-time employed, which consists of 49.3%. Followed by the second largest of the respondents are unemployed respondents, 157, respondents constitute 39.3%. Next, 34 respondents are part-time employed, which consists of 8.5%—the least number of respondents accumulated to 3% of the 12 respondents.

Figure 4.2.6. Work industry.

Work Industry					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agriculture	8	2.0	2.0	2.0
	Education	51	12.8	12.8	14.8
	Finance	79	19.8	19.8	34.5
	Healthcare	19	4.8	4.8	39.3
	Others	243	60.8	60.8	100.0
	Total	400	100.0	100.0	

Note. From Pham, Q. T., Tran, X. P., Misra, S., Maskeliunas, R., & Damaševičius, R. (2018). Relationship between convenience, perceived value, and repurchase intention in online shopping in Vietnam. *Sustainability*, *10*(1).

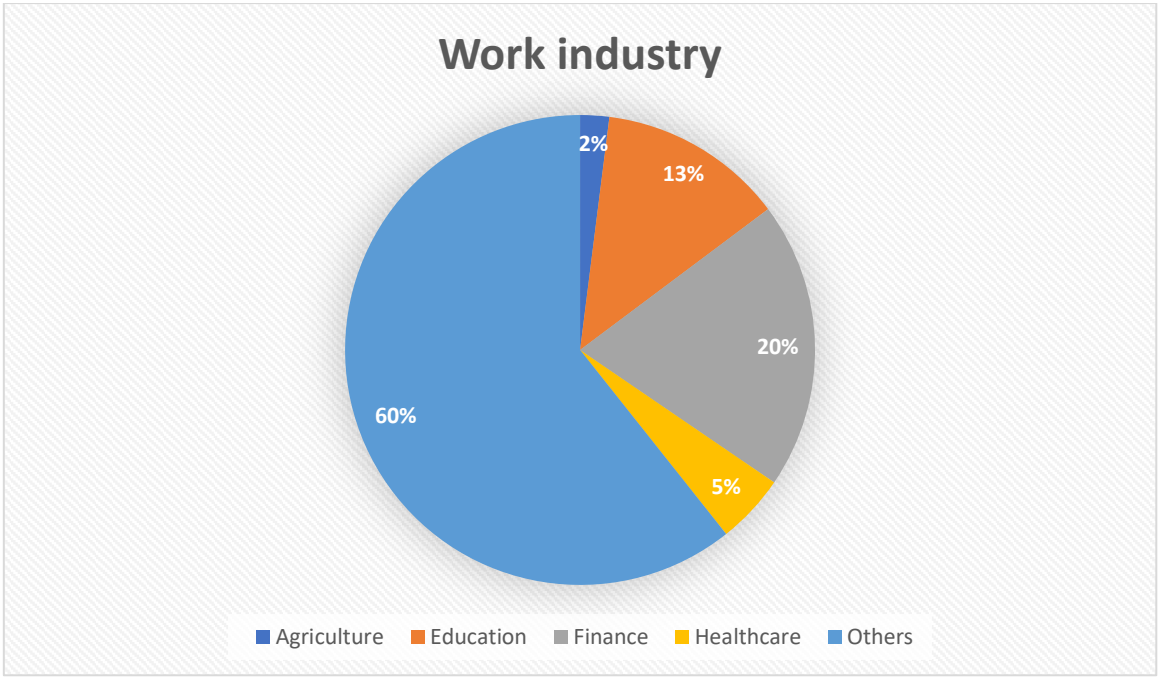

Figure 4.2.6. Work industry.

Table 4.2.6 and Figure 4.2.6 showed that eight respondents work in the agriculture industry (2%). Next, the number of respondents in the education industry has accumulated to 51 respondents, which consists of 12.8%. Among 400 respondents, there are 79 respondents work in the finance industry, which consists of 19.8% out of the 400 respondents. The number of respondents who work in the healthcare industry consists of 4.8% of 19 respondents. Last but not least, most respondents work in other industries, comprising 60.8% of the 243 respondents.

Table 4.2.7. Experience in using digital banking.

Experience in using Digital Banking					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2 - 4 years	156	39.0	39.0	39.0
	4 - 6 years	100	25.0	25.0	64
	Less than 2 years	73	18.3	18.3	82.3
	More than 6 years	71	17.8	17.8	100.0
	None	0	0	0	0
	Total	400	100.0	100.0	

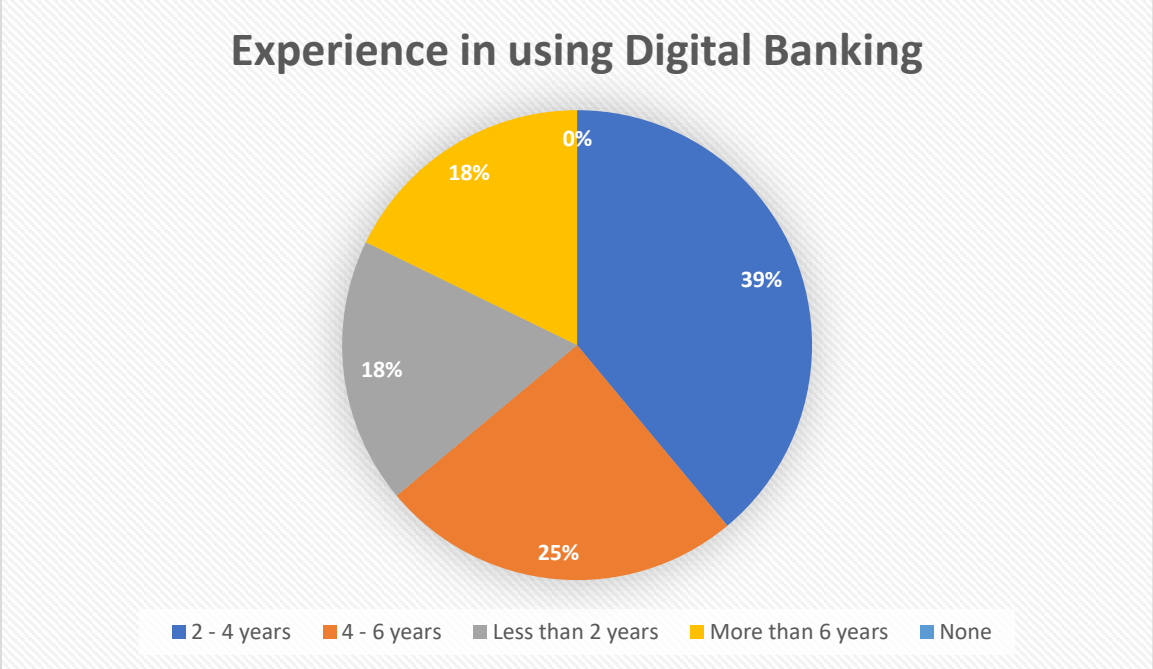

Figure 4.2.7. Experience in using digital banking.

Table 4.2.7 and Figure 4.2.7 show the result of the experience of using digital banking. Most respondents have experience using digital banking for 2 to 4 years, comprising 156 respondents (39%). Besides, there are 100 respondents out of the total respondents who have been using digital banking for 4 to 6 years (25%). Among the 400 total respondents, the numbers of respondents who have experience using digital banking for less than two years and more than six years are similar, with 73 respondents, 18.3 % and 71 respondents, 17.8%, respectively.

Table 4.2.8. Digital banking transaction frequency (monthly).

Digital Banking Transaction Frequency (monthly)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 - 3 times	109	27.3	27.3	27.3
	4 - 7 times	117	29.3	29.3	56.6
	8 - 10 times	49	12.3	12.3	68.9
	More than 10 times	125	31.3	31.3	100.0
	Never	0	0	0	0
	Total	400	100.0	100.0	

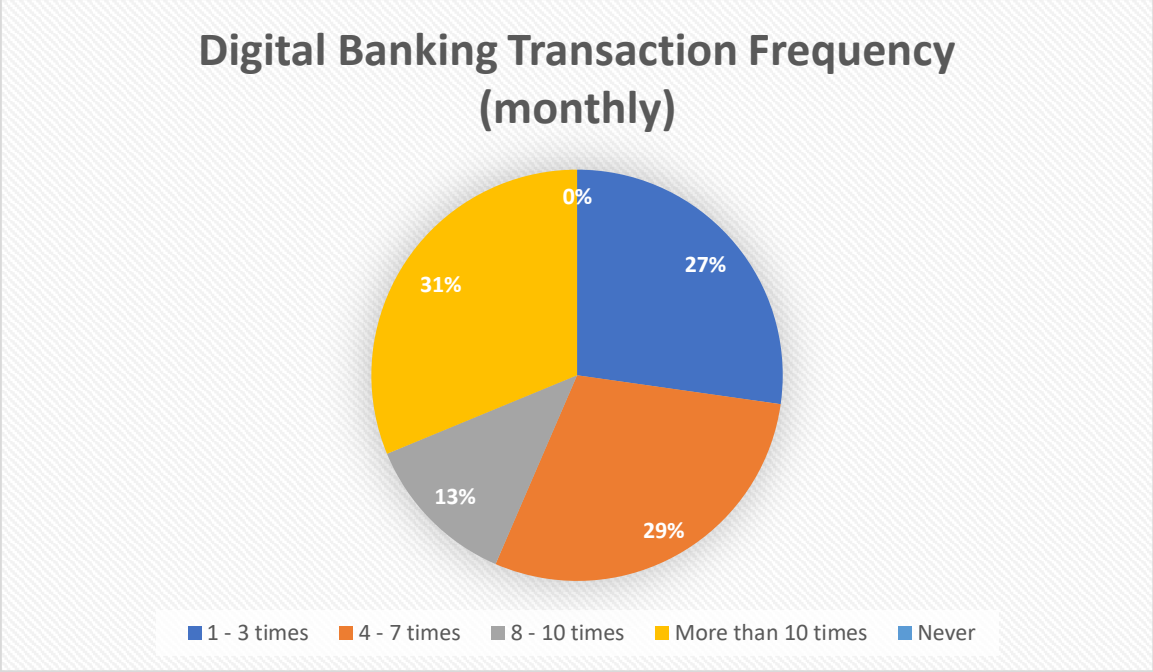

Figure 4.2.8. Digital banking transaction frequency (monthly).

Table 4.2.8 and Figure 4.2.8 show the frequency of the digital banking of respondents in this study. Most of the respondents spent more than ten times a month conducting digital banking transactions, comprising 31.3% of 125 respondents. Besides, the numbers of respondents who use digital banking 1 to 3 times and 4 to 7 times a month are similar, with 109 numbers of respondents, which constitutes 27.3 % and 117 numbers of respondents, which constitutes 29.3%, respectively.

Table 4.2.9. Digital banking transaction amount (monthly).

Digital Banking transaction amount (monthly)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below RM100	45	11.3	11.3	11.3
	More than RM2000	68	17.0	17.0	28.2
	RM 0 (none)	4	1.0	1.0	29.3
	RM 100 - 499	140	35.0	35.0	64.3
	RM1000 - 2000	66	16.5	16.5	80.8
	RM500 - 999	77	19.3	19.3	100.0
	Total	400	100.0	100.0	

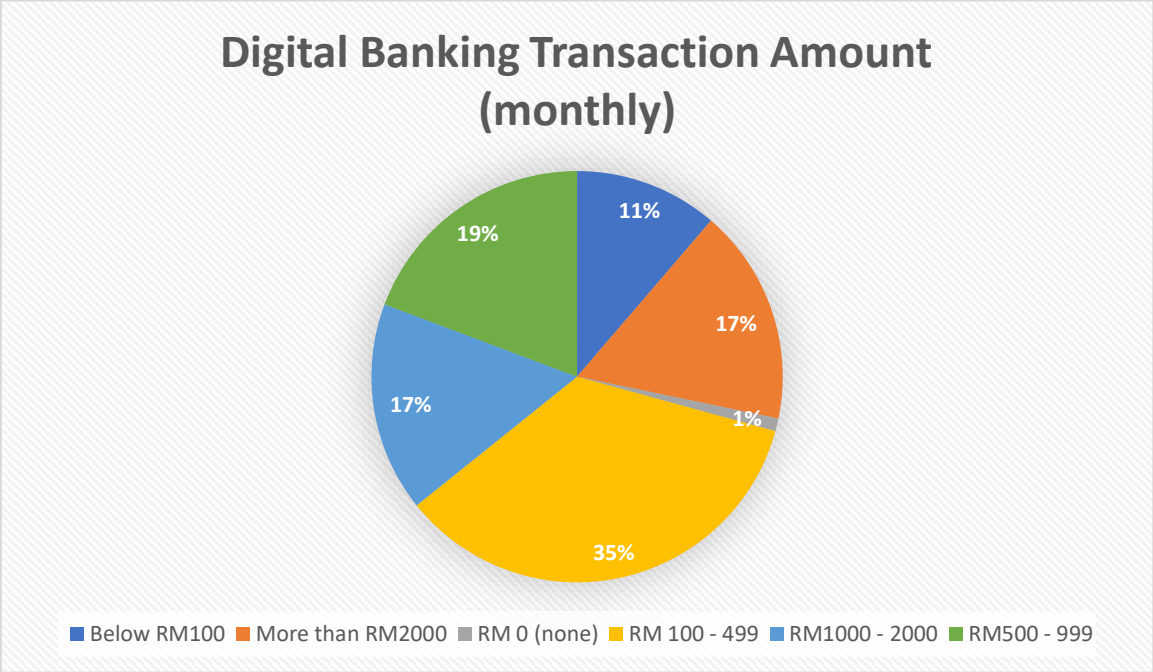

Figure 4.2.9. Digital banking transaction amount (monthly).

The monthly digital banking transaction amount of respondents is shown in Table 4.2.9 and Figure 4.2.9. The survey divided the population into six groups. The most common transaction amount for respondents is RM100 - RM499, accounting for 35% of the 140 total respondents. The RM500-RM999 transaction amount group received 19.3% of the 77 respondents, while the More than RM2000 transaction amount group received 17% of the 68 respondents. Furthermore, 66 respondents from the RM1000 - RM2000 group have a percentage of 16.5%, while 45 respondents from the Below RM100

group have a percentage of 11.3%. Finally, the RM0 transaction amount group has the lowest percentage of 4 responders (1%).

Table 4.2.10. Respondent's knowledge of digital banking.

Do you know (or) have any knowledge about Digital Banking?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	57	14.2	14.2	14.2
	Yes	343	85.8	85.8	100.0
	Total	400	100.0	100.0	

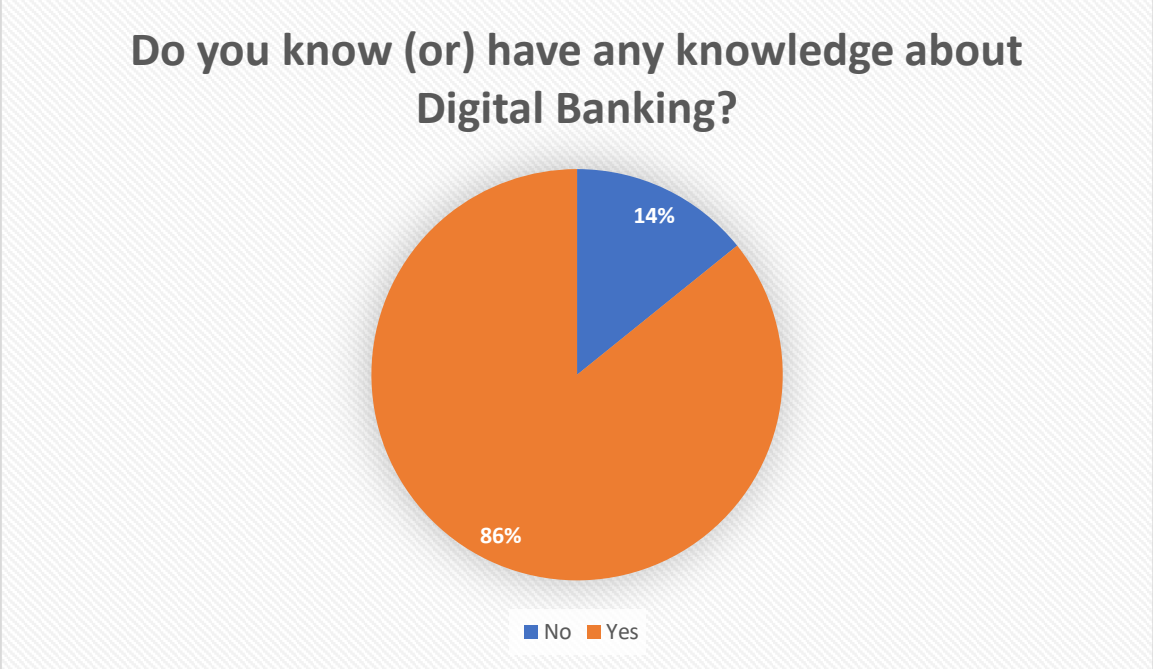

Figure 4.2.10. Respondent's knowledge of digital banking.

The results presented above suggest that respondents are aware of or have some knowledge of digital banking. This study included 343 respondents, with 85.8% being aware of digital banking. The remaining 14.2% comprises 57 respondents who are unaware of digital banking.

4.3 Reliability Test

Reliability test is the degree to which they are consistent across multiple testing instances. Cronbach Alpha and Multicollinearity test are the indicators of reliability testing (Noble, Scheinost, & Constable, 2019).

4.3.1 Cronbach Alpha

Table 4.3.1: Summary of Cronbach Alpha Value Result

Variables	Cronbach's Alpha	Number of Items	Strength of Consistency
DB	0.847	7	Good
PE	0.787	7	Acceptable
PU	0.839	7	Good
DS	0.854	7	Good
GE	0.759	7	Acceptable
SI	0.893	7	Good
PV	0.802	7	Good
AA	0.844	7	Good

Note: All the Variables are more than 0.7, which indicates that it is reliable to answer the research objective and hypothesis. Developed from the research.

The results of Cronbach's alpha values for dependent variables and independent variables are displayed in Table 4.3.1. From the table, it can be inferred that Cronbach's alpha result of the dependent variable, which is the intention to use digital banking in future is 0.846. This indicates that digital banking has good reliability. Next, social influence has the highest Cronbach's alpha of 0.839, followed by data security and privacy with 0.854. In addition, attractiveness alternative and perceived usefulness have 0.844 and 0.839, respectively. Cronbach's alpha for perceived value is 0.802, while that for perceived ease of usefulness is 0.787. Last but not least, government expectation and benefit has a minimum

Cronbach's alpha result of 0.759. In conclusion, each variable's "Cronbach's alpha value" is higher than 0.7, demonstrating that the value of internal structural reliability is acceptable.

4.3.2 Multicollinearity

Multicollinearity occurs when two or more predictive variables are associated. When multicollinearity affects the conclusions drawn about significance and parameter estimations, it poses a dilemma. Large variances in the least squares estimators of the beta coefficients in the regression equation may result from high levels of multicollinearity. Additionally, it may have inconsistent and irregular impacts on parameter estimations and significance, which could result in biased findings. The unique variance described by the predictors in the model is undermined by multicollinearity, which hides the underlying link between the predictor variables and the dependent variable. A common approach for detecting multicollinearity is the Variance Inflation Factor (VIF). The VIF indicator shows how much of the variance in the dependent variable is inflated by the predictor variables. In other words, the VIF is a clear indicator of the impact of collinearity on the estimated variance of the regression coefficient and is directly related to the regression coefficient associated with a predictor variable (Lavery, Acharya, Sivo, & Xu, 2017). If the VIF is less than or equal to 5, there is no correlation; a VIF value in the range of 5 and 10 implies a moderate correlation, whereas a VIF value higher than 10 indicates a high correlation (James, Witten, Hastie, & Tibshirani, 2013). *Table 4.3.2* shows that the VIF values are all less than 10. Therefore, there is no multicollinearity problem among the independent variables.

Table 4.3.2*: Tolerance Value and Variance Inflation Factor*

Model	**Tolerance**	**VIF**
PE	0.431	2.318
PU	0.287	3.483
DS	0.283	3.540
GE	0.423	2.365
SI	0.286	3.503
PV	0.176	5.689

AA	0.241	4.152

Notes: All the VIF values are ≤ 10, which indicates that it is reliable to answer the research objective and hypothesis Developed from the research.

4.4 Inferential Analysis – Multiple Regression Analysis

Table 4.4*: Multiple Regression Analysis result*

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.	90.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	0.405	0.228		1.771	0.077	0.028	0.781
	PE	-0.015	0.028	-0.014	-0.5150	0.607	-0.061	0.032
	PU	0.574	0.054	0.536	10.5620	0.000***	0.484	0.664
	DS	0.029	0.029	0.028	1.0070	0.314	-0.019	0.078
	GE	-0.073	0.040	-0.073	-1.8210	0.069**	-0.138	-0.007
	SI	0.103	0.037	0.108	2.7830	0.006***	0.042	0.164
	PV	0.368	0.067	0.332	5.5230	0.000***	0.258	0.478
	AA	-0.082	0.030	-0.078	-2.7650	0.006***	-0.130	-0.033

a. Dependent Variable: DB

*,**,*** indicates the rejection of the null hypothesis at 10%, 5%, 1% significant levels.

The econometries equation model is as shown below:

$$DB= 0.405 – 0.015PE + 0.574PU+ 0.029DS – 0.073GE + 0.103SI + 0.368\ PV – 0.082AA + Ɛ$$

The perceived ease of use is insignificant at a 90% confidence interval. The P-value of 0.607, more than the significance level of 0.1, shows that perceived ease of use does not affect

behavioural intention towards adopting digital banking. Furthermore, the unstandardised coefficients of negative value (-0.015) indicate a negative correlation, implying that the greater the perceived ease of use, the lower the intention to adopt digital banking. Therefore, for each unit increase in perceived ease of use, the behavioural intention of adopting digital banking decreases by 0.015 units, ceteris paribus.

In contrast, perceived usefulness is significant at a 90% confidence interval. The P-value of 0.000, less than the significance level of 0.1, indicates that perceived usefulness significantly impacts behavioural intention to adopt digital banking. Furthermore, the unstandardised coefficients of positive value (0.574) indicate a positive correlation, implying that the greater the perceived usefulness, the stronger the intention to adopt digital banking. Thus, for every unit increase in perceived usefulness, the behavioural intention of adopting digital banking increases by 0.574 units, ceteris paribus.

On the other hand, data security and privacy show an insignificant result, as their p-value of 0.314 is more than the 10% significance level. It insignificantly but positively affects the behavioural intention of adopting digital banking because of its unstandardised coefficient, recorded as a positive value of 0.029. Hence, when data security and privacy rise by one unit, the behavioural intention of adopting digital banking will increase by 0.029 units, ceteris paribus.

Government expectation and benefit have a p-value of 0.069 and less than the 0.1 significance level, showing that it significantly influences behavioural intentions towards adopting digital banking. The negative value of the unstandardised coefficient, recorded as a negative value of -0.073, indicates that the larger the government's expectations and benefits, the lower the intention to adopt digital banking. Hence, when government expectations and benefits rise by one unit, the behavioural intention to adopt digital banking will drop by 0.073 units, ceteris paribus.

The p-value of social influence is 0.006, which is also a significant result, and the unstandardised coefficient, recorded as a positive value of 0.103, also indicates that the more significant the social influence, the stronger the intention to adopt digital banking. Hence, when social influence rises by one unit, the behavioural intention to adopt digital banking will rise by 0.103 units, ceteris paribus.

Moreover, perceived value with the exact p-value as perceived usefulness also shows that it significantly impacts behavioural intention towards adopting digital banking at a 90% confidence interval. The unstandardised coefficients of positive value (0.368) also show that if the perceived value increases by one unit, the behavioural intention to adopt digital banking increases by 0.368 units, ceteris paribus.

Lastly, the attractiveness of alternatives also significantly affects the behavioural intention towards adopting digital banking, as its p-value is the same as the above independent variable. The unstandardised coefficients of negative value (-0.082) imply that for every one-unit increase in the attractiveness of alternatives, the intention of adopting digital banking will decrease by 0.082 units, ceteris paribus.

4.5 Summary

This chapter discussed and presented the findings from all 400 questionnaire respondents. The main indicators of data analysis are descriptive analysis, reliability test and inferential analysis. Hence, Chapter 5 will be discussing the effect of the data gathered and its implications.

CHAPTER 5: DISCUSSION, CONCLUSION, AND IMPLICATION

5.1 Introduction

The findings and results developed from chapter four will be discussed in this chapter including the study hypothesis, implication, and limitation of the study. The recommendations are provided to improve the studies' quality and assist future researchers.

5.2 Discussion of Major Findings

Table 5.2*: Summary table of hypothesis testing*

Hypothesis testing	Result (P-value)	Accepted/Rejected
H1: Perceived ease of use (PE) is significantly affect the Malaysians expectations towards digital banking	0.6070	Rejected
H2: Perceived Usefulness (PU) is significantly affect the Malaysians expectations towards digital banking	0.0000***	Accepted
H3: Data security and privacy (DS) is significantly affect the Malaysians expectations towards digital banking	0.3140	Rejected
H4: Government expectations and benefits (GE) is significantly affect the Malaysians expectations towards digital banking	0.0690**	Accepted
H5: Social influence (SI) is significantly affect the Malaysians expectations towards digital banking	0.0060***	Accepted

H6: Perceived Value (PV) is significantly affect the Malaysians expectations towards digital banking	0.0000***	Accepted
H7: Attractiveness Alternative (AA) is significantly affect the Malaysians expectations towards digital banking	0.0060***	Accepted

*,**,*** indicates the rejection of the null hypothesis at 10%, 5%, 1% significant levels. Developed from the research.

5.2.1 Perceived Ease of Use (PE)

H1: Perceived Ease of Use (PE) insignificantly affect Malaysians' expectations towards digital banking.

The results show that perceived ease of use (PE) negatively affects Malaysians' expectations of digital banking. Perceived ease of use denotes the extent to which people believe the technology is simple (Priyatma, 2022). The P-value of 0.607, which is much larger than the significance level of 0.1, proves that perceived ease of use does not influence the adoption of digital banking the most. In line with the result, the research conducted by A.Ali, Danish and Baig (2022), Mufarih, Jayadi and Sugandi (2020), and Mustafa, J.Singh and Ahmad (2022) found that perceived ease of use has an insignificant effect on behavioural intentions towards adopting digital banking. In simple terms, ease of use does not add any value to the user's adoption decision, and the users will have the perception that the technology is easy to use. For several reasons, perceived ease of use is not significant enough to affect Malaysians' expectations of digital banking. In detail, this is because users have already gotten used to the digital banking application, so the impression of its simplicity no longer influences their intention to use the application. Especially during the pandemic, most people are forced to use contactless payment methods such as e-wallets, which has led people and even middle-aged sellers to get used to the digital world and become familiar with the apps. The adoption rate of e-wallets is at its peak during the pandemic period because of the increasing trend among the

public (Giri & Suardana, 2021). Furthermore, there are e-wallet payment codes to be seen everywhere, no matter if in a small market or mall. People's tradition of making payments using cash has been shifted by the e-wallet, particularly in today's world. From this statement, an e-wallet is said to have successfully integrated into everyone's phone and led the user into the digital world. As such, people automatically assume that digital banking is also easy to use.

In addition, e-wallets, mobile banking applications, and other digital technology have become necessary to them. Based on their experience, they think that the application requires less effort or that the operation is similar to mobile banking, so they think using it is easier. Using an e-wallet, for instance, is highly convenient (Surya & Usha, 2019); where it just requires users to click the payment button and type in their password to complete the transactions, which is indeed convenient and easy for the user. Besides, users also believe that the application developer will continue to develop a more accessible interface that can be accessed by all users (Giri & Suardana, 2021). Thus, it leads them to believe that the interface of digital banking will also be easy to use.

Moreover, an increasing number of individuals, particularly those from Generation Z, are exposed to digital technology and are more willing to adopt new technologies. It is because, nowadays, an individual is not just limited to one electronic device. Generation Z is more tech-savvy and was born in the digital world, which enables them to learn the usage of a system or technology quickly. The more people experience using the internet, the more they adjust their insight on whether the system or technology is easy to use. The acceptance of similar technology leads the user to rely more on their knowledge and abilities than on the apparent simplicity of usage (Juniwati, 2014). As a result of people's experience with using an e-wallet, simplicity is no longer a worry and does not affect the decision to adopt digital banking (Mustafa et al., 2022).

5.2.2 Perceived Usefulness (PU)

H2: Perceived Usefulness (PU) significantly affects Malaysians' expectations towards digital banking.

The results show that perceived usefulness substantially impacts Malaysians' expectations towards digital banking. Perceived usefulness, in general, relates to the degree an individual has confidence towards a particular system's usefulness and the benefits offered in terms of its productivity and performance (Shiau, Yuan, Pu, Ray, & Chen, 2020). The result is consistent with the findings conducted by I. Lee and Shin (2018); Alnemer (2022); Camilleri (2019); Fortes and Rita (2016); Mbama, Ezepue, Alboul and Beer (2018); O.Nguyen (2020); Y.Nguyen, Tapanainen and H.Nguyen (2022); Pertiwi, Suprapto and Pratama (2020); Rahi, Ghani and Ngah (2020); Raza, Umer, Qureshi and Dahri (2020); S.Singh, Sahni and Kovid (2020); Susanto, Chang and Ha (2016); Upadhyay and Jahanyan (2016). When the consumer finds that the system is efficient and useful in helping the daily transaction, it will create a higher chance and probability for the consumer to adapt to the banking system. It is because a hassle-free and effortless transaction increases the overall convenience of the customers in terms of productivity and performance, which optimises the digital performance of digital banking services. A consumer's potential psychology subjectively agrees that new technology increases efficiency and convenience in work and life by providing a wealth of information (Tahar, Riyadh, Sofyani, & Purnomo, 2020). Besides that, digital banking is suited to consumers' daily demands as the financial services offered are not restricted by time or place to conduct transactions anytime, anywhere without restrictions. Most of the transactions can be completed with just the tip of the finger, which reduces the overall time, energy, and effort spent by an individual in completing certain financial transactions, including do not have to queue for long hours, reducing transportation costs to travel to the bank and reduce banking charges as the carbon footprint in the bank has been reduced. According to Elhaijar and Ouaida (2020), consumers appreciate mobile banking because it saves time and money by enabling users to complete several tasks, such as money transfers, checking account balances, and bill payments, without making expensive phone calls or visiting a branch. Thus, applying digital banking is helpful in one's daily life.

According to A. Alalwan, Dwiedi and Rana (2018), digital banking, such as e-wallets, allows users to carry small amounts of cash without needing to bring vast amounts outdoors. It shows that electronic transactions are safer without the need to carry huge cash and more sanitary as one does not have to exchange cash physically whilst being able to track transactions

electronically. Digital transactions increase efficiency and allow considerably better financial resource management. This scenario increases users' convenience and the chances to adopt digital wallets. This study is consistent with Camilleri (2019), Susanto et al. (2016), and Upadhyay and Jahanyan (2016).

Furthermore, digital banking also saves time while providing services, including cryptocurrency, not offered in the traditional banking system. More value-added services in digital banking and optimising the digital banking industry tend to reduce more technical errors than traditional transactions. It is mainly due to the emphasis on fintech service that focuses on reducing task redundancy, faster information availability and fewer user service intervention requirements (S.Singh et al., 2020). This positive experience enhances overall customer satisfaction, increasing the perceived usefulness of digital banking. Hence, it is perceived as a more convenient option than traditional banking (Alnemer, 2022). These technological advancements offer a differentiated customer experience by providing individualised services through artificial intelligence and big data analytics (Indriasari, Gaol, & Matsuo, 2019). It offers an expanded spectrum of communication, including financial literacy education based on individual needs through the adaptation of fintech, including tax, budgeting, financial, and wealth management literacy (Goyal & S. Kumar, 2021).

5.2.3 Data Security and Privacy (DS)

H3: Data Security and Privacy (DS) insignificantly affect Malaysians' expectations towards digital banking.

The result shows that data security and privacy have insignificant effects on behavioural intention towards adopting digital banking. Security is a crucial aspect of transactional data systems, ensuring that personal and financial data sent to digital-only banks are protected against unauthorised use or disclosure. In contrast, privacy concerns are related to an individual's right to control the information and keep the confidentiality of their data (Rath & A. Kumar, 2021). The P-value of 0.314, more significant than the significance level of 0.1,

indicates that data security and privacy might not affect individuals who participate in this questionnaire in their behavioural intentions to utilise digital banking. This outcome is supported by J.Lee and Kim (2020); Saif, Hussin, Husin, Alwadain and A.Chakraborty (2022); Zainordin, Izni, Lu, Ng and Annuar (2022); Zhang, Luximon and Song (2019). There is a positive relationship between the perceived security towards adopting digital banking (Zhang et al., 2019). The users' perception is that digital banking is highly protected to secure personal data and online transactions against potential risks, such as fraud or data breaches. This perception helps to build a proactive relationship between users and digital banking systems, as they feel secure and have assurance in using the system for their financial purposes. They think potential personal and financial information hazards will be avoided when transacting online. They thus stop caring as much about security and privacy issues. This scenario is consistent with the study of Lusaya and Kalumba (2018), who state that consumers expect bankers to provide security assurances on their accounts. Due to the country's general and regular use of Internet transactions, the hazards related to digital banking have significantly decreased. Therefore, security concerns have less influence on adopting digital banking (Saif et al., 2022).

As technological advances and regulations advance, digital banking has grown more dependable and secure. It is because Malaysia's banking security policy complies and is consistent with Bank Negara Malaysia's requirements for the privacy and confidentiality of information and transactions, as well as the necessity to safeguard the integrity and safety of the system. The data privacy, confidentiality and integrity of the information include firewalls, two or three-factor authentication, 128-bit encryption, and secure sockets layer channels to serve as a powerful barrier against abuse and manipulation by security threats. Additionally, the banks such as CIMB bank are required to regularly and thoroughly examine or audit their System Security Monitors using both internal and external security experts, including actual penetration testing and intrusion detection on the specified System Security Monitors, allowing the bank to identify any flaws, errors, malfunctions, or deficiencies. The results will be disclosed to Bank Negara Malaysia to remodify the gaps in the system. Banks will be compelled to temporarily halt the system's usage until the flaws are fixed, all without warning and without incurring any duty to the consumer (Normalini & Ramayah, 2012). It shows that banks and other financial institutions have established strong security measures to safeguard customer information and guarantee confidentiality under the surveillance of Bank Negara

Malaysia (Lin, Wang, & Huang, 2020). As a bank customer, there is no need to be worried about the security and privacy of the data, and this confidence comes from the recognition that the bank has put in place reliable systems and safeguards while operating under the regulatory framework established by Bank Negara Malaysia to ensure the security of consumers' information. Besides, because security and privacy breaches are so rare, users might not prioritise the system's security and privacy qualities as the e-wallet's reputation for safe payments and in-depth data verification procedures are reasonable. Most users feel that e-wallets provide a high level of security and take appropriate measures to protect their personal and financial data (Koo & Cuandra, 2022). As a result, consumer worries regarding data breaches and unauthorised access have decreased. Besides, the extensive use of Internet transactions in Malaysia has increased familiarity and comfort level with digital banking services. People who regularly interact online grow familiar with the procedures and security protections in place. Therefore, users lower their worries about possible hazards.

5.2.4 Government Expectations and Benefits (GE)

H4: Government expectations and benefits (GE) significantly affect Malaysians' expectations towards digital banking.

The results show that government expectations and benefits substantially impact Malaysians' expectations towards digital banking. Government expectations and benefits refer to the support that the government has provided in the adaptation of digital banking. The result is consistent with the findings conducted by S.Hossain, Bao, Hasan and Islam (2020); Hu, Chen and Davison (2019); Kimiagari and Baei (2021); A.Ojo, Fawehinmi, O. Ojo, Arasanmi and Tan (2022). The finding signifies that government expectations and benefits affect Malaysians' expectations towards digital banking. The presence of a government system that supports the banking system makes it more credible and feasible, as adopting specific rules and regulations simplifies the procedure of technology acceptance (S.Hossain et al., 2020). The high credibility of the government increases the trustworthiness and dependability of products and services by raising public awareness of the use of advanced technologies in financial innovation, making

fintech more appealing to consumers (Hu et al., 2019). Hence, government support towards technology adoption increases the intention to use the individual.

Additionally, the study conducted by Jaruwachirathanakul and Fink (2005, as cited in Alalwan et al., 2017) highlighted the importance of government support towards the adoption of Internet banking as it affects an individual's perspective and feelings towards the financial services provided. Government support is perceived as a safe and ethical platform that provides sufficient customer safety (Kimiagari & Baei, 2021). It is because the interception of government assures individuals that Internet banking happens in an organised and healthy surveillance environment, including stricter legislation and security guarantees. It enhances the user's trust and adaptation to digital banking (A.Ojo et al., 2022). Furthermore, the amount of effort and initiation taken by the government is a crucial factor in the growth of online banking (S.Hossain et al., 2020). Thus, government intervention protects the public's safety, offering consumers enhanced safety when making product choices and prohibiting businesses from exploiting unwitting customers. According to Guild (2017), digital transaction providers, including Paytm, experienced a corresponding increase in market share as the government encouraged many individuals to register bank accounts. The market for cashless transactions was further extended in late 2016 when the government took the initiative to demonetise by removing a sizable portion of all currency from circulation. Paytm then received a vote of trust in the shape of a $1.4 billion investment from Softbank.

5.2.5 Social Influence (SI)

H5: Social Influence (SI) significantly affect Malaysians' expectations towards digital banking.

The results show that social influence significantly affects Malaysians' expectations towards digital banking. Social influence is the shift in the behaviour of what a person thinks in terms of attitudes, beliefs and behaviours modified by the expectations of others. The result is consistent with the findings of Belanche, Casalo and Elavian (2019); de Blenes Sebastian, Antonovica and Guede (2023); H.Hassan and Wood (2020); Intarot and Beokhaimook (2018);

Lien, Doan and Bui (2020); Marpaung, Dewi, Grace, Sudirman and Sugiat (2021); Migliore, Wagner, Cechella and Liebana-Cabanillas (2022); Nur and Panggabean (2021); K.Patel and H.Patel (2018); Shahid, Islam, Malik and Hasan (2022). The finding signifies that social influence affects the intention of Malaysian to adopt digital banking. The higher the rate of acceptance of others' beliefs, the higher the rate of adoption of digital banking such as WeChat, a messenger and electronic wallet in China, whereas a lower rate of acceptance of e-wallet in Thailand causes it to be lag behind other countries such as China (Zhao & Qi, 2020). From another perspective, the culture of being aware and conscious of other people's opinions and judgements in Vietnam increases the chances of customers adopting digital banking services if one observes the people around them, including family, friends and relatives, using it due to societal pressure (Lien et al., 2020). It shows that a strong social influence indicates that people interacting in social contexts are conscious of the opinions of one's family and friends.

Individuals will be highly affected by one's social circle, so actions, statements and attitudes towards digital banking are essential. It is mainly due to individuals being driven by a psychological demand for social interaction through the connection of acceptance of group norms, values and behavioural patterns to gain approval from other individuals. The propensity to live up to others' expectations influences how customers behave when adopting digital banking. Additionally, it is proposed that social influence places societal pressure on an individual such that the person would be labelled as antisocial if the person does not buy the product as confronted by society. As a result, individuals who have been persuaded often choose goods or services that coincide with the preferences of the influencers.

Furthermore, because the focal purchase is thought to represent a consumption norm, the influencers' purchases or recommendations may encourage the consumer to make a comparable purchase (Hu et al., 2019). According to H. Hassan and Wood (2020), consumer social contact has a multiplicative effect. As a result, banks should work to win over influential and well-known members of the community who can inspire other customers to use mobile banking. Users of mobile payment platforms also spread one's positive experiences through word of mouth among social circles, fostering an environment conducive to the usage of each sector. Thus, social influence facilitates the adoption of new services and technology.

5.2.6 Perceived Value (PV)

H6: Perceived Value (PV) significantly affects Malaysians' expectations towards digital banking.

The result shows that perceived value significantly affects behavioural intentions towards digital banking. Perceived value is the consumers' assessment of the advantages they anticipate from buying and using a product. It represents the overall evaluation made by consumers regarding the quality of a product or service based on their perception of what they will gain and receive (Ahn & S.Lee, 2019; Kapoor, Sindwani, Goel, & Shankar 2022; Karjaluoto, Shaikh, Saarijaryi, & Saraniemi,2019; R. Kumar, Sachan, R. Kumar,2020; Ling, Teo, Ho,& Choo,2020). The results are in line with the previous researchers which are Ahn and S.Lee (2019); S.Chakraborty and Mitra (2018); Karjaluoto et al. (2019); Mbama et al. (2018); Muchardie, Gunawan and Lestari (2021); Putri, Wardhana and Pradana (2022); Sentanu, Sagala, Mariuki and Gunadi (2020). Moreover, there is a positive correlation between rewards and the intention to use digital banking, as greater rewards tend to attract a more extensive consumer base. Digital banking effectively manages and enhances the perceived value as a marketing strategy; it will significantly appeal to the consumer to adopt digital banking (Hsiao, 2020). According to the study of Sentanu et al. (2020), perceived value, personal innovativeness and habit can impact the acceptance level of digital banking and lead to loyalty. When the perceived value of digital banking can reach customers' satisfaction, they will tend to accept and adopt digital banking services (Amoroso & Chen, 2017).

According to the study of Ling et al. (2020), more excellent perceived value leads to an increased tendency to adopt digital banking, implying that this desire is driven by both its inherent rewards and external benefits such as cash discounts, cash rewards for downloading the app, and coupon codes. This study is consistent with the study of Kapoor et al. (2022), which states that both advantages can enhance the perception of perceived benefits. Cha, Cheng, Chew and Fan (2021) state that regarding usage intention, the perceived value of cashless payment has a favourable impact, and customers are more inclined to adopt digital banking when they find the cost appealing and reasonable. Higher perceived value as believing trust tendency with cashless payments as knowing it is higher quality, more trustworthy, and

more capable (J.Wang, N. Nguyen, Jiang, H. Nguyen, & Saleem, 2023). Perceived value plays a crucial role in customer behaviour, impacting the intention of adopting digital banking. Users see digital payments, such as mobile wallets, favourably since they are more effective and efficient than other electronic payment methods. Mobile wallets also reduce the time and effort needed to complete transactions offering consumers more seamless and rewarding payment experiences (Chawla & Joshi, 2020; P. Kaur, Dhir, Bodhi, Singh, & Almorairi, 2020). Besides, according to the study by R. Kumar et al. (2020), customers may continue to use it even though their experiences are not satisfied with certain aspects of online banking. For this reason, banks need to concentrate on providing value-added services and fulfilling customers' demands to keep their loyalty and utilisation of their online banking services.

Furthermore, the perceived novelty of a product increases its perceived value. Understanding that novelty is closely related to the hedonic aspect of value is crucial. Hence, it extends to support commitment in relationships (Karjaluoto et al., 2019). One advantage of digital banking is that transactions can be completed online; customers can quickly and effortlessly accomplish various banking tasks without having to visit physical branches or stick to scheduled banking hours because of this convenience factor, which raises the perceived value. As a result, the new technology will significantly impact the intention to use digital banking and enhance customer engagement.

5.2.7 Attractiveness of Alternatives (AA)

H7: Attractiveness of alternatives (AA) significantly affect Malaysians' expectations towards digital banking.

The result shows that the attractiveness of alternatives (AA) significantly affects behavioural intentions towards digital banking. The P-value of 0.006, less than the significance level of 0.1, proves that the greater the attractiveness of alternatives, the lower the intention to adopt digital banking. Based on Porath's study (2017, as cited in Loh et al., 2020), the appeal of mobile payment over cash may be observed in its accessibility, convenience, and speed. These mobile-specific characteristics underline the allure of alternatives and function as pull factors,

encouraging customers to switch to mobile payment. In a more straightforward way to express it, if the alternative apps have better accessibility and convenience, the users may tend to switch to them. The attractiveness of the alternatives to digital banking, such as e-wallets or online banking, is that they are easy to operate, and the transactions are fast enough to be completed. It is because, nowadays, people are more keen on speedy transactions and always look for better functionality in apps or alternatives. As such, it is essential that digital banking be attractive enough to capture the attention of users.

The attractiveness of alternatives has a significant impact on Malaysian expectations towards digital banking as there are multiple competing and alternative applications available for customers to choose from, and no surprise, more alternatives may be established in the future as the advancement of technology increases. Suppose the other application is more attractive and provides more benefits to the users. In that case, the intention to switch from digital banking to the other application will be relatively high, as the users' choices might vary. They may choose between different options or alternatives based on their unique requirements and preferences, especially when dealing with the application they will use. A good alternative will be traditional banks, where most people are unwilling to switch to digital banking because they still prefer face-to-face interactions (Windasari, Kusumawati, Larasati, & Amelia, 2022), and they are unable to adapt to the mindset that a bank is not just one with a physical branch; there are also virtual banks in which the services can be fully online. People believe that traditional banks are more robust than digital banking, but they still retain their perception of preferring traditional banking over digital banking. More seriously, even if users dislike one of the functions of digital banking, they will start judging the system and quickly searching for other, more suitable applications. Traditional banking, which has been around for a long time, is impeccable and still an attractive alternative to digital banking. Based on Ye, Liu, Cho, and Jia's studies, it is true that the user intended to shift to other alternative items that could better meet their wants (Ye, Liu, Cho, & Jia, 2022). Thus, it is significant in affecting the user's behavioural intentions.

5.3 Implications of the Study

From a theoretical perspective, the study's findings have some implications. First, this study uses the Technology Acceptance Model (TAM) model in the new context of Malaysians' "behavioural intention to adopt digital banking". The results show that the TAM model has significant explanatory and predictive power in explaining the willingness of users to adopt digital banking. Hence, this discovery enriches the TAM literature in the context of digital banking adoption. Second, this study evaluates several significant variables, such as perceived ease of use, perceived usefulness, perceived value, government expectation and benefits, data security and privacy, social influence, and alternative attractiveness, affecting Malaysians' digital banking adoption. The findings show that perceived usefulness, perceived value, government expectation and benefits, social influence, and alternative attractiveness have a significant relationship with the intention to adopt digital banking in Malaysia. In contrast, perceived ease of use and data security and privacy show a non-significant relationship.

Next, from a managerial perspective, this study can provide bankers with information on Malaysians' expectations of digital banking services. Since digital banking is still in its infancy in Malaysia, this study is significant for bankers. From a banker's perspective, perceived usefulness is important because it allows bankers to shrink or improve their work tasks in terms of extracting data, generating reports or analysing markets in real-time when bank customers use digital banking. Therefore, when Malaysians find digital banking helpful, they are more likely to adopt it, resulting in a more extensive customer base for bankers and increased use of their services (S. Kaur, L. Ali, M. Hassan, & Al-Emran, 2021). In addition, bankers can benefit from streamlined processes and reduced reliance on traditional channels as consumers adopt digital banking, resulting in cost savings and increased operational efficiency. Then, given the perceived value relationship, digital banking offers a wide range of features that enable bankers to provide value-added services to customers and a satisfying banking experience (Wewege, J. Lee, & Thomsett, 2020). Bankers can improve their ties with clients by offering value-added services through digital channels. It can boost client loyalty and have a good word-of-mouth effect, benefiting bankers and improving Malaysians' propensity to adopt digital banking.

Besides, data security and privacy are not vital concerns when embracing digital banking. However, this does not imply that the users are not considering the security risks when using the apps. Likewise, this does not imply that authorities, such as the Central Bank of Malaysia, can liberalise cyber legislation in digital banking. It implies that consumers assume that digital apps are safe to use and that there will be no or few problems. According to Nwaiwu, Kwarteng, Jibril, Burita and Pilik (2020), security assurance will enhance one's confidence in adopting the technology. As a result, there is less concern about data security and privacy problems. The Central Bank of Malaysia can continue to look for a comprehensive regulatory framework, as digital banks have yet to be established in Malaysia, and the rules are genuinely different from those for physical banks. Thus, building a more appropriate law will stay within consumer expectations once digital banking is introduced.

Furthermore, this study provides investors with relevant insights into Malaysians' willingness to use digital banking. For investors, digital banks are perceived to be helpful when they provide features and functions that meet their investment needs. Thus, investors can effectively monitor their investments and access relevant information by perceiving digital banks as applicable. It can help them feel more confident about their investment decisions and provide better financial outcomes (Lumpkin & Schich, 2020). From the perspective of the behavioural intentions of social influence and Malaysians to adopt digital banking, when investors observe other people (e.g., friends, family) using and benefiting from digital banking, they are more likely to be influenced and have intentions to use digital banking themselves. It can benefit investors because observing others benefit from digital banking can enhance investors' perceptions of the potential profitability of digital banks, thereby increasing their confidence and willingness to invest in digital banking stocks. In addition, since digital banking is considered the next step in the evolution of the banking sector, its growing prominence in the financial sector can open up potential opportunities for investors. The increased adoption and acceptance of digital banking could indicate a shift in consumer behaviour and preferences, making it an attractive area for investment. Hence, these social influences can give investors a sense of security and dependability in digital banking, which may inspire confidence and the possibility of better investment results.

The following group to benefit is the future researchers. They can apply this study to understand better the variables that influence Malaysians' willingness to adopt digital banking behaviours, and it will help them to provide valuable insights in greater depth in future studies. According to the study's findings, the impact of perceived ease of use and data security and privacy on Malaysians' intention to adopt digital banking is insignificant. However, the intention of Malaysians to use digital banking is significantly impacted by perceived ease of use, perceived usefulness, perceived value, government expectation and benefit, data security and privacy, social influence, and alternative attractiveness. Therefore, future researchers can add new variables or eliminate ones they believe are not necessary to study the adoption of digital banking by utilising our variables as a reference. Furthermore, future researchers can utilise our study as a valuable reference for future research on digital banking in Malaysia since there is a dearth of knowledge on digital banking in Malaysia.

Research is also crucial for academics. This study will increase the number of research projects available on the internet, and it can thus provide more support to academicians in exploring more vital areas in the digital banking field as the research contains more variables that could determine the behavioural intentions of adopting digital banking. It gives valuable insights into the aspects that impact people's decision-making when using digital banking services. Academics may also use this information to create new theories, models, and frameworks to better understand technology adoption in the financial sector.

5.4 Limitations of the Study

This study aims to examine Malaysians' expectations towards digital banking. The researcher identified some potential limitations in conducting this study. First, one of the limitations of this study is the unequal demographic distribution of the respondents. According to the results of this study, the number of female respondents exceeded more than half of the total number of respondents. The proportion of men was 31.8%, while the proportion of women was 68.3%. However, according to the data from the Department of Statistics Malaysia, the proportion of the male citizen population in Malaysia is greater than the proportion of the female citizen

population. Therefore, the findings of this study could not accurately reflect Malaysian consumers of all genders' inclination to adopt digital banking.

Second, a potential sample bias is one of the study's limitations. The study may have depended on a narrow set of participants, such as city dwellers or highly educated persons, which might skew the results and restrict the generalizability of the findings. The survey's primary focus on these groups could make it less likely to effectively represent the opinions and experiences of people from other areas or lower socioeconomic levels, which would understate the general public's expectations for digital banking. This constraint impedes the creation of inclusive solutions that satisfy the desires of all Malaysians by ignoring the distinctive needs and issues encountered by different groups of society.

Besides that, the study's limitations were cultural and regional variances. Malaysia is a varied country with many ethnicities and regional variances. Expectations for digital banking may fluctuate depending on cultural and regional circumstances. Therefore, emphasising a single regional or ethnic group may restrict the findings' generalizability. According to the result of this study, most of the targeted respondents are 95% of Chinese, followed by the respondents are 2.3% of Malay and 2% of Indian. It means that the results collected are limited to cultural and regional differences, which may miss other racial and regional differences in respondents with different ideas about what to expect from digital banking. Therefore, research results are limited.

Then, the selection of data collection techniques caused issues for the study. The researchers only utilised online questionnaires to gather primary data. The method used to collect the study's data came with some limitations. Although online questionnaires were very convenient, they may have unintentionally excluded people who needed internet access or were less likely to take part in online surveys by depending merely on online questionnaires. This limitation may have resulted in a potential bias in the sample used in the research. Additionally, because of the inability to communicate directly with the respondents, online questionnaires may have constrained researchers' capacity to delve further into participants' responses or address any ambiguities. As a result, this condition may lead to less accurate and trustworthy data.

Lastly, the difference in the understanding of digital banking among participants of different age groups is one of the limitations of this study. The younger generations are more likely to believe in and adopt digital banking as they get used to technology. In comparison, older generations may have more difficulty embracing and adopting new technologies like digital banking. The older generations were created before the advent of the digital age. Therefore, their exposure to and experience with it may be less extensive. In other words, a person's perceptions may be influenced by their past ideas, values, and experiences. However, according to the results of this study, there are fewer older generations, which may affect the results.

5.5 Recommendations for future research

Future research should consider some of the following recommendations to address the limitations outlined in this study. First, researchers should overcome time constraints and include additional variables that can influence Malaysian expectations toward digital banking. Researchers can enrich their analysis, discover new insights, and develop a more thorough grasp of the elements influencing expectations for digital banking by including more variables. However, when choosing and evaluating these variables, it is essential to consider the study's time and resource limitations into account in order to ensure their viability.

Second, by adding moderating variables, future research could further demonstrate the relationship between expectations that would affect digital banking and its outcomes. Researchers can incorporate moderating variables into the study design and analysis and identify critical contextual factors influencing digital banking expectations. This method offers a more sophisticated view of the underlying dynamics and can offer beneficial insights for practitioners, policymakers, and researchers in the field.

In addition, future researchers should use cross-sectional studies to study entire populations or samples to address the limitations of the uneven demographic distribution of respondents. Future researchers can evaluate sampling methods to ensure proper representation of various

population categories, including age, gender, income, and educational level. Not only that, but future researchers can also balance the sample and achieve a more even distribution by targeting underrepresented groups or specific groups for additional data collection. Hence, researchers can overcome the difficulties provided by the unequal distribution of respondents and enhance the validity and generalizability of their findings by considering these recommendations.

Next, future studies must use a more diverse sample that accurately reflects Malaysians' wide range of expectations for digital banking to overcome the limitation of sample bias. It can be accomplished by intentionally incorporating participants from diverse demographic backgrounds, such as age groups, income levels, and work industries. Thus, this will improve the findings' generalizability and allow them to illustrate Malaysians' expectations of digital banking.

Then, future research should involve conducting questionnaires across different areas and ethnicities to capture variances in expectations and provide a more representative depiction of Malaysians' expectations of digital banking. Researchers can capture the diversity in expectations and give a more representative depiction of Malaysians' different viewpoints and expectations by enrolling a broader spectrum of participants. This method will thoroughly comprehend the issues that influence Malaysians' expectations of digital banking.

Besides that, additional methods for gathering primary data should be used to tackle the limitations of relying only on online questionnaires as a data collection method. The researchers can combine multiple methods, such as focus groups and in-person interviews, to decrease the biases that online questionnaires provide and reach populations without internet access and gain a deeper awareness of the research topic by incorporating offline methods. Besides, creating a personal connection with participants through direct face-to-face or over the phone can improve connections, promote openness in responses, and allow us to delve deeper into respondents' responses.

In the study on how different generations' expectations toward digital banking, Researchers should endeavour to allow different generations to fill out the questionnaire, especially the older generation and try to communicate with them. Hence, researchers will better understand how different age groups accept digital banking and what factors influence their adoption. It helps to gain insight into the customer's adoption level of digital banking.

5.6 Summary

In conclusion, this research project will focus on studying the determinants of behavioural intention towards adopting digital banking. The data obtained through online surveys is processed and analysed using the most recent version of SPSS statistical software. The findings show that the independent variables in this study, which include perceived usefulness, perceived value, government expectations and benefits, social influence, and attractiveness of alternatives, have a significant relationship with behavioural intention to adopt digital banking. However, there are insignificant relationships for the other two independent variables, perceived ease of use and data security and privacy. Finally, this research may be helpful to future researchers from various perspectives.

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Appendix

Appendix 1.1: Differences between Digital Banking and Traditional Banking

Digital Banking	Traditional Banking
Digital banks do not have physical branches, services are advertised online ("Top 10 Differences", n.d.).	Traditional banks exist physically for serving the customers ("Top 10 Differences", n.d.).
Customer do not have to visit banks to check their bank balances or do transaction, they can access their account readily from anywhere with mobile and computer ("Traditional Banking", n.d.).	Customers must visit banks to complete financial activities such as checking bank balances, transferring money from one account to another, which takes a lot of time ("Traditional Banking", n.d.).
Digital banking is available at any time, and it provides 24 hours access (M.Strohm & Horton, 2023).	Customers must visit banks only during working hours (M.Strohm & Horton, 2023).
Digital banking is an attractive target for hackers. Security is one of the issues customers face when accessing their accounts over the internet (M.Strohm & Horton, 2023).	E-security threats do not affect traditional banking (Kokemuller, 2022).
Customers who often travel abroad can manage their money better (Malyshev, 2023).	Customers who travel abroad often are unable to monitor and manage their cash carefully (Malyshev, 2023).
Customers do not have to spend money for visiting banks. By paying their bills or straight from their account to the retailer, individuals may avoid any bank fess that could be applied to particular teller transactions (M.Strohm & Aoki, 2023).	Customers have to spend money for visiting banks (Kenton, 2023).
Digital banks do not have physical branches, these expenses are avoided (M.Strohm & Aoki, 2023).	Traditional banks are required to pay significant operational and fixed costs (Kenton, 2023).

Customers do not have to queue up to complete certain bank transactions when using digital banking (Tammy, 2022).	In traditional banks, only a small number of customers can be served at once by bank employees and clerical staff (Tammy, 2022).
Only online contacts are allowed for customers (“Traditional banking”, n.d.).	Traditional banking allows for face-to-face interactions with customers (“Traditional banking”, n.d.).

Appendix 1.2: Questionnaire

Section A: Demographic Information (Prohibition on Privacy questions)

You are invited to participate in research conducted by students from Bachelor of Business Administration (Honours) in Banking and Finance Universiti Tunku Abdul Rahman (UTAR), Kampar campus. This research is conducted under the supervision of Dr William Choo Keng Soon from the Department of Banking and Risk Management, Faculty of Business and Finance, Universiti Tunku Abdul Rahman.

This research aims to study the determinants of Malaysian's expectations towards digital banking. This questionnaire is open to Malaysians of all ages.

There are (3) parts to this questionnaire:

Section A - Demographic Information

Section B – Intention to adopt Digital Banking

Section C – The determinants that affect the intention to adopt Digital Banking

Note:

1. This questionnaire will take approximately 5 to 10 minutes.
2. Your participation in this study is entirely voluntary, and withdrawal from this study is allowed at any time.
3. Your information and data will be kept confidential.

Thank you for your time and participation.

Personal Data Protection Statement

In accordance with Personal Data Protection Act 2010 ("PDPA") which came into force on 15 November 2013, Universiti Tunku Abdul Rahman ("UTAR") is hereby bound to take notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

1. Personal data refers to any information which may directly or indirectly identify a person which could include sensitive personal data and expression of opinion. Among others it includes:

   (a) Name
   (b) Identity Card
   (c) Place of Birth
   (d) Address
   (e) Education History
   (f) Employment History
   (g) Medical History
   (h) Blood Type
   (i) Race
   (j) Religion
   (k) Photo
   (l) Personal Information and Associated Research Data

2. The purposes for which your personal data may be used are inclusive but not limited to:

(a) For assessment of any applications to UTAR
(b) For processing any benefits and services
(c) For communication purposes
(d) For advertorial and news
(e) For general administration and record purposes
(f) For enhancing the value of education

(g) For educational and related purposes consequential to UTAR
(h) For replying any responds to complaints and enquiries
(i) For the purpose of our corporate governance
(j) For the purposes of conducting research/collaboration

3. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.

4. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

5. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

   Consent:

6. By submitting or providing your personal data to UTAR, you had consented and agreed for your personal data to be used in accordance to the terms and conditions in the Notice and our relevant policy.

7. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes

related to the purpose. 8. You may access and update your personal data by writing to us at limydd@1utar.my

☐ I have been notified and that 1 hereby understood, consented, and agreed per UTAR above notice.

☐ I disagree, my personal data will not be processed.

SECTION A

Demographic Information

1) **Gender**

Male	
Female	

2) **Age**

Below 20 years	
21 to 30 years	
31 to 40 years	
41 to 50 years	
Over 50 years	

3) **Ethnicity**

Malay	
Chinese	
Indian	
Others	

4) **Education**

High School	
Undergraduate	

Graduate	
Post-Graduate	
Others	

5) Employment Status

Full time	
Part time	
Unemployed	
Retired	

6) Work Industry

Agriculture	
Healthcare	
Finance	
Education	
Others (Please fill in:)	

7) Experience in using Internet Banking

None	
Less than 2 years	
2 – 4 years	
4 – 6 years	

More than 6 years	

8) Internet Banking Transaction Frequency (monthly)

Never	
1 to 3 times	
4 to 7 times	
8 to 10 times	
More than 10 times	

9) Internet Banking Transaction Amount (monthly)

RM 0 (none)	
Below RM100	
RM100 – 499	
RM500 – 999	
RM1000 - 2000	
More than RM2000	

10) Do you know or have any knowledge about Digital Banking?

Yes	
No	

Section B: Dependent Variable:

Intention to use Digital Banking in future

No	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	I would consider using digital banking services to be a wise decision.	5	4	3	2	1
2.	I plan to use digital banking in the future.	5	4	3	2	1
3.	I would expect digital banks to offer greater access to funds and convenient payment options.	5	4	3	2	1
4.	I plan to use digital banking frequently.	5	4	3	2	1
5.	I might enjoy using digital banking services in the future.	5	4	3	2	1
6.	There is a very high chance for me to switch to digital banking.	5	4	3	2	1
7.	I would be more likely to use digital banking if it fulfils my banking needs.	5	4	3	2	1

Section C: Independent Variable:

IV 1: Perceived Ease of Use

No	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	Learning how to use digital banking would be easy for me.	5	4	3	2	1
2.	I expect the interaction with digital banking to be clear and understandable.	5	4	3	2	1
3.	The digital banking platform would be complicated and require a lot of mental effort.	5	4	3	2	1
4.	I am worried that there are a lot of errors while accessing digital banking services.	5	4	3	2	1
5.	I lack the information required to perform transactions under a digital banking platform.	5	4	3	2	1
6.	The entire process of searching and transacting in digital banking would take a reasonable amount of time.	5	4	3	2	1
7.	I expect the functions and transactions of digital banking to be simplified and make it easier for me to	5	4	3	2	1

	accomplish my banking tasks.					

IV2: Perceived Usefulness

No	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	Digital banking would be useful in my daily life.	5	4	3	2	1
2.	I can perform banking transactions even on public holidays.	5	4	3	2	1
3.	Digital banking would increase the effective use of time, for example, by not having to queue for long hours.	5	4	3	2	1
4.	Digital banking can help to reduce banking costs, such as reducing bank charges and transportation costs.	5	4	3	2	1
5.	Digital banking can make things convenient by accessing banking services anytime, anywhere.	5	4	3	2	1

6.	Digital banking would provide a wide range of information just one-click away.	5	4	3	2	1
7.	I might be able to accomplish my tasks quickly and easily through digital banking.	5	4	3	2	1

IV3: Perceived Value

No	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	Digital banking platform is believed to be worthwhile and beneficial for consumers.	5	4	3	2	1
2.	A digital banking platform would increase my productivity in conducting tasks.	5	4	3	2	1
3.	Digital banking would be effective for consumers.	5	4	3	2	1
4.	I expect digital banking services to be convenient and enjoyable to use.	5	4	3	2	1

5.	Digital banking is a practical implication to be adopted in Malaysia.	5	4	3	2	1
6.	Digital banking platforms might not be able to provide value to customers.	5	4	3	2	1
7.	Digital banking offers a lot more benefits compared to physical banking.	5	4	3	2	1

IV4: Government Expectation and Benefit

No	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	I would only use digital banking if it were supported and promoted by the government.	5	4	3	2	1
2.	I would only use digital banking that is facilitated by the government.	5	4	3	2	1
3.	I would only use digital banking if the government took the initiative to	5	4	3	2	1

	collaborate with the digital banking industries.					
4.	I would feel confident if the government established a clear cyberlaw for digital banking. (In terms of regulations and policy)	5	4	3	2	1
5.	I would only use digital banking if it were backed up by the government.	5	4	3	2	1
6.	I would adopt digital banking if the government provided incentives for me.	5	4	3	2	1
7.	The Malaysian government is active in setting up facilities to enable the usage of digital banking.	5	4	3	2	1

IV5: Data Security and Privacy

No	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	I think using digital banking is financially secure.	5	4	3	2	1

2.	I believe that the banking transactions processed through digital banking are trustworthy and dependable.	5	4	3	2	1
3.	The information provided in the digital banking platform could be misused and inappropriately shared with others.	5	4	3	2	1
4.	I am worried that the digital banking platform will not be reliable.	5	4	3	2	1
5.	The reputation and size of the bank provide assurance for digital banking integrity.	5	4	3	2	1
6.	I believe that unauthorised transactions will not happen in digital banking.	5	4	3	2	1
7.	I believe that digital banking can protect my privacy.	5	4	3	2	1

IV6: Social Influence

No	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	I would use digital banking based on the recommendation of my relatives and peers.	5	4	3	2	1
2.	People whose opinions I value prefer that I use digital banking.	5	4	3	2	1
3.	I use digital banking services because of the influence of advertising.	5	4	3	2	1
4.	Having digital banking services is a status symbol in my environment.	5	4	3	2	1
5.	Most high-profile individuals in my environment have access to digital banking in other countries.	5	4	3	2	1
6.	You will pay more attention to other people's opinions and views on your use of digital banking.	5	4	3	2	1
7.	My close friends and family believe that I	5	4	3	2	1

	should adopt digital banking.					

IV7: Attractiveness of Alternative

No	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	I am more likely to switch to digital banking services if the perceived key qualities are superior.	5	4	3	2	1
2.	I plan to use the digital bank as my primary financial platform.	5	4	3	2	1
3.	I will try to use the digital bank as much as possible.	5	4	3	2	1
4.	I would probably be equally or more satisfied by using other e-stores if compared to using digital banking.	5	4	3	2	1
5.	I am more likely to switch to digital banking services if any errors occur in my banking transaction.	5	4	3	2	1
6.	I prefer physical banking as my primary choice.	5	4	3	2	1
7.	I believe that there are other better platforms to be chosen	5	4	3	2	1

	from other than digital banking.					