FACTORS INFLUENCING M-COMMERCE ADOPTION IN KOTA KINABALU

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DEGREE OF BACHELOR ENTREPRENEURSHIP (COMMERCE)
WITH HONOURS

2023

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A thesis submitted in fulfillment of the requirements for the degree of Bachelor of Entrepreneurship (Commerce)

Faculty of Entrepreneurship and Business
UNIVERSITI MALAYSIA KELANTAN

2023

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ACKNOWLEDGEMENT

First and foremost, we would like to express our gratitude to our supervisor, Dr. Nurul Izyan binti Mat Daud, who deserves a lot of credit for ensuring that we were on the right track to finishing this research proposal by providing us with advice and direction on a regular basis. We have learned a tonne of new facts and knowledge from this research study.

Following that, we would like to express our profound gratitude to Universiti Malaysia Kelantan, in particular to the Faculty of Entrepreneurship and Business (FKP), for granting us the opportunity to complete our studies and obtain our degrees. We also like to appreciate the Universiti Malaysia Kelantan library for providing facilities that we could use to do our research.

Moreover, we'd like to express our sincere gratitude to every member of our team for contributing their all in terms of time, effort and devotion to the completion of this study. Without the enthusiastic assistance of each group member, we might not have been able to complete this proposal on “Factors Influencing M-Commerce Adoption in Kota Kinabalu.”

Last but not least, we would like to thank our parents and family for always giving us endless support and always being behind us to complete this research proposal.

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$$n = \frac{x^2 Np(1-p)}{e^2(N-1) + x^2 p(1-p)}$$

$$\bar{x} = \frac{sum\ of\ all\ value}{number\ of\ values}$$

$$med\ (x) = x\,\frac{n+1}{2}$$

$$med\ (x) = \frac{1}{2}\left(x\,\frac{n}{2} + x\,\frac{n}{2} + 1\right)$$

$$yi = \beta 0 + \beta 1 xi1 + \beta 2 xi2 + \cdots + \beta pxip + \epsilon$$

LIST OF ABBREVIATIONS

n	Sample size
N	Population size
e	Acceptable error of sample size
x^2	Chi-square
p	Population proportions
$\bar{x}$	Mean
med	Median
yi	Dependent or predicted variables
β0	y-intercept
β2	Regression coefficient representing the change in y relative to a one-unit change in *xi*1 and *xi*2 respectively
βp	Slope coefficient for each independent variable
ϵ	Model's random error (residual) term

ABSTRACT

The purpose of this research is to examine the relationship between perceived usefulness, perceived ease of use, perceived self-efficacy, perceived trust with intention to adopt mobile commerce (m-commerce) in Kota Kinabalu. Due to the postage fee from Peninsular Malaysia to East Malaysia is quite expensive, the researchers would like to determine how high the intention of citizens in Kota Kinabalu adopt the m-commerce for online purchasing or selling. The researcher evaluated consumer behavioral intentions and the adoption of m-commerce in Kota Kinabalu using the Technology Acceptance Model (TAM) to meet the study's goals. This research used non-probability sampling which is convenience sampling and Statistical Package for Social Sciences (SPSS) to analyze the data. The online survey was to be spread among residents in Kota Kinabalu and 384 respondents as its sample size. The findings of this research manifest that all of the hypotheses have a high statistical significance and through the positive results display the relationship between dependent and independent variables are positive and very strong. In conclusion, this study will contribute to researchers, firms, retailers, or government to understand consumer behaviour and intensify the m-commerce market in the future.

ABSTRAK

Tujuan penyelidikan ini adalah untuk mengkaji hubungan antara persepsi kebergunaan, persepsi kemudahan penggunaan, persepsi keberkesanan diri, persepsi kepercayaan dengan niat untuk menerima pakai perdagangan mudah alih (m-dagang) di Kota Kinabalu. Memandangkan bayaran pos dari Semenanjung Malaysia ke Malaysia Timur agak mahal, penyelidik ingin menentukan sejauh mana niat warga Kota Kinabalu mengamalkan m-dagang untuk pembelian atau penjualan dalam talian. Pengkaji menilai niat tingkah laku pengguna dan penggunaan m-dagang di Kota Kinabalu menggunakan Model Penerimaan Teknologi (TAM) untuk memenuhi matlamat kajian. Penyelidikan ini menggunakan pensampelan bukan kebarangkalian iaitu persampelan kemudahan dan Statistical Package for Social Sciences (SPSS) untuk menganalisis data. Tinjauan dalam talian itu akan disebarkan di kalangan penduduk di Kota Kinabalu dan 384 responden sebagai saiz sampelnya. Dapatan kajian ini menunjukkan bahawa kesemua hipotesis mempunyai kepentingan statistik yang tinggi dan melalui keputusan positif memaparkan hubungan antara pembolehubah bersandar dan tidak bersandar adalah positif dan sangat kukuh. Kesimpulannya, kajian ini akan menyumbang kepada penyelidik, firma, peruncit, atau kerajaan untuk memahami gelagat pengguna dan mempergiatkan pasaran m-dagang pada masa hadapan.

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

The purchase or selling of goods and services using wireless handheld devices like cell phones and tablets is known as mobile commerce (Yasar, 2022). A subset of electronic commerce (e-commerce), mobile commerce (m-commerce) allows customers to browse online purchasing platforms without using a desktop computer. The types of m-commerce involve mobile shopping, mobile banking and mobile payments. M-commerce allows an organization to connect more potential consumers online. It also offers consumers a diverse range of goods or services options and payment options from various vendors.

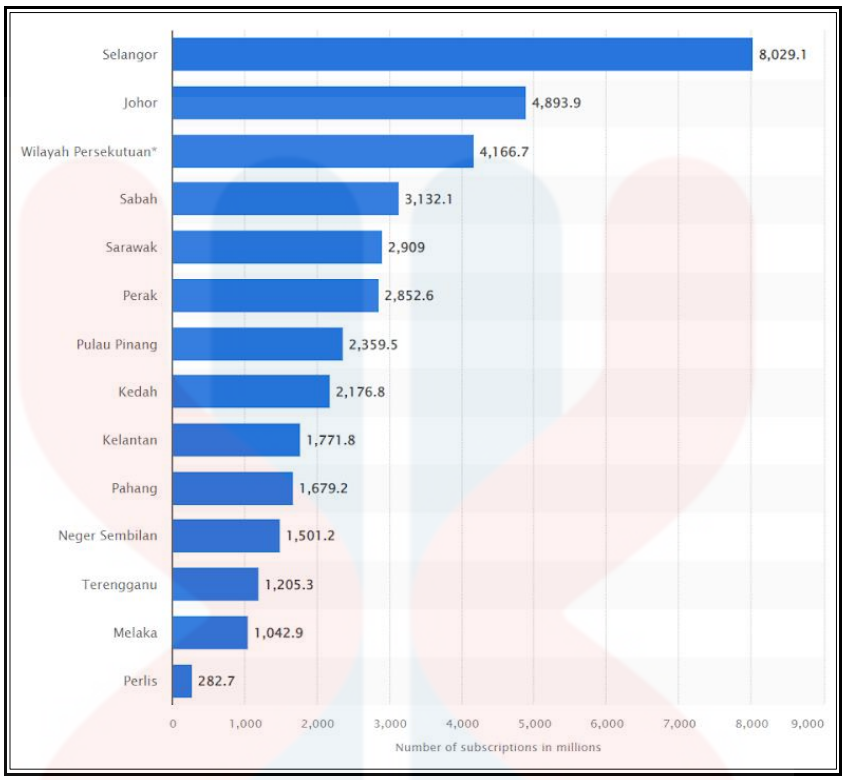
However, there are also some different meanings among e-commerce and m-commerce. While m-commerce focuses on purchases via wireless portable devices, e-commerce is a broad term for online purchases or sales (Anastasia & Vlad, 2022). Generally, e-commerce transactions are carried out using laptop computers or desktop computers. Therefore, users must look for a place to conduct their transactions. It is inconvenient to use a laptop just about anywhere or while on the go. For m-commerce, it is obviously easier because it indicates the use of wireless handheld devices. As a result, individuals can conduct commercial transactions wherever they go as long as their cell phones or tablets are linked to the internet. Then, they can complete transactions with a few clicks on the screen in just a few minutes.

When smartphone sales in the US are projected to increase from $128.4 billion in 2019 to $418.9 billion over the next five years, it is clear that m-commerce is expanding (Gilbert, 2022). The market for mobile commerce in the United States is estimated to

represent 41.6% of all e-commerce sales by the end of 2022 and to increase to 44% by 2025 (Szaniawska-Schiavo, 2022). When it comes to the retail industry, m-commerce accounts for 53.9% of total yearly e-commerce sales in the United States. There is a 9.2% growth from the expected forecast in 2021. Moreover, it is predicted that by 2025, m-commerce would account for 10% of all retail sales, up from its current percentage of 6% (Flynn, 2022).

M-commerce is used for a variety of reasons, one of which is that it makes mobile purchasing easier by enabling price comparison, product browsing, and information searches across a variety of sources. Enhancing accessibility, security, timeliness, personalization, recognition, convenience, usability, ambiguity, and localization are just a few of the benefits that come with this (Chan et al., 2022). M-commerce is thus growing in acceptance all around the world. Globally, there are 4.7 billion mobile customers and 7.7 billion mobile connections, according to Anastasia & Vlad (2022). As a result of the growing adoption of mobile technology and the rising use of mobile devices, m-commerce has arisen as a brand-new business phenomenon.

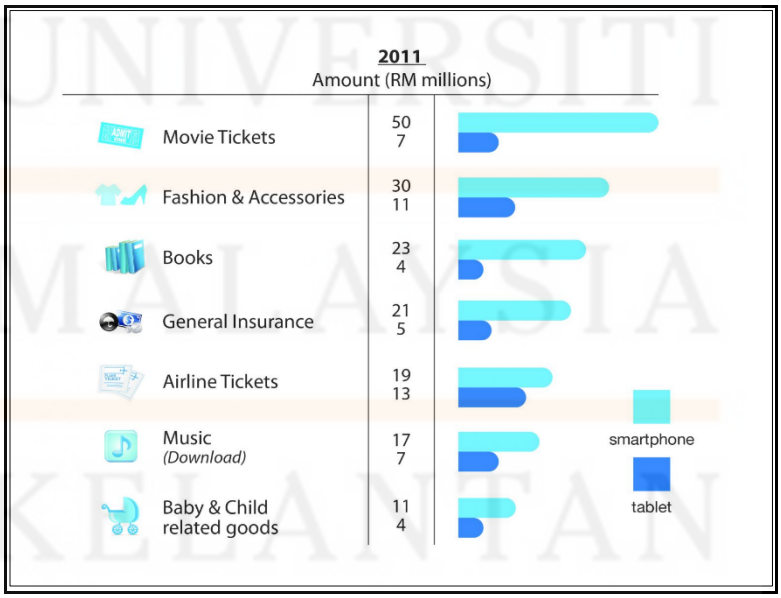
According to statistics reported on the Data Reportal website in February 2022, Malaysia had a total population of 32.98 million people in January 2022. Population in Malaysia grew by 408 thousand (1.3 percent) from 2021 to 2022. Among the population, citizens living in Kota Kinabalu occupy 576,000 people. Based on the data from GSMA Intelligence in 2022. Beginning in 2022, there were 42.11 million cellular mobile connections. This is also equivalent to 127.7% of Malaysia's entire population and is growing by 1.6 million (4.0 percent) between 2021 and 2022.



Source: Statista (2022)

Figure 1.1: Number of Mobile Broadband Subscriptions

Figure 1.1 shows the number of mobile broadband subscriptions as of the third quarter of 2020 by state in Malaysia. The number of mobile broadband subscriptions in Sabah was over three million as of the third quarter of 2020.



Source: Yapp, E. (2012)

Figure 1.2: Mobile Spending Categories

Figure 1.2 manifests the data of m-commerce survey in PayPal. In the figure, movie tickets, fashion & accessories and books were the top three mobile spending categories in the year 2011. As long as there is an Internet connection, consumers can make their mobile purchases wherever at home or offices.

In consumers' perspective, there are also some disadvantages in the adoption of m-commerce. First, absence of services in rural areas. Rural areas still have limited access to the Internet. Some people are absolutely unaware of all of these facilities. Therefore, Mobile commerce is still mostly unknown to many people. Second, security issues and fraud risks. In m-commerce, fraud concerns still exist, and some salespeople aren't even prepared to handle them (Kumari, 2020). Furthermore, the safety issue still exists, and some people worry about their personal data being accessed. In short, m-commerce has advantages as well as disadvantages in the mind of consumers nowadays.

1.2 Problem Statement

In reality, the importance of mobile commerce has increased in the business sector nowadays. With the quick adoption of m-commerce, its market has become one of the most promising growth markets in the world (Tarhini et al., 2019). Researchers are interested in m-commerce because of its effects on global business, which is that m-commerce provides users with greater accessibility than e-commerce (Tarhini et al., 2019). M-commerce refers to an extension of e-commerce in which using wireless handheld devices to carry out the transactions (Tarhini et al., 2019). Online shopping, payments, money transfers and financial services are all part of it.

Malaysia has a relatively high m-commerce penetration rate, with at least 88.3% having used a mobile phone or tablet shopping app and at least 68.4% having purchased a product online via mobile phone (Timeline: ShopLine Malaysia, 2021). This data

represents a snapshot taken in January 2021 of internet users aged 16 to 64 and their m-commerce activities. This demonstrates that m-commerce industries have a high potential for growth in Malaysia.

Based on prior research, many articles discuss the factors influencing m-commerce adoption among consumers. For example, perceived usefulness and perceived ease of use is one of the factors influencing m-commerce adoption. Perceived usefulness and perceived ease of use are the two cognitive variables that support the theory on system usage by individuals' behavioral intention to adopt a system (Nathaniel Samuel et al., 2018). Nevertheless, self-efficacy is another factor that influences whether or not consumers would use mobile commerce. Self-efficacy has been considered a major factor underlying individuals' consumers' intrinsic motivations (Kiseol Yang, 2010) and has been found to indirectly influence behavioral intention (Kiseol Yang, 2010). Several studies empirically supported self-efficacy effects on technology adoption behavior (Kiseol Yang, 2010).

Other than that, another factor that influences m-commerce adoption is perceived trust. According to Sarkar et al., (2020), since it has a significant impact on how well m-commerce performs, customer trust has been identified as one of the most crucial indications of m-commerce adoption. On the other hand, perceived trust is referring to crucial element in technology adoption and aids businesses to build customer relationships (Reichheld & Schefter, 2000). Thus, consumer perceptions of trust will have an impact on their decision to accept or use mobile commerce.

Thus, the above statement indicates that it is necessary to further explore the factors perceived usefulness, perceived ease of use, perceived self-efficacy and perceived trust that influence consumers' intention to adopt mobile commerce in Kota Kinabalu. In

addition, there is still no specific research on m-commerce adoption in Kota Kinabalu. It is necessary to conduct research in the Kota Kinabalu population.

1.3 Research Question

i) What is the relationship between perceived usefulness and intention to adopt m-commerce in Kota Kinabalu?

ii) What is the relationship between perceived ease of use and intention to adopt m-commerce in Kota Kinabalu?

iii) What is the relationship between perceived self-efficacy and intention to adopt m-commerce in Kota Kinabalu?

iv) What is the relationship between perceived trust and intention to adopt m-commerce in Kota Kinabalu?

v) What is the associated factors (perceived usefulness, perceived ease of use, perceived self-efficacy, perceived trust) towards the adoption of m-commerce in Kota Kinabalu?

1.4 Research Objectives

i) To determine the relationship between perceived usefulness and intention to adopt m-commerce in Kota Kinabalu.

ii) To determine the relationship between perceived ease of use and intention to adopt m-commerce in Kota Kinabalu.

iii) To determine the relationship between perceived self-efficacy and intention to adopt m-commerce in Kota Kinabalu.

iv) To determine the relationship between perceived trust and intention to adopt m-commerce in Kota Kinabalu.

v) To determine the associated factors (perceived usefulness, perceived ease of use, perceived self-efficacy, perceived trust) towards the adoption of m-commerce in Kota Kinabalu.

1.5 Scope of the Study

This research will focus on the people who live in Kota Kinabalu. The scope of the research is aimed to investigate the factors that influence consumers' intention to adopt m-commerce among Kota Kinabalu residents. The researcher employed primary data collection and secondary data collection to collect data for this aim. Primary data will be collected by using online survey questionnaires, where the consumers' can share their experiences and perception about m-commerce through the survey questionnaires.

1.6 Significance of Study

1.6.1 Researchers

This research's findings will assist researchers better understand and comprehend the recognized relationship between perceived usefulness, perceived ease of use, perceived self-efficacy and perceived trust towards intention to adopt m-commerce. Referring to a few other research that concentrated on this issue, this study helped identify factors that influence customers' intention to adopt mobile commerce among residents in Kota Kinabalu.

1.6.2 Firms

This study is significant to the company because it serves as a reference. A reference is necessary for a business such as opening a branch in a new location so they can learn about the local population density. Despite the fact that technology at

this time has advanced quickly, it is claimed that this is the case because it is challenging to collect information about each location. The limitation of information makes it difficult for a firm to explore a place and the people around it. Additionally, it might be challenging to explore an area without the assistance or support of others who live there. The reason for this is that the business cannot be negligent or look down on the people who are most likely to become "customers".

Furthermore, through this research the firm can also make improvements. This is because the information obtained helps firms in identifying the factors of their use of m-commerce. It will make the firm have many opportunities to explore m-commerce and be able to convince users to use the firm's m-commerce. In addition, firms also can improve their quality in m-commerce. An overview of the research's findings will provide the company with further knowledge before implementing any plans.

1.6.3 Retailers

This study will have a positive impact on retailers. Through this study it will be easy for retailers to understand their consumers. This is allegedly the situation because it is challenging for retailers to comprehend their customers, not to mention the fact that many of them live in remote rural areas or enormous urban areas that are tough to navigate. Each product or service has a large or global user base. For instance, consumers who are in a rural area, it is difficult for retailers to get feedback from them about products or services because they are difficult to track. The findings of this research will assist retailers recognize the various benefits of using mobile commerce. This is because m-commerce is readily available wherever the user is and will facilitate two-way online communication between users and retailers. Simple

conclusion from this study, retailers gain many benefits if they use m-commerce to understand their consumers when there is a study like this done.

1.6.4 Government

The government will be able to pinpoint user requirements and enhance m-commerce usage through research like this. This is because more people would utilize m-commerce for regular business the more developed the nation. Making the programmed user-friendly, simple, and capable of luring users to utilize it is one way the government may improve. Because mobile commerce is challenging to comprehend and lacks expert assistance, users do not use it. The brief conclusion of a study like this for the government is to be able to find out why consumers are less inclined to use m-commerce even though it is simple and saves time. From this point, the government can ascertain the root of the problem and implement fixes that will encourage people to engage in mobile commerce.

1.7 Definition of Term

1.7.1 Mobile Commerce (M-Commerce)

The term "mobile commerce" refers to the practice of performing online transactions over wireless handheld devices like smartphones and tablets to purchase, sell, conduct financial transactions or make bill payments. M-commerce is a quickly growing sector of e-commerce, a business model where individuals or businesses transact business online. Additionally, users may simply and rapidly access online shopping platforms through m-commerce by using mobile devices rather than desktop computers. M-commerce can be used for business to business, customer to

business, customer to government, business to government, and government to citizen transactions (Alnaser et al., 2018).

1.7.2 Perceived Usefulness

"The extent to which a person believes that employing a certain technology would increase their job performance" is how Fred Davis defined perceived usefulness (PU). It reveals how a person thinks about the technology's applicability for their intended use. According to Davis (1989), a system's perceived usefulness can be summed up as how much people think employing new technology will improve their performance. Therefore, acceptance and adoption of mobile commerce may be influenced directly or indirectly by perceived utility.

1.7.3 Perceived Ease of Use

The degree to which people perceive how simple it is to use a technology is called perceived ease of use (Davis et al. 1989). According to Davis' (1986) Technology Acceptance Paradigm (TAM) model, one of the most important variables in a user's adoption of a technology is perceived ease of use. According to a number of previous research studies, perceived ease of use has a favorable impact on the adoption of mobile commerce (Khalifa and Shen, 2008b, Kim and Garrison, 2009; Wei et al., 2009).

1.7.4 Perceived Self-Efficacy

An individual's self-efficacy is related to their confidence in their capability to carry out the behaviours required to accomplish specific performance goals (Bandura, 1997). Self-efficacy is the conviction that one is in charge of one's own

motivation, behavior, and social conditions. People's perceptions of their capacities to perform at predetermined levels and exercise control over events that have an impact on their lives are referred to as perceived self-efficacy (Bandura, 1994). In simplest terms, it is the conviction that your choices and actions today will determine and influence your tomorrow.

1.7.5 Perceived Trust

Cho et al. 2007 described trust as "buyer-seller relationships as the perception by a prospective buyer of credibility and benevolence in the target of trust". In the m-commerce context, perceived trust is explained by Zhang et al. (2012) as “the extent to which an individual believes that using m-commerce is secure and has no privacy threats". A crucial concept that affects consumer behavior and determines the success of m-commerce is perceived trust (Wei et al., 2009). Thus, it is evident that perceived trust is a crucial factor in determining consumer behavior and m-commerce success (Wei et al, 2009).

1.8 Thesis Outline

The research's executive summary is explained in Chapter 1. This chapter explains in detail about factors influencing m-commerce adoption. The study's background is supplied, then the problem statement, research questions, and objectives are stated. The study's scope, significance, definition of concepts, and thesis outline follow.

In addition, Chapter 2 examines the literature review. The study's beginning is what is seen in this chapter. The things that are touched on are the theory used in related studies and previous studies. Research hypotheses have been formed to test the theories

and conceptual framework's validity. Next, a conclusion is provided to summarize this chapter.

Furthermore, Chapter 3 focuses on the research methodology used to answer the research questions. This chapter covers several things, such as the study population, sample size, sampling techniques and the development of the instrument used to conduct the study. The study population, sample size, sampling techniques and the development of the study instrument are just a few of the topics covered in this chapter.

Next, Chapter 4 emphasis on data analysis and findings. The analysis method used in the research is a preliminary analysis, descriptive analysis, validity and reliability analysis, normality analysis, Pearson correlation and multiple linear regression. The chosen analysis aims to reveal any relationships between the variables. To determine if all hypotheses are accepted or not, hypothesis testing is also performed.

In addition, Chapter 5 explains in detail about discussion and conclusion. In this chapter, several topics will be discussed thoroughly and in detail. For key findings, the researcher will explain the main results found in the research. All the hypotheses made are also explained in detail to determine whether the hypothesis is accepted or not. Despite this, this chapter also discusses the study's implications, constraints, and suggestions for further research.

CHAPTER 2

LITERATURE REVIEW

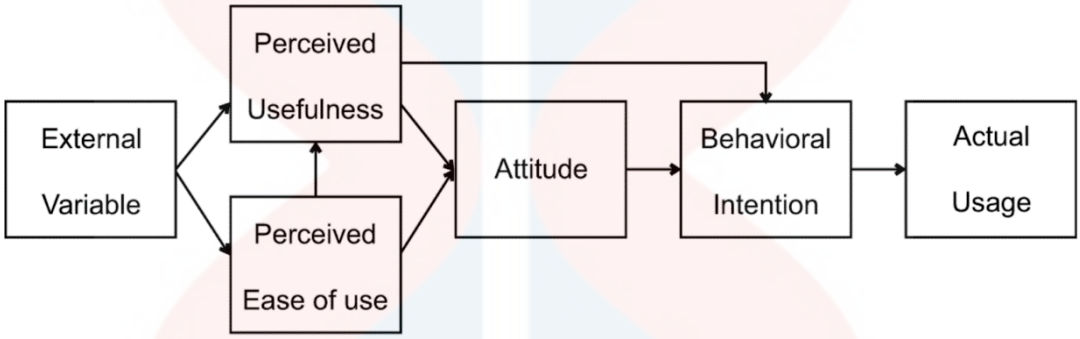
2.1 Introduction

The previous chapter discusses an outline of the study context in comprehending the factors that influence the intention to adopt m-commerce among consumers in Kota Kinabalu. In this chapter, the dependent and independent variables, as well as the underpinning theory applied in this study, are all discussed in great detail by the researcher. M-commerce adoption is influenced by factors such as perceived usefulness, perceived ease of use, perceived self-efficacy and perceived trust. The researcher will examine the dependent and independent variables in more detail depending on their frameworks in this chapter to better comprehend the intention to use m-commerce in Kota Kinabalu.

2.2 Underpinning Theory

Technology Acceptance Model (TAM) developed by Fred Davis in 1989 was used in current research. TAM is one of the most useful theories that try to discuss the adoption of a new technology (Charness & Boot, 2016). TAM has been proven to be reliable in presenting m-commerce adoption in different contents (Mijoska, 2017). This study used the concept of TAM to evaluate consumers' behavioral intentions and adoption of m-commerce in Kota Kinabalu. TAM was adopted to gain a better comprehending of consumers' perspectives and behavioral intentions regarding the adoption of technological innovations. When consumers have a better user experience with the quality information system, it influences their behavioral decision to use mobile shopping that meets their wants and needs. As a result, it was chosen as a core theory in

this research. This technique identifies perceived usefulness and perceived ease of use as significant factors in clarifying technology acceptance (Charness & Boot, 2016). The definition of perceived usefulness is "the level to which an individual agrees that using a specific system would improve his or her work performance." While the definition of perceived ease of use is "the level to which an individual believes that would be free of effort."



Source: Davis (1989)
Figure 2.1: Technology Acceptance Model (TAM)

In order to build a Technology Acceptance Model (TAM) for the adoption of m-commerce, several external characteristics (perceived usefulness, perceived ease of use, perceived self-efficacy, perceived trust) were introduced as independent variables in this research. In order to determine how likely m-commerce adoption is in Kota Kinabalu, these external factors will be investigated for the effects on the factors influencing it. Besides that, generic models are insufficient to describe the adoption of various kinds of technology since particular technological features can have a significant impact (Muhammad Syazwan Mohd Sayati et al., 2022).

2.3 Previous Studies

2.3.1 Intention to Adopt M-Commerce

The research from AlQahtani, Beloff, and White (2020) focused on the intention to adopt m-commerce. The research aims to investigate the factors that

influence the intentions of Saudi firms and residents in using m-commerce. Some of the factors that are highlighted are individual, technology, technical, and environment. The investigation discovered a relationship between all the factors, and it is clear that there is a significant connection between them. The intention of mobile commerce is influenced by individual, technology, technical and environment.

Besides, research by Chau, Deng, and Tay (2020) investigated the critical determinant of mobile commerce adoption in small and medium-sized enterprises in Vietnam. This research demonstrates the importance of perceived benefits, perceived compatibility, perceived security, organizational readiness and innovativeness. M-commerce adoption is greatly influenced by customer demand and government policy support. This study adds to our knowledge of how mobile commerce is being adopted in underdeveloped nations.

Next, research by (Lim et al., 2022) studied m-commerce adoption among youth in Malaysia. The objective is to provide information that helps stakeholders understand the variables that affect Malaysian youths' intentions to use mobile commerce. Additionally, the data demonstrates the link between perceived usefulness, perceived ubiquity, perceived ease of use, perceived enjoyment and m-commerce adoption intention. The information provides m-commerce service providers with a useful viewpoint for creating youth-oriented product strategies.

Furthermore, research by Singh, Zolkepli, and Kit (2018) investigated a new wave in mobile commerce adoption via mobile applications in the Malaysian market. The outcome makes it clear how crucial TAM is in explaining the uptake of m-commerce via mobile applications. This study also has major implications for marketers that want to comprehend consumer behavior and expand the m-commerce

industry. The goal of this study is to examine how consumer acceptance, trust, and self-efficacy are related.

Next, another research from Pipitwanichakarn and Wongtada (2018) is about mobile commerce adoption at the bottom of the pyramid among street vendors in Thailand. The applicability of the technological acceptance paradigm is examined in this study. The TAM theory is the one that this study emphasizes. This study wants to see the relationship between several variables, the examples are perceived usefulness, perceived ease of use, trust, entrepreneurial orientation and product differentiation.

2.3.2 Perceived Usefulness

Several studies stated that perceived usefulness has a relationship with the use of mobile commerce. In research by Ngubelanga and Duffett (2021), Considered a factor that influences consumer perception is perceived usefulness. This causes consumers to be encouraged to use innovative and user-friendly systems. This gives freedom to consumers, especially in transactions, payments, and other. This research reveals that perceived usefulness causes a positive social influence among millennials. This research ascertained that social influence would positively affect the perceived usefulness due to the use of mobile technology and devices.

Besides, Sarfo and Song (2021) According to research, perceived usefulness is the key component in TAM and has a significant impact on m-commerce adoption. Before the firm started using technology, the firm needs to first consider the best way to use it in the firm. When perceived usefulness allows the existence of the intention to adopt mobile commerce.

Next, Pipitwanichakarn and Wongtada (2018) stated that the use of technology is assumed to be positively impacted by perceived usefulness. Additionally, the seller will be more open to accepting m-commerce if they think the technology is simple to understand. It reveals a positive correlation between m-commerce intention and perceived usefulness.

In accordance with Pipitwanichakarn and Wongtada (2019), Perceived usefulness indicates a person's level of confidence in technology's capacity to improve productivity. Consumers who place a high value on technology enjoy embracing it. However, if users think it will be of little use to them, they won't be eager to embrace it. Users that use technology more fluently are more likely to get the rewards of performance technology.

2.3.3 Perceived Ease of Use

Perceived ease of use has a connection with mobile commerce adoption. The strength of the system's perceived ease of use can be used without any additional effort, regardless of the users' degree of ability and knowledge (Sarkar et al., 2020). Research by Sarkar, Chauhan, and Khare (2020) showed the connection between those things. It is confirmed that perceived ease of use is a determinant in technological uptake. It was shown that perceived ease of use had a substantial influence on trust in Pakistani mobile banking.

Besides, perceived ease of use was discussed in the study conducted by Bendary and Al-Sahouly (2018). By analyzing every aspect mentioned in the technology user's behavior theory, this study looks into the variables that affect consumer perception in order to encourage purchases. Online purchasing intentions

are more directly impacted by perceived ease of use. It all comes down to usage and technology.

The Millennial cohort in developed African emerging countries reports that perceived ease of use is positively connected with customer satisfaction, according to additional research by Ngubelanga and Duffett (2021). The reason of customer happiness in mobile commerce was discovered to be perceived ease of use. According to various data and research findings, adoption of mobile commerce is positively correlated with perceived simplicity of use.

Furthermore, research by Pipitwanichakarn and Wongtada (2018) showed that users would see benefits from technology if the effort required to acquire the technology is minimal. Vendors will be more likely to use the technology if they think m-commerce is user-friendly and beneficial. This shows that perceived ease of use positively relates with the intention to adopt mobile commerce.

Research by Abdallah, Iqbal, Alkhazaleh, Ibrahim, Tawfik Zeki, and Habli, (2020) stated that perceived ease of use is how far consumers believe that buying products through m-commerce will be effortless. Perceived ease of use in mobile commerce is influenced by the interface applications and past user expertise. The usability of the system can be improved by updating the user interface or providing more extensive end-user training. This study demonstrated a strong positive relationship between perceived ease of use and customer intentions to adopt mobile commerce.

2.3.4 Perceived Self-Efficacy

Perceived self-efficacy represents the perception, view, or belief in performing a task using technology. Self-efficacy can give someone intention and

acceptance toward something (Singh et al., 2018). This research showed that the correlation between attitudes toward mobile commerce. After several tests like multiple regression, analysed correlation, and regression correlation, we found that perceived self-efficacy has a big impact on whether mobile commerce is adopted. These results show that before engaging in mobile commerce, customers will think about and evaluate other issues.

Furthermore, according to Singh and Srivastava (2019), the early dissemination of the idea of self-efficacy as a factor interpreting changes in human behavior is true. The causal association between self-efficacy and behavior intention in mobile commerce has also been empirically supported, according to studies. A better predictor of behavior is how the user perceives their own abilities. This study discovered that customers' intention to buy is directly and significantly impacted by perceived self-efficacy.

Next, Islam, Khan, Ramayah, and Hossain (2011) conducted research to examine the adoption of mobile commerce services among Bangladeshi employed mobile phone users. It was shown that self-efficacy moderated the stress-strain relationship in this research. The level of job stress and self-efficacy are closely correlated with implementing new technology. User self-efficacy will have a moderate impact on m-commerce services. According to this research, perceived self-efficacy and the intention to use mobile commerce are positively correlated.

2.3.5 Perceived Trust

According to the research by Singh, Zolkepli, and Kit (2018), a person's belief influences decision in mobile commerce adoption. This study aims to demonstrate how each element affecting the adoption of mobile commerce interacts with the

others. The research was conducted in part to assist marketers better understand consumer behavior and grow the mobile commerce sector. As long as people are confident in its use, this will occur. According to the survey, perceived trust has a large and favorable impact on people's impressions about mobile commerce.

Moreover, other research by Dakduk, Santalla-Banderali, and Siqueira (2020) examined low-income consumers' intentions to adopt mobile commerce in Ecuador. The risk and uncertainty involved with online trade, trust is regarded as being important in economic relationships. The end of the study found that trust and mobile commerce have a relationship.

Additionally, trust has been found to significantly influence consumers' intentions to adopt mobile commerce, according to research by Ghazali et al. (2018). Ability to keep promises and stay honest with customers. This occurs frequently in mobile commerce since there is uncertainty regarding the product's quality when a purchase is made without a visual examination. The growth of mobile commerce helps to lower risks, and security-related concerns are becoming more prominent. Many studies that either directly or indirectly looked at the aim of using mobile commerce or highlighted the importance of trust in its acceptability have been conducted.

Next, research on the variables influencing the uptake of mobile commerce applications in Cameroon (Verkijika et al., 2018). Perceived trust is the degree to which individuals believe using mobile commerce is secure and that their privacy is not at risk. According to the author, earlier studies have shown that customers' desires to use mobile commerce solutions are significantly influenced by their beliefs. Mobile commerce adoption is more likely among customers who are confident that

m-commerce service providers can be trusted with their personal information and sensitive data.

Besides, Pipitwanichakarn and Wongtada's (2018) studied on how mobile commerce is being adopted at the base of the pyramid. According to this study, behavioral intention is significantly predicted and indicated by trust. If the vendor has faith in m-commerce service providers, it is more probable that it will adopt the technology. Lack of trust may contribute to adoption issues. The author agrees that perceived trust has a positive impact on the intention to adopt mobile commerce.

2.4 Hypotheses Statement

Five hypotheses may be established based on the discussion in the previous study section. The independent variables are supposed to have direct significance with the dependent variables in all of the hypothesis statements.

H1: Perceived usefulness has a significant influence on the intention to adopt m-commerce in Kota Kinabalu.

H2: Perceived ease of use has a significant influence on the intention to adopt m-commerce in Kota Kinabalu.

H3: Perceived self-efficacy has a significant influence on the intention to adopt m-commerce in Kota Kinabalu.

H4: Perceived trust has a significant influence on the intention to adopt m-commerce in Kota Kinabalu.

H5: Associated factors (perceived usefulness, perceived ease of use, perceived self-efficacy, perceived trust) have a significant influence on the intention to adopt m-commerce in Kota Kinabalu.

2.5 Conceptual Framework

The independent variables in this research include perceived usefulness, perceived ease of use, perceived self-efficacy and perceived trust. The intention to use m-commerce is the dependent variable. The conceptual framework for this investigation is displayed in Figure 2.2.

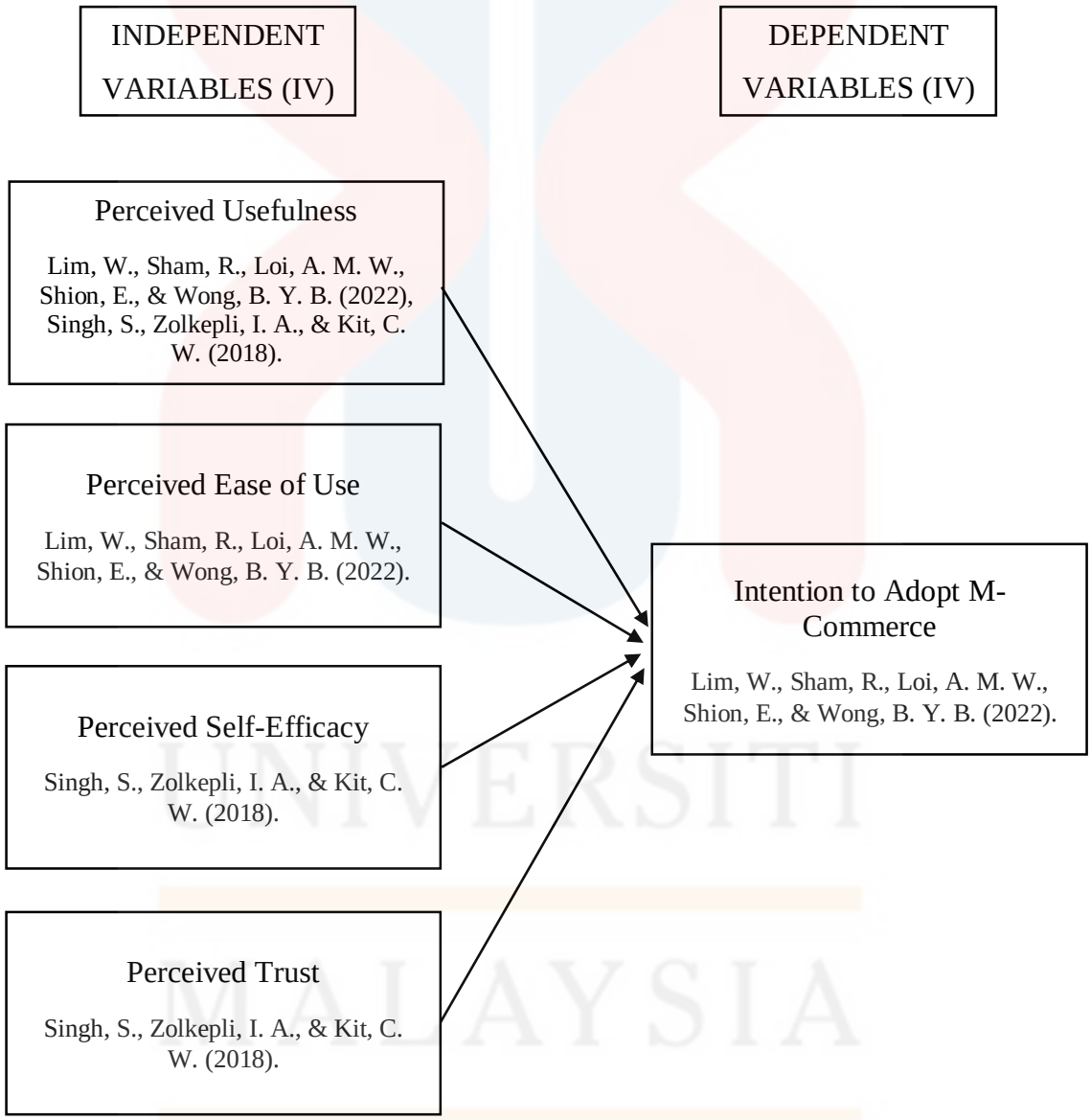


Figure 2.2: Conceptual Framework

2.6 Summary

Chapter 2 explains in detail about dependent variables and independent variables. Furthermore, this study discovered that observation indicates that perceived usefulness, perceived ease of use, perceived self-efficacy and perceived trust have a significant influence on the intention to adopt m-commerce in Kota Kinabalu. The results of the study are also applied to regulate and evaluate the findings of the dependent variable and independent factors. The results will then be applied to the extension for the subsequent chapter.

CHAPTER 3

RESEARCH METHODS

1.1 Introduction

This chapter's main goal is to describe the study's research methodology. It covers the following topics: the research design, data collection techniques, study population, sample size, sampling strategies, research instrument development, variable measurement and data analysis process. In the subsections below, various research methodologies are presented.

1.2 Research Design

The basic process of rationally and persuasively combining the various study components is referred to as "research design." To make sure the research problem was properly handled, this was done. According to Kothari (2004), an overview or guide for collecting, measuring, and interpreting data is known as a research design.

Different strategies are frequently employed when creating a research project. The two fundamental methodologies to study are quantitative and qualitative, according to Kothari (2004). Based on this, the researcher conducted quantitative research to identify the factors influencing the intention to adopt m-commerce among consumers in Kota Kinabalu.

3.3 Data Collection Methods

Data collection is an organized method of assembling details from different sources in order to generate conclusions and responses (Mbachu, 2021). For instance, assessing a result or putting a hypothesis to the test. The two primary categories of data

obtained are primary data and secondary data. The information obtained by researchers from primary sources like surveys, experiments and interviews, is known as primary data (Stephanie, 2021). It is also the data that is collected for the purposes of a specific research project. The term "secondary data" relates to information that has already been gathered for another reason but is still relevant to our investigation (Valcheva, 2021). Furthermore, the information is gathered by someone other than the researcher.

For this study, data were gathered using both secondary and primary sources. A web-based survey, often known as an online questionnaire, is used to gather primary data. Online surveys are faster, cheaper, and easy to use for participants since the majority of individuals that have Internet access prefer to complete the questionnaire online rather than over the telephone (Sincero, 2022). The online questionnaire was distributed on Facebook, WhatsApp, and Telegram randomly for those living in Kota Kinabalu. The secondary data was also used in the beginning of the research, we started collecting information by analyzing secondary data. Before starting the more costly and time-consuming process of acquiring primary data, this offers us the chance to formulate questions and better understand the issues at hand.

3.4 Study Population

The objects, persons, or things that make up a population are those from which a sample is selected for examination (Kombo, 2005). This definition has a clear connection to the study's objective. The study concentrated on residents of Kota Kinabalu, Sabah, Malaysia. According to Macro Trends (2022), Kota Kinabalu's population is expected to reach 576,000 in 2022, up 2.31% from 2021. People who live and work in Kota Kinabalu, Sabah, will receive the online survey from the researcher via social media channels like Facebook, WhatsApp and Instagram.

3.5 Sample Size

The number of objects from the entire universe that must be selected to create a sample is known as the sample size (Kothari, 2004). Two statistical characteristics depend on the sample size which are the accuracy of our estimations, and the ability of the investigation to produce inferences.

The participants in this study will be chosen from among the citizens of Kota Kinabalu. This study uses a 384 persons sample size to represent the total Kota Kinabalu resident population. Table 3.1 shows the sample size from a given population.

Table 3.1: Sample Size from a Given Population

Table 3.1

Table for Determining Sample Size of a Known Population

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

Note: N is Population Size; S is Sample Size *Source: Krejcie & Morgan, 1970*

Source: Krejcie, R. V., & Morgan, D. W. (1970)

This is the equation for how to find sample size if the population is known according to Krejcie & Morgan (1970).

$$n = \frac{x^2 Np(1-p)}{e^2(N-1)+x^2 p(1-p)}$$

n = sample size

N = population size

e = acceptable error of sample size

x^2 = Chi-square df = 1 and reliability level 95% (x^2 = 3.841)

p = the population proportions (Assumed to be 0.5)

Therefore, $n = \frac{(3.841)(576000)(0.5)(1-0.5)}{(0.05^2)(576000-1)+(3.841)[(3.841)(0.5)(1-0.5)]}$

$= \frac{553104}{1443.68582}$

= **384**

3.6 Sampling Techniques

In order to generalize about the target population, Creswell (2012) stated that the target population that the researcher wants to study is a subset of the sample. A list of all the units in the sample of a particular population is known as a sampling frame. A sampling technique is a term used to describe or otherwise identify the particular method used to pick the sample's constituents. Researchers usually employ one of two sampling techniques: probability sampling or non-probability sampling. Non-probability sampling employs convenience or other non-random selection to facilitate data collection, whereas probability sampling strongly relies on random selection to enable researchers to draw reliable statistical conclusions about the whole sample.

The researcher, who chose to employ convenience sampling, decided on the kind of non-probability sample that was utilized in this study. In a convenience sample, the researcher chooses people who are qualified and interested to participate in the study

(Creswell 2012). The researchers chose this sample since it is often simple, inexpensive, and has ready access to people. In this survey, respondents are chosen from Kota Kinabalu's residents via convenience sampling.

3.7 Research Instrument Development

They suggested questionnaires and interviews as useful research instruments since they are "important tools to measure such variables as opinion, attitudes, conceptions, attitude, composition, and so on" (Takona, 2002). Takona (2002) claims that every research method can be used in every situation to accomplish a certain goal based on the study investigation. The research instrument is assessing, monitoring, and recording data devices (Creswell, 2012).

The information required for this investigation was gathered quantitatively using an online survey. Furthermore, a questionnaire's primary goal is to gather information from its respondents. The researcher can reduce the time spent gathering data and identifying target respondents by using online questionnaires that are applied. This is because internet surveys spread so quickly; for example, if a link to a Google Form is published in a large WhatsApp chat group, it makes it easy for chosen respondents to reply and it also saves time because one survey may be completed in 3 to 5 minutes.

There are three sections (Section A, Section B, Section C) included in the questionnaire. Section B would describe a dependent variable, the intention to use m-commerce, whereas Section A will give demographic profiles. In Section C, the researchers' proposed independent variables are described. Perceived usefulness, perceived ease of use, perceived self-efficacy and perceived trust are the four questions that each variable will include, and they are all evaluated on a 5-point Likert scale.

3.8 Measurement of the Variables

3.8.1 Nominal Scale

A measurement scale known as a nominal scale uses numbers merely as "labels" or "tags" to identify or categorize an object. It is typically used for non-numerical (qualitative) variables or when numbers really have no meaning (Bhat, 2023). In the Section A of questionnaire, nominal scale is used to determine each respondents' demographic profile. It includes gender, age, ethnicity, education, smartphones, or tablets usage frequency (in a day), most frequent usage time of smartphones or tablets, reason using smartphones and tablets, m-commerce transaction frequency (in a week). When using a nominal scale for classification, the numbers assigned to the item function as labels to categorize or help to structure the item in class. For example, a respondent can be classified either male or female in the case of gender scale.

3.8.2 Ordinal Scale

The second level of measurement, known as the ordinal scale, provides the ranking and ordering of the data without identifying the level of variance among them. Ordinal represents order. Quantitative data with naturally occurring orders is also called ordinal data and the distinction between them is unknown (Bhat, 2023). It can be ranked, grouped, and given a name. According to Section A in questionnaire, Question 7 has used ordinal scale to let respondents make their first choice until sixth choice decision based on reason using smartphones and tablets. Briefly stated, the main advantage of using an ordinal scale is how easy it is to compare various variables.

3.8.3 Interval Scale

Interval scale introduces the degree of measurement where the variables' attributes are counted on specific numerical values or scores that always have equal interval between variables (Bhat, 2023). An equal interval is the range among any two adjoining attributes. Based on the questionnaire, Section B and Section C used interval scale through Likert scale to get the result from each respondent. All respondents must select one answer in 5-point Likert scale: strongly disagree (1), disagree (2), neutral (3), agree (4) and strongly agree (5). By using this scale, this can make researchers easier in calculating the mean and standard deviation of responses.

3.9 Procedure for Data Analysis

Statistical Package for Social Science (SPSS) was applied to analyze and interpret the data. This chosen technique aims to explore all the relationships and connections between the variables used in this research. Four forms of analysis used in the study: reliability analysis, descriptive analysis, Pearson correlation and multiple linear regression.

3.9.1 Reliability Analysis

The reliability analysis procedures were used to measure scale reliability and evaluate the instrument's consistency. The extent of consistency among the respondents' ratings was evaluated using Cronbach's Alpha. Table 3.2 shows and decides to use it as a measurement for each indicator. Table 3.2 also demonstrates the value and strength of association from excellent to poor.

Table 3.2: Rule of Thumb for Cronbach's Alpha Coefficient Value

Alpha Coefficient Range	Strength of Association
<0.60	Poor
0.60 to <0.70	Moderate
0.70 to <0.80	Good
0.80 to <0.90	Very good
0.9	Excellent

Source: Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2013). *Business research methods*. Cengage Learning

3.9.2 Descriptive Analysis

Data in percentages, frequencies, and measures of central tendency like mean, median, or mode are analyzed using descriptive statistics. In analyzing the data, percentages and frequencies will be used for demographic factors such as gender, age and ethnicity. Therefore, it will provide benefits and scale in the demographic section of the questionnaire, where respondents are asked to provide information related to the subject. Related formulas are:

- Mean

$$\text{Mean} = \bar{x} = \frac{sum\ of\ all\ value}{number\ of\ values}$$

- Median

I. If (number of observations) is odd:

$$med\ (x) = x\,\frac{n+1}{2}$$

II. If *n* is even:

$$med\ (x) = \frac{1}{2}\left(x\,\frac{n}{2} + x\,\frac{n}{2} + 1\right)$$

Source: Soetewey (2020)

3.9.3 Pearson Correlation

Pearson correlation is an analysis that measures statistical relationships and associations between variables (Hair et al., 2007). The strength and direction of a linear relationship between variables should be evaluate. Pearson correlation is mostly used. Multiple data variables are compared using Pearson correlation to determine how similar they are (Zhu et al., 2019).

Table 3.3: Rules of Thumb about Correlation Coefficient Size

Coefficient Range (r)	Strength of Association
± 0.91 to ± 1.00	Very strong
± 0.71 to ± 0.90	Strong
± 0.41 to ± 0.70	Moderate
± 0.21 to ± 0.40	Small but definite relationship
± 0.01 to ± 0.20	Slight, almost negligible

Source: Jnr, H. J., Money, A. H., Samouel, P., & Page, M. (2007). Research Methods for Business, UK Edition.

Table 3.3 displays general guidelines for correlation. Coefficient size to indicate how strongly two variables are associated. Based on Table 3.3, research can see the strength of the coefficient range and its impact on the study.

3.9.4 Multiple Linear Regression

A statistical technique known as multiple linear regression is used to explain the simultaneous association of two or more factors with one outcome (Eberly, 2007). For data with several predictor variables, the multiple linear regression model is an extension of the simple linear regression model.

Independent variables used in this study are perceived usefulness, perceived ease of use, perceived self-efficacy and perceived trust. As a result, multiple linear

regression will be utilized to examine what is most likely to influence the adoption of m-commerce in Kota Kinabalu. Below is the formula for multiple linear regression:

$$yi = \beta 0 + \beta 1xi1 + \beta 2xi2 + \cdots + \beta pxip + \epsilon$$

Source: *Multiple Linear Regression - Overview, Formula, How It Works* (2022)

Where:

- *yi* is the dependent or predicted variables.
- β0 is the y-intercept, i.e., the value of y when both *xi* and *x2* are 0.
- β0 and β2 are the regression coefficient representing the change in y relative to a one-unit change in *xi*1 and *xi*2 respectively.
- βp is the slope coefficient for each independent variable.
- ϵ is the model's random error (residual) term.

3.10 Summary

The research methodology that will be applied throughout this study is briefly explained in Chapter 3. An introduction, a research design and data collection methods in this topic. The study uses primary data collection methods and surveys to obtain research data.

Furthermore, the population, sample size, sampling technique and instrument development were identified. The selected population consists of residents of Kota Kinabalu, and the sample size is 384 randomly selected. The researchers used pilot tests and questionnaires to develop the instrument. The researchers used three measurement scales as variable measures (nominal, ordinal, and interval scales). The following data analysis techniques used in this research were reliability analysis, descriptive analysis, Pearson correlation and multiple linear regression.

CHAPTER 4

DATA ANALYSIS AND FINDINGS

4.1 Introduction

The researcher will discuss the statistical results of the data and interpret the data in this chapter by analyzing data collected with the Statistical Package for Social Science (SPSS) software. Preliminary analysis, validity and reliability test, demographic profile of respondents, descriptive analysis, normality test, and hypothesis testing were all part of the analysis.

4.2 Preliminary Analysis

The preliminary analysis includes checking reliability, evaluating the effectiveness, and examining the distribution of individual variables.

4.2.1 Expert Industry

Refer to those who are more skilled and expert to get more information and know the mistakes and shortcomings in the questions that want to be distributed. Final Year Supervisors and industry experts are appropriate individuals to ask questions and opinions. This can minimize errors and problems in the early stages of the study. Improvement and corrections are made after referring to them.

4.2.2 Pilot Test

A pilot test minimizes and reduces errors when answering survey questions. This is to ensure that the respondents' questions are consistent and easy to understand. Some questionnaires will be given as examples, and analysis will be done.

Before conducting the actual questionnaire, 30 questions were given to the respondents to examine the reliability of the questions. The 30 answers will be analyzed using a pilot test, and the final result will show whether or not the question is valid and appropriate.

Based on Table 4.1, it was determined that the Cronbach's Alpha value was 0.981. The value demonstrates that the independent and dependent variables are appropriate. This suggests that all the things are suitable and good.

Table 4.1 Reliability Coefficient Alpha from Overall Reliability (Pilot Test)

Variable	**Number of Item**	**Cronbach's Alpha**
Intention to adopt m-commerce	4	0.962
Perceived usefulness	4	0.959
Perceived ease of use	4	0.963
Perceived self-efficacy	4	0.931
Perceived trust	4	0.950
Overall variables	20	0.981

4.3 Validity and Reliability Test

Reliability testing is carried out to ensure that the software is reliable, accomplishes the purpose for which it was designed, does so for a specific amount of time in a specific environment, and is able to operate faultlessly. Internal consistency is measured by Cronbach's alpha (α), a formula created by Lee Cronbach in 1951. A score of 0.70 or above is commonly cited as the appropriate range for Cronbach's alpha (Nunnally, 1978).

Table 4.2 Reliability Test using Cronbach's Alpha

Variables	Cronbach's Alpha	No. of Items
Intention to adopt m-commerce	0.937	4
Perceived usefulness	0.930	4
Perceived ease of use	0.933	4
Perceived self-efficacy	0.922	4
Perceived trust	0.937	4

No of respondents (n) = 384

Table 4.2 shows the reliability test for dependent variable and independent variable. Cronbach's Alpha for dependent variable which is intention to adopt m-commerce (0.937) meanwhile independent variables are perceived usefulness (0.930), perceived ease of use (0.933), perceived self-efficacy (0.922) and perceived trust (0.937). This strong consistency indicates an excellent level of reliability. The reliability of the independent and dependent variables in this study has been established.

4.4 Demographic Profile of Respondents

According to Hayes, A. (2022), demographics are the statistics that describe populations and their characteristics. A demographic analysis is the process of collecting and measuring general characteristics relating to populations and groups of individuals. There are several ways to use demographic data to understand the broad features of a given population. In this study, the characteristics include respondents' gender, age, ethnicity, education, smartphone, or tablets usage frequency (in a day), most frequent usage time of smartphones or tablets, reason using smartphones and tablets, m-commerce transaction frequency (in a week). Based on the frequency of responses to each question, all demographic information is presented in Table 4.3 until Table 4.10.

4.4.1 Gender

Table 4.3 Respondents Demographic Profile by Gender

Gender	Frequency	Percentage (%)
Male	170	44.3
Female	214	55.7
TOTAL	384	100.0

Table 4.3 depicts the results for respondents by gender in terms of frequency and percentage. In this survey, 214 female respondents provided 55.7% of the total responses, compared to 170 male respondents who provided 44.3%.

4.4.2 Age

Table 4.4 Respondents Demographic Profile by Age

Age	Frequency	Percentage (%)
Less than 21 years old	60	15.6
22-25 years old	119	31.0
26-29 years old	80	20.8
30-33 years old	49	12.8
34-37 years old	30	7.8
38-41 years old	21	5.5
42-45 years old	14	3.6
46 years old & above	11	2.9
TOTAL	384	100.0

Table 4.4 shows the results for respondents by age in terms of frequency and percentage. With 119 respondents, or 31% of the total, the majority of survey participants are in the 22–25 years old. The second-highest frequency, representing 80 respondents (20.8%), is between 26 and 29 years old. Then, following with 60 respondents or 15.6% that age less than 21 years old, 49 respondents or 12.8% age between 30-33 years old, 30 respondents or 7.8% age between 34-37 years old, 21 respondents or 5.5% age between 38-41 years old and 14 respondents or 3.6% age between 42-45 years old. Lastly, the lowest frequency is respondents between 46 years old and above with a number of 11 respondents or 2.9%.

4.4.3 Ethnicity

Table 4.5 Respondents Demographic Profile by Ethnicity

Ethnicity	Frequency	Percentage (%)
Chinese	27	7.0
Bajau	115	29.9
Kadazan-Dusun	93	24.2
Bumiputeras	78	20.3
Bruneian Malays	22	5.7
Murut	19	4.9
Indian	8	2.1
Other	22	5.7
TOTAL	384	100.0

Table 4.5 demonstrates the output in frequency and percentage among respondents based on their ethnicity. Three of the highest frequency of ethnicity among respondents is Bajau, Kadazan-Dusun and Bumiputeras 115 respondents or 29.9%; 93 respondents or 24.2%; 78 respondents or 20.3%). The fourth highest frequency is Chinese, with a total of 27 respondents or 7%. Next, follow with 22 respondents or 5.7% among Bruneian Malays and other ethnicities respectively. Finally, ethnicity among Murut includes 19 respondents or 4.9% and Indian includes 8 respondents or 2.1%.

4.4.4 Education

Table 4.6 Respondents Demographic Profile by Education

Education	Frequency	Percentage (%)
Primary and secondary certificate	95	24.7
Diploma	167	43.5
Bachelor's degree	86	22.4
Master's degree & above	36	9.4
TOTAL	384	100.0

Table 4.6 demonstrates the output in frequency and percentage among respondents based on their education. Most of the respondents are or have studied in diploma have a total number of 167 respondents or 43.5%. The second highest frequency of the respondents are or have studied in primary and secondary certificate consists of 95 respondents or 24.7%. With 86 respondents, or 22.4%, or those who have studied for a bachelor's degree, this is the third most common response category. While the lowest frequency of the respondent or have studied in master's degree and above, it is equal to 36 respondents or 9.4%.

4.4.5 Smartphones or Tablets Usage Frequency (In a Day)

Table 4.7 Respondents Demographic Profile by Smartphones or Tablets Usage Frequency (In a Day)

Smartphones or Tablets Usage Frequency (In a Day)	**Frequency**	**Percentage (%)**
Less than 1 hour	15	3.9
2-4 hours	86	22.4
5-7 hours	128	33.3
8-9 hours	103	26.8
More than 10 hours	52	13.5
TOTAL	384	100.0

Table 4.7 demonstrates the output in frequency and percentage among respondents based on their smartphones or tablets usage frequency in a day. Most of the respondents use smartphones or tablets around 5-7 hours in a day, which consists of 128 respondents or 33.3%. Following that, 8-9 hours usage time among 103 respondents or 26.8%; 2-4 hours usage time among 86 respondents or 22.4%; more than 10 hours usage time among 52 respondents or 13.5%; less than 1 hour usage time among 15 respondents or 3.9%.

4.4.6 Most Frequent Usage Time of Smartphones or Tablets

Table 4.8 Respondents Demographic Profile by Most Frequent Usage Time of Smartphones or Tablets

Most Frequent Usage Time of Smartphones or Tablets	Frequency	Percentage (%)
7am - 11am	37	9.6
11am - 3pm	72	18.8
3pm - 7pm	73	19.0
7pm - 11pm	146	38.0
11pm - 3am	56	14.6
TOTAL	384	100.0

Table 4.8 demonstrates the output in frequency and percentage among respondents based on their most frequent usage time of smartphones or tablets. The highest number of respondents' usage time is between 7pm to 11pm, with 146 respondents or 38%. Next, in accordance with 3pm to 7pm (73 respondents or 19%), 11am to 3pm (72 respondents or 18.8%), 11pm to 3am (56 respondents or 14.6%) and 7am to 11am (37 respondents or 9.6%).

4.4.7 Reason Using Smartphones and Tablets

Table 4.9 Respondents Demographic Profile by Reason Using Smartphones and Tablets

Reason Using Smartphones and Tablets	1st choice		2nd choice		3rd choice		4th choice		5th choice		6th choice	
	N	%	N	%	N	%	N	%	N	%	N	%
Online shopping & transaction (e.g., Shopee, Lazada, eBay, Shopee Pay, Lazada wallet, Touch n' Go)	192	50.0	26	6.8	33	8.6	37	9.6	27	7.0	69	18.0
Interactive services (e.g., chat and games)	35	9.1	189	49.2	34	8.9	31	8.1	66	17.2	29	7.6
Information services (e.g., news, weather forecast)	4	1.0	19	4.9	192	50.0	69	18.0	59	15.4	41	10.7
Music and video contents (e.g., Spotify, YouTube, TikTok, Netflix)	49	12.8	43	11.2	74	19.3	194	50.5	15	3.9	9	2.3
Working tools (e.g., Zoom, Canva)	14	3.6	50	13.0	29	7.6	35	9.1	199	51.8	57	14.8
Chatting with friend (e.g., WhatsApp, Telegram, Instagram)	90	23.4	57	14.8	22	5.7	18	4.7	18	4.7	179	46.6

Table 4.9 demonstrates the output in frequency and percentage among respondents based on their reason using smartphones and tablets. For the first choice, the majority of respondents choose online shopping and transactions with a total of 192 respondents or 50%. For the second choice, most respondents choose interactive services with a total of 189 respondents or 49.2%. For the third choice, the majority of respondents choose information services with a total of 192 respondents or 50%. For the fourth choice, most respondents choose music and video contents with a total of 194 respondents or 50.5%. For the fifth choice, the majority of respondents choose working tools with a total of 199 respondents or 51.8%. For the sixth choice, most respondents choose chatting with friend with a total of 179 respondents or 46.6%.

4.4.8 M-Commerce Transaction Frequency (In a Week)

Table 4.10 Respondents Demographic Profile by M-Commerce Transaction Frequency (In a Week)

M-Commerce Transactions Frequency (In a Week)	Frequency	Percentage (%)
Once	121	31.5
2-4	111	28.9
5-7	106	27.6
8-9	40	10.4
10 and above	6	1.6
TOTAL	384	100.0

Table 4.10 demonstrates the output in frequency and percentage among respondents based on their m-commerce transaction frequency in a week. The highest frequency in m-commerce transaction among respondents is once a week (121 respondents or 31.5%). The second highest frequency in m-commerce transaction among respondents is 2-4 times a week (111 respondents or 28.9%). The third highest frequency in m-commerce transaction among respondents is 5-7 times a week (106 respondents or 27.6%). The fourth highest frequency in m-commerce transaction among respondents is 8-9 times a week (40 respondents or 10.4%). The lowest frequency in m-commerce transaction among respondents is 10 times and above a week (6 respondents or 1.6%).

4.5 Descriptive Analysis

4.5.1 Overall Mean Score for Variables

Table 4.11 Overall Mean Score on Each Variable

	N	Mean	Std. Deviation
Intention to adopt m-commerce	384	3.9837	.80887
Perceived usefulness	384	3.9701	.78752
Perceived ease of use	384	4.0059	.74342
Perceived self-efficacy	384	3.9401	.81676
Perceived trust	384	3.9199	.77741
Valid N (listwise)	384		

Table 4.11 discusses the overall mean score on each variable. The highest mean for overall mean scores on each variable is perceived ease of use variable with 4.0059 value and the lower mean is perceived trust variable with 3.9199 value. This demonstrates that most of the respondents agree with the perceived ease of use variables.

Meanwhile, for standard deviation. The highest standard deviation is perceived self-efficacy with value 0.81676 and the minimum standard deviation is perceived ease of use with 0.74342 value. Thus, it demonstrates that most of the respondents agree that variable perceived self-efficacy.

4.5.2 Descriptive Analysis for Independent Variables

Table 4.12 Descriptive Analysis for Perceived Usefulness

	N	Mean	Std. Deviation
Using m-commerce would improve my efficiency in my daily work.	384	3.89	.948
Using m-commerce would save up my time.	384	4.01	.864
Using m-commerce would add to my effectiveness in my daily work.	384	3.96	.868
M-commerce services are useful to me as a consumer.	384	4.03	.778
Valid N (listwise)	384		

Table 4.12 shows the independent variable of perceived usefulness descriptive analysis. Based on the table above, the highest mean was stated on Question 4 with value 4.03. This demonstrates, most of the respondents agree with the question, which is that m-commerce services are useful to the consumer. The minimum mean from this independent variable is Question 1 with value 3.89.

Meanwhile, standard deviation for the above table shows the highest standard deviation is Question 1 with 0.948 value and the minimum standard deviation is Question 4 with 0.778 value. This demonstrates, most of the respondents agree with Question 1 which is that m-commerce helps improve their efficiency in their daily work.

Table 4.13 Descriptive Analysis for Perceived Ease of Use

	N	Mean	Std. Deviation
It is easy to pick up m-commerce.	384	3.99	.836
M-commerce is understandable and clear.	384	4.01	.809
M-commerce is easy to use.	384	4.05	.766
It is easy for me to become skilful at using m-commerce.	384	3.97	.845
Valid N (listwise)	384		

Table 4.13 shows the independent variable of perceived ease of use descriptive analysis. Based on the table above, the highest mean was stated on Question 3 with value 4.05. This demonstrates most of the respondents agree with those question, which is m-commerce services are easy to use. The minimum mean from this independent variable is Question 4 with value 3.97.

Meanwhile, standard deviation for the above table shows the highest standard deviation is Question 4 with 0.845 value and the minimum standard deviation is Question 3 with 0.766 value. This demonstrates most of the respondents agree with those question, which is m-commerce helps consumers easily become skillful at using m-commerce service.

Table 4.14 Descriptive Analysis for Perceived Self-Efficacy

	N	Mean	Std. Deviation
I am able to use m-commerce services without the help of others.	384	3.92	.943
I have the necessary time to make m-commerce services useful to me.	384	3.94	.914
I have the knowledge and skills required to use m-commerce services.	384	3.94	.896
I am able to use m-commerce services reasonably well on my own.	384	3.96	.874
Valid N (listwise)	384		

Table 4.14 shows the independent variable of perceived self-efficacy descriptive analysis. Based on the table above, the highest mean was stated on Question 4 with value 3.96. This demonstrates most of the respondents agree with the question, which is m-commerce consumers can use the m-commerce services reasonably well. The minimum mean from this independent variable is Question 1 with value 3.92.

Meanwhile, standard deviation for the above table shows the highest standard deviation is Question 1 with 0.943 value and the minimum standard deviation is Question 4 with 0.874 value. This demonstrates most of the respondents agree with the question, which is they can use m-commerce services even without help from others.

Table 4.15 Descriptive Analysis for Perceived Trust

	N	Mean	Std. Deviation
In my opinion, m-commerce is very reliable.	384	3.95	.838
I believe in the information that m-commerce provides.	384	3.93	.821
I can rely on m-commerce to execute my transactions reliably.	384	3.93	.822
Given the state of existing m-commerce, I believe that technology related error is rare.	384	3.88	.908
Valid N (listwise)	384		

Table 4.15 shows the independent variable of perceived trust descriptive analysis. Based on the table above, the highest mean was stated on Question 1 with value 3.95. This demonstrates most of the respondents agree with the question, which is that m-commerce services are very reliable. The minimum mean from this independent variable is Question 4 with value 3.88.

Meanwhile, standard deviation for the above table shows the highest standard deviation is Question 4 with 0.908 value and the minimum standard deviation is Question 2 with 0.821 value. This demonstrates, most of the respondents agree with the question, which is consumers believe that technology related error is rare because of the current state of m-commerce.

4.5.3 Descriptive Analysis for Dependent Variables

Table 4.16 Descriptive Analysis for Intention to Adopt M-Commerce

	N	Mean	Std. Deviation
Assume that I have access to m-commerce systems, I intend to use them.	384	3.93	.940
I intend to use m-commerce if the cost is reasonable for me.	384	4.01	.841
I believe I will use m-commerce in the future.	384	3.99	.878
I believe my interest in m-commerce will increase in the future.	384	4.00	.869
Valid N (listwise)	384		

Table 4.16 shows the dependent variable descriptive analysis for intention to adopt m-commerce. Based on the table above, the highest mean was stated on Question 2 with value 4.01. This demonstrates most of the respondents agree with the question, which is whether the consumer intends to use m-commerce services if the cost is reasonable for them. The minimum mean from this independent variable is Question 1 with value 3.93.

Meanwhile, standard deviation for the above table shows the highest standard deviation is Question 1 with 0.940 value and the minimum standard deviation is Question 2 with 0.841 value. This demonstrates most of the respondents agree with Question 1, which is if the consumers have access to m-commerce systems, they intend to use m-commerce services.

4.6 Normality Test

Normality testing was used in this research to determine whether a sample was normally distributed. Pearson's correlation would be used to identify the hypotheses if the data were normally distributed; Spearman's correlation would be used to calculate the hypotheses if the data were not normally distributed.

Table 4.17 Normality Test Result

	Skewness	Kurtosis	Result
Intention to adopt m-commerce	-1.313	2.777	Normal distributed
Perceived usefulness	-1.279	2.852	Normal distributed
Perceived ease of use	-1.326	3.651	Normal distributed
Perceived self-efficacy	-1.217	2.356	Normal distributed
Perceived trust	-1.173	2.624	Normal distributed

The data was considered normal for skewness values ranging from -2 to +2 and kurtosis values ranging from -7 to +7 (Gan Soh Fuey & Noraini Idris, 2017). The data was normally distributed, according to the table above, because the skewness value of each variable remains between -2 and +2 and the kurtosis value remains between 2 and 3. Because the data was normally distributed, a Pearson's Correlation Coefficient will be used in this study to test the hypotheses of perceived usefulness, perceived ease of use, perceived self-efficacy, and perceived trust with the intention to adopt m-commerce.

4.7 Pearson Correlation

The Pearson correlation is used to measure the degree of correlation between two continuous variables (Kenton, 2022). In this study, Pearson Correlation Coefficients have been applied to discover the significant relationship between the dependent variables (intention to adopt m-commerce) and independent variables (perceived usefulness, perceived ease of use, perceived self-efficacy, perceived trust). Table 4.18 displays the result of Pearson Correlation Coefficient that was utilized to determine the hypotheses. The detail explanation can refer to hypotheses testing in part 4.9.

Table 4.18 Pearson Correlation Result

		Perceived usefulness	Perceived ease of use	Perceived self-efficacy	Perceived trust	Intention to adopt m-commerce
Perceived usefulness	Pearson Correlation	1	.860**	.812**	.823**	.827**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	384	384	384	384	384
Perceived ease of use	Pearson Correlation	.860**	1	.874**	.839**	.801**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	384	384	384	384	384

Perceived self-	Pearson Correlation	.812**	.874**	1	.824**	.768**
efficacy	Sig. (2-tailed)	.000	.000		.000	.000
	N	384	384	384	384	384
Perceived trust	Pearson Correlation	.823**	.839**	.824**	1	.740**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	384	384	384	384	384
Intention to	Pearson Correlation	.827**	.801**	.768**	.740**	1
adopt m-	Sig. (2-tailed)	.000	.000	.000	.000	
commerce	N	384	384	384	384	384

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

4.8 Multiple Linear Regression

In this study, multiple linear regression was used to determine the outcomes of intention to adopt mobile commerce based on the independent variables, which are perceived usefulness, perceived ease of use, perceived self-efficacy and perceived trust.

Table 4.19 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.849[a]	.721	.718	.42944

a. Predictors: (Constant), MEAN_PT, MEAN_PU, MEAN_PSE, MEAN_PEOU
b. Dependent Variable: MEAN_I

Based on Table 4.19, it reveals the model's correlation with the intention to adopt m-commerce. The multiple correlation coefficient (R) shows 0.849, which means that a large value with a strong relationship between variables. The coefficient of determination (R Square) indicates that 72.1% of the change in adoption of m-commerce can be justified through the changes of perceived usefulness, perceived ease of use, perceived self-efficacy and perceived trust. For the remaining 27.9%, there is no clarification between adoption of m-commerce and perceived usefulness, perceived ease of use, perceived self-efficacy, perceived trust.

Table 4.20 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	180.692	4	45.173	244.949	.000[b]
	Residual	69.894	379	.184		
	Total	250.586	383			

a. Dependent Variable: MEAN_I
b. Predictors: (Constant), MEAN_PT, MEAN_PU, MEAN_PSE, MEAN_PEOU

The value of F is 244.949 with the significant level of 0.000 representing significance since it is less than α=0.05. This implies that the difference between the dependent and independent variables is statistically significant. Hence, perceived usefulness, perceived ease of use, perceived self-efficacy and perceived trust do forecast the percentage of intention to adopt m-commerce in Kota Kinabalu.

Table 4.21 Simple Linear Regression versus Multiple Linear Regression

	Simple Linear Regression			Multiple Linear Regression			
	b[a]	95% CI	Sig.	adj.b[b]	95% CI	t	Sig.
MEAN_PU	.850	.792, .908	.000	.502	.385, .618	8.477	.000
MEAN_PEOU	.872	.806, .937	.000	.251	.106, .397	3.395	.001
MEAN_PSE	.761	.697, .825	.000	.156	.039, .273	2.625	.009
MEAN_PT	.770	.700, .840	.000				

a. Crude regression coefficient
b. Adjusted regression coefficient

Table 4.22 Multiple Linear Regression

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.310	.123		2.531	.012
	MEAN_PU	.502	.059	.489	8.477	.000
	MEAN_PEOU	.251	.074	.231	3.395	.001
	MEAN_PSE	.156	.059	.158	2.625	.009
	MEAN_PT	.015	.058	.015	.264	.792

Table 4.21 depicts the result of both simple linear regression and multiple linear regression. In Table 4.22, the result of significant level in perceived usefulness, perceived ease of use and perceived self-efficacy is 0.000, 0.001 and 0.009 respectively. This means that perceived usefulness, perceived ease of use and perceived self-efficacy are influencing the adoption of m-commerce because it is less than 0.05 alpha value. Meanwhile, the significant level of perceived trust is 0.792. It is no significant factor towards intention to adopt m-commerce because it is more than 0.05 alpha value.

4.9 Hypotheses Testing

4.9.1 Hypothesis 1

H0: There is no relationship between perceived usefulness and intention to adopt m-commerce in Kota Kinabalu.

H1: There is a relationship between perceived usefulness and intention to adopt m-commerce in Kota Kinabalu.

Table 4.23 Relationship between Perceived Usefulness and Intention to Adopt M-Commerce

		Perceived usefulness	Intention to adopt m-commerce
Perceived usefulness	Pearson Correlation	1	.827**
	Sig. (2-tailed)		.000
	N	384	384
Intention to adopt m-commerce	Pearson Correlation	.827**	1
	Sig. (2-tailed)	.000	
	N	384	384

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

Table 4.23 indicates that there is a significant relationship between perceived usefulness and intention to adopt m-commerce in Kota Kinabalu because the significant level is 0.000, which is less than α=0.05. The Pearson Correlation value shown is 0.827 which demonstrated the strong relationship between perceived usefulness and intention to adopt m-commerce in Kota Kinabalu. Thus, the H1 is accepted in this research.

4.9.2 Hypothesis 2

H0: There is no relationship between perceived ease of use and intention to adopt m-commerce in Kota Kinabalu.

H2: There is a relationship between perceived ease of use and intention to adopt m-commerce in Kota Kinabalu.

Table 4.24 Relationship between Perceived Ease of Use and Intention to Adopt M-Commerce

		Perceived ease of use	Intention to adopt m-commerce
Perceived ease of use	Pearson Correlation	1	.801**
	Sig. (2-tailed)		.000
	N	384	384
Intention to adopt m-commerce	Pearson Correlation	.801**	1
	Sig. (2-tailed)	.000	
	N	384	384

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

Table 4.24 indicates that there is a significant relationship between perceived ease of use and intention to adopt m-commerce in Kota Kinabalu because the significant level is 0.000, which is less than α=0.05. The Pearson Correlation value shown is 0.801 which demonstrates the strong relationship between perceived ease of use and intention to adopt m-commerce in Kota Kinabalu. Thus, the H2 is accepted in this research.

4.9.3 Hypothesis 3

H0: There is no relationship between perceived self-efficacy and intention to adopt m-commerce in Kota Kinabalu.

H3: There is a relationship between perceived self-efficacy and intention to adopt m-commerce in Kota Kinabalu.

Table 4.25 Relationship between Perceived Self-Efficacy and Intention to Adopt M-Commerce

		Perceived self-efficacy	Intention to adopt m-commerce
Perceived self-efficacy	Pearson Correlation	1	.768**
	Sig. (2-tailed)		.000
	N	384	384
Intention to adopt m-commerce	Pearson Correlation	.768**	1
	Sig. (2-tailed)	.000	
	N	384	384

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

Table 4.25 indicates that there is a significant relationship between perceived self-efficacy and intention to adopt m-commerce in Kota Kinabalu because the significant level is 0.000, which is less than α=0.05. The Pearson Correlation value shown is 0.768 which demonstrated the strong relationship between perceived self-efficacy and intention to adopt m-commerce in Kota Kinabalu. Thus, the H3 is accepted in this research.

4.9.4 Hypothesis 4

H0: There is no relationship between perceived trust and intention to adopt m-commerce in Kota Kinabalu.

H4: There is a relationship between perceived trust and intention to adopt m-commerce in Kota Kinabalu.

Table 4.26 Relationship between Perceived Trust and Intention to Adopt M-Commerce

		Perceived trust	Intention to adopt m-commerce
Perceived trust	Pearson Correlation	1	.740**
	Sig. (2-tailed)		.000
	N	384	384
Intention to adopt m-commerce	Pearson Correlation	.740**	1
	Sig. (2-tailed)	.000	
	N	384	384

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

Table 4.26 indicates that there is a significant relationship between perceived trust and intention to adopt m-commerce in Kota Kinabalu because the significant level is 0.000, which is less than α=0.05. The Pearson Correlation value shown is 0.740 which demonstrated the strong relationship between perceived trust and intention to adopt m-commerce in Kota Kinabalu. Thus, the H4 is accepted in this research.

4.9.5 Hypothesis 5

H0: Perceived usefulness, perceived ease of use, perceived self-efficacy and perceived trust are not the factors influencing m-commerce adoption in Kota Kinabalu.

H5: Perceived usefulness, perceived ease of use, perceived self-efficacy and perceived trust are the factors influencing m-commerce adoption in Kota Kinabalu.

From Table 4.22, it indicates that there is a significant relationship between perceived usefulness and intention to adopt m-commerce in Kota Kinabalu because the significant level of coefficient multiple linear regression is 0.000, which is less than α=0.05. The table above also shows that there is a significant relationship between perceived ease of use and intention to adopt m-commerce in Kota Kinabalu because the significant level of coefficient multiple linear regression is 0.001, which is less than α=0.05. The table 4.22 manifests that there is a significant relationship between perceived self-efficacy and intention to adopt m-commerce in Kota Kinabalu because the significant level of coefficient multiple linear regression is 0.009, which is less than α=0.05. However, there is no significant relationship between perceived trust and intention to adopt m-commerce in Kota Kinabalu because the significant level of coefficient multiple linear regression is 0.792, which is more than α=0.05. Therefore, perceived usefulness, perceived ease of use and perceived self-efficacy are the factors influencing m-commerce adoption in Kota Kinabalu. While perceived trust are not the factors influencing m-commerce adoption in Kota Kinabalu since the significant level is more than 0.05.

4.8 Summary

This chapter provides information on data analysis for research. The analysis used to obtain the conclusion of the study is such as preliminary analysis, the demographic profile of respondents, descriptive analysis, validity, and reliability test, normality test, Pearson correlation, multiple linear correlations, and hypothesis testing. All structural models, analyses, and tests are built with SPSS. The purpose of this research is to learn more about the main study issue, which is the factor influencing m-commerce in Kota Kinabalu. Intention to adopt m-commerce is linked to perceived usefulness, perceived ease of use, perceived self-efficacy and perceived trust.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 Introduction

This study's findings and the outcomes stated in Chapter 4 will be discussed in Chapter 5. Chapter 5 will discuss whether the proposed hypothesis is valid. This chapter will also discuss limitations, implications and future recommendations. Finally, the overall study's conclusion will be stated.

5.2 Key Findings

The current study's primary goal is to determine the relationship between perceived usefulness, perceived ease of use, perceived self-efficacy, perceived trust and intention to adopt m-commerce in Kota Kinabalu. According to the findings reported in Chapter 4, the researchers came to the consensus that perceived usefulness, perceived ease of use, perceived self-efficacy and perceived trust do influence the intention to adopt m-commerce in Kota Kinabalu. The results regarding the objectives that determine the relationship between perceived usefulness, perceived ease of use, perceived self-efficacy and perceived trust to the factors influencing m-commerce adoption in Kota Kinabalu are summarized in Table 5.1.

Table 5.1 Findings of the Result

Hypotheses	Result	Findings of Data Analysis
H1: There is a significant relationship between perceived usefulness and intention to adopt m-commerce in Kota Kinabalu.	r = 0.827** p = 0.000 Strong	H1 is accepted

H2: There is a significant relationship between perceived ease of use and intention to adopt m-commerce in Kota Kinabalu.	r = 0.801** p = 0.000 Strong	H2 is accepted
H3: There is a significant relationship between perceived self-efficacy and intention to adopt m-commerce in Kota Kinabalu.	r = 0.768** p = 0.000 Strong	H3 is accepted
H4: There is a significant relationship between perceived trust and intention to adopt m-commerce in Kota Kinabalu.	r = 0.740** p = 0.000 Strong	H4 is accepted
H5: There is a significant influence between perceived usefulness, perceived ease of use and perceived self-efficacy with the adoption of m-commerce, while there is no significant influence between perceived trust with the adoption of m-commerce in Kota Kinabalu.	PU = 0.000 PEOU = 0.001 PSE = 0.009 PT = 0.792	H5 is not accepted

5.3 Discussion

The study observed a relationship between the intention to adopt m-commerce with perceived usefulness, perceived ease of use, perceived self-efficacy and perceived trust. This discussion will go into great detail on the study questions, research objectives and discovered theories.

5.3.1 Hypothesis 1

The initial research question examines whether perceived usefulness affects the intention to adopt m-commerce in Kota Kinabalu. The first question is based on hypothesis testing (H1).

H1: Perceived usefulness has a significant influence on the intention to adopt m-commerce in Kota Kinabalu.

Based on the results, it was found that perceived usefulness had a significant effect on the intention to adopt m-commerce. This is because the significant level of perceived usefulness is 0.000, which is lower than the alpha value of 0.01. Furthermore, the use of m-commerce can help generate a positive shopping experience since it is simple and convenient (Ghazali et al., 2018). The research found that residents in Kota Kinabalu feel that m-commerce can help in their daily work. In addition, they also agree that using m-commerce can save their time. This gives them space for work and saves time in financial transactions.

5.3.2 Hypothesis 2

Perceived ease of use has a positive relationship with intention to adopt m-commerce in Kota Kinabalu. This hypothesis is valid and appropriate.

H2: Perceived ease of use has a significant influence on the intention to adopt m-commerce in Kota Kinabalu.

Furthermore, the alpha value shown in the analysis is lower than 0.01. This indicates that this variable is good. M-commerce is easier to use, giving consumers a new impression as a good and useful thing. Consumers are more willing to adopt new technologies (Pipitwanichakarn & Wongtada, 2018). Referring to the study, the researcher founds that perceived ease of use has a significant relationship between the intention to adopt m-commerce. The value obtained in the study is PEOU (β= 0.204, p-value < 0.001). Consumers in Kota Kinabalu agree that m-commerce can provide convenience for them. An easy-of-use and understandable m-commerce platform is the main factor they agree on. M-commerce that is easy to use and understand positively affects consumers. These statistics and tests show that users in Kota Kinabalu use m-commerce because it is easy to use.

5.3.3 Hypothesis 3

Research and analysis found that perceived self-efficacy has a relationship with intention to adopt m-commerce. This determines that the third hypothesis can be trusted and used.

H3: Perceived self-efficacy has a significant influence on the intention to adopt m-commerce in Kota Kinabalu.

Referring to the study and test that was admitted, we can conclude that the alpha value is lower than 0.01. This shows that perceived self-efficacy has a relationship with the intention to adopt m-commerce. Self-efficacy affects predicting perceptions, viewpoints and intentions in adopting new technologies. The previous study found that p-value for perceived self-efficacy is 0.000 which is lower than 0.01

(Singh et al., 2018). This research found that residents in Kota Kinabalu are confident in matters involving m-commerce. This allows them to accept and increase the possibility of using m-commerce daily. This is reinforced by looking at the statistics where respondents are confident and believe they have the knowledge and can use m-commerce without help. This reinforces that self-efficacy greatly influences the intention to adopt m-commerce in Kota Kinabalu.

5.3.4 Hypothesis 4

Research and analysis found that perceived trust has a relationship with intention to adopt m-commerce. This matter is explained in the analysis and tests that have been done.

H4: Perceived trust has a significant influence on the intention to adopt m-commerce in Kota Kinabalu.

In addition, after analysis and testing, it was found that trust affects the intention to adopt m-commerce. Users will trust and feel more confident utilizing m-commerce when there is a high level of trust in that particular thing. The study found that the obtained p-value is 0.000 which is smaller than 0.01 and is accepted as a hypothesis (Verkijika, 2018). Based on the results of the analysis, users in Kota Kinabalu are sure that m-commerce is very reliable. In addition, the information provided through m-commerce is felt to be very reliable. This shows that trust in something can be a factor for someone in using m-commerce. Apart from information, they believe that no error in the transaction is also a factor in them using m-commerce.

5.4 Implications of the Study

This study was carried out to examine the factors that influence m-commerce adoption in Kota Kinabalu. From this research, the researcher will examine the relationship between the dependent variable which is the intention to adopt m-commerce and independent variables perceived usefulness, perceived ease of use, perceived self-efficacy and perceived trust. When the factors that influence the use of m-commerce are known, it makes it easier for other parties, for example a company to conduct business through m-commerce even though it was previously hesitant to use it.

First of all, this study will give future researchers all the crucial data on perceived usefulness, perceived ease of use, perceived self-efficacy, and perceived trust which could be the factors influencing m-commerce adoption in Kota Kinabalu. This study will assist future researchers in doing fresh studies on the utilization of m-commerce in various locations. If there are numerous reference sources, a new study will result in an excellent study.

Second, a firm will benefit from this study. This is due to the fact that a company will feel confident engaging in m-commerce thanks to a study like this. Additionally, firms that are not currently interested in using it will be interested in using it because it is one of the methods to increase their market. Based on the findings of this study, firms will be aware that perceived usefulness, ease of use, self-efficacy, and trust may influence consumers' intentions to adopt m-commerce in Kota Kinabalu.

Third, retailers will benefit from research like this as well. This study demonstrates the variables that affect m-commerce utilization in Kota Kinabalu. For instance, Kota Kinabalu-area retailers may use m-commerce to increase their product promotion. This is due to the fact that the study reveals what drives their use of mobile commerce and maybe the best time to advertise the goods.

Finally, this study will provide additional information to the government. There are few studies in Malaysia especially regarding the use of m-commerce. So, with studies like this it will help the government to produce something better such as making applications that are safer and more user-friendly. It also allows the government to be aware of the importance of m-commerce among consumers, firms and retailers even though it is not yet widespread about its use, but it helps in many other aspects.

5.5 Limitations of the Study

Each study that is conducted has specific limitations that the researcher must deal with. Methodological errors or poor research design may be to blame for these limitations. This obviously has the potential to have an impact on the entire study or research publication. One of the limitations for this study is sampling technique. This is due to the difficulty in deciding on the sample techniques to be employed when non-probability sampling is utilized and the amount of data for a big area's population is collected. If the sampling method utilized is inappropriate or takes too long, obtaining data can be challenging.

This study's limitation is limited time for researchers. When it comes to finishing this study, researchers are constrained by deadlines. Sometimes time constraints can be detrimental to this research. It must be demonstrated, nevertheless, for upcoming researchers to build a framework or complete a job in accordance with the given "track." Even though the time is limited we still can find 384 respondents to answer the questionnaire.

Next, limitations of the study are data collection methods. By distributing surveys online, data was gathered. Since it's probable that when the questionnaire is disseminated, potential respondents may be busy with other chores and forget to respond, this

circumstance take a lot of time to collect data. To get the questionnaire that must be completed, the researcher must send back the "link." Although it is simple to spread, it has a flaw in that respondents may ignore, forget, or misunderstand the question they are responding to.

5.6 Recommendations for Future Research

Based on the results of the overall study, the researchers would like to make a several recommendations for future research. To begin, the future researchers should concentrate on the age of the group population for the demographic of survey respondents in order to obtain a more precise demographic profile. In this study, 31% of the respondents are ages 22-25 years old which is the highest age group answered the survey. In the future study, the researchers highly recommend the future research to focus on the age group. For example, the future research can conduct the research on generation Y in Kota Kinabalu since there is still no clear study conducted on this age group in on generation Y population.

The purpose and focus of this study were to investigate the factors that influence the intention of m-commerce adoption in Kota Kinabalu. During the study progressed, several areas emerged as potential for future research areas. A large population size aims to reduce the error and achieve a better outcome (Costello et al., 2005). As a result, in order to obtain accurate results and investigate the factors impacting consumers' intention to use m-commerce, future studies will need to increase the population sample size. The more respondents in the sample, the more precise and reliable the outcome will be, claim (Nuijten et al. 2015). Consequently, in order to improve the accuracy and reliability of study sample size, future researchers will need to raise the sample size. The future research could investigate the larger population more than the current research population.

For example, Sabah or Malaysia rural areas which have a larger population than Kota Kinabalu.

5.7 Overall Conclusion of the Study

The main purpose of this study is to investigate factors influencing m-commerce adoption in Kota Kinabalu. Technology Acceptance Model (TAM) served as the study's underpinning theory. This theory was chosen because it is a very suitable theory. In this study, there are five variables: dependent variables (intention to adopt m-commerce) and independent variables (perceived usefulness, perceived ease of use, perceived self-efficacy, and perceived trust). Because all Cronbach's Alpha coefficients show a value larger than 0.6, which indicates that all independent variables have a link with dependent variables, it was determined based on the entire study that all the independent variables meet the minimum reliability.

Based on the relationship, it can be concluded that the intention to adopt m-commerce in Kota Kinabalu is influenced by the independent variables, which are perceived usefulness, perceived ease of use, perceived self-efficacy, and perceived trust. Each of those factors has an impact on Kota Kinabalu's decision to adoption mobile commerce. This matter is supported by the data, analysis, and statistics that have been made in evaluating the abilities and effectiveness of independent variables against dependent variables. Positive results show that the relationship between these things is very positive and strong.

The final results show that all hypotheses have a high statistical significance. The data and findings that have been recognized and analyzed show these results. This research is carried out with dedication and using many resources. This is to provide

helpful information and statistics to all users to help them learn more and detail related to the issues highlighted.

REFERENCES

Abdallah, N., Iqbal, H., Alkhazaleh, H., Ibrahim, A., Tawfik Zeki, T., Habli, M., & Abdallah, O. (2020). Determinants of m-commerce adoption: An empirical study. *Journal of Theoretical and Applied Information Technology*, *98*(9), 1479-1489.

AlQahtani, Y., Beloff, N., & White, M. (2020). A Novel Model of Adoption of M-Commerce in Saudi Arabia. In *FedCSIS (Position Papers)* (pp. 25-34).

Anastasia, Z., & Vlad, V. (2022, August 22). *What Is the Difference Between Ecommerce and Mcommerce?* RubyGarage.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational psychologist*, *28(2)*, 117-148.

Bendary, N., & Al-Sahouly, I. (2018). Exploring the extension of unified theory of acceptance and use of technology, UTAUT2, factors effect on perceived usefulness and ease of use on mobile commerce in Egypt.

Bhat, A. (2023, January 17). *Nominal Scale: Definition, Characteristics and Examples*. QuestionPro.

Birmingham, P., & Wilkinson, D. (2003). *Using research instruments: A guide for researchers*. Routledge.

Chan, X. Y., Rahman, M. K., Mamun, A. A., A. Salameh, A., Wan Hussain, W. M. H.,& Alam, S. S. (2022). Predicting the Intention and Adoption of Mobile Shopping During the COVID-19 Lockdown in Malaysia. *SAGE Open*, *12*(2), 21582440221095012.

Chaokromthong, K., & Sintao, N. (2021). Sample Size Estimation using Yamane and Cochran and Krejcie and Morgan and Green Formulas and Cohen Statistical Power Analysis by G* Power and Comparisons. *Apheit International Journal, 10(2)*, 76-86.

Charness, N., & Boot, W. R. (2016). Technology, gaming, and social networking. *In Handbook of the Psychology of Aging* (pp. 389-407). Elsevier.

Chau, N. T., Deng, H., & Tay, R. (2020). Critical determinants for mobile commerce adoption in Vietnamese small and medium-sized enterprises. *Journal of Marketing Management*, *36*(5-6), 456-487.

Chau, N. T., Deng, H., & Tay, R. (2021). A perception-based model for mobile commerce adoption in Vietnamese small and medium-sized enterprises. *Journal of Global Information Management (JGIM), 29(1)*, 44-67.

Cho, D.-Y., Kwon, H. J., & Lee, H.-Y. (2007). Analysis of trust in internet and mobile commerce adoption. 2007 40th Annual Hawaii International Conference on System Sciences (HICSS'07).

Costello, A. B., & Osborne, J. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical assessment, research, and evaluation*, *10*(1), 7.

Dakduk, S., Santalla-Banderali, Z., & Siqueira, J. R. (2020). Acceptance of mobile commerce in low-income consumers: evidence from an emerging economy. *Heliyon*, *6*(11), e05451.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.

Eberly, L. E. (2007). Multiple linear regression. *Topics in Biostatistics*, 165-187.

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American journal of theoretical and applied statistics*, *5(1)*, 1-4.

Fatoki, O. (2020). DETERMINANTS OF INTENTION TO ADOPT MOBILE COMMERCE BY SMALL HOSPITALITY FIRMS. *Academy of Strategic Management Journal*, *19(6)*, 1-13.

Flynn, J. (2022, December 3). *25 Must-Know Mobile Commerce Statistics [2022]: Facts About M-Commerce in the U.S. – Zippia*.

Gan Soh Fuey & Noraini Idris. (2017). *Assessing the Validity of the Elements for Pre-Service Mathematics Teacher Education Curriculum*. Human Resource Management Academic Research Society.

Ghazali, E. M., Mutum, D. S., Chong, J. H., & Nguyen, B. (2018). Do consumers want Mobile commerce? A closer look at M-shopping and technology adoption in Malaysia. *Asia Pacific Journal of Marketing and Logistics*, *30*(4), 1064-1086.

Gilbert, N. (2022, November 6). *Mobile commerce or m-commerce is a subset of e-commerce that involves the buying and selling of goods through a*. Financesonline.com.

Gitau, L., & Nzuki, D. (2014). Analysis of determinants of m-commerce adoption by online consumers. *International Journal of Business, Humanities and Technology*, *4(3)*, 88-94.

Hayes. A. (2022, August 31). *Demographics: How to Collect, Analyze, and Use Demographic Data*. Investopedia.

Islam, M. A., Khan, M. A., Ramayah, T., & Hossain, M. M. (2011). The adoption of mobile commerce service among employed mobile phone users in Bangladesh: self-efficacy as a moderator. *International Business Research*, *4*(2), 80.

Hair, J. F., Money, A. H., Samouel, P., & Page, M. (2007). Research Methods for Business, UK Edition.

Kemp, S. (2022, February 15). *Digital 2022: Malaysia*. DataReportal – Global Digital Insights.

Kenton, W. (2022, May 6). *What Is the Pearson Coefficient? Definition, Benefits, and History*. Investopedia.

Kotler, P., & Armstrong, G. (2010). *Principles of marketing.* Pearson education.

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

Kumari, R. (2020, Oct 2). *M-Commerce: Applications, Advantages and Disadvantages | Analytics Steps*.

Lim, W., Sham, R., Loi, A. M.-W., Shion, E., & Wong, B. Y.-B. (2022). M-commerce adoption among youths in Malaysia: Dataset article. *Data in brief, 42,* 108238.

Mbachu, C. (2021, March 6). *6 Methods of Data Collection - Calistus Mbachu*. Medium.

Mijoska, M. (2017). Applying TAM to study online shopping adoption among youth in the Republic of Macedonia.

Muhammad Syazwan Mohd Sayati, M. S. M. S., Nurain Qhalisya Mohd Hazam, N. Q. M. H., Nurfatin Syamimi Zulkifli, N. S. Z., & Nurin Aqilah Huda Rahim, N. A. H. R. (2022). *Factors influencing the use of cashless financial transactions among University Malaysia Kelantan (UMK) City Campus students* Universiti Malaysia Kelantan].

Multiple Linear Regression - Overview, Formula, How It Works. (2022, 28 Nov 2022). Corporate Finance Institute.

Nassuora, A. B. (2013). Understanding factors affecting the adoption of m-commerce by consumers. *Journal of Applied Sciences, 13(6),* 913-918.

Ngubelanga, A., & Duffett, R. (2021). Modeling mobile commerce applications' antecedents of customer satisfaction among millennials: An extended tam perspective. *Sustainability*, *13*(11), 5973.

Nuijten, M. B., van Assen, M. A. L. M., Veldkamp, C. L. S., & Wicherts, J. M. (2015). The replication paradox: Combining studies can decrease accuracy of effect size estimates. Review of General Psychology, 19(2), 172-182.

Pajares, F. (1997). Current directions in self-efficacy research. *Advances in motivation and achievement, 10(149),* 1-49.

Pankomera, R., & van Greunen, D. (2019). Opportunities, barriers, and adoption factors of mobile commerce for the informal sector in developing countries in Africa: A systematic review. *The Electronic Journal of Information Systems in Developing Countries*, *85*(5), e12096.

Park, E. S., & Park, M. S. (2020). Factors of the Technology Acceptance Model for Construction IT. *Applied Sciences, 10*(22), 8299.

Pipitwanichakarn, T., & Wongtada, N. (2018). Mobile commerce adoption among the bottom of the pyramid: A case of street vendors in Thailand. *Journal of Science and Technology Policy Management*.

Pipitwanichakarn, T., & Wongtada, N. (2019). Leveraging the technology acceptance model for mobile commerce adoption under distinct stages of adoption: A case of micro businesses. *Asia Pacific Journal of Marketing and Logistics*, *33*(6), 1415-1436.

Sarfo, C. A., & Song, H. (2021). E-commerce adoption within SME's in Ghana, a tool for growth?. *International Journal of Electronic Business*, *16*(1), 32-51.

Sarkar, S., Chauhan, S., & Khare, A. (2020). A meta-analysis of antecedents and consequences of trust in mobile commerce. *International Journal of Information Management*, *50*, 286-301.

Sincero, J. (2022, December 6). *10 Advantages of Online Surveys*. (2022, December 6). SmartSurvey.

Singh, S., & Srivastava, S. (2019). Engaging consumers in multichannel online retail environment: A moderation study of platform type on interaction of e-commerce and m-commerce. *Journal of Modelling in Management*, *14*(1), 49-76.

Singh, S., Zolkepli, I. A., & Kit, C. W. (2018). New Wave in Mobile Commerce Adoption via Mobile Applications in Malaysian Market: Investigating the Relationship Between Consumer Acceptance, Trust, and Self Efficacy. *International Journal of Interactive Mobile Technologies*, *12*(7).

Soetewey, A. (2020). *Descriptive statistic by hand - Stats and R*. Stats and R.

Statista. (2022, October 5). *Number of mobile broadband subscriptions Malaysia 2020, by state*.

Stephanie, G. (2021, June 1). *Primary Data & Secondary Data: Definition & Example*. Statistics How To.

Szaniawska-Schiavo, G. (2022, October 31). *Top 10+ Mobile Commerce Statistics for 2022 [Report]*. Tidio.

Tarhini, A., Alalwan, A. A., Shammout, A. B., & Al-Badi, A. (2019). An analysis of the factors affecting mobile commerce adoption in developing countries. *Review of International Business and Strategy*, *29*(3), 157-179.

Tew, H.-T., Tan, G. W.-H., Loh, X.-M., Lee, V.-H., Lim, W.-L., & Ooi, K.-B. (2022). Tapping the next purchase: embracing the wave of mobile payment. *Journal of Computer Information Systems*, *62*(3), 527-535.

Valcheva, S. (2021, April 12). *Primary Data VS Secondary Data: Definition, Sources, Advantages*. Blog for Data-Driven Business.

Verkijika, S. F. (2018). Factors influencing the adoption of mobile commerce applications in Cameroon. *Telematics and Informatics*, *35*(6), 1665-1674.

Wei, T. T., Marthandan, G., Chong, A. Y. L., Ooi, K. B., & Arumugam, S. (2009). What drives Malaysian m-commerce adoption? An empirical analysis. *Industrial management & data systems.*

Yapp, E. (2014, December 1). *M-Commerce spending in Malaysia quadrupled: PayPal*. Digital News Asia.

Yasar, K. (2022, August 5). *m-commerce (mobile commerce)*. Mobile Computing.

Zhang, L., Zhu, J., & Liu, Q. (2012). A meta-analysis of mobile commerce adoption and the moderating effect of culture. *Computers in human behavior, 28(5),* 1902-1911.

Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2013). *Business research methods*. Cengage Learning.

APPENDIX A – DRAFT OF QUESTIONNAIRE

TITLE:
FACTORS INFLUENCING M-COMMERCE ADOPTION IN KOTA KINABALU

QUESTIONNAIRE FORM

Assalamualaikum and Greetings to all.
Dear Respondents,

We are the final year students of the programme Bachelor of Entrepreneurship (Commerce) with Honour (SAK), Faculty of Entrepreneurship and Business (FKP), Universiti Malaysia Kelantan (UMK). This questionnaire is distributed as part of our final year project in order to conduct research on "Factors Influencing M-Commerce Adoption in Kota Kinabalu." The questionnaires will take about 3 to 5 minutes. All the information in this questionnaire will be kept confidential and used for academic purposes only. We would like to thank you for spending your time by giving kind cooperation and fair responses.

Before answering the questionnaire, let's look into some information about mobile commerce (m-commerce). M-commerce refers to the purchase or sale of goods and services via wireless handheld devices like smartphones and tablets. The types of m-commerce include mobile shopping, mobile banking and mobile payments. Even so, there are also some different meanings between e-commerce and m-commerce. E-commerce is a general concept for online purchase or sale, while m-commerce is a subset of e-commerce that concentrates on purchasing via wireless handheld device.

This survey was prepared by:
Aryati Ayinah Binti Hassan (A19A0067)
Chin Xin Yi (A19A0102)
Harith Haziq Bin Raizan (A19A0173)
Masmera Binti Bakir (A19A0267)

PART A: DEMOGRAPHIC
INSTRUCTION: PLEASE TICK (/) ON THE APPROPRIATE ANSWER.

1. Gender
   Male ( )
   Female ( )

2. Age

Less than 21 years old	( )
22-25 years old	( )
26-29 years old	( )
30-33 years old	( )
34-37 years old	( )
42-45ears old	( )
42-45 years old	( )
46 years old & above	( )

3. Ethnicity

Chinese	( )
Bajau	( )
Kadazan-Dusun	( )
Bumiputeras	( )
Bruneian Malays	( )
Murut	( )
Indian	( )
Other	( )

4. Education

Primary and secondary certificate	( )
Diploma	( )
Bachelor' degree	( )
Master's degree & above	( )

5. Smartphones or tablets usage frequency (In a day)

Less than 1 hour	( )
2-4 hours	( )
5-7 hours	( )
8-9 hours	( )
More than 10 hours	( )

6. Most frequent usage time of smartphones or tablets

7am - 11am	( )
11am - 3pm	( )
3pm - 7pm	( )
7pm - 11pm	( )
11pm - 3am	( )

7. Reason using smartphones and tablets (Select one answer from every choice)

	Online shopping & transaction (e.g., Shopee, Lazada, eBay, Shopee	Interactive services (e.g., chat and games)	Information services (e.g., news, weather forecast)	Music and video contents (e.g., Spotify, YouTube, TikTok, Netflix)	Working tools (e.g., Zoom, Canva)	Chatting with friend (e.g., WhatsApp, Telegram, Instagram)

	Pay, Lazada wallet, Touch n' Go)					
1st choice						
2nd choice						
3rd choice						
4th choice						
5th choice						
6th choice						

8. M-commerce transaction frequency (In a week)

Once	( )
2-4	( )
5-7	( )
8-9	( )
10 and above	( )

PART B

Please indicate your degree of agreement on the following statements by choosing the numbers given ranging:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

DEPENDENT VARIABLES: INTENTION TO ADOPT M-COMMERCE

1.	Assume that I have access to m-commerce systems, I intend to use them.	1	2	3	4	5
2.	I intend to use m-commerce if the cost is reasonable for me.	1	2	3	4	5
3.	I believe I will use m-commerce in the future.	1	2	3	4	5
4.	I believe my interest in m-commerce will increase in the future.	1	2	3	4	5

PART C
INDEPENDENT VARIABLES:

i) PERCEIVED USEFULNESS

1.	Using m-commerce would improve my efficiency in my daily work.	1	2	3	4	5
2.	Using m-commerce would save up my time.	1	2	3	4	5
3.	Using m-commerce would add to my effectiveness in my daily work.	1	2	3	4	5
4.	M-commerce services are useful to me as a consumer.	1	2	3	4	5

ii) PERCEIVED EASE OF USE

1.	It is easy to pick up m-commerce.	1	2	3	4	5
2.	M-commerce is understandable and clear.	1	2	3	4	5
3.	M-commerce is easy to use.	1	2	3	4	5
4.	It is easy for me to become skillful at using m-commerce.	1	2	3	4	5

iii) PERCEIVED SELF-EFFICACY

1.	I am able to use m-commerce services without the help of others.	1	2	3	4	5
2.	I have the necessary time to make m-commerce services useful to me.	1	2	3	4	5
3.	I have the knowledge and skills required to use m-commerce services.	1	2	3	4	5
4.	I am able to use m-commerce services reasonably well on my own.	1	2	3	4	5

iv) PERCEIVED TRUST

1.	In my opinion, m-commerce is very reliable.	1	2	3	4	5
2.	I believe in the information that m-commerce provides.	1	2	3	4	5
3.	I can rely on m-commerce to execute my transactions reliably.	1	2	3	4	5
4.	Given the state of existing m-commerce, I believe that technology related error is rare.	1	2	3	4	5

Your cooperation is appreciated. Thank you.

APPENDIX B – GANTT CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Identify research title														
Finding 5 main articles														
State DV and IV and present to our SV														
Briefing with our SV related to our research project														
Start writing Chapter 1														
Submission Chapter 1														
Correction Chapter 1														
Start writing Chapter 2														
Submission Chapter 2														
Correction Chapter 2														
Start writing Chapter 3														
Submission Chapter 3														
Correction Chapter 3														
Turnitin check full report Final Year Project 1 (FYP 1)														
Submission full report Final Year Project 1 (FYP 1)														
Presentation Final Year Project 1 (FYP 1)														
Data collection														
Start writing Chapter 4 & 5														
Submission Chapter 4 & 5														
Correction Chapter 4 & 5														
Check Turnitin														
Submission full report Final Year Project 2 (FYP 2)														
Presentation Final Year Project 2 (FYP 2)														

APPENDIX C – RUBRIC FINAL REPORT

Student's Name: ARYATI AYINAH BINTI HASSAN **MATRIC NO.** A19A0067
CHIN XIN YI **MATRIC NO.** A19A0102
HARITH HAZIQ BIN RAIZAN **MATRIC NO.** A19A0173
MASMERA BINTI BAKIR **MATRIC NO.** A19A0267
Name of Supervisor: DR. NURUL IZYAN BINTI MAT DAUD **NAME OF PROGRAMME:** SAK
Research Topic: FACTORS INFLUENCING M-COMMERCE ADOPTION IN KOTA KINABALU

NO.	CRITERIA	PERFORMANCE LEVEL				WEIGHT	TOTAL
		POOR (1 MARK)	FAIR (2 MARKS)	GOOD (3 MARKS)	EXCELLENT (4 MARKS)		
1.	**Content (10 MARKS)** (Research objective and Research Methodology in accordance to comprehensive literature review) Content of report is systematic and scientific (Systematic includes Background of study, Problem Statement, Research Objective, Research Question) (Scientific refers to researchable topic)	Poorly clarified and not focused on Research objective and Research Methodology in accordance to comprehensive literature review.	Fairly defined and fairly focused on Research objective and Research Methodology in accordance to comprehensive literature review.	Good and clear of Research objective and Research Methodology in accordance to comprehensive literature review with good facts.	Strong and very clear of Research objective and Research Methodology in accordance to comprehensive literature review with very good facts.	____ x 1.25 (Max: 5)	
		Content of report is written unsystematic that not include Background of study, Problem Statement, Research Objective, Research Question and unscientific with unsearchable topic.	Content of report is written less systematic with include fairly Background of study, Problem Statement, Research Objective, Research Question and less scientific with fairly researchable topic.	Content of report is written systematic with include good Background of study, Problem Statement, Research Objective, Research Question and scientific with good researchable topic.	Content of report is written very systematic with excellent Background of study, Problem Statement, Research Objective, Research Question and scientific with very good researchable topic.	____ x 1.25 (Max: 5)	

2.	**Overall report format (5 MARKS)**	***Submit according to acquired format***	The report is not produced according to the specified time and/ or according to the format	The report is produced according to the specified time but fails to adhere to the format.	The report is produced on time, adheres to the format but with few weaknesses.	The report is produced on time, adheres to the format without any weaknesses.	____ x 0.25 (Max: 1)	
		Writing styles (clarity, expression of ideas and coherence)	The report is poorly written and difficult to read. Many points are not explained well. Flow of ideas is incoherent.	The report is adequately written; Some points lack clarity. Flow of ideas is less coherent.	The report is well written and easy to read; Majority of the points is well explained, and flow of ideas is coherent.	The report is written in an excellent manner and easy to read. All of the points made are crystal clear with coherent argument.	____ x 0.25 (Max: 1)	
		Technicality (Grammar, theory, logic and reasoning)	The report is grammatically, theoretically, technically and logically incorrect.	There are many errors in the report, grammatically, theoretically, technically and logically.	The report is grammatically, theoretically, technically and logically correct in most of the chapters with few weaknesses.	The report is grammatically, theoretically, technically, and logically perfect in all chapters without any weaknesses.	____ x 0.25 (Max: 1)	
		Reference list (APA Format)	No or incomplete reference list.	Incomplete reference list and/ or is not according to the format.	Complete reference list with few mistakes in format adherence.	Complete reference list according to format.	____ x 0.25 (Max: 1)	
		Format organizing (cover page, spacing, alignment, format structure, etc.)	Writing is disorganized and underdeveloped with no transitions or closure.	Writing is confused and loosely organized. Transitions are weak and closure is ineffective.	Uses correct writing format. Incorporates a coherent closure.	Writing include a strong beginning, middle, and end with clear transitions and a focused closure.	____ x 0.25 (Max: 1)	

3.	**Research Findings and Discussion (20 MARKS)**	Data is not adequate and irrelevant.	Data is fairly adequate and irrelevant.	Data is adequate and relevant.	Data is adequate and very relevant.	____ x 1 (Max: 4)	
		Measurement is wrong and irrelevant	Measurement is suitable and relevant but need major adjustment.	Measurement is suitable and relevant but need minor adjustment.	Measurement is excellent and very relevant.	____ x 1 (Max: 4)	
		Data analysis is inaccurate	Data analysis is fairly done but needs major modification.	Data analysis is satisfactory but needs minor modification.	Data analysis is correct and accurate.	____ x 1 (Max: 4)	
		Data analysis is not supported with relevant output/figures/tables and etc.	Data analysis is fairly supported with relevant output/figures/tables and etc.	Data analysis is adequately supported with relevant output/figures/table and etc.	Data analysis is strongly supported with relevant output/figures/table and etc.	____ x 1 (Max: 4)	
		Interpretation on analyzed data is wrong.	Interpretation on analyzed data is weak.	Interpretation on analyzed data is satisfactory.	Interpretation on analyzed data is excellent.	____ x 1 (Max: 4)	
4.	**Conclusion and Recommendations (15 MARKS)**	Implication of study is not stated.	Implication of study is weak.	Implication of study is good.	Implication of study is excellent.	____ x 1.25 (Max: 5)	
		Conclusion is not stated	Conclusion is weakly explained.	Conclusion is satisfactorily explained.	Conclusion is well explained.	____ x 1.25 (Max:5)	
		Recommendation is not adequate and irrelevant.	Recommendation is fairly adequate and irrelevant.	Recommendation is adequate and relevant.	Recommendation is adequate and very relevant.	____ x 1.25 (Max:5)	
						TOTAL (50 MARKS)	