

FACTORS AFFECTING CONSUMERS' INTENTION  
TOWARDS GREEN BANKING IN MALAYSIA

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LIST OF ABBREVIATIONS

CA	Consumer Awareness
DV	Dependent Variable
GB	Green Banking
IV	Independent Variable
MLR	Multiple Linear Regression
PT	Perceived Trust
SN	Subjective Norms
SP	Security and Privacy
SPSS	Statistical Package for Social Sciences
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
UTAR	Universiti of Tunku Abdul Rahman
VIF	Variance Inflation Factor

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## PREFACE

To complete the study of undergraduate program – Bachelor of Business Administration (Honours) Banking and Finance which offered by Universiti Tunku Abdul Rahman (UTAR), it is essential to conduct this research study. This study aims to examine the factors affecting consumers' intention towards green banking in Malaysia.

Like other nations, Malaysia is dealing with environmental challenges. Green banking is an opportunity to address this issue by promoting sustainable practices in the financial industry that can help reduce negative impacts on environment. Since green banking is still new in Malaysia, some Malaysians are still ignorant of the concept of green banking. Also, there are insufficient studies on Malaysian consumers' intention towards green banking.

Consequently, the goal of this study is to investigate the factors influencing consumers' intention towards green banking in Malaysia. There are four factors including consumer awareness, subjective norms, perceived trust, and security and privacy. Ultimately, this study may provide significant and valuable insights to each party into how to enhance the Malaysian consumers' intention towards green banking.

## ABSTRACT

As green banking is a new trend in Malaysia, some Malaysians are still unfamiliar with and unaware of the idea of green banking. Also, there are insufficient studies in Malaysia that are related to consumers' intention towards green banking. Therefore, this study aims to examine the factors affecting consumers' intention towards green banking in Malaysia. The factors include consumer awareness, subjective norms, perceived trust, and security and privacy. Besides, questionnaires were distributed to 384 Malaysians to collect the primary data and information to assess the respondents' understanding of green banking. In this study, several analysis tests have been carried out using SPSS version 29.0, including descriptive analysis, reliability test, multicollinearity test, normality test, multiple linear regression analysis, and Pearson correlation. The analysis results show that perceived trust has an insignificant influence on consumers' intention to engage in green banking in Malaysia. However, the analysis indicated that consumer awareness, subjective norms, and security and privacy have significantly affected the consumers' intention towards green banking in Malaysia. Therefore, this study is helpful for professionals in a particular field who are willing to improve their intention towards green banking and contribute to a more in-depth and comprehensive research study.

Keywords: Consumers' Intention, Consumer Awareness, Subjective Norms, Perceived Trust, Security and Privacy.



## CHAPTER 1: INTRODUCTION

### 1.0 Introduction

This chapter begins by introducing the research background. Besides, the problem statement discusses the issues relevant to the study being investigated. Furthermore, the objectives of research are presented, and questions of research are formulated to lead the study. Finally, the significance of the study is discussed in terms of advancing knowledge in the field.

### 1.1 Background of Study

Banking can be classified into various types based on categories, such as services offered. For instance, there are commercial banking, Islamic banking, investment banking, and more. Over the years, banks have evolved from traditional models to adopt innovative practices as market dynamics and societal values have changed. Among these transformations, the occurrence of green banking may explore new ways for sustainable development in the financial industry (Bouteraa et al., 2023). While the world faces environmental challenges and sustainable development is urgently needed, green banking has emerged from that context. Green banking is an innovative initiative that is considered the operation of banking activities with the objective of nature preservation (Arumugam & Chirute, 2018). Also, green banking is one of the newer types of banking practices that has gained prominence in recent years (Herath & Herath, 2019). As the concept of green development has gained traction, the banking industry, which plays an intermediary role in the economy, has paid more attention to sustainable development (Mir & Bhat, 2022).

Typically, there is no explicit link between bank operations and the environment; nonetheless, a sustainable strategy will have significant outer influence on the entire environment (Javeria et al., 2019). For example, operating activities like providing loans, accepting deposits, and more do not directly affect the environment. Over the last decade, sustainability has become a survival necessity in every sector of the world. This is due to the side effects of financial progress that led to environmental catastrophe (Akomea-Frimpong et al., 2021). Traditional banks have been notable contributors to carbon emissions through paper consumption and power usage, particularly due to extensive branch networks (Ozili & Opene, 2021). Additionally, their financing of intermediaries can have external environmental implications (Rehman et al., 2021). Increasing environmental concerns have driven organizations, corporations, and governments to take more sustainable actions to achieve sustainable development goals. As a result, the concept of green banking (GB) has been proposed to mitigate the carbon footprint caused by banking operations by facilitating paperless financial services through the intensive use of technology (Bouteraa, 2023).

'Green' refers to a wide spectrum of environmental, social, and ethical characteristics (Shafique & Khan, 2020). The term 'green banking' refers to environment-friendly practices that minimize internal and external carbon footprints by improving the environment in the banking sector (Jayabal & Soundarya, 2016). In green banking, banks strive to operate as responsible members of society by considering the sustainability of internal and external environment when performing their everyday operations, which are referred to as sustainable banks (Mir & Bhat, 2022). Green Banking (GB) involves maintaining eco-friendly financial activities and thus minimizing internal and external carbon footprints. Given that the banking industry provides funding for a wide range of industries; hence, it can play a key role in environmental sustainability (Meena, 2013). GB implementation cannot be realized unless users are encouraged to embrace these practices, and therefore the company will be unable to take advantage of the benefits of GB (Shafique & Khan, 2020). Hence, government, direct emitters, stakeholders, and financial institutions must also play their important role in environment protection (Naidu & Paramasivan, 2015).

Furthermore, GB technology services and green technology project funding can help to reduce the negative environmental impact more effectively (Rehman et al., 2021). Accordingly, the idea of GB technology can possibly be viewed as an ideology inspired by the desire to fix the industry in a new and sustainable ways using innovative technologies. These technologies help in providing banking services efficiently and effectively (Ibeenwo et al., 2019). GB uses natural resources efficiently, effectively, and responsibly, striving to reduce resource waste and harmful emissions (Biswas, 2011). In simple terms, the carbon footprint of banking operations can be reduced when GB technology encourages paperless banking transactions through widespread use of technology.

Moreover, GB technological methods have generated chances for banks (Julia & Kassim, 2020). Banks may improve operational proficiencies, reduce the potential for human errors, lower risks and expenses, improve their image, and capitalize on potential income (Ellitan, 2017). More importantly, GB technology enables banks to minimize pollution and save costs by decreasing solid waste and energy consumption, conducting recycling operations, and creating a favorable image to stakeholders (Shaumya & ArArulrajah, 2017). Meanwhile, GB technology services offer consumers with high-quality, fast quality of service, excellent safety and reliability, and lower costs by providing convenient financial service delivery channels (Iqbal et al., 2018). In addition, some empirical researches have proven that GB technology practices boost bank financial performance (Finger et al., 2018). According to Mir and Bhat (2022), green banking helps banks improve their asset quality in addition to greening sectors. It is possible to lower banks' operating costs and improve the quality of banking services by implementing green banking (Aslam & Jawaid, 2023a). Furthermore, as the authors noted, online banking, online bill payment, and online digital activities can enhance banking performance by supporting a green environment.

The banking industry around the world has introduced the concept to green banking to address environmental issues. Banks have a unique position in the global economy due to their financing operations, which can have an impact on enterprises, manufacturing, and other economic activities (Aubhi, 2016). It is a key component of economic growth and

a primary source of financing for consumers. Banks can better serve their clients by incorporating green banking practices into their lending and investing operations (Ghosh et al., 2018). Hence, research on green banking has grown in popularity, with academics showing a strong interest in understanding the characteristics that encourage green banking adoption (Aslam & Jawaid, 2023b). Despite its significance, the green finance idea continues to cause misunderstanding, particularly among consumers, about its meaning and efficiency (Ben Ghoul, 2019). Consequently, it is important to identify the variables that influence the consumers' intention towards green banking (Al-Smadi, 2012).

### **1.1.1 Past Studies**

"Intention" refers to an individual's motive for a certain behavioral act (Issock et al., 2020). The relationship between acceptance and intention toward green banking is an important factor investigated in several study articles. Hasan et al. (2022) found that consumer attitudes regarding green banking had a favourable influence on intention and acceptance of green banking activities. Furthermore, perceived usefulness, believed simplicity of use, effort expectation, and performance expectancy all play important roles in influencing consumers' behavioral intentions to embrace green banking practices (Shafique & Khan, 2020). Furthermore, environmental sustainability, psychological considerations, and management support have been identified as major characteristics influencing bankers' green banking usage behavior, emphasizing their significance in determining adoption of green banking (Obiora et al., 2020). Consequently, these findings emphasize the interconnectedness between attitudes, perceptions, and external support in driving the acceptance and intention towards green banking practices (Chen et al., 2023; Bouteraa, 2022).

In investigating the factors determining the consumer intention to engage in green banking, there have several studies utilized the Theory of Planned Behavior (TPB). Shen et al. (2010) indicated that TPB has been commonly used over the past decade to examine IT usage and e-service intention. There are several past studies and research about the

“intention to adopt” new technologies. For instance, Aldammagh et al. (2021) use TPB to reflect the consumers' intention to utilize mobile banking. Also, Abu-Taieh et al. (2022) used TPB to examine consumers' intention to use mobile banking. Besides, TPB was used to study the consumer' intentions towards, and acceptance of mobile banking (Obaid & Aldammagh, 2021).

Not only that, Ullah et al. (2022) also study the consumer's intention to adopt mobile banking with TPB theory. Furthermore, the factors affect consumers' intentions toward, and the acceptance of electronic banking services were examined using TPB (Al-Smadi, 2012). The study carried out by Nurmaliki and Mirza (2021) utilised TPB to investigate the factors affecting the intention of digital saving consumers to adopt digital banking. In addition, Iqbal et al. (2024) used TPB to clarify green banking adoption by individual consumers; while Taneja and Ali (2021) were involved in the research that studied the determinants of consumers' intentions toward environmentally sustainable banking with TPB theory.

Furthermore, the Privacy Calculus Model (PCM) is another theoretical model used to study consumer acceptability of green banking. Several researchers have used PCM to investigate the security and privacy factors that influence consumer acceptability of green banking (Xu et al., 2009). According to Meier and Krämer (2022), by taking into account the trade-off between releasing personal data and privacy concerns, the privacy calculus model can give insights into how people weigh the benefits and drawbacks of participating in green banking activities. Huang and Huang (2023) also used a privacy calculus model to analyse the elements that influence personal data disclosure intention. Besides, Hassan et al. (2022) employ PCM to examine consumers' intentions toward technology acceptance.

Finally, several research using diverse theoretical frameworks show that various factors impact intention toward green banking practices (Shantha, 2019). TPB has been frequently used to investigate consumers' intentions to embrace new technology. Furthermore, the Privacy Calculus Model (PCM) gives insights into the relationship

between releasing personal data and privacy concerns in individuals' approval of green banking projects. Since green banking is a new trend in Malaysia, and there are insufficient studies in Malaysia related to consumers' intentions towards green banking. As a result, this study will look at the variables influencing Malaysian consumer's intentions to engage in green banking.

## 1.2 Problem Statement

The continuous demand from businesses has led to a growth in the usage of paper in recent years. Banking institutions used to operate in the conventional manner, requiring a lot of paperwork and human resources to operate the businesses (Siek & Rukma, 2022). For instance, almost 90% of financial institutions continue to operate using a conventional paper-based workflow, which includes printing, storing and contracting hard copy account opening paperwork (Castillo-Carmelino et al., 2020). The making of paper produces wastes and hazardous gases. Greenhouse gases (GHGs) make up a portion of these gases. Studies show that pulp and paper mills account for around 21% of these greenhouse gas emissions. The majority emissions occur while paper is being produced (Admin, 2023). The old method of organizational communication, which wastes energy on papers and people moving about has become expensive and a burden on administration in terms of sustainability (Nwinyokpugi & Elizabeth, 2020). The fintech sector is expanding quickly on a worldwide scale, leveraging technology advancements to overtake established businesses in several financial services areas. Global banks have to contend with new fintech solutions. Under this circumstance, the worldwide digitalization of the banking sector may be accommodated by bank sectors in a functioning way as nowadays countries are moving towards financial technology era (Panova, 2021). As a result, there is a greater need to include green banking practices into financing plans, guidelines and the promotion of corporate social responsibility in emerging nations. By supporting the green banking approach's practices rather than concentrating on the same old conventional mentality, it aids in the creation of a mechanism and changes the consumers' interest and purpose (Rehman et al., 2021).

Innovation refers to the financial success that results from the introduction of a new strategy, or an innovative combination of traditional methods to convert inputs into outputs. This process causes significant or abrupt shifts in the ratio between the use value that consumers place on the advantages of the products (Maulani, 2015). Currently, the financial services industry is undergoing a significant shift driven mostly by digitalization and sustainability. The concepts of sustainability and digitalization have been researched; their relationship is typically referred to as “green banking” (Alsadi & Nobanee, 2021). Green banking refers to banks’ initiatives to encourage environmentally friendly industry growth while also helping to rehabilitate the environment. The field of green banking involves several products such as online banking, e-banking, green credit or debit card (Hebbar, 2020). However, in the context of climate financing, green banking is still a relatively fresh idea. Even if a number of banks have shown that they are leaders in green projects, the majority of banks still have relatively small green portfolios (Park & Kim, 2020). Additionally, a concise definition of what defines a green bank could not be located, and this ambiguity acts as a barrier to the development of green banking products (Nilsson & Schwerin, 2019).

Afridi et al. (2023) stated that a lack of understanding of environmental knowledge prevents people from performing in a way that is environmentally responsible such as adopting in green banking. Environmental knowledge is essential for reaching environmental objectives because it includes facts and concepts related to environmental issues. A person’s ability to perform responsibly towards the environment depends on their understanding of environmental knowledge which is sadly lacking in most of the world’s countries (Afridi et al., 2023). According to the studies, most of the consumers are less informed, less knowledgeable and not aware about green banking products and workshops in the banking services. Not only that, consumers are only extremely (Chandran et al., 2024). Even when they have good views towards environmentally friendly products, consumers who do not feel strongly that they have a personal responsibility to improve the environment and society may not choose green items, particularly when they have other alternatives. Additionally, lack of consumer understanding and knowledge is unable to keep consumers from turning their worries into genuine green products adoption. This may not be sufficient to encourage consumers to adopt sustainable products and practices (Joshi & Rahman, 2015).

Additionally, a small percentage of consumers find it uncomfortable when new technology is included into financial services and would rather stick with traditional banking practices. When it comes to internet or mobile banking which is also a component of green banking practices, trust and security become crucial concerns (Akter & Tasnim, 2020). Since some consumers still rely on using traditional paper procedures, not all consumer levels are supporting the notion of green banking (Abd Aziz et.al., 2019). Consumers are not persuaded that using these items would have any positive effects on the environment and do not trust the banks' green claims. As a result, one of the main reasons is consumers' lack of confidence (Joshi & Rahman, 2015). Nonetheless, it is known that only a small percentage of consumers are aware of green banking and indicates that many consumers are still unfamiliar with this idea (Putri et al., 2017). According to the research, though they find it difficult to put their enthusiasm for sustainability into practice, 18% of people globally are committed to it. Besides, the largest group of all factors, 26% of the world's population, poses the biggest barrier to a sustainable future since they both lack understanding of sustainability and don't think it should be a priority in their life (NIQ, 2023). Based on a study results, there were several reasons for the hesitation to utilise GB services such as 53% consumers felt that they lacked information about green banking, 14% felt insecure with new technology, 13% found the process of initiating usage to be cumbersome because lack of understanding on green banking products and 23% felt that there was no enough documented evidence available which consumers is still rely on traditional procedures (Bihade & Karande, 2020).

Green banking is widely used in the United States, Canada, Bangladesh, India, Australia, China and New Zealand. It is either implemented as market-based tools or as part of the state's command and control programme (World Bank, 2012). The Malaysian government has been aggressively pushing green banking projects as the proper thing to do, given its location in the Asia-Pacific region. Most of the commercial banks such as AmBank, Maybank, Public Bank have started to adopt green banking services and offer green banking products such as green loan, green credit cards, mobile banking (Pek et al., 2019). The commercial banks in Malaysia started to follow the pathway to adopt green banking however almost 32% of Malaysian consumers are unfamiliar with the difference between constitutional finance and green finance even though 45% of Malaysian consumers have



heard of both terms. In Malaysia, just thirty percent of individuals have consciously used a sustainable financial product or service indicating that the adoption of green banking is still far from mainstream. Nonetheless, among those that did, the overwhelming majority of Malaysians which obtained 81% expressed more satisfaction with these services than with conventional banking offerings (the Sun, 2022). Given that 61% of Malaysian consumers say that having access to green financial products has been more important to them over the past five years and 65% of them are prepared to switch banks to one that is more environmentally friendly (Suhaidi, 2022). Therefore, this study needs to be carried out to examine what affects the consumers' intention towards green banking.

## **1.3 Research Objectives**

### **1.3.1 General Objective**

The general objective of this study is to determine whether consumers' intention towards green banking in Malaysia is significantly influenced by consumer awareness, subjective norms, perceived trust, as well as security and privacy.

### **1.3.2 Specific Objectives**

1. To determine whether consumers' intention towards green banking in Malaysia is significantly influenced by consumer awareness.
2. To determine whether consumers' intention towards green banking in Malaysia is significantly influenced by subjective norms.

3. To determine whether consumers' intention towards green banking in Malaysia is significantly influenced by perceived trust.
4. To determine whether consumers' intention towards green banking in Malaysia is significantly influenced by security and privacy.

## **1.4 Research Questions**

1. Does consumers' intention towards green banking in Malaysia is significantly influenced by consumer awareness?
2. Does consumers' intention towards green banking in Malaysia is significantly influenced by subjective norms?
3. Does consumers' intention towards green banking in Malaysia is significantly influenced by perceived trust?
4. Does consumers' intention towards green banking in Malaysia is significantly influenced by security and privacy?

## **1.5 Significance of study**

First, this study is significant to examine because it aims to enrich existing research on green banking, particularly consumers' intention of green banking in Malaysia. With increased awareness of environmental issues, the integration of "green" practices into business has become the norm. However, empirical research on consumers' intention in the Malaysian context is limited. Despite the increasing study on green banking, there remains a significant gap in understanding consumers' perceptions (Bukhari et al., 2020). Through this study, one of the objectives is to improve consumers' understanding of green banking practices implemented within the financial and banking sectors. Additionally, this study promotes multidisciplinary investigation by including components of banking

and finance, consumers' behaviour, and environmental sustainability, thereby deepening understanding of the topic. As a result, this research may facilitate future students and academics to perform more effective research in this field.

Second, the results of this study may be applied to several kinds of industries or businesses, particularly the banking and financial industries. For example, these industries in Malaysia could utilize the study's findings to better understand the elements that impact consumers' intentions to use green banking. Following that, the banking and financial industries may develop and implement a wide range of green banking products and services based on consumers' preferences. When consumers' acceptability rises, the competitive advantage of banking and financial industries in the market increases. Therefore, resolving environmental sustainability challenges has become more achievable. This is because the banking and financial industries maintain existing consumers, while also attracting new consumers by providing environmentally friendly banking goods and services.

Thirdly, the study's findings will provide essential data for government and financial policymakers. In recent years, these stakeholders have introduced various green banking practices to mitigate the harmful effects of climate change (Park & Kim, 2020). Moreover, policymakers can develop regulations and regulatory frameworks to enhance sustainable green banking practices based on consumers' intention. For instance, government or financial authorities might promote green investment, provide tax breaks, and drive the banking industry to implement various green banking practices, hence increasing intention of green banking among Malaysians.

## **1.6 Conclusion**

In conclusion, green banking strives to reduce both internal and external carbon footprints, while promoting environmental protection and sustainability in the banking industry. However, consumers are concerned about security breaches and cybercrime, as green banking practices include online banking, e-banking, and so on. As a result, looking at the elements that impact Malaysian consumers' intention to adopt green banking is the goal in this study. Consumer awareness, subjective norm, perceived trust, as well as security and privacy are the factors that will be studied.

## CHAPTER 2: LITERATURE REVIEW

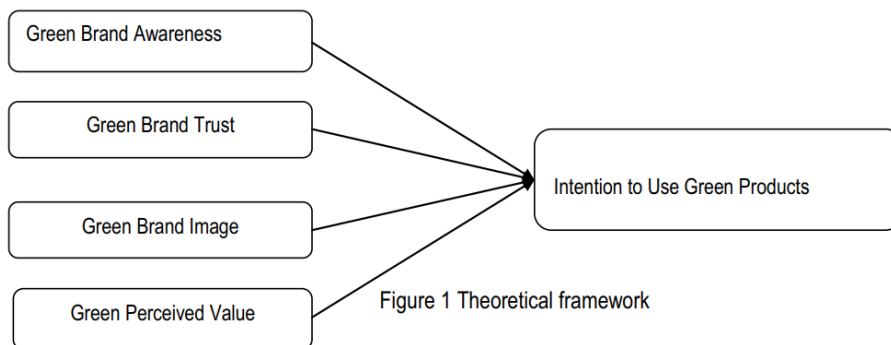
### 2.0 Introduction

The following is a thorough presentation of the contents of chapter two. The theoretical framework was presented in the first part. Second, the literature review and hypothesis statements on the association between the explained variable, consumers' intention, and four explanatory variables which are consumer awareness, subjective norms, perceived trust, as well as security and privacy are examined. Ultimately, the conceptual framework will be discussed.

### 2.1 Theoretical Framework

#### 2.1.1 Theory of Reasoned Action (TRA)

Figure 2.1: *Theory of Reasoned Action*

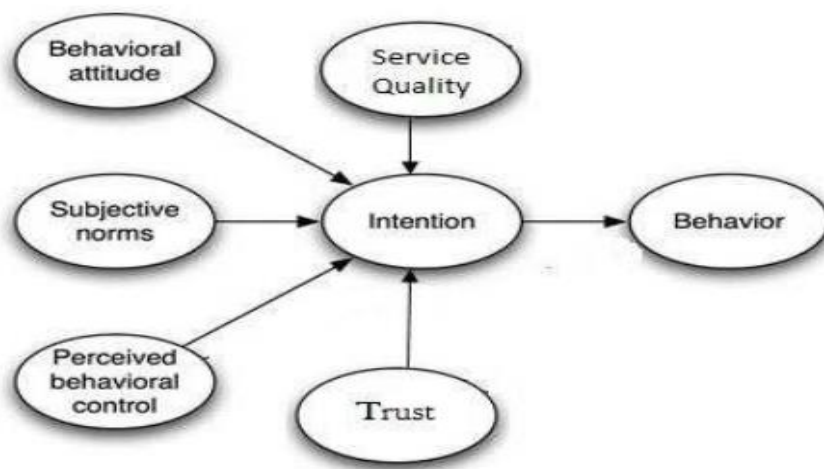


Source: Doszhanov and Ahmad (2015)

The Theory of Reasoned Action (TRA) is a key framework for predicting, explaining, and modifying human social behavior (Ajzen, 2012). Derived from motivational psychology, two underlying assumptions of TRA are that human behavior is controlled by volition and that human behavior is influenced by intentions (Aziz & Afaq, 2018; Sisdyani, 2020). Moreover, TRA aims to explore how attitudes and behaviors related to one another within human action (Ajzen & Fishbein, 2000; Mishra et al., 2014). As a result, TRA is suitable to apply when examining how consumer awareness affects their intention towards green banking. According to the study by Aziz and Afaq (2018), awareness, compatibility, relative advantage, and uncertainty all influence attitude. The study investigated that positive attitudes result in positive intentions. Therefore, consumers who are aware of the advantages of green banking products and services will be better able to build positive attitudes as well as intentions. Additionally, TRA has been extensively developed to understand how consumers make decisions. Hence, TRA is more appropriate for research that assumes conscious activity during decision-making (Doszhanov & Ahmad, 2015; Raut et al., 2021).

### 2.1.2 Theory of Planned Behavior (TPB)

Figure 2.2: *Theory of Planned Behavior*



Source: Hasbullah et al. (2014)

According to Azjen's (1995) cognitive theory, TPB implies that an individual's desire to participate in a certain behavior, such as adopting green banking or refraining from adopting green banking might influence their decision to do so. Intentions are believed to represent the factors that motivate behavior, indicating the degree of effort and dedication someone is willing to put into executing the behavior (Brookes, 2023). Behavioral intention is influenced by perceived behavioral control, attitude towards the behavior and subjective norm, according to the TPB (Asare, 2015). Generally speaking, behavior should be performed with more likelihood if one has a higher desire to engage in it (Brookes, 2023). The idea of reasoned action is expanded upon by the idea of the TPB model, which explains that subjective norms are not totally under a person's control.

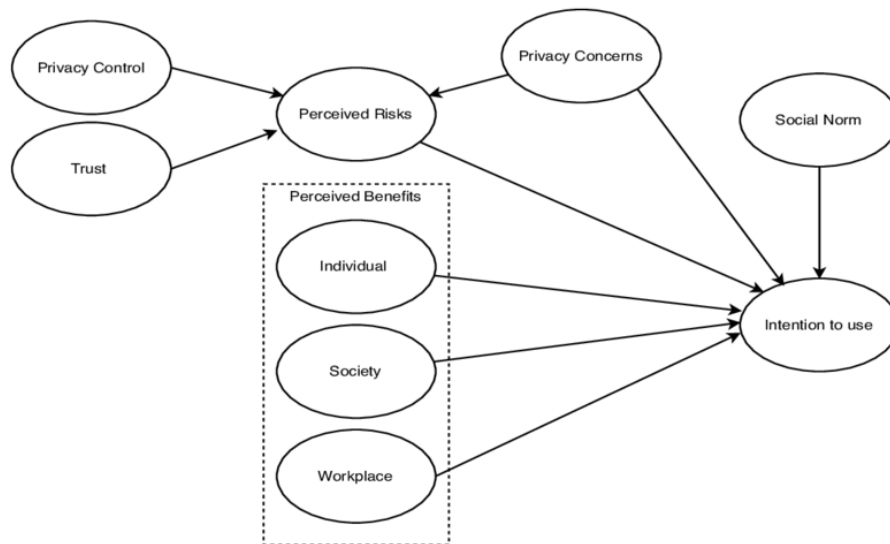
The concept known as Subjective Norms is defined as various societal references that impose pressure or influence on someone's willingness to participate in a particular behavior. According to TPB, one might develop a belief based on what significant others say or do or based on what they observe in their surroundings (Hasbullah et al., 2014). According to Iqbal et al. (2024), TPB has garnered a lot of attention recently in the establishment of norms and beliefs related to the consumers' intention in green banking since it can predict adoption intention and behavior with accuracy. The research also found that there is a significant relationship between subjective norms and consumers' intention toward environmentally sustainable banking (Taneja & Ali, 2021). Thus, it has been shown that this theory is more accurate than others at predicting people's actions.

Some researchers propose to increase the predictive ability of intentions by altering existing theories to add relevant external factors (Armitage & Conner, 2001; Ravis & Sheeran, 2003). Therefore, by adding new variables to the theory, the TPB may be expanded (Yadav & Pathak, 2016). Also, Ajzen (1991) suggested that the TPB framework can be extended and broadened by including external variables beyond the three core components of behavioural attitude, subjective norms, as well as perceived behavioural control. For instance, the extended TPB shows that consumer trust is another major factor in determining the intention of the customer (Carfo et al., 2019). This is in line with findings from previous research that have found trust to be an important motivational driver in the decision-making process (Hobbs & Goddard, 2015). Therefore, trust acts as

an external variable will be included in the extended TPB (Hasbullah et al., 2014). Trust is included in the extended TPB and serves as an affecting factor about consumers' intentions to adopt green banking (Taneja & Ali, 2021). As a result, the authors proved that TPB with the additional construct, which is trust, has a significant bearing on customers' intentions towards the usage of green banking.

### 2.1.3 Privacy Calculus Model

Figure 2.3: *Privacy Calculus Model*



Source: Laufer and Wolfe (1977)

Laufer and Wolfe established the Privacy Calculus Model in 1977 (Trepte et al., 2017). The Privacy Calculus Model is a theoretical framework for understanding how individuals decide information regarding privacy, such as disclosing personal data online (Dienlin & Metzger, 2016). According to Sheehan and Hoy (2000), privacy concerns include the consumer's perceived security and self-privacy concerns in technology and online usage. The theory may be applied to a variety of scenarios, including internet security and privacy, healthcare privacy, and workplace privacy, and it gives a framework



for understanding the choices that people face when revealing personal information. According to this privacy calculus, consumers rationally assess privacy costs against disclosure advantages (Culnan & Armstrong, 1999; Dinev & Hart, 2006). As consequently, this theory is suited for research on security and privacy towards green banking acceptability because its key components are perceived risks and privacy concerns (Hassan et al., 2022). In this way, independent variables, which is privacy and security influence individuals' acceptability, which in turn greatly influences their behavioural concerns (Dinev et al., 2006). According to Tsai et al. (2011), this model has a substantial body of empirical data to support its validity and application in a variety of domains, including security and privacy and consumer behaviour.

## **2.2 Review of Literatures**

### **2.2.1 Consumers' Intention towards Green banking**

"Intention" refers to an individual's motive for engaging in a particular action (Issock et al., 2020). According to Bouteraa et al. (2023), consumer willingness to adopt green banking refers to individual decisions to participate in the adoption of GB technological offerings or reject them. According to Karahoca et al. (2018) and Sun et al. (2020), intention to accept new technology indicates a person's commitment to utilize innovative high-tech. Furthermore, Shafique and Khan (2020) discovered that perceived usefulness and perceived ease of use are key factors influencing consumers' intention to embrace green banking practices. Positive customer perceptions of GB technology are, in fact, thought to be a significant factor in attaining sustainability and allowing banks to grow their businesses in an ecologically conscious way (Pariag-Maraye et al., 2017; Iqbal et al., 2018; Herath & Herath, 2019).

Green banking is a proactive approach to future sustainability; however, several literatures have revealed green banking's problems, poor adoption, and failure. For example, Kotze and McGibbon (2014) discovered that adoption of green information systems (GIS) is quite limited since inadequate visible compliance pressure and expenditure reductions. A national survey conducted by the UAE-MoEW (2017a) mentioned that most GB goods and services have been terminated or was unsuccessful, while other initiatives were only partially adopted or rejected because of inadequate enforcement of rules and legislations, excessive risk, ambiguous rewards, and customer ignorance in UAE. The most startling conclusion was that 59% of respondents had no intention of using GB products or services in the future (UAE-MoEW, 2017b). These worrying data emphasize the significance of providing bankers with the necessary tools to assist them tackle the issue, since this phenomenon presents several concerns for the adoption of sustainable business practices (Bouteraa et al., 2021).

Overall, green banking refers to the availability of new solutions to assist environmentally friendly activities; It prioritizes social and environmental concerns while attempting to utilize bank facilities sustainably (Bukhari et al., 2019). Consumers must be involved in the effective deployment of GB technology because consumers are the ultimate users of GB technology services (Pariag-Maraye et al., 2017; Iqbal et al., 2018; Herath & Herath, 2019). However, to date, limited study has been conducted to focus on green banking and thoroughly explore the drivers of consumers' intention toward green banking. To plug a research gap and improve the literature on green banking, this study investigates the factors on consumers' intention toward green banking.

### **2.2.2 Consumer Awareness**

Generally, consumer awareness refers to the extent of their knowledge about a certain good or service, as well as their degrees of consciousness regarding its existence, idea, purpose, and advantages (Bouteraa et al., 2021). When it comes to green, numerous studies have given different explanations for why consumers are aware of green issues.

According to Alamsyah et al. (2021), consumer awareness of green may be described as the knowledge that consumers recognized for products and services based on the eco-friendly performance. This is because consumer environmental knowledge is the foundation of consumer awareness. Additionally, green consciousness or awareness can also be defined as the extent to which people are willing to address environmental issues (Afridi et al., 2023). Sharma and Choubey (2022) found that green banking initiatives are developing green products that consume less energy. With this information, consumers will be able to recognize the right attitudes on green products, as well as embrace the green culture (Afridi et al., 2023).

There are several research have indicated that consumer awareness has a substantial association with consumers' intention towards green banking (Afridi et al., 2023; Bouteraa et al., 2023; Hasan et al., 2022; Ogiemwonyi, 2022; Bouteraa et al., 2021; Shantha, 2019). The study carried out by Bouteraa et al. (2023) indicates that consumer awareness is a crucial individual factor that influences their intention of green banking products and services. This is due to the fact that attitudes and intentions toward green banking are significantly influenced by the level of awareness. Thus, environmentally conscious consumers will choose products and services that produced and marketed using green manufacturing techniques (Afridi et al., 2023). On the other hand, the primary barriers to the concept's adoption are a lack of knowledge about its availability, importance, exittance and benefits. Consequently, people who are knowledgeable about a certain product and service will eventually become more driven and conscious of it (Akter & Tansnim, 2020; Jadaun, 2018). According to Herath and Herath (2019), awareness of green initiatives among consumers is essential, as those lacking information are reluctant to purchase such products or services. Furthermore, green awareness is a significant element that serves as an indicator to indicate environmentally conscious behavior. Consumers who are more environmentally conscious are willing to demand and pay for the green products and services since they are aware of the advantages to the environment (Milicevic et al., 2022; Ogiemwonyi, 2022).

However, several studies have shown that consumers' intention towards green banking is not significantly correlated with consumer awareness. According to the research

conducted by Shah et al. (2023), there is no significant correlation between consumer awareness and the impact of green banking. The research conducted by Thirunarayanasamy and Natarajan (2023) has also claimed that there is no association between awareness and intention to use green items. This is because even those who are aware of green banking are not genuinely persuaded to employ green banking products. Furthermore, well-educated consumers may not be aware of most green banking services. Thus, even well-informed consumer might not choose to engage in green banking practices (Shah et al., 2023).

In short, there are inconsistent findings in the prior research about the impact of consumer awareness on intentions of green banking. The bulk of studies indicate that consumer awareness has a significant relationship to consumers' intention towards green banking, while some studies have shown an insignificant relationship.

H1: Consumer awareness significantly affects consumers' intention towards green banking.

### **2.2.3 Subjective Norms**

A person's sense of the social pressure to engage in a specific behavior is known as the subjective norm. Motivation to conform is an evaluation of how essential it is to gain the approval of significant others, whereas normative beliefs are concerned with the possibility that important others would accept or disapprove of behavior (Peters & Templin, 2010). According to Utami (2017), subjective norms are the opinions that people value highly and that counsel someone to get involved in or stay away from engaging in particular behaviors. Subjective norms are the ideas one has about what and how to think about significant others and the drive to act on those views. Subjective norms are one that has been disconnected from the human conscience or inner core. In short, subjective

norms are shaped by people's incentive to conform to the opinions of others and their perception of social pressure from others to act in a particular way (Ham et al., 2015).

There are some studies that have shown that subjective norms have a major impact with consumers' intention towards green banking. According to the findings of a study conducted by Taneja and Ali (2021), They have shown that customers' intentions towards environmentally sustainable banking are significantly influenced by subjective norms by employing PLS-SEM analysis. Xu et al. (2022) have indicated that two aspects of the subjective norm were contrasted. The intention to adopt green purchase behavior is significantly positively impacted by both the injunctive norm and the description norm. This is consistent with Iqbal et al. (2023) who stated that there is a statistical significance connection between green buying intention and subjective norms, showing this factor influences the dependent variables. Ultimately, the evaluation of the hypothesis aligns with theoretical predictions, hence endorsing the relationships found in the study. Besides, it appears that the subjective norm influences green customer citizenship activities and green attitudes nearly equally. Thus, subjective norms were therefore accepted (Van Tonder et al., 2023; Lasut et al., 2022). In other recent studies, it was also noted that subjective norms are highly positive and significantly affect consumers' intention towards green practices and adoption of green banking by CB-SEM and PLS-SEM approach (Iqbal et al., 2024; Gill et al., 2021; Islam, 2022). Also, a few researchers have demonstrated by adopting SEM analysis that consumer subjective norms showed a substantial beneficial influence on intended intention and environmental knowledge. This suggests that it is more probable for customers to choose green products if they have peers who are more environmentally conscious and knowledgeable (Tamar et al., 2021; Ting et al., 2019).

However, other investigations have found that there is only some weak correlation between subjective norms and consumers' intention towards green banking. The researchers, Chaudhary and Bisai (2018), carried out their studies in India and found that there is an indirect influence between green purchase behavior and subjective norms. Liu et al. (2019) also mentioned that subjective norms are an insignificant relationship with the consumers' intention of green products. Research that applied the PLS-SEM analysis

method found that the inclination to buy green products is not affected by subjective norms in Jakarta (Ruslim et al., 2022). Additionally, a study revealed that there was no direct correlation between the subjective norm and the intention of behavior to embrace environmentally sustainable practices. Given that a large portion of the study's respondents are younger and may have a weakened grasp of individualism, it is plausible that subjective standards have little influence on conduct (Sodik et al., 2023).

In conclusion, studies about the influence of subjective norms on consumers' intention towards green banking has shown conflicting results. The majority of research indicates a favorable association between subjective norms and the consumers' intention toward green banking, while other studies have shown negligible relationships.

H2: Subjective norms significantly affects consumers' intention towards green banking.

#### **2.2.4 Perceived Trust**

Davis (2020) defined trust as the commitment to take risks for someone else's actions, regardless of their ability to control the other person (as cited in Al Nawayseh, 2020). Kraus (2020) stated that it was hypothesized that trust is based on expectations and beliefs about a trustee's behaviour (as cited in Kraus et al., 2023). According to Ford et al. (2020), the term 'trust' refers to the readiness of one entity to take risks for the actions of another. Ali et al. (2021) claimed that trust is not only about trusting people but also about trusting technology. According to Almaiah et al. (2022), a new technology's success depends on consumer trust. Besides, trust is the most important predictor of intention (Widyanto et al., 2022).

Green trust manifests as consumers' recognition of companies' environmental concerns in the context of green concerns (Muflih et al., 2023). As mentioned by the authors,

consumers believe that the green product or service they choose contributes to a better, healthier, and sustainable environment. On the other hand, if the consumers consider the product or service risky, they will be unwilling to use or adopt that product or service since they will not trust them (Rahardjo, 2015). Also, if consumers trust that green banking services and products will have an optimistic effect on the environment and sustainability, it can lead to consumers having a positive attitude towards green banking intention behaviour.

The earlier studies testing the impact of trusts on the intention towards green banking have opposing conclusions. Trust was found to influence green behaviour significantly and positively (Ogiemwonyi, 2022). This is consistent with Taneja and Ali (2021) who claimed that trust significantly influences the attitude towards usage of green banking services. Also, some scholars have proved that consumer trust is positively related with the adoption intention (Chandra et al., 2010; Ricci et al., 2018; Sh. Ahmad et al., 2022). Moreover, perceived trust has a significant positive effect on users' intention to use Internet banking services (Al-Sharafi et al., 2018). Furthermore, perceived trust has a significant positive effect on users' intention to adopt mobile banking (Jouda et al., 2020; Ramli et al., 2021; Aldammagh et al., 2021; Sankaran & Chakraborty, 2021; Kumar et al., 2020; Almaiah et al., 2023). Thus, it can be seen that most of the previous research shows that perceived trust significantly affects the consumers' intention to adopt technology. Besides, consumers' trust in the product positively impacts the environment, which will increase their intention to adopt the product (Rahardjo, 2015). Hence, the rising green trust in consumers will result in more consumers' intention of green banking. Conversely, Shantha (2019) found a significant negative effect of green trust on customers' intention to adopt green banking products.

However, there are very few studies that prove that there is an insignificant influence of trust on green banking adoption. For example, Slade et al. (2015) discovered a negligible association between trust and intention. Besides, the study carried out by Tilahun et al. (2023) also showed that the direct effect of trust on intention is insignificant.

In conclusion, two opposite results exist for the influence of consumer's intention of green banking. Almost all of the prior research asserted a significant result, whereas only few research stated an insignificant relationship between trust and consumers' intention of green banking. Hence, this study employs this variable with the following hypotheses:

H3: Perceived trust significantly affects consumers' intention towards green banking.

### **2.2.5 Security and Privacy**

Generally, security and privacy can be defined as a kind of safeguard that guarantees the security of consumers and keeps hackers from violating their privacy (Dixit & Datta, 2010). The increasing ability of new technology to interpret data and integrate it into users' daily lives has increased the importance of security and privacy. According to Musyaffi et al. (2023), security is a significant barrier to digital banking adoption, with customers concerned about the possibility of mistakes and security breaches while deploying green banking technology. Furthermore, Pikkarainen et al. (2004) and Flavian and Guinalú (2006) claims that consumers may feel insecure about how their personal data is collected and processed, making it difficult for them to accept a lack of control over their behaviour. As a result, security and privacy are required to prevent cases in which certain nodes act maliciously or become hacked (Mohanta et al., 2019).

Several studies have revealed that security and privacy play an important role in the acceptability of green baking. According to Shantha (2019), security and privacy have a significant positive relationship on consumers' intentions of adopting green banking. Ling et al. (2016) discovered that security and privacy features have significant effects on consumer acceptability and satisfaction by using multiple regression analysis. Besides, Yoon et al. (2020) demonstrated the quantitative impact of this problem, noting that security and privacy may have an impact on a variety of consumer behaviour and habit results. For example, Positive views of security and privacy among customers lead to



higher degrees of e-satisfaction and service selection (Alalwan et al., 2019), as well as increased use of innovative financial services (Merhi et al., 2019). Furthermore, Bouteraa et al. (2023) has used Structural Equation Modelling (SEM) and proved that 60% of the informants were concerned about the security and privacy of their customer's information. Farooq et al. (2020) reached a similar finding when they investigated the influence of security and privacy, as well as other variables, on consumers' adoption of e-learning in Saudi Arabia. Besides, Townsend et al. (2020) showed that the online computing technology adoption was significantly impacted by perceived security in the United States. Consumers' perceptions of poor security and their concern about illegal privacy invasion through different cyberattacks on privacy are challenges. Due to these restrictions, consumers of banks consider it challenging to embrace GB technological services. (Mosahab et al., 2010).

In contrast to this research, several studies have found that there is only a weak or insignificant relationship between security and privacy and consumer acceptance towards green banking. Bouteraa et al. (2023) found that security and privacy had no significant influence on customer adoption of green banking by using the method of Partial Least Squares (PLS). According to Chatterjee (2020), consumers in specific environments may be more concerned with system efficiency than security and privacy issues while embracing innovative technology. Thus, it has been established that consumers are drawn to a system's capabilities and robustness. Similar conclusions have been drawn with the use of OVO mobile wallets in Indonesia, where perceived security and privacy concerns were not relevant (Malonda et al., 2020). This is same with previous research, which shows that enhancing a certain technical system's efficiency has an important effect on consumers' intentions (Liu et al., 2020; Sensuse et al., 2021; Anggreni et al., 2020). This suggests that security and privacy are dependent factors since certain places are fewer worried about this issue when implementing innovative technology or systems. As a result, respondents are less concerned about security and privacy concerns.

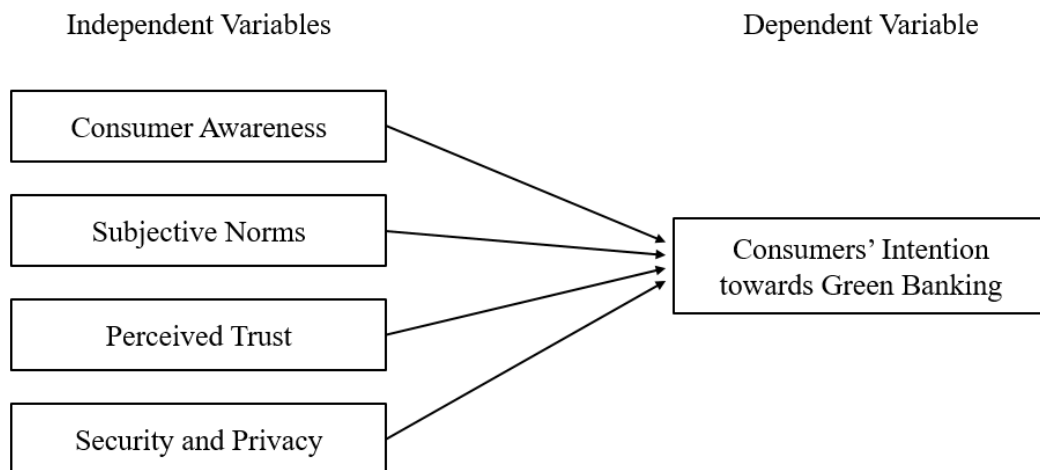
In conclusion, the significance of security and privacy on green banking acceptability revealed inconsistent results. This condition might have been influenced by differences in statistical approaches used in different research or the differences in respondents' ages

and education levels. Given that GB technological services require high-security measures to secure users' private data, it was determined that security and privacy would influence consumer acceptability of green banking. Consequently, the following hypothesis was proposed:

H4: Security and privacy significantly affect consumers' intention towards green banking.

### 2.3 Conceptual Framework

Figure 2.4: *Conceptual Framework*



A conceptual framework to examine consumers' intentions to adopt green banking in Malaysia is presented, drawing on the previous theoretical models mentioned in the previous section. This conceptual framework considers four factors which are consumer awareness, subjective norms, perceived trust, as well as security and privacy. Based on previous studies, these independent variables are expected to have an important impact on customers' intention of green banking in Malaysia. Thus, this framework will be utilized to determine whether the inference is accurate. As a result, the hypotheses are going to be developed using this structure in the subsequent part.

## **2.4 Conclusion**

The relevant literature on the independent variables (consumer awareness, subjective norms, perceived trust, security and privacy), as well as the hypothesis are presented in this chapter. This study also discussed several theoretical frameworks, including Theory of Reasoned Action, Theory of Planned Behavior, and Privacy Calculus Model. Additionally, the conceptual framework for this investigation is developed.

## CHAPTER 3: RESEARCH METHODOLOGY

### 3.0 Introduction

For achieving research objectives, research methodology, as stated in the current chapter, is critical. Firstly, the research design is discussed. The sample design, research tool, scales, and definitions are next addressed. In addition, the data processing and analysis methods utilized are described. A quantitative study design was employed in the current investigation. We collected primary data using an online survey format, and samples were drawn using the convenience sampling approach.

### 3.1 Research Design

Research design provide a road map for conducting extensive study to fulfil the research objectives (Creswell & Creswell, 2018). Qualitative and quantitative research are the two main categories of research designs that are utilized in investigations.

Quantitative research is a collection and analysis of numerical data (Bhandari, 2023b). Consequently, statistics are utilized to analyse the data collected. Quantitative research indicates itself by producing consistent results when the same data points are tested under randomized settings. Statistics become a dependable resource that provides confidence in the decision-making process and allows the results to be compared statistically (Gaille, 2019).

In this study, quantitative research is employed. Desalegn et al. (2022), Ibeenwo et al. (2019), and Musyaffi et al. (2023) simultaneously utilized this research design to

investigate the consumers' intention towards green banking. Questionnaires were distributed online with the form of Google Forms. The survey questionnaire's questions were created to be fixed alternatives. Also, this study adopted the non-probability sampling method, allowing respondents to select options based on their subjective opinions (Saunders et al., 2019).

## **3.2 Sampling Design**

### **3.2.1 Target Population**

A research study's target population comprises all persons who meet the study's eligibility requirements (Alvi, 2016). In order to gather and analyse accurate data, the investigators must make sure that those who responded are members of the intended population. To put it another way, it is essential to confirm that survey participants are qualified.

The purpose of this investigation is to evaluate Malaysian consumers' intention on green banking. Since individuals under 18 are ineligible to open bank accounts, while those aged 60 and above typically have little involvement with financial services (Harris et al., 2016). An estimated 20.78 million Malaysian citizens are between the ages of 18 and 59, according to Appendix 3.2. Consequently, the target population are all Malaysian citizens aged between 18 and 59 years.

### **3.2.2 Sampling Location**

The sample site is the location that was chosen for data collection. Because the target population are Malaysian citizens aged between 18 and 59 years, the sampling locations selected encompass all states of Malaysia.

### **3.2.3 Sampling Technique**

Sampling may be classified as probable or not probable (Creswell & Creswell, 2018; Sekaran & Bougie, 2019). With probability sampling, each component in the population has an established probability of being picked as a part of the sample, whereas in non-probability sampling, the components have no given probability of being selected as part of the sample (Creswell & Creswell, 2018; Sekaran & Bougie, 2019). The sample techniques used in each of these two basic designs vary depending on the study's objective (Creswell & Creswell, 2018; Sekaran & Bougie, 2019).

The data employed in this study was acquired using questionnaires developed for people pursuing their degrees. In this study, respondents in Malaysia were picked using convenience sampling, a non-probability sampling approach. It is a sampling method that collects data from everyone's desire to participate in a study and is the most approachable and convenient for the researcher. According to Sekaran and Bougie (2019), convenience sampling is the most common and efficient method for data collection in experimental research.

This method has been adopted in a few empirical research. Alalwan et al. (2019) employed convenience sampling approaches to investigate the consumers' intention towards new technology. Moreover, Bouteraa et al. (2023) utilized the convenience sampling approach to collect data of intention to adopt the green banking technology from

adults (ages 18 or over) in the UAE. In addition, Chen et al. (2022) used convenience sampling to select the target sample of China residents. To summarize, convenience sampling is a simple sampling selection process that is widely used, less costly, and does not require a list of all population elements (Acharya et al., 2013). It enables researchers to sample a subset in order to meet their study objectives. As a consequence, convenience sampling enables for the collection of sufficient data to conduct the pilot test while additionally evaluating the hypotheses.

### **3.2.4 Sampling Size**

Krejcie and Morgan (1970) developed the formula and table for calculating sample size for a given population for ease of guidance. In the current study, "Table for Determining Sample Size from a Given Population" is utilized to compute sample size (Refer to Appendix 3.1). According to Department of Statistics Malaysia data, there would be 20.78 million Malaysians aged 18-59 in 2024 (Refer to Appendix 3.2). Therefore, this study requires 384 minimum respondents.

## **3.3 Data Collection**

Taherdoost (2021) indicated that data collection refers to the process of gathering information to analyse it, obtaining the study results, and answering research questions. Taherdoost (2021) also mentioned data collection is a key stage that can reduce the likelihood of errors arising during a research study. According to Mazhar et al. (2021), data collection is necessary for conducting research. The authors also mentioned that there are two types of data, which are primary data and secondary data. Therefore, there are two types of data collection methods including primary and secondary data collection

methods (Taherdoost, 2021). Primary data were used to gather information to fulfil the research purposes.

### **3.3.1 Primary Data**

Primary data is the original data that the researcher collects (Ajayi, 2017; Mwita, 2022). According to Taherdoost (2021), primary data have better reliability when opposed to secondary data. Kabir (2016) stated that primary data is more valid, reliable, objective, and authentic due to the fact that primary data is unaltered and unpublished by humans. Moreover, Taherdoost (2021) also mentioned that primary data can contribute high-quality results, as the researcher can add additional data whenever necessary during the research process. There are several ways to collect primary data through interviews, questionnaires, focus groups, and observations (Mwita, 2022). In this study, primary data were obtained through a questionnaire survey to ask about factors influencing Malaysian consumers' intentions on green banking.

## **3.4 Research Instrument**

A questionnaire survey was used in this study. The questionnaire survey was distributed online to respondents through Google Forms.



### 3.4.1 Questionnaire

This study utilized a questionnaire survey and a series of questions related to consumers' intention towards green banking in Malaysia will be asked in the questionnaire. Kabir (2016) defined a questionnaire as a list of questions for collecting information from respondents by filling it out. As Jack and Clarke (1998) mentioned, primary data can be collected through questionnaires from large populations at low cost (as cited in Marshall, 2005). Questionnaires were used to gain primary data in the studies of Shafique and Khan (2020), Taneja and Ali (2021), Sunil and Durgalashmi (2022), and Tilahun et al. (2023) that related to the consumers' intention or green banking.

Questionnaires can be distributed via several methods, including telephone, mail, and others (Kabir, 2016). In this study, the questionnaire was distributed virtually via Google Forms. The questionnaire for this study was separated into a cover layout and followed by 4 sections. Section A was a personal data protection statement while Section B focused on the respondents' demographic information. There are 4 demographic questions in Section B, which are gender, age, race, and location. While Section C contained 5 questions to examine consumers' intention towards green banking. On the other hand, Section D consisted of 20 questions related to the independent variables (consumer awareness, subjective norms, perceived trust, and security and privacy) that affect the consumers' intention towards green banking in Malaysia. Each independent variable consisted of 5 questions.

A five-point Likert scale is used to measure all components in Sections C and D: “strongly disagree, disagree, neutral, agree, strongly agree”. Likert scale is typically used in survey research to determine whether a respondent agrees or disagrees with a question or statement (Awang et al., 2016).

### 3.4.2 Pilot Test

Pilot tests perform in every research to ensure validity (Gani et al., 2020; Dikko, 2016). The Concise Oxford Thesaurus (2002) identified a pilot test as a preliminary investigation (as cited in Thabane et al., 2010). Besides, the pilot test was described as a small-scale study that serves as the basis for a confirmatory study (Arnold et al., 2009). While Van Teijlingen and Hundley (2001) stated that a pilot test refers to a pre-test done prior to actual research. Some authors emphasized the significance of pilot tests as they identify possible problems in research instruments at the earliest stage (Dikko, 2016; Van Teijlingen & Hundley, 2001). Also, the pilot test is critical for the effectiveness and practicality of large randomized tests (Arnold et al., 2009). According to Van Teijlingen and Hundley (2001), the effectiveness of research instruments can be assessed through pilot tests. Moreover, one of the purposes to carry out a questionnaire pilot test is to test respondents' knowledge of the questionnaire's terminology (Simkus, 2023). Hence, it is a must to conduct a pilot test before gathering data from all the targeted respondents. The questionnaire can be further improved and enhanced through the pilot test.

In the current study, this test is conducted among 40 respondents to test the factors influencing consumers' intention on green banking in Malaysia. Lackey and Wingate (1998) suggested that the sample size of the pilot test will be approximately 10% of the final research size (as cited in Hertzog, 2008). This study distributed the questionnaire to 40 respondents using Google Forms virtually like WhatsApp, Microsoft Teams, and Instagram. The targeted 40 respondents need to complete the questionnaire. Also, they could provide constructive feedback on the unfamiliar questionnaire's terminology. Then, a reliability assessment and measurement of the questionnaire were conducted through SPSS 29.0 software after gathering data from the targeted 40 respondents.

Table 3.1: *Pilot Test's Cronbach's Alpha Reliability Analysis*

No	Type of the Variable	Name of the Variable	Number of Items	Cronbach's Alpha	Reliability Test
1	DV	Consumers' Intention	5	0.902	Excellent
2	IV	Consumer Awareness	5	0.985	Excellent
3	IV	Subjective Norms	5	0.968	Excellent
4	IV	Perceived Trust	5	0.945	Excellent
5	IV	Security and Privacy	5	0.964	Excellent

Table 3.1 showed the pilot test's reliability analysis. The dependent and independent variables show excellent reliability test results, as all Cronbach's Alpha values are greater than 0.9. It signifies which data is reliable and passes the pilot test.

### 3.5 Constructs Measurement

Before the strength of the correlations between these constructs can be verified, testing theories requires measuring these constructs precisely, appropriately, and scientifically. The core of empirical research is measurement, which is defined as purposeful, thorough observations of the real world (Bhattacharjee, 2012). Construct measurement is crucial to guaranteeing the outcomes are reliable.

### 3.5.1 Scale of Measurement

A measurement scale describes what is meant by and classification used for variables and numbers. Specific characteristics of each scale of measurement dictate whether or not it is suitable to utilize it in particular statistical studies. Nominal, ordinal, interval and ratio scales of measurement are the four types available (CliffsNotes, 2024). Nominal, ordinal and interval scales are the three measuring systems that were employed in study to evaluate the variables.

#### 3.5.1.1 Nominal Scale

Nominal data can be classified as either qualitative or quantitative. In the case of quantitative indicators, nominal scales are typically employed for non-numeric components or values devoid of significance. Conversely, a variety of qualitative data categories can be expressed nominally (Bhattacharjee, 2012). They might consist of symbols, letters and words. There is no hierarchy between the categories; instead, you can label your data in mutually exclusive groups to categorise them (Bhandari, 2023a). Calculating the frequency or percentage for each category created by grouping the variables together can be done. Another way to display the data is graphically, such as using a pie chart (Taylor, n.d.). According to Bhattacharjee (2012), nominal scales may be used to quantify gender, religion, and location. This study has thus been used in the ways listed below in Section B.

Gender:
<input type="checkbox"/> Male <input type="checkbox"/> Female

Race:
<input type="checkbox"/> Malay <input type="checkbox"/> Chinese
<input type="checkbox"/> Indian <input type="checkbox"/> Others

### 3.5.1.2 Ordinal Scale

While ordinal scales may also identify groupings within data, they can also arrange these groups in a naturally occurring sequence. The disparities between values may not be constant, even when the order is important (Market Research Guy, 2021). Stated differently, it is able to order the values but not their relative degrees of difference (Bhandari, 2023a). Ordinal data combine quantitative characteristics with attributes from nominal scales. Similar to nominal data, these variables have a finite set of discrete values. Conversely, order information is provided by the discrepancies between values, much like with quantitative variables. The disparity between neighbouring numbers, nonetheless, could not always be stable (Frost, 2023). In Section B, this scale is employed. According to Bhandari (2023a), age groups can be measured using an ordinal scale. The age group is thus shown below using the ordinal scale, which was used in this research.

Age:
<input type="checkbox"/> 18 – 24 <input type="checkbox"/> 24 – 29 <input type="checkbox"/> 30 – 39 <input type="checkbox"/> 40 – 49 <input type="checkbox"/> 50 - 59

### 3.5.1.3 Interval Scale

An interval scale is a quantitative measure where the precise distinction between each category and its order are known. As such, it measures variables with equal intervals, labels, and ordering (Market Research Guys, 2021). On an interval scale, the starting point, or zero point, is determined arbitrarily and is not a "true zero" or "absolute zero." As a result, a value of zero does not represent the characteristic's total absence (Anjana, 2021). Section C and D make use of this scale. Bhandari (2023a) states that an interval scale is what the Likert scale falls under. For this reason, the Likert scale was used in this study to ask the following questions on the independent and dependent variables.

Variables	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am interest in using green banking.	1	2	3	4	5

### 3.5.2 Origin of Construct

Table 3.2: Summary of Measures used for Present Study

Variables	Adapted from	Items	Cronbach's alpha from previous studies	Scale
Dependent Variable: Consumers' intention towards green banking	Bouteraa et al. (2023)	5 items	0.966	Strongly disagree (1) to Strongly agree (5)
Independent variable 1: Consumers' awareness	Bouteraa et al. (2023)	5 items	0.924	Strongly disagree (1) to Strongly agree (5)
Independent variable 2: Subjective Norms	Liu et al. (2019)	3 items	0.849	Strongly disagree (1) to Strongly agree (5)
	Chaudhary & Bisai (2018)	2 items	0.88	
Independent variable 3: Perceived Trust	Taneja & Ali (2021)	5 items	0.893	Strongly disagree (1) to

				Strongly agree (5)
Independent variable 4: Security and Privacy	Bouteraa et al. (2023)	4 items	0.905	Strongly disagree (1) to Strongly agree (5)
	Martínez-Navalón et al. (2023)	1 item	0.917	

### 3.5.3 Questionnaires Designing

Section A, Section B, Section C and Section D are the four sections of the questionnaires. Section A is associated with the personal data protection statement and the introduction of the purpose for this questionnaire. There are demographic characteristics related in Section B. Therefore, the personal information of the respondent is requested and received in this part. Section B contains a total of five questions. The ordinal scale measures age whereas the nominal scale measures gender, race and location.

Additionally, Section C is asking the perceptions and preferences about the dependent variables which is consumers' intention toward green banking. Five questions in all were developed and assessed using the measurement scale. The Likert scale from interval scale which has scale from 1 to 5, was employed in the Section C. 1 represents "strongly disagree", 2 represents "disagreed", 3 represents "neutral", 4 represents "agreed", and 5 represents "strongly agreed" on the scale.

In Section D, four independent variables are devoted which are consumers' awareness, subjective norms, perceived trust and privacy and security that will specifically influence the consumers' intention towards green banking. The Likert scale in interval scale was also utilised in the development of the questionnaire for this part. Respondents must be chosen from the scale's range of 1 to 5. Analysis of the respondent's viewpoint and

understanding may be done from here. The scale range is set up similarly for the Section C: 1 represents "strongly disagree", 2 represents "disagreed", 3 represents "neutral", 4 represents "agreed", as well as 5 represents "strongly agreed". The dependability of the questions is explained by the SPSS 29.0 program when data has been received via the questionnaire.

### **3.6 Data Analysis**

Data analysis is an essential component of research that improves study's effectiveness. It is the process of gathering, processing, cleansing, and modelling data in order to extract the necessary information (Alem, 2020). Data analysis also aims to seek to identify usable and important information to make a choice about any situation (Sabah et al., 2022). According to Herath and Herath (2019), data are analyzed using the SPSS software, which is the most appropriate statistical software for social science in this research. This program is employed for a variety of data analytics, including descriptive analysis, reliability tests, multicollinearity tests, as well as inferential analysis.

#### **3.6.1 Descriptive Analysis**

The first evaluation performed in the study is descriptive analysis. Descriptive analysis is a common approach for describing or summarizing data gathered from a group of respondents who form the sample of interest (Mertler et al., 2021). According to the study by Dewi and Dewi (2017), the data collected in the study is evaluated using descriptive statistical methods, followed by coefficient of variation and hypothesis testing. Descriptive statistics describes a variety of methods for reducing massive collections of data that are displayed in the form of tables or graphs to characterize distributional aspects such as sums, averages, correlations, and distinctions (Ali et al., 2019). Moreover, the descriptive statistics aim to provide information on the characteristics of the study



variables, which include minimum, maximum, mean, and standard deviations (Dewi & Dewi, 2017).

### **3.6.2 Scale Measurement**

#### **3.6.2.1 Reliability Test**

The reliability evaluation be one of the most crucial components in the assessment of any measuring tools for a quality study. The reliability test aims to reduce random errors in any measuring procedure, thereby enhancing the stability of results (Mohajan, 2017). Moreover, it is generally used to assess the item's internal consistency (Vaske et al., 2017). According to Bukhari et al. (2022), the most common internal consistency indicator is Cronbach's alpha. Cronbach's alpha coefficients were carried out in a current study to assess the trustworthiness of the model's scales (Guang-Wen & Siddik, 2022; Hang, 2022). In addition, Lin et al. (2021) found that the values of Cronbach's alpha varied from 0 to 1. It was determined by the SPSS program, and the study then preserved just the important elements by removing irrelevant variables from the data (Hang, 2022). As a result, the higher the reliability, the more accurate the results, which raises the likelihood of choosing the right decision in research (Mohajan, 2017).

Table 3.3: *Cronbach's Alpha Rule of Thumb*

<b>Cronbach's Alpha</b>	<b>Internal Consistency</b>
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Source: Lin et al. (2021)

According to the study by Lin et al. (2021), the reliability of scales has been conducted, which is shown in Table 3.3. Scales with Cronbach's alpha coefficients equal to or more than 0.6 will be accepted, while those with values less than 0.5 will be unacceptable from the study. Consequently, values more than 0.6 indicated high reliability and may be used for further research (Tu & Dung, 2017).

### **3.6.3 Preliminary Data Screening**

#### **3.6.3.1 Multicollinearity Test**

One method for screening data is to detect multicollinearity. Multicollinearity arises when more than one independent variable in a model of regression reveals a high degree of correlation with one another (Bayman & Dexter, 2021; Daoud, 2017). According to Daoud (2017), if there is a significant level correlation between the independent variables, the standard error of the coefficients will increase. In addition, multicollinearity may result in unstable estimates and erroneous variances, which can impact confidence intervals and hypothesis tests (Bayman & Dexter, 2021; Senaviratna & Cooray, 2019).

Accordingly, the variance inflation factor (VIF) and tolerance are common to serve as indicators to detect multicollinearity (Ahmad et al., 2021; Senaviratna & Cooray, 2019).

According to Ahmad et al. (2021), the measures of multicollinearity obtained from statistical analysis using programs like SPSS include the variance inflation factor (VIF) as well as tolerance. In line with the rule of thumb, multicollinearity is generally indicated by variance inflation factor values more than 10 (Bayman & Dexter, 2021). This finding is consistent with Senaviratna and Cooray (2019), Ahmad et al. (2021), Guardaquivil and Sangco (2023), and Kyriazos and Poga (2023), indicating that multicollinearity exists if the VIF is greater than 10. The function of the VIF is to estimate the regression coefficient's variance is inflated when the independent variables are correlated (Shrestha, 2020). The author stated that multicollinearity does not exist in the regression when the VIF is equal to 1, low multicollinearity when the VIF is greater than 1 and lower than 5, and high multicollinearity when the VIF is greater than 5, whereas a severe multicollinearity problem will present in the regression when the VIF is more than 10.

Furthermore, Shrestha (2020) mentioned that the tolerance value is the reciprocal of the variance inflation factor (VIF). According to Shrestha (2020), a low tolerance value indicates a high probability of multicollinearity among the variables. Tolerance values close to one indicated little multicollinearity, whereas values near zero imply potential threats to multicollinearity (Senaviratna & Cooray, 2019). As Kutner et al. (2005) said, if the tolerance value is less than 0.1, it indicates an extensive multicollinearity problem (as cited in Kyriazos & Poga, 2023). The presence of multicollinearity is if there is a low tolerance of less than 0.1 (Sulaiman et al., 2021).

Hence, according to Shrestha (2020), the value of (VIF) can be summarized as follows:

VIF = 1, No multicollinearity

$1 < \text{VIF} < 5$ , Low multicollinearity

$5 < \text{VIF} < 10$ , High multicollinearity

$\text{VIF} \geq 10$ , Multicollinearity

### **3.6.3.2 Normality Test**

Following that, normality test is one of the methods for screening data by using SPSS. The normality test is a crucial part in determining statistical techniques for data analysis and central tendency measurements (Mishra et al., 2019). In an effort to attain normality, all variables and all linear groupings of variables must have a normal distribution. According to Aliyu et al. (2019), normality is often evaluated using a statistical method or a graphical approach. In addition, prior to beginning the statistical inference process, normality tests are intended to verify that the population's data set is normal. Therefore, inferential statistics has always relied on the assumption of normality (Koh & Ahad, 2020).

According to the study by Kwak and Park (2019), the normality assumption may be tested using a variety of techniques. First, the normality of a distribution plot can be considered when it is not much deviated from the normal distribution curve. Moreover, a histogram can assume normally distributed data if it approximates a bell-shaped and is symmetric around the mean (Mishra et al., 2019). Furthermore, the skewness and kurtosis are essential techniques used in the assessment of normality. In cases where the sample size exceeds 300, data is normally distributed if skewness and kurtosis values are smaller than 2 and 7, respectively (Kim, 2013). Also, Hair et al. (2010) and Bryne (2010) indicated that the normality hypothesis is fulfilled when the skewness is in the range of -2 to +2, while the kurtosis is in the range of -7 to +7 (as cited in Demir, 2022).

### **3.6.4 Inferential Analysis**

Among the absolute most significant types of data analytics is inferential analysis. Since inferential statistics is a subfield of statistics that derives inferences about the population based on a sample of data (Koh & Ahad, 2020). As a result, it is possible to comprehend the factors affecting consumers' intention towards green banking by analyzing sample data of 384 respondents from various Malaysian states. By using an inferential analysis

known as multiple linear regression analysis, this study determines whether consumers' intention towards green banking in Malaysia is significantly influenced by independent variables, including consumer awareness, subjective norms, perceived trust, as well as security and privacy.

### 3.6.4.1 Multiple Linear Regression Analysis

The multiple linear regression (MLR) model has been considered as one useful approach for estimating the dependent variable's value with multiple independent variables (Karamazova et al., 2017). The SPSS generated multiple regression results, which include the tables of Model Summary, ANOVA, and Coefficients (Dhakal, 2018). The values of multiple correlation coefficient (R), R-squared, adjusted R-squared, and standard error are displayed in the table of Model Summary. R-squared is an indicator used to examine how much of the variance in the dependent variable can be explained by independent variables (Dhakal, 2018). The second table is the ANOVA (Analysis of Variance), which uses F-statistics to determine the P-value (Kim, 2017). Moreover, the Coefficients table is crucial since it shows the constant, which is the slope of the regression line (Dhakal, 2018).

MLR equation:

$$CI_i = \beta_0 + \beta_1 CA_i + \beta_2 SN_i + \beta_3 PT_i + \beta_4 SP_i + \mu_i \text{ ----- Equation 1}$$

Where  $CI_i$  = Consumers' Intention towards Green Banking

$CA_i$  = Consumer Awareness

$SN_i$  = Subjective Norms

$PT_i$  = Perceived Trust

$SP_i$  = Security and Privacy

$\mu_i$  = Error term

The MLR analysis is going to be performed in the study. It is used to determine how all of the independent variables have a significant influence on the dependent variable.

#### **3.6.4.2 Pearson Correlation**

The Pearson correlation coefficient measures linear relationship between two variables (Sedgwick, 2012). According to Sedgwick (2012), the coefficient ranges from -1 to +1, the negative sign indicates negative correlation, and vice versa. If the coefficient is equal to 0, then the variables are uncorrelated, and if it is closer to 1, the closer the measurement is to a linear relationship (Zhou et al., 2016).

### **3.7 Conclusion**

In the end, chapter three examines the technique used in this study. This study is based on primary research, which means the researchers collected data directly. After the gathering of surveys, the response is examined using both descriptive and inferential analysis.

## **CHAPTER 4: RESEARCH RESULTS**

### **4.0 Introduction**

In chapter four, data analysis was carried out using SPSS 29.0. First, descriptive analysis was performed following data collection. Second, a reliability test was conducted to ensure that the scales were reliable. Next, the preliminary data is screened using multicollinearity as well as normality tests. Lastly, MLR analysis was undertaken.

### **4.1 Descriptive Analysis**

Descriptive evaluation is essential to ascertain whether the data is easy to comprehend. Therefore, tables as well as pie charts are presented for summarizing the results.

#### **4.1.1 Respondents' Demographic Profile**

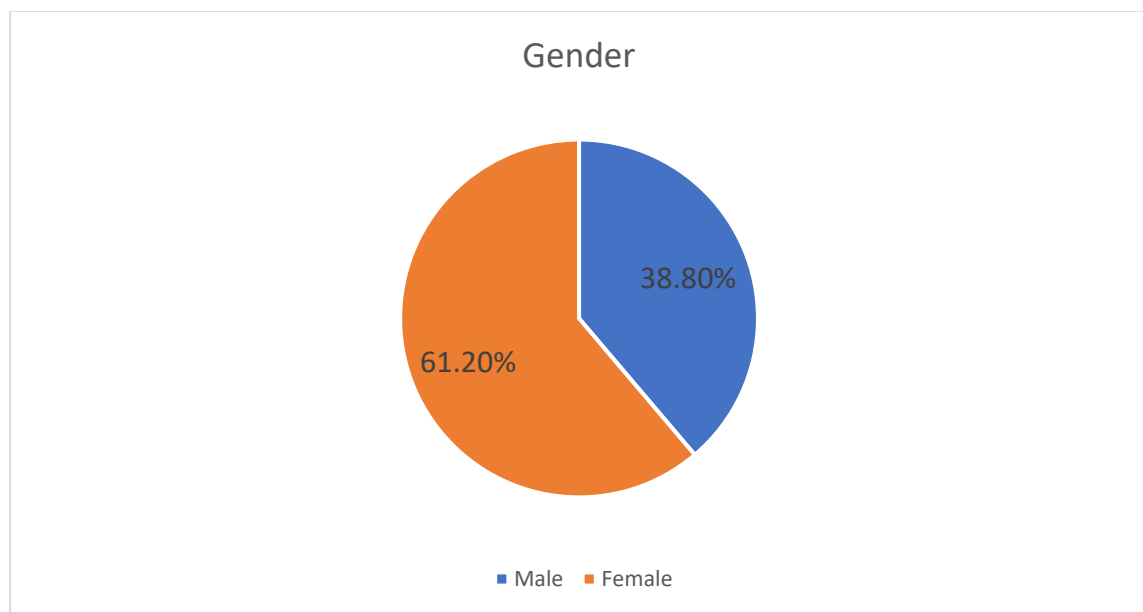
This survey contains demographic data in four categories, including gender, age, race and whether respondents are aware of green banking services. They are examined one by one in the following section.

**4.1.1.1 Gender**

Table 4.1: *Descriptive Analysis for Gender*

Gender	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Male	149	38.80	149	38.80
Female	235	61.20	384	100.00

Figure 4.1: *Descriptive Analysis for Gender*



Respondents are sorted based on their gender. According to Table 4.1, the survey had 384 respondents. Table and Figure 4.1 demonstrated that 38.80% (149 respondents) are male and 61.20 % (235 respondents) are female. As a result, the result showed a higher number of female respondents than male who responded.

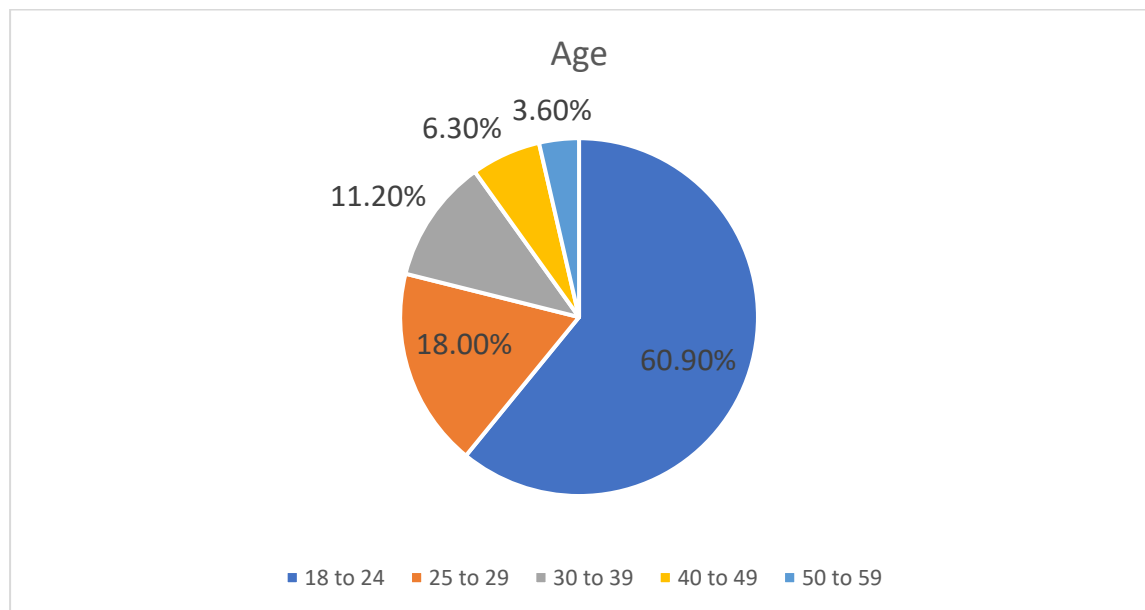


#### 4.1.1.2 Age Group

Table 4.2: *Descriptive Analysis for Age Group*

Age	Frequency	Percent	Cumulative Frequency	Cumulative Percent
18 to 24	234	60.90	234	60.90
25 to 29	69	18.00	303	78.90
30 to 39	43	11.20	346	90.10
40 to 49	24	6.30	370	96.40
50 to 59	14	3.60	384	100.00

Figure 4.2: *Descriptive Analysis for Age Group*



Aside from gender, respondents are classified according to their age groupings. According to Table and Figure 4.2, 60.90% (234 respondents) are aged 18 to 24. Then, 18.00% (69 respondents) are 25 to 29 years old. Moreover, 11.20% (43 respondents) are between the ages of 30 to 39, and 6.30% (24 respondents) are between the ages of 40 to 49. Lastly, only 3.60% (14 respondents) are aged 50 to 59 years of age.

### 4.1.1.3 Race

Table 4.3: *Descriptive Analysis for Race*

Race	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Malay	16	4.20	16	4.20
Chinese	360	93.80	376	98.00
Indian	8	2.00	384	100.00

Figure 4.3: *Descriptive Analysis for Race*

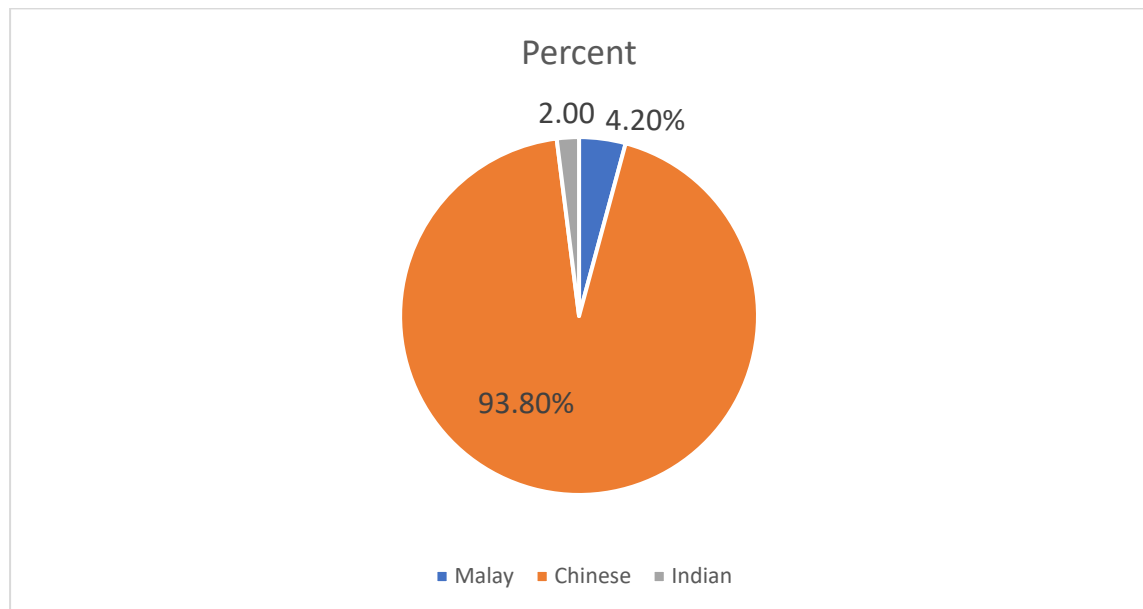


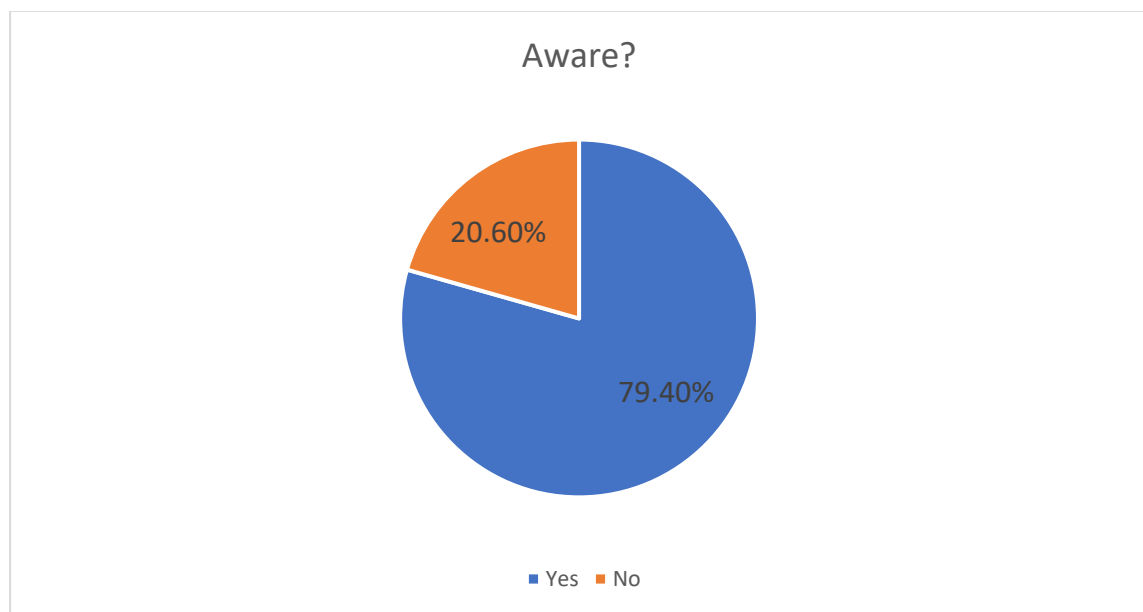
Table as well as Figure 4.3 showed that the majority of those surveyed, 93.80% (360 respondents), are Chinese. In addition, 4.20% (16 respondents) are Malay, while 2.00% (8 respondents) are Indian.

**4.1.1.4 Whether Respondents are Conscious of Green Banking (GB) Services**

Table 4.4: *Descriptive Analysis for Whether Respondents are Conscious of GB Services*

Conscious	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	305	79.40	305	79.40
No	79	20.60	384	100.00

Figure 4.4: *Descriptive Analysis for Whether Respondents are Conscious of GB Services*



Lastly, the demographic section of this survey determined whether respondents were conscious of green banking services. According to Table and Figure 4.4, 79.40% (305 respondents) are conscious of green banking services, while 20.60% (79 respondents) are not conscious of green banking services.

## 4.1.2 Central Tendencies and Dispersion Measurement of Constructs

Following that, the evaluation included both measurements of central tendency (mean) and dispersion (standard deviation). Each variable is analyzed one at a time.

### 4.1.2.1 Consumers' Intention towards Green Banking

Table 4.5: *Central Tendencies Measurement of Consumers' Intention towards GB*

Question	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
DV1	384	4.1536	1.1218	5	2
DV2	384	4.1745	1.0831	4	4
DV3	384	4.1875	1.1201	3	3
DV4	384	4.2240	1.1457	1	1
DV5	384	4.2240	1.1063	2	5

(Question refer to "Statement Question" in *Appendix 1.3.1*)

First, questions about consumers' intention towards green banking among Malaysians are examined. According to Table 4.5, DV4 and DV5 had the biggest mean of 4.2240, ranked first and second, respectively. Furthermore, DV4 experiences the biggest standard deviation of 1.1457, whereas DV5 experiences the lowest standard deviation of 1.1063. Besides, DV1 has the lowest average of 4.1536, and the second-biggest standard deviation of 1.1218.

#### 4.1.2.2 Consumer Awareness

Table 4.6: *Central Tendencies Measurement of Consumer Awareness*

Question	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
CA1	384	3.3828	1.6389	2	2
CA2	384	3.4297	1.5948	1	5
CA3	384	3.3672	1.6361	3	3
CA4	384	3.3464	1.6691	5	1
CA5	384	3.3672	1.6249	4	4

(Question refer to “Statement Question” in *Appendix 1.3.2*)

Second, the questions of consumer awareness are examined. From the table, the biggest average, 3.4297, and the lowest standard deviation, 1.5948, are found in CA2. Moreover, CA4 experiences the lowest mean of 3.3464 with the biggest standard deviation of 1.6691.

#### 4.1.2.3 Subjective Norms

Table 4.7: *Central Tendencies Measurement of Subjective Norms*

Question	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
SN1	384	4.1901	1.2275	4	4
SN2	384	4.1901	1.2254	5	5
SN3	384	4.2057	1.2314	1	2
SN4	384	4.1979	1.2316	3	1
SN5	384	4.2005	1.2301	2	3

(Question refer to “Statement Question” in *Appendix 1.3.3*)

Next, the questions of subjective norms are investigated. Based on Table 4.7, SN3 experiences the biggest average of 4.2057 and the second-biggest standard deviation of 1.2314. Apart from that, SN1 and SN2 had the lowest mean of 4.1901, ranked fourth and fifth, respectively. SN2 also has the lowest standard deviation of 1.2254.

#### 4.1.2.4 Perceived Trust

Table 4.8: *Central Tendencies Measurement of Perceived Trust*

Question	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
PT1	384	4.0781	1.2492	4	1
PT2	384	4.0703	1.2233	5	4
PT3	384	4.0807	1.2396	3	2
PT4	384	4.0833	1.2362	2	3
PT5	384	4.0885	1.1819	1	5

(Question refer to “Statement Question” in *Appendix 1.3.4*)

Fourthly, an analysis is conducted on the questions related to perceived trust. From the table, PT5 experiences the highest average of 4.0885. Somehow, at 1.1819, it has the least standard deviation. After that, PT2 experiences the lowest average of 4.0703 with the fourth-biggest standard deviation of 1.2233. Furthermore, the fourth-ranked average value of 4.0781 and the standard deviation ranked first valued at 1.2492 belongs to PT1.

#### 4.1.2.5 Security and Privacy

Table 4.9: *Central Tendencies Measurement of Security and Privacy*

Question	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
SP1	384	4.1302	1.2636	2	3
SP2	384	4.1198	1.2162	5	5
SP3	384	4.1276	1.2690	3	1
SP4	384	4.1380	1.2638	1	2
SP5	384	4.1276	1.2607	4	4

(Question refer to “Statement Question” in *Appendix 1.3.5*)

The last variable studied was privacy and security. Referring to Table 4.9, SP4 experiences the highest mean value, 4.1380 with the second largest standard deviation of 1.2638. Afterwards, with a standard deviation of 1.2162 which ranks last, SP2 has the lowest mean value, 4.1198. Consequently, SP3 has the largest standard deviation of 1.2690 with a third ranking of mean which is the same as SP5 valued at 4.1276.

## 4.2 Scale Measurement

### 4.2.1 Reliability Test

Table 4.10: *Cronbach's Alpha Reliability Analysis*

No	Type of the Variable	Name of the Variable	Number of Items	Cronbach's Alpha	Reliability Test
1	DV	Consumers' Intention	5	0.973	Excellent
2	IV	Consumer Awareness	5	0.988	Excellent
3	IV	Subjective Norms	5	0.980	Excellent
4	IV	Perceived Trust	5	0.975	Excellent
5	IV	Security and Privacy	5	0.976	Excellent

For each variable in the study, a reliability test was conducted by calculating Cronbach's Alpha. Refer to Table 4.10, all the independent variables examined in the research had high values of Cronbach's alpha greater than 0.80, which included consumers' awareness (0.988), subjective norm (0.980), perceived trust (0.975) and security and privacy (0.976) have excellent reliability. Excellent dependability is demonstrated by the dependent variable's Cronbach's alpha with 0.973. Consequently, with the dependent and independent variables' Cronbach's alphas being over 0.80, all the scales may be summed up as being extremely reliable. Every item is therefore kept in the current study.



## 4.3 Preliminary Data Screening

### 4.3.1 Multicollinearity Test

Table 4.11: *Variance Inflation Factor (VIF) and Tolerance Value*

Independent Variables	Collinearity Statistics	
	VIF	Tolerance
Consumer Awareness	1.273	0.786
Subjective Norms	2.372	0.422
Perceived Trust	2.786	0.359
Security and Privacy	2.727	0.367

Multicollinearity occurs when a linear connection exists between multiple independent variables (Chan et al., 2022).

From Table 4.11, the VIF values of the factors (consumer awareness, subjective norms, perceived trust, and security and privacy) are more than 1 but less than 5. Among the factors, perceived trust has the biggest VIF value, 2.786, while consumer awareness has the lowest value of VIF, 1.273. On the other hand, the tolerance value of all independent variables is greater than 0.1. The independent variable, consumer awareness, has the biggest tolerance value with 0.786, whereas perceived trust has the smallest value of 0.359.

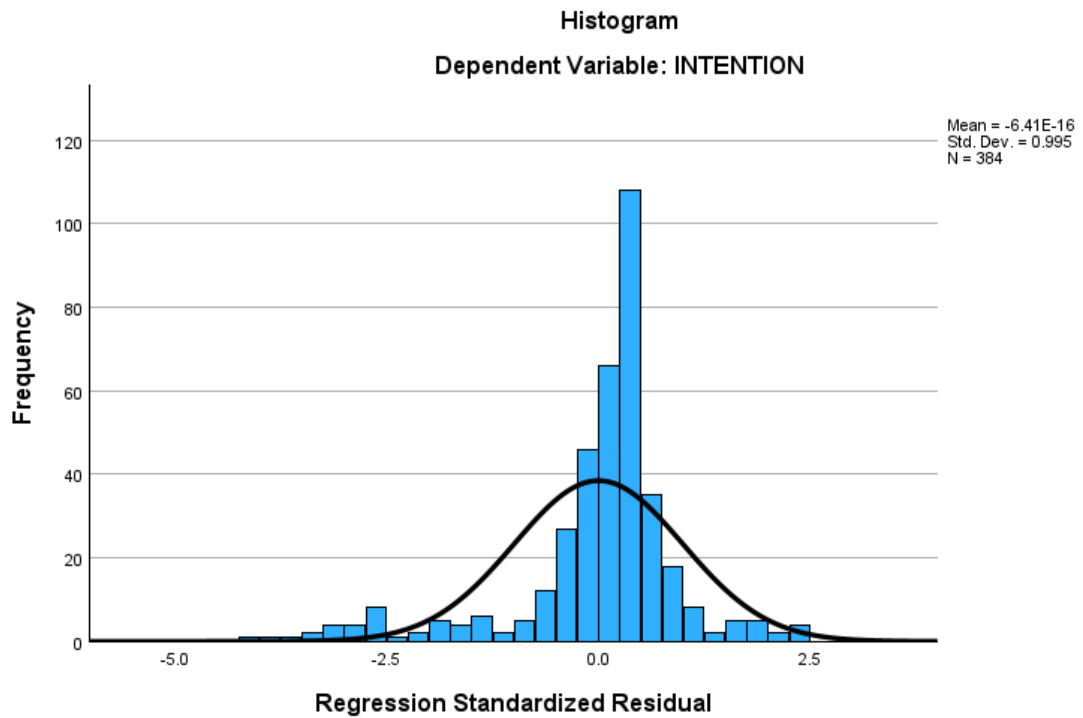
The result shows low multicollinearity since the VIF value is greater than 1 but less than 5. Still, this is typically not a cause for concern with this level of correlation. Besides, the tolerance value of every independent variable is greater than 0.1. In a nutshell, multicollinearity is not a major concern in this study.

### 4.3.2 Normality Test

Table 4.12: *Normality Test Result*

Variables	Skewness	Kurtosis
Dependent Variable: Consumers' Intention	(1.942)	2.832
Independent Variable 1: Consumer Awareness	(0.306)	(1.740)
Independent Variable 2: Subjective Norms	(1.979)	2.550
Independent Variable 3: Perceived Trust	(1.893)	2.187
Independent Variable 4: Security and Privacy	(1.937)	2.299

From Table 4.12, independent variable 2 (Subjective Norms) has the biggest skewness value among the variables, -1.979, whereas independent variable 1 (Consumer Awareness) has the lowest skewness value, -0.306. All the skewness values are in the range of -2 to +2. Besides, dependent variable (Consumers' Intention) has the highest kurtosis value, 2.832, while independent variable 1 (Consumer Awareness) has the lowest kurtosis value among the variables, -1.740. All kurtosis values range from -7 to +7. Therefore, all variables' data follow a normal distribution.

Figure 4.5: *Histogram*

The histogram is a graphical method to check the shape of the distribution (Orcan, 2020). Figure 4.5 reflects the histogram of the dependent variable, consumers' intention. The distribution plot is seen to adhere to the normal distribution curve. Due to this, it is therefore considered an approximately symmetrical and bell-shaped curve. In the middle of the histogram, the data frequency is highest and decreases as it moves to both extremes. Hence, the data is normally distributed.

## 4.4 Inferential Analysis

### 4.4.1 Multiple Regression Analysis

$$Y = 1.164 + 0.478CA - 0.007SN + 0.376PT - 0.13SP \text{ ----- Equation 1}$$

Table 4.13: *Multiple Regression Analysis*

	Unstandardized Coefficient Beta	Coefficient Std. Error	Standardized Coefficient Beta	T-statistic	P-value. *
(Constant)	2.235	0.181		12.354	<0.001*
CA	0.184	0.032	0.278	5.821	<0.001*
SN	0.389	0.058	0.434	6.668	<0.001*
PT	0.070	0.064	0.077	1.088	0.277*
SP	(0.141)	0.062	(0.159)	(2.281)	0.023*
R-squared	0.323				
Adjusted square	R-	0.316			
F-test	45.197				
P-value	0.000 *				

In the current study, the association between the four variables, including consumer awareness (CA), subjective norms (SN), perceived trust (PT), security and privacy (SP), and the dependent variable, Malaysian consumers' intention to engage in green banking, is analysed. Table 4.13 demonstrates that only three independent factors, consumer awareness, subjective norms, as well as security and privacy are significantly correlated regarding the dependent variable. The P-values for these three independent variables are

below 0.001, below 0.001 and 0.023, respectively. Besides, perceived trust is insignificant at p-value of 0.277.

The first independent variable, consumer awareness is significant since the p-value of consumer awareness is below 0.001. The result is consistent with research by Afridi et al. (2023) and Bouteraa et al. (2023), which shows that consumer awareness has a significant part in determining an individual's willingness to adopt green banking goods and services. Consumer awareness is providing essential knowledge about eco-friendly products and services (Alamsyah et al., 2021; Afridi et al., 2023). Besides, higher awareness leads to a stronger inclination to choose green banking products, as informed consumers recognize and value the benefits of green initiatives (Bouteraa et al., 2023). Furthermore, the positive unstandardized regression coefficient of 0.184 indicates that, *ceteris paribus*, a unit raised in consumer awareness corresponds to a 0.184 unit increase in consumer intention towards green banking in Malaysia.

Additionally, subjective norms have been shown to be significant ( $p\text{-value} < 0.001$ ). Studies from Taneja and Ali (2021) and Xu et al. (2022) have indicated that the intention to adopt green banking behaviour is significantly positively affected by both the injunctive norm and the description norm. Subjective norms are shaping how individuals perceive social pressure and the desire to gain approval from others (Utami, 2017; Ham et al., 2015). Research shows that people are more likely to choose green options if their peers support them (Taneja & Ali, 2021; Xu et al., 2022; Iqbal et al., 2023). Thus, subjective norms play a crucial role in promoting green banking adoption (Tamar et al., 2021; Ting et al., 2019). An unstandardized coefficient of regression is strong at 0.389, indicating that a unit rise within subjective norms improves consumers' intention to use green banking in Malaysia about 0.389-units, *ceteris paribus*.

Additionally, perceived trust is insignificant since the p-value of perceived trust is 0.277. The results are consistent with the findings of Slade et al. (2015) and Tilahun et al. (2023). Customers may acknowledge the benefits to the environment, but this awareness does not always transfer into intention (Slade et al., 2015; Tilahun et al., 2023). Thus, the adoption

of green banking is not directly impacted by perceived trust. Consequently, perceived trust is not enough to motivate consumers to choose green banking, even in the presence of a conviction in the benefits of sustainability.

In addition, security and privacy is significant and the p-value of security and privacy is 0.023. The result agrees with the findings of Shantha (2019), Ling et al. (2016) and Yoon et al. (2020). Security and privacy are crucial for consumer intention toward green banking because they ensure safety and protect against breaches (Dixit & Datta, 2010). Concerns about security and data privacy can make consumers reluctant to use green banking (Musyaffi et al., 2023). Positive views on security and privacy increase acceptance of green banking, while fears about these issues can prevent adoption (Shantha, 2019; Ling et al., 2016). Moreover, the unstandardized coefficient of regression is negative at 0.141. This reveals that an improvement in a unit of security and privacy reduces the consumer intention towards green banking in Malaysia by 0.141-unit, *ceteris paribus*.

Apart from that, R-squared ( $R^2$ ), formerly referred to the measure of the coefficient, serves as a mathematical measure that describes the number of percentages of adjustments to the dependent variable are influenced by shifts in the independent factors (Bramante et al., 2013). The 0.323  $R^2$  finding reveals that the overall variation of consumer awareness (CA), subjective norms (SN), perceived trust (PT), security, and privacy (SP) affects 32.3% of the variation in consumer intention towards green banking in Malaysia. The remaining 67.7% of the variation in the consumer intention towards green banking in Malaysia is addressed by other significant determinants.

Following that, the adjusted  $R^2$  equals 0.316. This suggests 31.6% of the variance in consumer intention towards green banking in Malaysia is interpreted by combined variation of consumer awareness (CA), subjective norms (SN), perceived trust (PT), security and privacy (SP), and degree of freedom.

On the other hand, the model of regression seems statistically significant at a 90% confidence level. Besides, the F-value of 45.197 is noteworthy. Consequently, this model demonstrated a significant association between the four independent factors, including consumer awareness (CA), subjective norms (SN), perceived trust (PT), security and privacy (SP) and the dependent variable, Malaysian consumers' intention towards green banking.

#### 4.4.2 Pearson Correlation

Table 4.14: *Pearson Correlation Result*

Pearson Correlation					
	Total Consumer Intention	Total Consumer Awareness	Total Subjective Norms	Total Perceived Trust	Total Security and Privacy
Total Consumer Intention		0.446**	0.505**	0.356**	0.298**
Total Consumer Awareness	0.446**		0.458**	0.359**	0.361**
Total Subjective Norms	0.505**	0.458**		0.696**	0.687**
Total Perceived Trust	0.356**	0.359**	0.696**		0.766**
Total Security and Privacy	0.298**	0.361**	0.687**	0.766**	
**. The significance level for correlation is 0.10 (2-tailed)					

Table above shows the relationship among consumer intention, the dependent variable, and independent variable which are consumer awareness, subjective norms, perceived trust as well as security and privacy.

First and foremost, a largely positive correlation of 0.446 is identified between consumer intention and consumer awareness. Likewise, there is a strong positive association ( $r = 0.505$ ) between consumer intention and subjective standards. Additionally, the correlation between consumer intention and perceived trust is 0.356, showing a favourable positive association. Further, the correlation between consumer intention and security and privacy is 0.298, also indicating a positive correlation.

Consequently, this study reveals that consumer intention, the dependent variable, has substantial positive correlation across the four independent factors: consumer awareness, subjective norms, perceived trust, and security and privacy. The result implies that as levels of consumer awareness, subjective norms, perceived trust, and concerns about security and privacy increase, consumer intention tends to rise as well. Hence, the outcomes emphasize the relevance of these factors in understanding consumer intention towards green banking.

## **4.5 Conclusion**

Data analysis is performed with employing SPSS 29.0. It is helpful for summarizing and analysing the information that was collected from those who responded. The questionnaire's scales are found to be trustworthy. Furthermore, multicollinearity or non-normality issues do not exist. In summary, MLR analysis shows that only three independent variables – consumer awareness, subjective norms, as well as security and privacy have a significant association with explained variable. Perceived trust is insignificantly related to the consumer intention towards green banking in Malaysia.



## **CHAPTER 5: DISCUSSION AND CONCLUSION**

### **5.0 Introduction**

Chapter five explored the research results in depth. Foremost, major findings are discussed. Second, how this study informs the practice of professionals in a certain field is addressed. Last, this chapter also covered the study's shortcomings and suggestions for future research.

### **5.1 Discussion on Major Findings**

#### **5.1.1 Factors affecting consumers' intention towards green banking**

##### **5.1.1.1 Perceived Trust**

The study indicated that perceived trust had no significant influence on consumers' intention towards green banking, which is similar with the findings of Slade et al. (2015) and Tilahun et al. (2023). In their study, there is no substantial association between trust and intention. As the prevalent situation of a specific banking environment likely hampers the association between trust and intention, therefore having a minimal influence (Ibenwo et al., 2019). Furthermore, Khan et al. (2023) stated that product trust was minimal among Malaysian Gen Y respondents. This is because this set of individuals may be well-

informed about the information of product and service, thus their dependence on product trust may be reduced, rendering the association unimportant. However, there are currently limited research studies on green banking (Bukhari et al., 2020). Therefore, limited investigation and understanding among key parties on green banking adoption have served as barriers to adoption. As a result, the direct effect of trust on intention is insignificant (Tilahun et al., 2023).

#### **5.1.1.2 Security and Privacy**

The study revealed that security and privacy had a significant negative impact on consumers' intention towards green banking. However, this finding differs from previous studies (Shantha, 2019; Merhi et al., 2019; Yoon et al., 2020; Musyaffi et al., 2023). In their research, they discovered that security and privacy are positively associated with consumers' intention of adopting green banking. This is because security and privacy may impact a wide range of consumer behavior and attitude outcomes. For example, consumers are always concerned about the privacy and security of their money transfers and banking activities (Nazeer et al., 2022). Therefore, increasing the level of security and privacy will boost consumer's' intention (Shantha, 2019). Moreover, privacy and security concerns have remained essential since a considerable number of banking institutions experience cyber-attacks totaling tens of thousands of strikes every week or month. As a result, worries about security and privacy have had a substantial impact on SMS banking adoption in Malaysia (Normalini & Ramayah, 2017).

## **5.2 Implications of the study**

This section contains the managerial implications. Based on the findings of data analysis, the focus is on what initiatives institutions including government agencies, academic institutions and religious associations may do to encourage the improvement in Malaysian consumers' intention to engage in green banking.

### **5.2.1 Managerial Implications**

Consumers' intention towards green banking is significantly influenced by the first independent variable, consumer awareness as determined by the multiple regression analysis results. Universities are crucial in encouraging teenagers to utilize banking services since the banks' users are limited to those who are eighteen years of age or beyond. To enhance the intention of customers towards green banking, universities can appropriately engage with financial institutions to offer comprehensive and easily available knowledge about green banking through academic conferences and seminars. Students' reluctance to explore the topic of green banking may be lessened and their curiosity can be increased by ensuring openness and clarity in communication. Given that most individuals these days spend much of their time on digital mobile gadgets, the government may reach a larger audience by promoting and showcasing green banking through infomercials or social media. From then on, there is a greater chance that people will become aware of green banking and show an increased desire to learn more about it. It is critical to clarify doubts about the benefits of green banking to promote their implementation. Financial institutions such as banks must provide priority to disclosure and accountability in their green banking provisions, presenting proof of the negative environmental impacts and efficaciousness of employing green banking practices. Obtaining third party certificates can also increase public perceptions of trustworthiness.

Furthermore, the second independent variable in the research, subjective norms, has a considerable effect on consumers' intention towards green banking. Thus, key influencers including friends, family, educators and people surrounding them are crucial in persuading and encouraging people to use green banking. Universities must incorporate lessons on green banking into their curricula in subject areas, appropriately offering real-world examples and practical insights into the green banking field. Its adoption may be aided by promoting critical thinking skills and a favorable view of green banking practices. In addition, family is the environment in which individuals develop and acquire their traits. Children will mimic their family members' manners from an early age, attempting to emulate them. Therefore, how parents behave while adopting green banking will also have an impact on their offspring. Additionally, by allowing opinion leaders like well-known individuals or entertainers to promote responsibility, the government might create additional advertisements that highlight the drawbacks of using traditional banking services, the messaging and campaigns linked to banking that emphasize the advantages of green banking for both the environment and individual. This is because the public are prone to copying and carrying out these individuals' behaviors. Public may experience increased social pressure and become more inclined to increase the intention in using green banking as a result of these campaigns and actions influencing significant sources.

The fourth independent variable analyzed for the study, privacy and securities has likewise been found to significantly influenced consumers' intention toward green banking. Therefore, the government can investigate and disseminate cutting-edge technology in the field of green banking and introduce it to Malaysia to raise the expectations of consumers and improve the reputation of banking services, hence increasing the public's desire to use green banking. Additionally, financial institutions may increase the usefulness of their customers by offering guidance and information on the security standards of their goods and services. To guarantee that all data and information are functioning properly and getting better, banks may additionally manage their running software or systems. Customers' confidence in green banking goods and services might rise as a result of the institutions' improvements and assurances about privacy and security. As a result, more people will utilize these services.

### **5.3 Limitations of Study**

The current section has outlined a few of the study's shortcomings. First of all, the targeted audience of this research is citizens of Malaysia since there is a lack of studies on consumer intention towards green banking in Asian countries. On other hand, GB is a recently developed trend, and Malaysia has seen a rise in the demand for green banking services and products in recent years (Kuen, 2023). However, it could be challenging to extrapolate the study's findings to those living in other Asian nations. This is due to Malaysian citizens may have different degrees of intention towards green banking compared to citizens of other Asian countries.

Moreover, as previously mentioned, the primary objective of this study is to investigate consumer intentions towards green banking (GB). However, this study deliberately focuses on consumer intentions and does not extend to an analysis of consumer behavior. Given that intention is a fundamental precursor to behavior, this study aims to first establish a clear understanding of consumer intentions (Brookes, 2023). Consequently, it is recommended that future research should investigate both consumer intentions and behaviors, exploring the relationship between them, or alternatively, focus exclusively on consumer behavior within the green banking context.

Finally, 384 Malaysian respondents completed a questionnaire to provide quantitative research data for current study. The questionnaire examined the association with the dependent variable, consumer intention, and the four independent factors: consumer awareness, subjective norms, perceived trust, and security and privacy. The questionnaire was chosen for its convenience in collecting a large amount of data efficiently. However, it has limitations, as it lacks to convey the respondents' sentiments or emotions. As a result, the researchers found it challenging to examine and analyse the respondents' thoughts, ideas, and behaviours towards consumer intention in green banking in depth.

## 5.4 Recommendations for Future Research

Therefore, in order to provide a greater understanding of the problem, various aspects of the research should be addressed in future studies on the factors impacting the consumer intention towards green banking. As such, this section contains a number of recommendations.

The first recommendation is that future researchers should consider extending the reach of participants beyond Malaysia when examining the factors influencing consumer intention towards green banking in Asian countries. This might entail carrying out comparable surveys among a larger population of Asian people or in other countries. Expanding the respondent base would strengthen the dependability from the findings as well as the capacity to extrapolate them to citizens of other Asian countries.

Furthermore, future research should broaden its scope by investigating both consumer intentions and behaviors towards green banking (GB). Although the intentions of the consumer were the primary concern of this study, it is important to know how these intentions result in real action. Exploring the relationship between intention and behavior will provide valuable insights into potential gaps and the factors influencing the adoption of GB products and services. This method will provide a more thorough comprehension of consumer decision-making within the framework of GB, in order supporting the development of strategies that encourage sustainable practices in the financial sector.

Lastly, the current study uses a questionnaire to gather data from respondents. Thus, future studies could employ mixed methods approaches that combine quantitative surveys with qualitative interviews or focus groups to gain deeper insights into consumer intentions towards green banking. This will improve the reliability and accuracy of data collecting methods by enabling researchers to acquire a deeper comprehension of respondents' attitudes, beliefs, as well as behaviours about their intention towards green banking, in addition to their sentiments and emotions.

## **5.5 Conclusion**

This research aims to determine the variables influencing consumers' intention towards green banking in Malaysia. The data collection method is a distributed questionnaire, and the data analysis was performed utilizing SPSS 29.0. The results of this study indicated that hypotheses H1, H2, and H4 are accepted except H3. Accordingly, the independent variables, consumer awareness, subjective norms, and security and privacy have significantly affected consumers' intention towards green banking in Malaysia. These findings are discussed comprehensively, including implications, restrictions, and suggestions to allow future researchers to continue the research.

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## APPENDICES

### Appendix 1.1: Survey Questionnaire

#### **Section A: Personal Data Protection Statement**

Acknowledgement of Notice:

- ( ) I have been notified by you and that I hereby understood, consented and agreed per  
UTAR above notice.
- ( ) I disagree, my personal data will not be processed.

#### **Section B: Demographic Information**

1. Gender

- ( ) Male            ( ) Female

2. Age

- ( ) 18 - 24  
( ) 25 - 29  
( ) 30 - 39  
( ) 40 - 49  
( ) 50 - 59

3. Race

- ( ) Malay  
( ) Chinese  
( ) Indian  
( ) Others

4. Location

- ( ) Perak  
( ) Johor  
( ) Kedah

- ( ) Kelantan
- ( ) Malacca
- ( ) Pahang
- ( ) Penang
- ( ) Perlis
- ( ) Sabah
- ( ) Sarawak
- ( ) Selangor
- ( ) Negeri Sembilan
- ( ) Terengganu
- ( ) Kuala Lumpur

5. Are you conscious you are using green banking services (e.g. green credit card, green loan, etc)?
- ( ) Yes
  - ( ) No

**Section C: Dependent Variables – Consumers' Intention**

This section is seeking your opinion regarding the consumers' intention toward green banking among Malaysians. Please indicate the extent to which you agree or disagree with each of the following statements. Please choose the most appropriate option for each of the statements.

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
I intend to use green banking in the future.	1	2	3	4	5
I plan to use green banking in the future.	1	2	3	4	5

I believe it is worthwhile for me to use green banking.	1	2	3	4	5
I am interest in using green banking.	1	2	3	4	5
I will recommend green banking to others.	1	2	3	4	5

**Section D: Independent Variables**

This section is seeking your opinion regarding the factors affecting consumers' intention toward green banking among Malaysians. Please indicate the extent to which you agree or disagree with each of the following statements. Please choose the most appropriate option for each of the statements.

**Consumer Awareness**

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
I am aware of the existence of green banking.	1	2	3	4	5
I am aware of the concept of green banking.	1	2	3	4	5
I know the purpose of green banking.	1	2	3	4	5
I know the benefits of using green banking.	1	2	3	4	5
In general, I have enough information about green banking.	1	2	3	4	5

**Subjective Norms**

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
People important to me feel that I should use green banking.	1	2	3	4	5
People whose opinions I value would prefer that I use green banking.	1	2	3	4	5
My friend's positive opinion influences me to use green banking.	1	2	3	4	5
People I know are concerned about issues related to the environment.	1	2	3	4	5
People I know think it is important to use green banking.	1	2	3	4	5

**Perceived Trust**

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
I believe that green banking services are trustworthy.	1	2	3	4	5
I believe that green banking services are reliable.	1	2	3	4	5

I believe that green banking services are dependable.	1	2	3	4	5
The environmental effect of green banking services meets my expectations.	1	2	3	4	5
Green banking services keep promises and commitments for environmental protection.	1	2	3	4	5

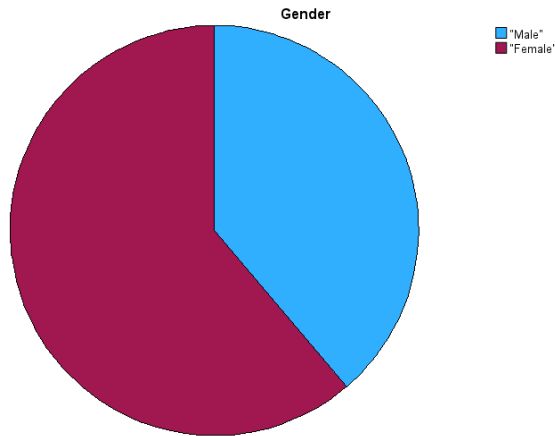
**Security and Privacy**

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
I believe that green banking has adequate security measures.	1	2	3	4	5
I believe that green banking is able to protect my privacy.	1	2	3	4	5
I feel safe about using green banking.	1	2	3	4	5
Security and privacy is important to me in using green banking.	1	2	3	4	5
I feel that my personal information will not be disclosed to third parties when using green banking.	1	2	3	4	5

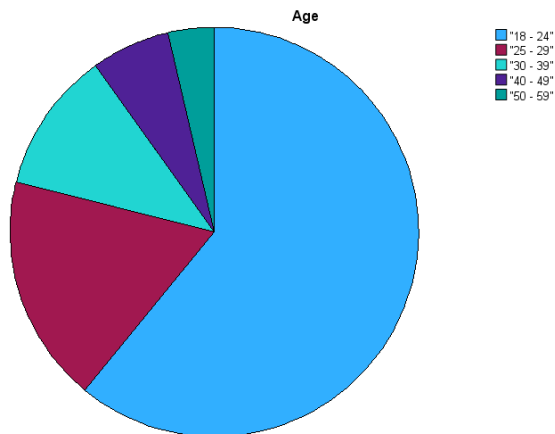


**Appendix 1.2: Output Window from SPSS 16.0 (Respondent's Demographic Profile)**

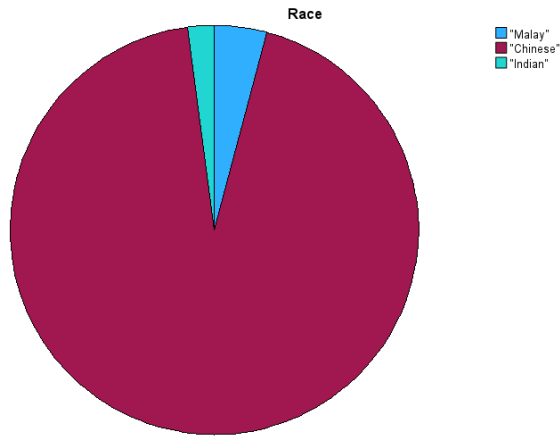
<b>Gender</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	"Male"	149	38.8	38.8	38.8
	"Female"	235	61.2	61.2	100.0
	Total	384	100.0	100.0	



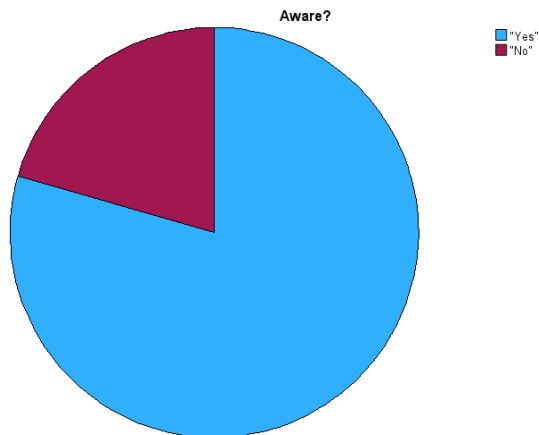
<b>Age</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	"18 - 24"	234	60.9	60.9	60.9
	"25 - 29"	69	18.0	18.0	78.9
	"30 - 39"	43	11.2	11.2	90.1
	"40 - 49"	24	6.3	6.3	96.4
	"50 - 59"	14	3.6	3.6	100.0
	Total	384	100.0	100.0	



Race					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	"Malay"	16	4.2	4.2	4.2
	"Chinese"	360	93.8	93.8	97.9
	"Indian"	8	2.1	2.1	100.0
	Total	384	100.0	100.0	



Aware?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	"Yes"	305	79.4	79.4	79.4
	"No"	79	20.6	20.6	100.0
	Total	384	100.0	100.0	



**Appendix 1.3: Statement Question (Central Tendencies and Dispersion  
Measurement of Constructs**

**Appendix 1.3.1**

*4.1.2.1 Consumers' Intention towards Green Banking*

Question	Statement
DV1	I intend to use green banking in the future.
DV2	I plan to use green banking in the future.
DV3	I believe it is worthwhile for me to use green banking.
DV4	I am interest in using green banking.
DV5	I will recommend green banking to others.

**Appendix 1.3.2**

*4.1.2.1 Consumer Awareness*

Question	Statement
CA1	I am aware of the existence of green banking.
CA2	I am aware of the concept of green banking.
CA3	I know the purpose of green banking.
CA4	I know the benefits of using green banking.
CA5	In general, I have enough information about green banking.

**Appendix 1.3.3**

*4.1.2.1 Subjective Norms*

Question	Statement
SN1	People important to me feel that I should use green banking.
SN2	People whose opinions I value would prefer that I use green banking.
SN3	My friend's positive opinion influences me to use green banking.
SN4	People I know are concerned about issues related to the environment.
SN5	People I know think it is important to use green banking.

**Appendix 1.3.4**

*4.1.2.1 Perceived Trust*

Question	Statement
PT1	I believe that green banking services are trustworthy.
PT2	I believe that green banking services are reliable.
PT3	I believe that green banking services are dependable.
PT4	The environmental effect of green banking services meets my expectations.
PT5	Green banking services keep promises and commitments for environmental protection.

**Appendix 1.3.5**

*4.1.2.1 Security and Privacy*

Question	Statement
SP1	I believe that green banking has adequate security measures.
SP2	I believe that green banking is able to protect my privacy.
SP3	I feel safe about using green banking.
SP4	Security and privacy is important to me in using green banking.
SP5	I feel that my personal information will not be disclosed to third parties when using green banking.

**Appendix 1.4: Reliability Test**

*Consumers' Intention towards Green Banking*

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.973	.973	5

*Consumer Awareness*

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.988	.988	5

*Subjective Norms*

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.980	.980	5

*Perceived Trust*

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.975	.975	5

*Security and Privacy*

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.976	.976	5

**Appendix 1.5: Multicollinearity Test**

<b>Coefficients<sup>a</sup></b>			
Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	CA	.786	1.273
	SN	.422	2.372
	PT	.359	2.786
	SP	.367	2.727

a. Dependent Variable: INTENTION

**Appendix 1.6: Normality Test**

<b>Descriptive Statistics</b>							
	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
INTENTION	384	4.1927	1.05956	-1.942	.125	2.832	.248
CA	384	3.3786	1.59551	-.306	.125	-1.740	.248
SN	384	4.1969	1.18237	-1.979	.125	2.550	.248
PT	384	4.0802	1.16933	-1.893	.125	2.187	.248
SP	384	4.1286	1.19887	-1.937	.125	2.299	.248
Valid N (listwise)	384						

**Appendix 1.7: Inferential Analysis**

<b>Coefficients<sup>a</sup></b>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.235	.181		12.354	<.001		
	CA	.184	.032	.278	5.821	<.001	.786	1.273
	SN	.389	.058	.434	6.668	<.001	.422	2.372
	PT	.070	.064	.077	1.088	.277	.359	2.786
	SP	-.141	.062	-.159	-2.281	.023	.367	2.727

a. Dependent Variable: INTENTION

**Appendix 1.8: Pearson Correlation**

<b>Correlations</b>						
		INTENTION	CA	SN	PT	SP
INTENTION	Pearson Correlation	1	.446**	.505**	.356**	.298**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001
	N	384	384	384	384	384
CA	Pearson Correlation	.446**	1	.458**	.359**	.361**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001
	N	384	384	384	384	384
SN	Pearson Correlation	.505**	.458**	1	.696**	.687**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001
	N	384	384	384	384	384
PT	Pearson Correlation	.356**	.359**	.696**	1	.766**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001
	N	384	384	384	384	384
SP	Pearson Correlation	.298**	.361**	.687**	.766**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	
	N	384	384	384	384	384

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

**Appendix 1.9: Pilot test results**

*Consumers' Intention*

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
<b>.902</b>	<b>5</b>

*Consumers' Awareness*

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
<b>.985</b>	<b>5</b>

*Subjective Norms*

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.968	5

*Perceived Trust*

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.945	5

*Security and Privacy*

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.964	5



## Appendix 2.1: Table for Determining Sample Size from a Given Population

Table 1: Krejcie and Morgan Table

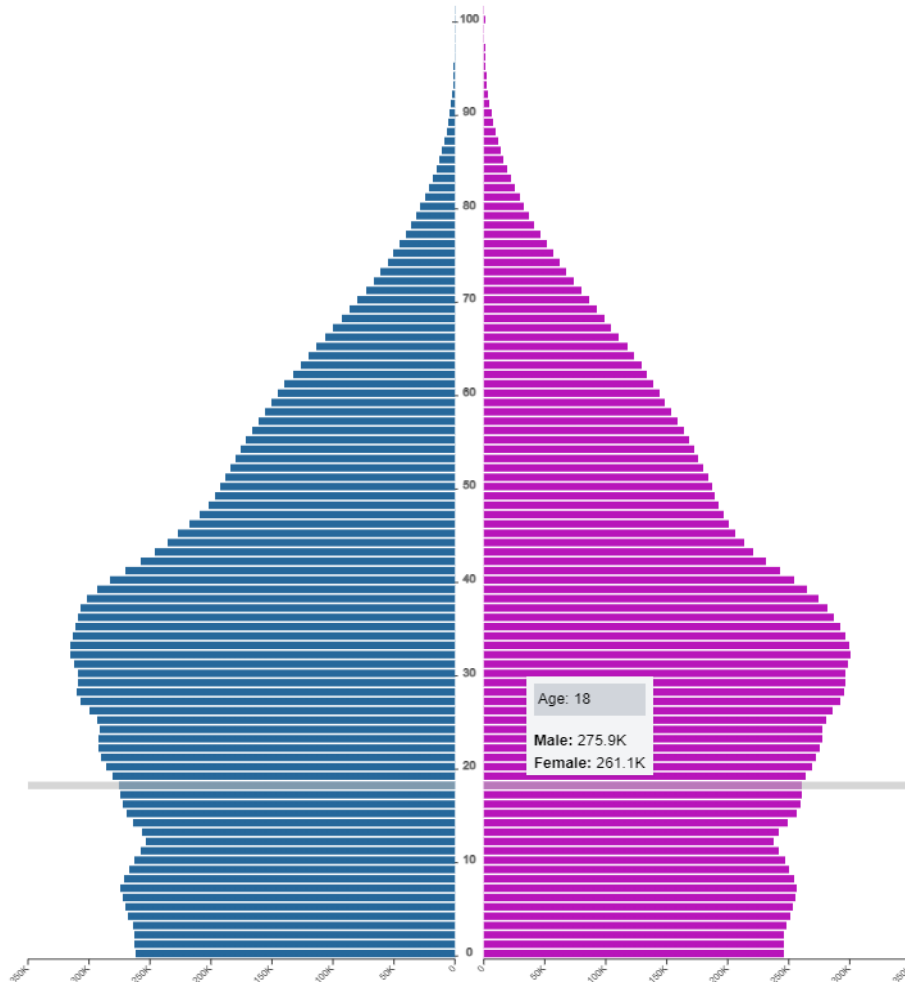
<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	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	100000	384

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

Source: Krejcie & Morgan, 1970

**Appendix 2.2: Malaysia population in 2024**

Malaysia Population Pyramid 2024



<b>Population of Malaysia citizens aged between 18 and 59 years.</b>	<b>Malaysia citizens</b>	<b>% of overall citizens</b>
18 – 24 years old	3.91 million	18.82%
25 – 29 years old	2.97 million	14.29%
30 – 39 years old	5.98 million	28.78%
40 – 49 years old	4.50 million	21.65%
50 – 59 years old	3.42 million	16.46%
Total	20.78 million	100%