

**THE EFFECT OF FINTECH APPLICATION BY SMES
ON BUSINESS PERFORMANCE**



Faculty of Technology Management and Technopreneurship

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

**THE EFFECT OF FINTECH APPLICATION BY SMES
ON BUSINESS PERFORMANCE**

NUR SHUHADAH BINTI ROHAIZAT

The thesis is submitted in partial fulfilment of the requirements for the
Bachelor Of Technology Management
(High Technology Marketing) with Honours

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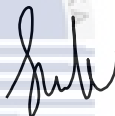

Faculty of Technology Management and Technopreneurship

Universiti Teknikal Malaysia Melaka

2024

DECLARATION

I declare that this thesis entitled “THE EFFECT OF FINTECH APPLICATION BY SMES ON BUSINESS PERFORMANCE” is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of my other degree.


Signature: 

Name: Nur Shuhadah binti Rohaizat

24 JANUARY 2024

Date:

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APPROVAL

I hereby that declare that I have checked this report entitled “The Effect of FinTech Application by SMEs on Business Performance” and in my opinion, this thesis it complies the partial fulfilment for awarding the award of the degree of Bachelor of Technology Management with Honours (High Technology Marketing)

SIGNATURE:

SUPERVISOR’S NAME: DR. NOR AZAH BINTI ABDUL AZIZ

24 JANUARY 2024

DATE:

SIGNATURE:

PANEL’S NAME: DR. ATIRAH BINTI SUFIAN

24 JANUARY 2024

DATE:

DEDICATIONS

I would like to dedication my gratitude to my dear parents, who have supported me both spiritually and monetarily. A big thanks to my supervisor Dr. Nor Azah Binti Abdul Aziz and my panel Dr. Atirah Binti Sufian for guiding me through my research study. Thank you so much for always being understanding, as well as to my friends who supported me and assisted me.



ACKNOWLEDGEMENT

In preparing this report, I was in contact with many people, including researchers, academicians, and practitioners. They have contributed to my understanding and thoughts. In particular, I wish to express my sincere appreciation to my main project supervisor, Dr. Norazah Binti Abdul Aziz, for encouragement and guidance. I am also very thankful to my panel Dr. Atirah Binti Sufian, for their guidance and advice. Without their continued support and interest, this project would not have been the same as presented here.

In addition, I would like to thank the Faculty of Technology Management and Technopreneurship (FPTT) at Universiti Teknikal Malaysia Melaka (UTeM) for providing me with a place to study. I am also extremely grateful for my parents and friends. At the end, I would also like to thank everyone who has been there for me emotionally and intellectually as I've worked on my research.

ABSTRACT

The development of FinTech in Malaysia such as electronic payments and online banking has contributed to the increasing advancement in technology productivity in Malaysia. In Malaysia's FinTech or financial technology, is becoming more and more important. According to the Malaysia Fintech Report 2021, there are 233 FinTech companies in Malaysia that work in many different areas. However, the situation growing fintech in Malaysia is higher but in SMEs the use or adoption fintech towards their business is still low. In terms perspective of SMEs Malaysia view there are an overwhelming 98.5% of the 920,624 business establishments in Malaysia are small and medium enterprises (SMEs). Therefore, this research aims to understand the effect of FinTech Application by SMEs on business performance. This research uses quantitative method questionnaire for collecting data. This research focus on SMEs in Melaka were given a total 150 survey. Findings from this study indicated that 5 variables on this research to contribute the growing of FinTech application by SMEs. The research study on the effect of FinTech application by SMEs on business performance has the potential to make several valuable contributions. Understanding FinTech adoption among SMEs: The study can provide insights into the types of FinTech application being adopted and identifying the impact on business performance.

Keyword: FinTech Application, SMEs, Business Performance

ABSTRAK

Perkembangan FinTech di Malaysia seperti pembayaran elektronik dan perbankan dalam talian telah menyumbang kepada peningkatan kemajuan dalam produktiviti teknologi di Malaysia. Dalam FinTech atau teknologi kewangan di Malaysia, ia telah menjadi semakin penting. Mengikut Laporan FinTech Malaysia 2021, terdapat 233 syarikat FinTech di Malaysia yang beroperasi dalam pelbagai bidang. Walau bagaimanapun, walaupun pertumbuhan FinTech di Malaysia meningkat, penggunaan atau adopsi FinTech dalam kalangan PKS masih rendah. Dari perspektif PKS di Malaysia, terdapat 98.5% daripada 920,624 perniagaan di Malaysia merupakan perusahaan kecil dan sederhana (PKS). Oleh itu, penyelidikan ini bertujuan untuk memahami kesan Aplikasi FinTech oleh PKS terhadap prestasi perniagaan. Kajian ini menggunakan cara kuantitatif dan menggunakan soal selidik dalam mengumpulkan data. Kajian ini hanya fokus terhadap PKS di Melaka dengan memberikan 150 soalan. Hasil kajian ini menunjukkan bahawa 5 pembolehubah dalam penyelidikan ini menyumbang kepada perkembangan aplikasi FinTech oleh PKS. Kajian ini berpotensi dalam membuat beberapa sumbangan berharga. Berkaitan dengan memahami penggunaan FinTech di kalangan PKS. Kajian ini dapat memberikan pandangan mengenai kesan aplikasi FinTech oleh PKS, termasuk jenis aplikasi FinTech yang diterima pakai dan mengenal pasti impaknya terhadap prestasi perniagaan.

Kata kunci: Aplikasi FinTech, PKS, Prestasi Perniagaan

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LIST OF ABBREVIATIONS

FinTech	Financial Technology
P2P	Peer-to-Peer
SPSS	Statistical Package for Social Science
SMEs	Small and Medium Enterprises
AMCHAM	American Malaysian Chamber of Commerce
BNM	Bank Negara Malaysia



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CHAPTER 1

INTRODUCTION

1.1 Introduction

This section is to evaluate the basic concept of the study and the significance of the topic. This research is starting by discussing the introduction of the financial technology (FinTech), the background of the research and also problem statements. The research question and objective of the research also will discuss in this section to know the purpose of the topic and followed by scope, significance of the study and also the organisation of this research. The last part of this section is conclusion of this chapter.

1.2 Background of Study

This goal of this research paper is to analyse the effectiveness of financial technology application by SMEs on business performance. The development of FinTech in Malaysia such as electronic payments and online banking has contributed to the increasing advancement in technology productivity in Malaysia. The services offered by the financial institutions continue to challenge and cater to the attitudes of consumers who are accepting of new technology products to gain market opportunities. In response to the new technology, contemporary

changes and millennium generations involving new technology applications with great market potential for financial institution to maintained market share. FinTech has become an important and interesting topic given the rapid growth and changing in the information technology (Ryu, 2018).

The research is needed to gather relevant data to help companies in working towards the development of FinTech that will satisfy consumers, and fulfil the need in accordance with the local culture to draw in more potential clients. According to Bollaert et al. (2021), common financial actors including banks, financial speculators, and securities exchanges may boost their production via careful screening and the efficient conveyance of gains. The use of financial technology (FinTech) is gaining traction in Malaysia in tandem with the fourth industrial revolution. Tun-Pin et al. in 2019 investigate the acceptance of financial technology (FinTech) services in Malaysia by conducting an analysis of the possible drivers embracing FinTech in the nation. Therefore, this research aims to understand the intention of FinTech application through the Malaysian perspective and to discover the effect of FinTech application by SMEs on business performance.

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1.3 Problem Statement

In Malaysia's FinTech or financial technology, is becoming more and more important. According to the Malaysia Fintech Report 2021, there are 233 FinTech companies in Malaysia that work in many different areas, such as payments (20%), wallets (15%), lending (14%), insurtech (9%), wealthtech (9%), remittance (6%), blockchain (6%), regtech (4%), Islamic fintech (4%), crowdfunding (4%), AI/Big Data (3%), marketplaces (3%), and proptech (3%). 95% of Malaysians have a bank account, and 27.4 million people use the internet and 61.8% use mobile banking. Both online banking and mobile banking are now widely used. From MYR200 billion in 2019, mobile banking transactions grew to MYR460 billion in 2020, which is more than double the amount from 2019. The number of transfers went

up because the number of people using mobile banking services went from 17.2 million in 2019 to 20.2 million in 2020, a 3 million increase (Malaysia Fintech Report, 2021). Both online and mobile banking are now widely used, with usage rates of 111.5% and 61.8%, respectively. However, the situation growing FinTech in Malaysia is higher but in SMEs the use or adoption FinTech towards their business is still low. In terms perspective of SMEs Malaysia view there are an overwhelming 98.5% of the 920,624 business establishments in Malaysia are small and medium enterprises (SMEs) (Neo, 2022). Despite being the backbone of the country's business environment, digital adoption among SMEs lags behind that of larger enterprises, according to the World Bank Malaysia. A study by the world's leader in digital payments Visa unveiled that 68 per cent of small and medium enterprises (SMEs) reported being interested in digital banking banks with the rise of the industries that showed the most interest in using services offered by digital banks include financial services (76 per cent) but this not all 100% small businesses adopting FinTech application on their business (Bernama, 2022). For example, the use of cashless payments continues to gain ground among consumers and businesses, but there are still a few small and medium enterprises (SMEs) who are skeptical about the use of cashless payments. In addition, the long application process and the long waiting time for approval also make this effort difficult to implement. There are SMEs who do not have knowledge about the use of e-wallets and they are not sure if the platform is directly connected to their business account. They also worry about the cost of maintaining the machine in addition to the less than satisfactory internet connection making it difficult to deal with card payments (Syarifah,2023). Therefore, this paper aimed to close the research gap in Malaysian FinTech whereby financial institutions should comprehend their clients' acknowledgment of FinTech, which is the main force that influences a SMES's aim to use FinTech in financial services. Despite of this kind of the environment, this research will examine the effect of fintech application by SMEs on business performance on how SMEs can adopt the fintech application towards their business.

1.4 Research Questions

RQ1 - What are the FinTech applications by SMEs?

RQ2 - What is the relationship between Fintech applications and SMEs business performance?

RQ3 - What is the most significance of FinTech applications on SMEs business performance?

1.5 Research Objectives

RO1 - To investigate the FinTech applications by SMEs

RO2 - To analyze the relationship between FinTech applications and SMEs business performance

RO3 - To determine the most significance of FinTech applications on SMEs business performance

1.6 Scope of study

This study aims at investigating the effect of FinTech application by SMEs on business performance. The justification for this is that concentration on SMEs. The location for this research is in Melaka. This research wants to identify the effect of financial technology usage among SMEs in Malaysia. To determine the relationship of fintech application on SME'S business performance and the most important thing is in order to know the most significance application adoption of fintech on SMEs business performance. This research is open to SMEs as a respondent as long it uses Fintech. Surveying method is used in this study.

1.7 Significance of Study

The significance of this study lies in its potential to address a critical gap in the current understanding of the effect FinTech application by SMEs on business performance. The findings of this research have the potential to significantly contribute to both theoretical and practical dimensions of research field. From a theoretical standpoint, the insights gained from this study will enhance our understanding about this research providing a foundation for future scholarly investigations.

1.7.1 Theoretical Significance

The significance of a study is its importance on this research towards industry. It refers to the contributions to and impact of the study on a research field. In this research, conducting the effect of FinTech application by SMEs on business performance contributes to the theoretical understanding of technology adoption in the context of small businesses. It helps identify the FinTech adoption on SMEs business performance such as identify what are the application FinTech that SMES use to run their business. This research can inform existing theoretical frameworks and contribute to the development of new models specific to the Malaysian SME context. FinTech application research for SMEs contributes to the theoretical understanding of how technology can transform financial processes and services. It expands the existing body of knowledge by exploring the specific challenges, opportunities, and implications of fintech adoption in the SMEs sector (Sarah, 2019).

1.7.2 Practical Significance

The practical significance of this research is informing policy and regulatory frameworks. Practical research on the effect of FinTech application by

SMEs on business performance can provide insights to policymakers and regulatory authorities. It helps them understand the needs and challenges faced by SMEs in adopting FinTech solutions and guides the development of policies and regulations that support FinTech innovation and adoption. This research can contribute to creating an enabling environment that fosters the growth and success of FinTech-driven SMEs in Malaysia (Lucy, 2022)

1.8 Operational definitions

In this study, operational definitions are provided to offer precise meanings to key terms and concepts. This operational definition ensures consistency in interpretation and application throughout the study.

1.8.1 Definition Financial Technology (FinTech)

Financial technology, or FinTech, is a new topic in the business world, and there are many different ways to describe it. Fintech is a new way of doing things that comes from combining banking and IT services. These include all of the financial products and services that banks and other financial institutions usually offer. The phrase "financial technology" has been shortened into the term "FinTech," (Kagan, 2023)

1.8.2 Small and Medium Enterprises (SMEs)

Small and medium enterprises (SMEs) are businesses with less than a certain amount of money, assets, or workers. Each country has its own idea of what a small or medium-sized business is. There are size requirements, and sometimes the type of business the company is in is also taken into account. In the industrial sector, SMEs are companies that don't make more than RM50 million in sales or have more than 200 full-time workers. For the services and other sectors, SMEs

are businesses that don't make more than RM20 million in sales or have less than 500 full-time workers. (SMEs Corporation Corporate, 2023)

1.8.3 Fintech Application

Fintech is a portmanteau of the words “financial” and “technology”. It refers to any app, software, or technology that allows people or businesses to digitally access, manage, or gain insights into their finances or make financial transactions. FinTech application development has given customers, companies, and financial institutions a whole new set of options. Traditional financial services like banking, investing, and insurance have changed because of technology. There are a lot of different types of FinTech applications, such as online banking, mobile payment apps, digital payment, peer-to-peer (P2P) lending, Insurtech and many more (Altynpara, 2023)

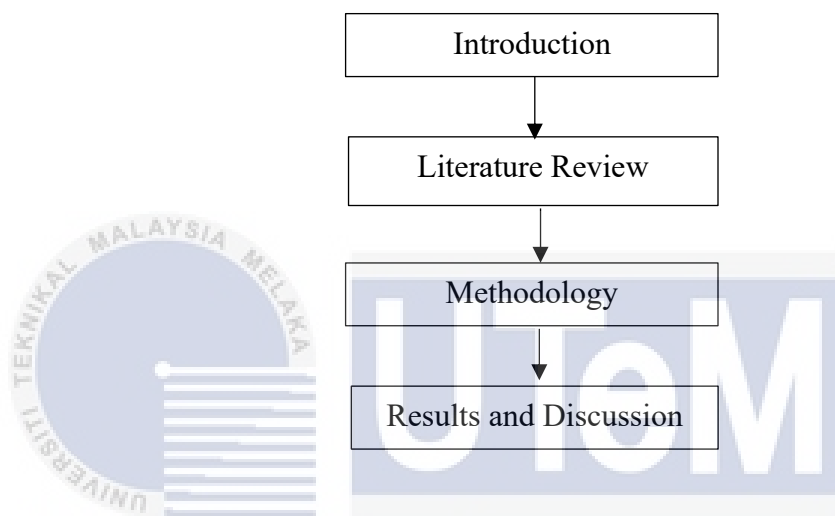
1.8.4 Business Performance

When discussing a firm or organization's performance, business performance is referring to the assessment and evaluation of how well it is doing in terms of reaching its goals and objectives. It evaluates the entire efficacy, productivity, and success of the company in terms of earning money, managing resources, and providing value to the company's performances. The financial performance and operational performance of a company are two key aspects of its overall performance (Tardi 2022).

1.9 Organization of Research

The organization of research refers to the structure and arrangement of various components within a research project or study. It involves organizing and presenting information. The organization of research typically includes the following elements:

Figure 1.1: Organizational Research



1.10 Summary

In this chapter 1, This section is about the introduction of FinTech, background research FinTech that related of the effect of FinTech application by SME'S on business performance. In this section researcher explain about the goal of this research and investigate how FinTech become so more important towards SMEs and how it's affecting towards their business performance. The problem statement also stated to give more comprehensive detail about what the issues come out with provide the details of statistic on the adoption of FinTech application and SMEs in Malaysia. The operational definition and organization research also stated on this chapter to give more understanding about this research.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The section will continue to discuss the definition of the topic, theory related and the conceptual framework towards the effect of Fintech application SMEs using Fintech products and services also will be discussed in this section. Literature review for the research also will be discussed in this section. In this section used various reference sources such as the journal, previous thesis, websites, book and other published medium as a guideline.

2.2 The role of financial technology in fostering SMEs finance

Small and medium-sized enterprises are very important to the economies of growing countries. They are very important to the growth of these countries' economies. Usually, these kinds of businesses hire a lot local employment in the area and give a lot of people in these places a way to make a living (Jha & Kumar, 2020). They also bring in local investments and help new ideas grow. These businesses help the economies of poor countries grow, but they have a hard time doing their work and getting the money they need (Disse & Sommer, 2020). This

is a great chance to use some of the new tools in the business world. Their involvement makes operations more efficient and gives cash to places where standard financial institutions can't (Lu et al., 2021). They are important, especially for those in the lowest parts of these countries. Digital financing is now in charge of offering new financial services through the Internet, smartphones, and other digital tools. The word "financial technology" is often shortened to "FinTech." Financial technology changes the way banks, other financial and non-financial companies, and small and medium-sized enterprises (SMEs) do business in a big way. All of these groups have benefited from digital transformations: banks, fintech start-ups, SMEs, and their users (asak & Gancarczyk, 2021). Three financial processes that have to do with how financial tools are used in business in developing countries. They are: less information inequality (thanks to the use of data analytics), less geographical distance and space (which is due to the use of ICT), and lower costs for many activities and services (which is due to the use of many different financial technologies). Financial technology is a big part of how SMEs change and how well they adapt to the needs of the current economy (such as the cycle economy and the sharing economy) (Pizzi et al., 2021).

SMEs used new financial technologies and innovations based on these technologies to adapt to the COVID-19 pandemic's unique conditions (Banaszyk et al., 2021). In response to the pandemic, many small and medium-sized businesses (SMEs) used new technologies and changed the way they did business (Harel, 2021). This is important, especially in developing countries where it is hard for small and medium-sized businesses (SMEs) to get standard loans. Increased technology makes it easier for people to use new options that don't involve banks, such as crowdfunding or digital loan platforms (Wahjono et al., 2021). It is important for companies whose finances aren't as good (e.g., they have less cash and stable funds) (Eca et al., 2021). They are also in charge of giving people financial tools like mobile money and setting up financial environments where non-bank technology companies can provide many important services (Disse & Sommer, 2020).

2.3 Fintech participation in SMEs financial inclusion

Today, the whole world is going through a digital change, which is happening in many different ways and spreading to new areas of the economy. Changes are also happening in the financial markets, where financial technology is becoming more and more important (Chen et al., 2019). Financial technology is becoming more important in business lending, as well as in many other ways that have to do with how financial markets work. Fintech companies are an important source of financing for businesses that don't have a lot of money. Since the start of the global financial crisis in 2008–2009, this has become especially clear (Cornelli et al., 2019). (Ahmed et al., 2016) says that the crisis made it harder for small and medium-sized businesses (SMEs) to get loans from local banks because they were too risky.

It's important to point out how important financial technologies are for business activities because, in most studies, the effects of technology on society (consumers) get a lot more attention (Safitri, 2020). Some emerging countries have chosen to adopt changes to help SMEs get money from sources other than banks. These changes have made it easier for businesses to get money from places other than banks. This includes venture capital, lending, and leasing. Most of the time, these projects are limited by the fact that some countries, like those in Africa or Asia, don't have very good technology. Because of this, a lot of countries put a lot of weight on the need to digitalize business in their own economies (Lukonga, 2021).

2.4 Fintech Application by SMEs

Fintech applications have gained popularity among SMEs in Malaysia, offering various solutions to improve their financial operations and overall business performance. Here are some notable fintech applications commonly used by SMEs in Malaysia.

2.4.1 Digital Payment

"Digital payments became the key driver for digitalization during the pandemic. "While the report found the majority of Malaysian SMEs are domestically focused, an increasing number of SMEs are pivoting to cross-border trade and internationalization for new customers, expansion, and growth," said The American Malaysian Chamber of Commerce (AMCHAM) Malaysia. The report also revealed that 67 per cent of SMEs accelerated digital payments for health and safety concerns, 57 per cent for instantaneous receipt of payments, and 53 per cent to enhance customer experience. About 58 per cent of SMEs had digitized their ability to make and receive payments, followed by advertising, marketing, and customer service, while 92 per cent of SMEs accepted some form of digital payment from their customers. Over 40 per cent of SMEs sell to international customers, whereby the Asia Pacific region has the highest share of cross-border sales for SMEs at 48 per cent, followed by 42 per cent global and 39 per cent across Southeast Asia. For SMEs who conduct cross-border business, the report noted that nearly 70 per cent agreed that having digital payment options enhanced their brand's trust and credibility and attracted international customers. AMCHAM Malaysia chief executive officer Siobhan Das said SMEs are an integral part of the ecosystem. "They not only stand on their providing products and services to the local economy but are also a critical part of the global supply chain (Jalil, 2022).

2.4.2 Peer-to-Peer (P2P) Lending

SMEs were the main source of economic growth and jobs in Malaysia. They provided more than a third of the GDP and made up 66% of all jobs. Even though SMEs are important to the business of the country, 19% of local SMEs have had trouble getting funds from standard financial institutions, according to a Bank Negara study on SME financing. Over the years, SMEs have found other ways to get the money they need to fill the funding gap. Peer-to-Peer (P2P) banking lets businesses get loans directly from lenders instead of going to banks.

This is done through crowdfunding on an online site. Each P2P loan site may offer different kinds of financing goods that companies can choose from based on their needs, such as invoice financing, working capital financing, and general business financing, each with its own terms and conditions (Lim, 2023). Over the past few years, the Malaysian peer-to-peer (P2P) lending industry has seen substantial growth under the oversight of the Securities Commission Malaysia (SC). The number of licensed P2P financing operators which are Capbay, B2B FinPal, Capsphere, Cofundr, NusaKapital, AlixCo, MicroLeap, Funding Societies, MoneySave, Fundaztic, and QuickKash that are available in Malaysia and commonly use in SMEs (S., 2021)

2.4.3 Mobile Banking Apps

The Fintech Malaysia Report 2021 says that the COVID-19 virus sped up Malaysia's move to digital. In 2020, 112.5 percent of people used online banking and 61.8 percent used mobile banking. Mobile banking deals worth RM460 million were made. This shows that the fintech business is making a good contribution to the growth of our economy and also creating jobs. In Malaysia, mobile apps are an important way for small and medium-sized businesses (SMEs) to connect with their customers and suppliers. By making mobile payments possible through app development, SMEs have a better chance of getting noticed by their customers. Easy-to-use apps can also improve customer trust and make workers more productive for the business. SMEs also have a better chance of getting their business in front of the right people. This is because small and medium-sized businesses (SMEs) can use mobile apps to sell their newest goods and services and connect with customers at the right time (Editor, 2021). For example, for this product is Maybank. Maybank has launched Maybank2u Biz, a mobile-first application for small and medium sized enterprises (SMEs) to help ease their business operations (Fintech News Malaysia, 2021). The other than this example is RHB bank, Affin bank and may more.

2.4.4 Insurtech

InsurTech can reach more people if they focus on what small and medium-sized businesses need. Bank Negara Malaysia (BNM) is making progress towards making a financial system that works for everyone by actively backing digitalization in insurance. A big step forward in digitising the controlled market and the country as a whole. It supports innovation by making it easier for FinTech solutions with clear value propositions to get regulatory approval. With a growing middle class and more people getting online, it's likely that more unprotected and poor people will use digital insurance. At the moment, Insurtech on the market are driving the digitalization of insurance by focusing on customers' growing needs for insurance that is easy to understand, available, and cheap. At the moment, Insurtech in Malaysia seem to be mostly tools and middlemen that work with insurers to focus on gathering and digital insurance distribution. In the future, BNM thinks that Insurtech will play a big part in making sure that everyone has access to financial services through new insurance solutions that use better technology, customer data, and predictive analytics. Tokio is an example of this type of Insurtech. Marine BizResilience is an example of a strategy for SMEs in Malaysia that covers company interruptions. This coverage pays for lost earnings, ongoing costs, and extra costs caused by business activities being stopped. Small and medium-sized businesses (SMBs) in Malaysia should think about buying insurance plans to protect themselves from possible losses caused by unplanned events. When choosing insurance plans, it's important to choose the right coverage and work with reliable insurance companies that understand the special risks SMEs in Malaysia face. Big companies like AIG, Allianz, AXA, and Chubb usually have a variety of insurance goods for SMEs. With the right policies in place, business owners can worry-freely focus on building their companies (Lim, 2023).

2.5 SMEs Business Performance

Performance measurement was described in the literature as a complicated idea, especially in the SME sector, because it shows whether or not a company is on the right track. Small and medium-sized manufacturing businesses (SME) must regularly evaluate their performance to stay competitive. Depending on their needs, studies have found a number of success measures. Small and medium-sized enterprises (SMEs) can be judged by their size, age, number of trained workers, location, type of industrial control, partnerships, and foreign investment. Amina and Yusof said that quality, cost, shipping time, and freedom are the most popular ways to measure how well a company is doing. Also, the success measurement takes into account how owners and managers of small and medium-sized enterprises (SMEs) feel about how well the measures work in the market. Many studies have described a standard way to measure success by looking at how well a reporting body meets its goals by getting resources cheaply and using them well. So, both financial and non-financial data can be used to measure success. In the same way, there is proof that business performance is improving by making clear indicators that can be tracked in a structured way to measure progress towards goals that have already been set, and by using these indicators to measure progress towards these goals (Lontchi et al., 2023). Based on a review of the literature and data from earlier studies, the current study used operational and financial success to measure SME performance.

2.6 Theories

The theories section of this research discusses the theoretical frameworks that guide on this study. This involves explaining the relevant existing theories that inform the research design.

2.6.1 Business Platform theory

In today's tech-driven business world, the term "platform" gets used in several contexts. It can mean a tech platform, intended as the place where software is executed in conjunction with hardware, or perhaps the digital space where it gets embedded. In the business context, instead, the platform is a company that runs a model where, rather than offering a specific product, it enables the interactions between two or more players on that. One of the distinctive elements of platform businesses is network effects. Or the ability of the platform to get better for the next user as the previous user joins it.

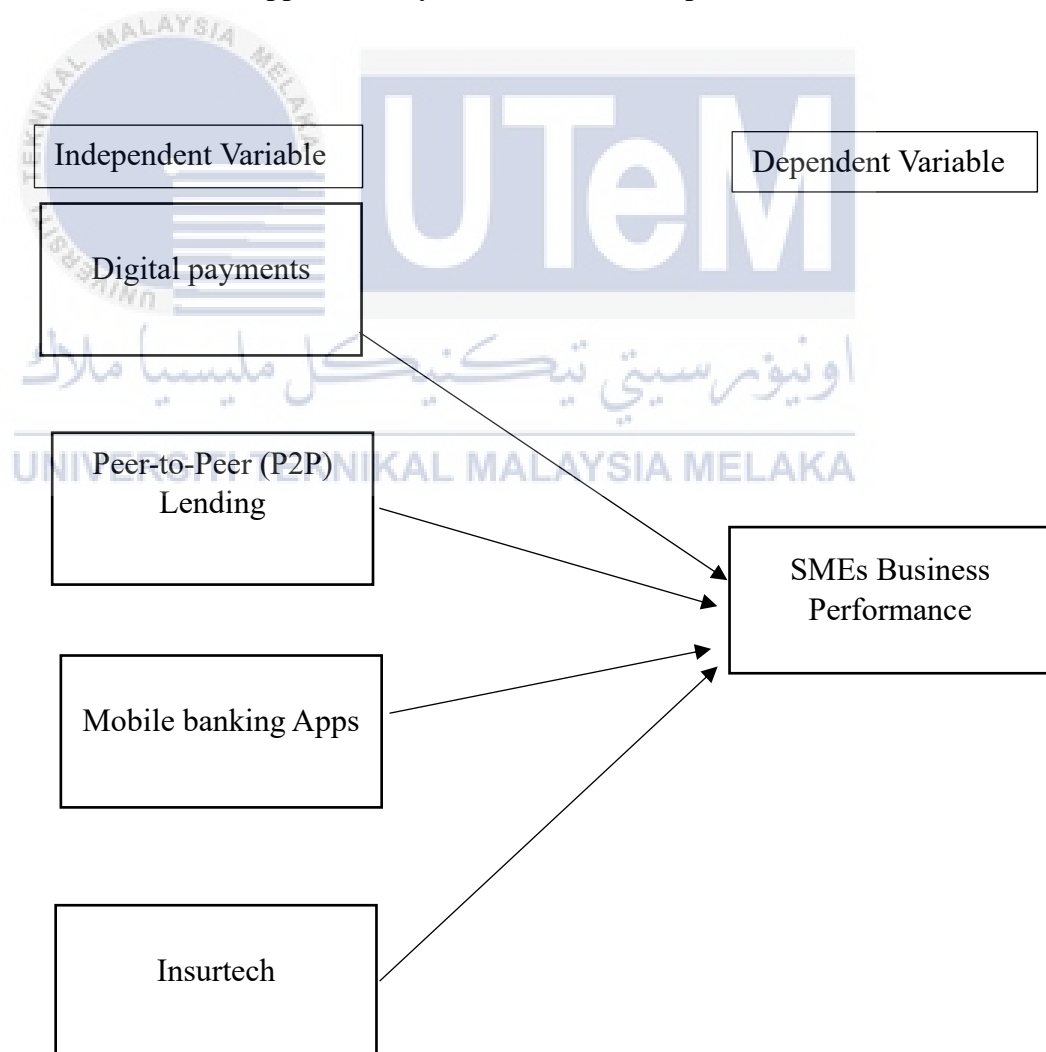
In FinTech research, the Business Platform Theory forms a robust foundation for understanding intricate dynamics in various applications. Applied to SMEs, it explains how FinTech applications serve as central hubs connecting SMEs, financial services, and technology. Each application (e.g., digital payment, Peer-to-Peer Lending, mobile banking, Insurtech) acts as a hub linking SMEs with relevant services, customers, and innovation. The framework guides exploration of collaboration, ecosystem dynamics, and network effects in FinTech adoption, providing insights into unique opportunities and their impact on the financial landscape.

In summary, integrating the Business Platform Theory into a conceptual framework enriches FinTech research by providing a structured lens through which to examine the interconnectedness, collaboration, and value creation within digital payment, peer-to-peer (P2P) lending, mobile banking apps, and Insurtech

2.7 Conceptual Framework

Conceptual framework is needed to know where to arrange the study. A conceptual framework links research into important bodies of knowledge. This makes the problem statement and research questions have greater significance. As mentioned above, this study aims to focus on the effect of FinTech application towards SMEs business performance. Based on the literature review of this study, the conceptual framework is shown in Figure 2.1.

Figure 2.1: The Proposed Conceptual Framework for the effect of fintech application by SMEs on business performance



2.8 Hypotheses Development

In this research, the researcher wants to identify the relationship between the digital payment, Peer-to-Peer (P2P) Lending, Mobile banking apps and Insurtech of fintech application on business performance on SMES in Melaka. Based on conceptual framework development that had been constructed, there are several potential relationships between the issues that have been discussed in this research. The hypothesis will be tested as listed below.

Hypothesis 1: Digital Payment

Purwanto did research on digital payments in 2021, and the results showed that digital payments can control accountable financial management and authentic added value for success for SMEs actors competing on the market globally, which is in line with the improvement in the financial performance of SMEs. From the study of Affandi et al. and Darma et al. in 2020, Dumitriu et al. in 2019, and Djakasaputra et al. in 2021 can also say that Digital Payment is an essential part of life because it helps us make good choices (Daud et al., 2022). The use of digital payments will help businesspeople manage their finances in order to reach a goal or target, such as making a lot of money so that the company does well and can spot and respond to changes in the economy, business climate, and finances. They will also be able to make decisions that will lead to creative and well-directed ways to improve the financial performance and business sustainability. Prahiawan et al. in 2021 say that the low use of financial literacy will have an effect on performance, which can lower or negatively impact SMEs Digital Payments, since if Digital Payments are low, their finances will be chaotic and unstable. This will be very risky and could cause SMEs Digital Payments to go down. One of the risks is that it can make fewer people buy things and see ads for them. Therefore, the hypothesis proposed in this study is:

H0: Digital payment is no positive and not significant relationship with SMEs business performance

H1: Digital payment is positive and significant relationship with SMEs business performance

Hypothesis 2: Peer-to-Peer (P2P) Lending

The recent study by Haqqi and Suzianti in 2020 also shows that convenience representing ease of use has the biggest positive effect on the relationship toward Fintech adoption intention (Yoke Chin et al., 2021). Djaakum in 2019 conducted a study revealed that P2P lending was easy to use and efficient in solving participants' financial problems, strengthening their attitude towards P2P lending. The same finding by Shih in 2019 suggested that the ease of the process and its perceived usefulness had a positive link with attitudes, and that attitudes also affected the intention to adopt P2P lending. However, perceived risk was not a main factor affecting the use of P2P lending. Silva in 2019 conducted a study on 510 Brazilian commercial bank customers to address the application and mechanism that drive the intention to adopt FinTech services; perceived risk was found to have a positive impact on attitudes towards FinTech service adoption. On the other hand, 203 Universitas Indonesia students questioned about their perceived risk on intention to invest in P2P lending platforms indicated that the relationship was not significant. It was reported that students preferred to participate in P2P financing as an alternative investment tool when the risk was lower than the existing sources of investment (Sipangkar and Wijaya, 2020). Therefore, the hypothesis proposed in this study is:

H0: Peer-to-Peer (P2P) Lending is no positive and is not significant relationship with SMEs business performance

H2: Peer-to-Peer (P2P) Lending is positive and is significant relationship with SMEs business performance

Hypothesis 3: Mobile banking apps

Mobile banking now allows SMEs of bank's services, like making deposits and transferring money. SMEs can also get information about nearby ATMs and other services (Maina & Mungai, 2019). Both banks and customers have found that mobile banking saves them more time than traditional banking. Financial deals and exchanges can be handled more quickly and effectively (Sharma, 2019). The ability of Mobile Banking apps to improve the efficiency of their users by using a certain system is referred to as the "feelings of usefulness" of these programmes. According to Rehman and Shaikh's research from 2020, consumers in general tend to be interested in accepting new technologies when they believe that such technologies would provide them with more benefits and will be sufficient for their day-to-day life. The perception of value was used in previous empirical research to predict the intention of consumers to use mobile banking, and some of those studies came to the conclusion that the perception of value had a considerable influence on the adoption of mobile banking (Agrawal & Jain, 2019). Therefore, the hypothesis proposed in this study is:

H0: Mobile banking apps is no positive and not significant relationship with SMEs business performance

H3: Mobile banking apps is positive and significant relationship with SMEs business performance

Hypothesis 4: Insurtech

The business platform theory can be used to support the hypothesis that Insurtech has a positive and significant relationship with the business performance of SMEs in Malaysia. According to business platform theory Insurtech can positively impact on business performance. In the context of Insurtech, the adoption and utilization of technology-driven insurance solutions can enhance SMEs' capabilities, improve risk management, streamline processes, and provide better financial protection (Orisa et al., n.d, 2020)). These factors can contribute to

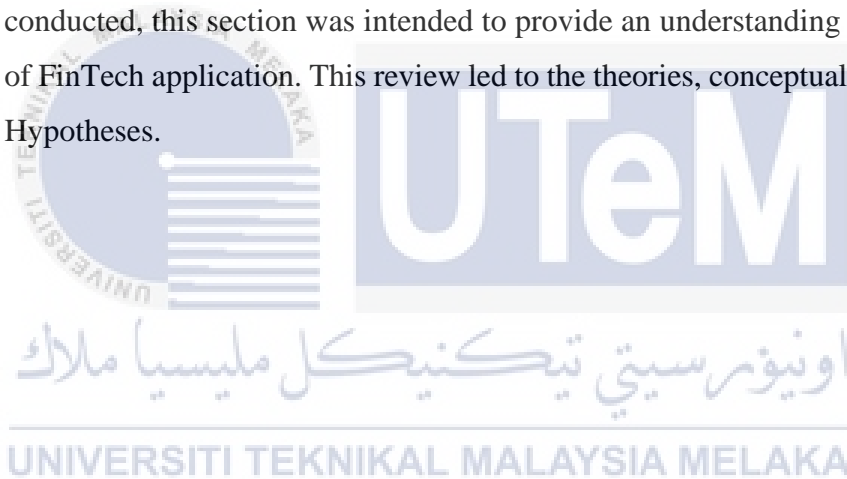
improved business performance, such as increased efficiency, reduced costs, better risk mitigation, and enhanced customer satisfaction. Therefore;

H0: Insurtech is no positive and not significant relationship with SMEs business performance

H4: Insurtech is positive and significant relationship with SMEs business performance.

2.9 Summary

In this chapter, detailed explanation from previous researcher has been conducted, this section was intended to provide an understanding about the effect of FinTech application. This review led to the theories, conceptual framework and Hypotheses.



CHAPTER 3

RESEARCH METHODOLOGY

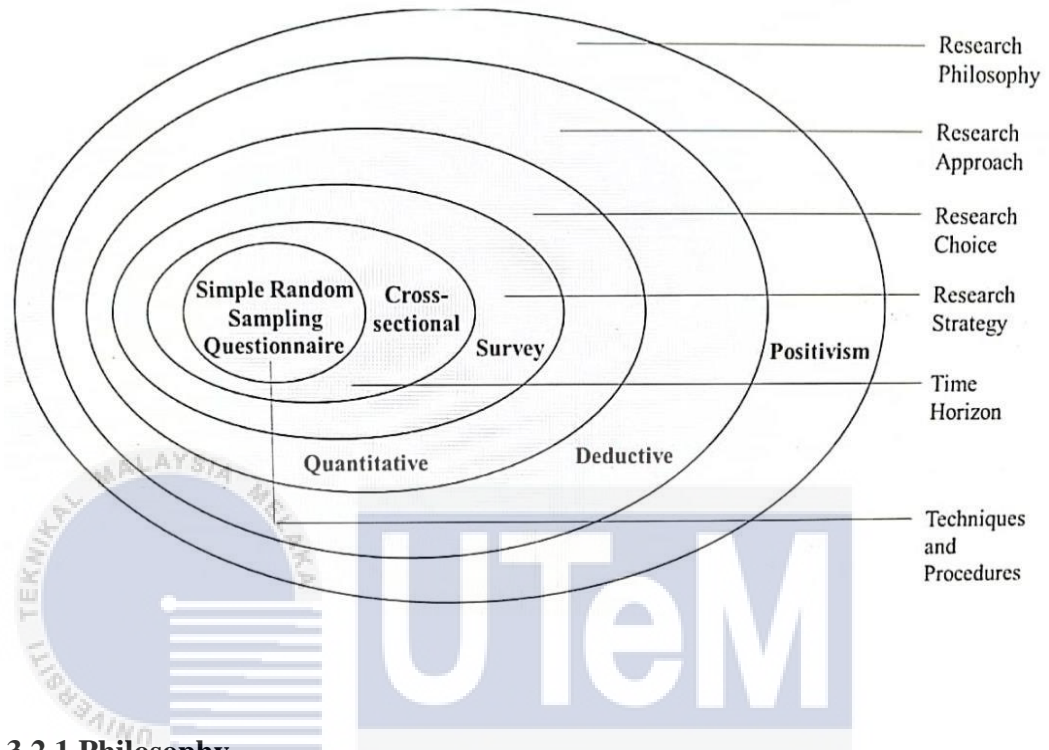
3.1 Introduction

This study emphasizes research methods are rules and procedures and can be seen as tools or ways of proceeding to solve the problem. The research method in this study is related with the type of methodological choice that researcher applier for research whether using the quantitative method, qualitative method, or mixed method. In this section includes the research design that suitable for this study, data collection method, sampling technique, and data analysis technique. Summary for this chapter also includes in this section.

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3.2 Onion Model for this Study

Figure 3.1: The Research Onion Model



3.2.1 Philosophy

A traditional research approach is based on a certain philosophy theory, which then leads to tactics and techniques for the research (Nweke & Orji, 2009; Saunders et al., 2016). Positivism could be chosen as the main logical viewpoint for study where there is real, quantitative information that can be used to "calculate" the future and make accurate predictions, like in fields like demographics and economic growth. Positivism is based on the idea that things can be measured and counted in an objective way. It tries to find out what causes what by observing and trying things in the real world (Melnikovas, 2018). Positivism can be used to look at the numeric data about FinTech acceptance, business success measures, and other important factors in this study. It would involve getting information from SMEs through polls or other sources and using statistical analysis to look at the link between FinTech applications and how well businesses do.

3.2.2 Approach

This may be related to deductive theory development, because reasoning by deduction leads to certain results that are logically necessary, and created theories are tried or proven by collecting data. Positivist research tries to find causal links and test theories based on data and measurements. Deductive research fits in with this approach. It is based on the idea that there is an actual world that can be studied (Melnikovas, 2018). The logical method uses quantitative research methods to test theories and make conclusions based on statistical analysis of data.

3.2.3 Strategy

In this type of study, surveys are used as a way for researchers to learn more about how people or groups feel about a certain idea or topic of interest. A survey is usually made up of a set of comprehensive questions, each of which is meant to get a certain piece of information.

Survey research can be done for many different reasons, but one thing that all surveys have in common is that they are an easy way for people to share or show what they know or how they feel about a certain subject. In turn, this kind of method can help researchers learn more about different populations or groups of people, find out what problems or worries interviewees have, or lead to the discovery or creation of answers to problems that have been found (Mills, 2021). Because the goal of this study is to find out how well SMEs in Melaka use fintech and how that affects how well their businesses do, a survey study is a good method to use. This method looked at the link between how SMES run their businesses with the help of FinTech services and goods and how they plan to use them. This link is measured statistically and examined using a number of statistical methods. In particular, this method looked at how small and medium-sized enterprises (SME) in Melaka felt about using Fintech products and services. The form has been divided up into three parts, every single one of which has been stated. Section A has to do with the respondent's demographic. The demographic data was

collected using a closed-ended, multiple-choice format. Questions were asked about gender, age range, employment status, business sector or industry, and number of years in business, Using Application FinTech (Yes or not) to get a clear picture of who took part in the study so that further explanations and analysis could be done. In Section B, we looked at the four factors or variables that affect Fintech application by SME's use fintech. Lastly, Part C was about how SME business performance was affected. All of these things were measured on a 5-point Likert scale that went from 1: very Dissatisfied. 2: Dissatisfied 3: Neutral 4: Satisfied 5: very satisfied. On the answer to the form, the factors or variables with the highest mean value between 4 and 5 would be taken into consideration. If the mean number was between 1 and 2, it meant that the financial application was not very strong.

3.2.4 Choice

Within the scope of this particular study, a quantitative method will be used. Quantitative research is the process of collecting and analyzing numerical data. It can be used to find patterns and averages, make predictions, test causal relationships, and generalize results to wider populations. When doing quantitative research, the questionnaire is the most important tool for getting information. The questionnaire could be sent to the respondents who were picked to take part, and once they get it, it would be up to the respondents to fill it out on their own (Bhandari., 2022). So that both the research question and the research goal can be answered, the researcher will give each participant a form in person. In order to reach the goal of this study, a questionnaire was made to collect information from survey method about how fintech is being used in SMES companies.

3.2.5 Time horizon

The Time Horizon is the range of time in which the task is meant to be finished. There are two types of time horizon, according to the research onion there have two time horizon which is cross-sectional and longitudinal. The cross-

sectional period is the amount of time that has been set apart to collect data. A longitudinal time horizon is the process of collecting data over a long period of time, such as when a person turns a different age or when the seasons change. In this study, the questionnaire was designed using the cross-sectional method. This means that data from the target group was only taken once. A type of observational study design is a cross-sectional study design. In a cross-sectional study, the result and the risks of the study subjects are both measured at the same time. Cross-sectional designs are used for studies of a whole community and to find out how the sample will get. Most of the time, these evaluations can be done quickly and to earn a low cost. (UKEssays,2018).

3.2.6 Technique and procedure

Techniques and procedures for data collection and data analysis are crucial steps in the research process, as they allow researchers to gather relevant information and derive meaningful insights from the collected data.

3.2.7 Data Collection

Data collection is the process of gathering and measuring information on variables. The data collection process for this study was meticulously designed to capture a comprehensive and representative dataset.

3.2.7.1 Primary Data

Primary data is information that the researcher collects their own using a way that addresses the specific research question. In line with the study method (Saunders et al., 2019), the main data will be collected through a structured self-completion questionnaire with fixed-response option questions. This method lets a large number of people answer the same standard questions, which can then be

studied statistically (Saunders et al., 2019). This method makes delivery easier and gives uniform data, which makes the results less variable. There will be a mix of open and closed questions, with a focus on closed questions to make it easier to use current measurement scales to analyse the data (Saunders et al., 2019). Closed questions also have the benefits of being easy to compare, taking less time to answer for the responder, and being more objective in terms of regulation and review. In this study, the researchers use first-hand information by giving interviewees a questionnaire online and in person (Anuradha, 2021).

3.2.7.2 Secondary Data

In simple words, secondary data is any set of data that wasn't collected by the author. To be more specific, secondary data is "the analysis of data gathered by someone else" (Boslaugh, 2007:IX). Secondary data are pieces of information that were collected by someone other than the person. It means that the information is out there and that someone has been taking at it. Secondary info includes elements like newspapers, books, magazines, and so on. It could be news or information that hasn't been shared with the public yet. For Chapter 2's literature review, data from reviewed textbooks, online data, journal, article and linked academic pieces were used as secondary sources (George, 2023). It is very important for explaining the ideas in the theory framework, understanding the problem statement, coming up with theories, and choosing which structures to use in collecting quantitative data for this project. This information was organised, chosen, and reviewed for specific study settings and suitable research results.

3.2.7.3 Sampling Design

Sampling is a method to choose specific members of a population or a group of the population to figure out what particular characteristics of the whole population are. The picking method is a way to choose people to talk to based on

the whole group. Sampling is a popular study method because it gives enough good information to make decisions.

3.2.7.4 Sample Size

For this study, the Krejcie and Morgan Table was used. In scientific study, the need for an accurate statistical sample remains developing. This has led to the need for a good way to figure out how big a sample should be. To fill the gap, Krejcie and Morgan (1970) made a table that makes it easy to figure out how big a sample should be for a particular group (Qhaireenizzati, 2017). Sample size according to Krejcie and Morgan on this research is 380 respondents. At first, the researcher wanted 380 owners or managers of small and medium-sized businesses (SMEs) to take part. Problems with collecting the data, on the other hand, researcher just get only 150 responses could be included. Problems could have been caused by things like not having enough time or resources, and not being able to reach and engage SME owners or managers. Based on the work of experts like Hair et al., it's important to be able to change to new situations. Instead of the planned 380 respondent, only 150 were chosen. This was probably a practical choice that had to do with the limitations of the study. This range of sample sizes may still give researcher useful information. Previous literature has provided recommendations for the minimum sample size required to perform certain analyses. For example, exploratory factor analysis cannot be done if the sample has less than 50 observations (which is still subject to other factors), whereas simple regression analysis needs at least 50 samples and generally 100 samples for most research situations (Hair et al., 2018). According to Hair et al. (2018), large samples can make statistical significance overly sensitive, which can result in a Type 1 error. According (Hair et al., 2018; Kline, 2016), In other words, a large sample size can make any relationship statistically significant even when it is not (Ali Memon et al., 2020)

3.2.7.5 Location of Research

This research is conducted in Melaka. Researcher contribute the questionnaire as the data collect method through google form distribution. This is because the purpose of this research wants to know what the effect of FinTech Application by SMEs on business performance.

3.2.7.6 Non-Probability sampling

Non-probability sample methods take into account the fact that not everyone can take a survey. This is the opposite of probability sampling, which tries to make sure that everyone in a community has an equal chance of getting a response to the survey. When a sample is collected in an approach that is not random, this is called non-probability sampling. A researcher could do this by giving a link to a survey such as gave link to respondent at SMEs Facebook group in Melaka or by choosing particular person. This type of sampling would also include any focused study that takes samples on purpose from particular lists, like those of people who can answer this question. Non-probability samples are often used during the exploratory stage of a research project and in qualitative research. They are also used in research that is aimed at a specific group, and is not based on random. In general, non-probability sampling can be faster and less expensive than probability sampling. However, this depends on a number of factors, such as the group being studied (Mahmutovic, 2023).

3.2.7.7 Purposive sampling

Purposive sampling is a group of non-probability sampling methods in which units are chosen because they have certain qualities that what researcher want in sample. In other words, units are chosen "on purpose" in purposeful sampling. This sampling method, which is also called important sampling,

depends on the researcher's judgement to find and choose the people, cases, or events that will give the best information to meet the study's goals. This includes acquiring people or groups of people who know a lot about or have a lot of experience with an event of interest and choosing them (Cresswell & Plano Clark, 2011). Bernard (2002) and Spradley (1979) say that access, desire to engage, and the ability to talk about experiences and views in a clear, open, and thoughtful way are just as important as knowledge and experience. (Nikolopoulou., 2022)

3.2.8 Data Analysis

Data analysis is the process of describing and explaining data by using different methods in a planned way. In this study, the researcher will look at the poll data and figure out what they mean by using the Statistical Package for Social Science (SPSS) tool.

3.2.8.1 Descriptive Analysis

The type of research question, methodology, and data analysis that will be used for a certain topic is what is meant by the word "descriptive research." Statistics that try to figure out cause and effect are called predictive statistics. The type of question the researcher asks will decide, in the end, what kind of method is needed to do an accurate evaluation of the topic at hand. The number of factors used in descriptive study is what makes it special. Like other types of research, descriptive research can look at more than one variable, but unlike other methods, it only needs one variable (Borg & Gall, 1989). Also, this type of research tries to give an exact picture of how a phenomenon was seen, and it was usually set up and intended to measure the factors listed in the research questions. This study is descriptive because the descriptive data was gathered from SME users in Melaka through a thorough questionnaire that was filled in online.

3.2.8.2 Statistical package for the social sciences (SPSS)

SPSS, which stands for "Statistical package for the social sciences," is a group of programmes that come in a single package. The main thing this programme is used for is to analyse research data that has to do with social science. This information can be used for market research, questionnaires, data mining, etc. With the help of the statistics they've gathered, experts can easily figure out how much demand there is for a product on the market and change their plan to meet that demand. Basically, SPSS stores and organizes the data that is given to it, and then it compiles the data set to make the right result. SPSS is made so that it can handle a wide range of different data types.

SPSS is an innovative product of software that is mostly used by academics to simplify the stages involved in the processing of significant data. Although working with data is difficult and requires a significant amount of time, this programme can readily manage and execute information with the assistance of a few different strategies. These techniques are used to investigate, alter, and ultimately establish a pattern between various data components. Additionally, the information may be presented in the form of a graph, which makes it simple for the user to comprehend what was done. (Noels, 2018)

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3.2.8.3 Pearson Correlation Analysis

Pearson correlation analysis is a statistical method used in study to figure out what kind of relationship there is between two factors and how much they are linked directly. In other words, correlation analysis is used to figure out how much shifts in one variable cause changes in another variable. Correlation analysis is a useful tool for looking at numeric data from research methods like surveys and questionnaire to see if there are any patterns, trends, or correlations that stand out. The correlation coefficient is generally shown by the letter r , and its value can be any number between +1 and -1 (Gogtay & Thatte, 2017).

Table 3.1: Correlation Analysis
(Source: Gogtay & Thatte, 2017)

Correlation Coefficient (r)	Correlational strength
0.0-0.20	Negligible
0.21-0.35	Weak positive
0.36-0.67	Moderate positive
0.68-0.90	Very Strong Positive
0.91-1.00	Perfect Positive

3.2.8.4 Validity

Validity is known as the gauging level of the research. External validity and internal validity are the two types of validity. External validity refers to how accurately the results are gained and generalized whereas internal validity refers to how accurately the measurement obtained from the research can be quantified and test. To summarize, both types of validity are vital in analysing the usefulness, appropriateness and meaningfulness of a research study

3.2.8.5 Reliability

In the second phase, a reliability study utilising Cronbach's Alpha will be carried out. Cronbach's alpha statistics are utilised rather frequently by authors in order to demonstrate that scales and tests which were designed or utilised for

research projects are appropriate for the job at hand. In the field of research, Cronbach's alpha is frequently used as a reliability indicator. These statistics are important, but they almost never provide any insight into the results other than an artificial threshold for acceptable number ranges. A statistic known as Cronbach's alpha is used to evaluate the degree to which a given scale or group of test items is internally consistent or reliable. A way of measuring the degree to which something is consistent is called Cronbach's alpha. In other words, the measure's capacity to maintain its consistency when assessing a subject is what defines the measure's reliability. Cronbach's alpha is a statistic that is used to evaluate how much variance there is in all of the scale's individual item scores. This statistic is derived by adding up the points on each scale item and the overall score for each observation (usually surveys of individual respondents or test takers). Therefore, the number of items on the test, the average covariance between different pairs of items, and the overall variation in the results all have an impact on Cronbach's alpha.

Table 3.2: Cronbach's Alpha Coefficient

(Source: Cronbach (1951))

Cronbach's Alpha Coefficient	Internal consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

3.3 Construct Measurement

Table 3.3: Construct Measurement Item

Construct	Original Measurement items	Source of Measurement	Measurement Items Adopted and Adapted for this Study
Digital Payment	This measurement utilizing the usage barrier (Challenging use this app), value barrier, risk barrier (inaccurate information)	(Najib & Fahma, 2020)	Respondents can select the option that best represents their level of familiarity, adoption likelihood, or belief in the efficiency enhancement of fintech digital payment solutions
Peer-to-Peer (P2P) Lending	Access to Financing, Interest rates or price, quality of service.	(Hakim, Ghazali, 2018)	respondents' perceptions, attitudes, and satisfaction related to Peer-to-Peer lending platforms
Mobile banking apps	1. Business profits 2. Number/value of transactions 3. The Cost of Transactions	(Muathe, 2021)	respondents' perceptions, attitudes, and knowledge related to mobile banking apps' convenience, features,

	<p>4. Incidences of cash loss</p> <p>5. Transaction time</p>		functionalities, and security measures
Insurtech	<p>Insurtech protects the company from financial losses, causes due to payment towards fraud claim, loss due to over assessment of claim amount, and paid more claim amount to the less contingencies or damages or hazards.</p>	(Dr. Prafulla Kumar Padhi, 2022)	<p>respondents' perceptions, attitudes, and satisfaction related to the integration process, financial protection, and transparency of insurtech solutions for SMEs</p>
SMEs Business Performance	<p>The performance measurement takes into account factors like as profitability, productivity, and the owners' and managers' judgements of how well certain measurements match their businesses on the market.</p>	(Lontchi et al., 2023)	<p>respondents' perceptions and attitudes regarding the impact of fintech applications on financial performance, operational productivity, and cost reduction in their SMEs.</p>

3.4 Draft Questionnaire

Table 3.4: Draft Questionnaire

Section	Content of Questionnaire
A	<p>Demographic Respondents</p> <p>-Personal data:</p> <ul style="list-style-type: none"> • Gender • Age • Race • Role/Position in the SMEs • Business sector/industry • Years of experience in the SMEs • Employees that have • Using Application FinTech (Yes or not)
B	<p>Likert Scale (Independent variable)</p> <ul style="list-style-type: none"> a. Digital Payment b. Peer-to-peer (P2P) Lending b. Mobile banking Apps c. Insurtech
C	<p>Likert Scale (Dependent Variable)</p> <p>- SMEs Business Performance</p>

Table 3.5 Likert Scale Measurement

1	2	3	4	5
Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied

3.5 Summary

In conclusion, research methodology is one of the most important parts to complete this research because it included the research Onion that will be used to achieve the research question and objectives for this study. This section also explains the data collection method, location of research, sampling technique and data analysis techniques that will be used after done collected the data from respondents. The good methodologies that choose will create the best result for the research.



CHAPTER 4

RESULT AND DISCUSSION

4.1 Introduction

This chapter explained about the data analysis based on the data collection carried out previously. The analysis covered the relationship between the independent variables and dependable variable. This chapter represented demonstrated by using "Statistical Package for Social Sciences (SPSS)". These findings are described in the form of descriptive statistics are compiled in the table form. The data and discussion of the findings were based on research objectives. In this chapter, the result of the quantitative research among SMEs and their preferences towards the effect of FinTech application. The data was collected through the survey among 150 respondents through Melaka states. There were three sections in the questionnaire. Section A consists of demographic profile, Section B consists of 28 questions regarding the effect of FinTech application among SMEs, Section C consists of 7 questions for the attributes The relationship of Fintech application between SMEs business performance and Section D consist 2 open questions. Section B and C questions used the five point Likert scale to measure the buying decision of online fashion purchases. The scale was ranged from 1 to 5 where 1- Very Dissatisfied, 2-Dissatisfied, 3-Neutral, 4-Satisfied, and 5-Very Satisfied. while section D use the open-ended question.

4.2 Pilot Test

A pilot test involves conducting a small-scale preliminary study using a limited number of participants, often around 30 respondents in certain research contexts, to test and refine research procedures or tools before the full-scale implementation of the study.

Table 4.1: Reliability Statistic for Pilot Test of 30 respondents

(Source: Output from SPSS)

Case Processing Summary			
		N	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.989	.989	35

By referring to Table 4.2, 35 of item from the questionnaires which are responded by 30 respondents by 30 respondents are measured. The Cronbach's Alpha of 0.989 falls under the category of high reliability because the value is between 0.7 to 0.9. This result indicates that the statement of the questionnaires is suitable and reliable for this research

4.3 Descriptive Analysis

Descriptive analysis was performed for this study to show the distribution of the demographic aspects of the questionnaire which was more details about the respondents. This statistics analysis summarized the part A of the questionnaire and provided differentiation and shows the variations among the respondents that answered the survey questionnaire for this study.

4.3.1 Demographic Background

Generally, respondent's demographic with a brief profile consists in the first section included in the questionnaire. The demographic information was asked at first part of the questionnaire which was Part A. In order to simplify, to have a clear understanding on demographic results, statistical description will be the ideal choice of data analysis method (Heffner D. C., 2014). Moreover, descriptive statistics will provide the summary of respondents' characteristics. The descriptive statistic is the first stage of data analysis. There were five questions in total for the demographic analysis, such as gender, race, level of education, income level and employment status. The frequency of all questions of respondent's demographic for Part A score value was obtained into a group of demographics showed the demographic analysis of 150 respondents was answered the questionnaire.

Table 4.2: Total Respondent
(Source: Output from SPSS)

Statistics

	N	
	Valid	Missing
Gender	150	0
Age	150	0
Race	150	0
Role/ Position in the SMEs	150	0
Business Sector/Industry	150	0
Years of experience in the SMEs	150	0
Turn Over Per Year	150	0
How many employees that you have	150	0
Does your SMEs currently use any FinTech applications or services	150	0

4.3.1.1 Gender

Table 4.3: Frequency and Percentage of Gender
(Source: Output from SPSS)

		Gender			
		Frequency	Percent (%)	Valid Percent	Cumulative Percent
Valid	Female	80	53.3	53.3	53.3
	Male	70	46.7	46.7	
	Total	150	100.0	100.0	

Table 4.3 shows the gender distribution of 150 respondents for this research. 53.3% or 80 respondents were female out total respondents. Meanwhile, 70 or 46.7% were male respondents. This clearly shows that number of female respondents' that use FinTech on their SMEs is greater than male respondents who use FinTech on their SMEs.

4.3.1.2 Age Group

Table 4.4: Frequency and Percentage of Age

(Source: Output from SPSS)

		Age			
		Frequency	Percent (%)	Valid Percent	Cumulative Percent
Valid	20-29	15	10.0	10.0	10.0
	30-39	67	44.7	44.7	54.7
	40-49	53	35.3	35.3	90.0
	50 and Above	15	10.0	10.0	100.0
	Total	150	100.0	100.0	

Table 4.4 above shows the age of the respondents. There were 67 or 44.7% age between 30-39 respondents, 53 or 35.3% age between 40-49 respondents, 15 or 10.0% age between 20-29, 50 and above respondents. The number of the most age respondents was between age range 30-39.

4.3.1.3 Race

Table 4.5: Frequency and Percentage of Race

(Source: Output from SPSS)

		Race			
		Frequency	Percent (%)	Valid Percent	Cumulative Percent
Valid	Chinese	38	25.3	25.3	25.3
	India	18	12.0	12.0	37.3
	Malay	86	57.3	57.3	94.7
	Other	8	5.3	5.3	100.0
	Total	150	100.0	100.0	

Table 4.5 above shows the race of the respondents. There were 86 or 57.3% Malay respondents, 38 or 25.3% Chinese respondents, 18 or 12.0% India

respondents. Besides, 8 or 5.3% were respondents from other race including those from Sabah and Sarawak. The majority of researcher respondents was Malay.

4.3.1.4 Role/Position in the SMEs

Table 4.6: Frequency and Percentage of Role/position in the SMEs

(Source: Output from SPSS)

Role/ Position in the SMEs		Frequency	Percent (%)	Valid Percent	Cumulative Percent
Valid	Manager	48	32.0	32.0	32.0
	Owner	102	68.0	68.0	100.0
	Total	150	100.0	100.0	

Table 4.6 above shows the role or position in the SMEs of the respondents. There were 102 or 68.0% was owner respondents, 48 or 32.0% was manager respondents. The majority of this result is from owner respondent

4.3.1.5 Business Sector/Industry

Table 4.7: Frequency and Percentage of Business Sector/Industry

(Source: Output from SPSS)

Business Sector/Industry		Frequency	Percent (%)	Valid Percent	Cumulative Percent
Valid	Beauty and Spa	4	2.7	2.7	2.7
	Boutique	8	5.3	5.3	8.0
	Clothing	2	1.3	1.3	9.3
	Construction.	2	1.3	1.3	10.7
	Fashion	10	6.7	6.7	17.3
	Food and Beverage	57	38.0	38.0	55.3
	Hair Salon	4	2.7	2.7	58.0
	Healthcare	12	8.0	8.0	66.0
	Manufacturing	15	10.0	10.0	76.0
	Others	12	8.0	8.0	84.0
	Services	24	16.0	16.0	100.0
	Total	150	100.0	100.0	

Table 4.7 above shows the business sector or industry of the respondents. There were 57 or 38.0% was food and beverage respondents, 16.0% was services, 10.0% was manufacturing respondent, 8.0% was from healthcare and other respondents, 6.7% was fashion, 5.3% was boutique respondent, 2.7% was hair salon, beauty and spa. Besides, there was 1.3% clothing and construction respondents.

4.3.1.6 Years of experience in the SMEs

Table 4.8: Frequency and Percentage of Years of experience in the SMEs

(Source: Output from SPSS)

Years of experience in the SMEs		Frequency	Percent (%)	Valid Percent	Cumulative Percent
Valid	10 year and Above	18	12.0	12.0	12.0
	2-5 Year	63	42.0	42.0	54.0
	6-9 Year	44	29.3	29.3	83.3
	Below 1 year	25	16.7	16.7	100.0
	Total	150	100.0	100.0	

Table 4.8 shows the Years of experience in the SMEs of the respondents. The years of experience of respondents who range 2-5 years shows the highest percentage which is 42.0%. Meanwhile the second top is the respondents 6-9 years which is 29.3%. The least number of respondents are from below 1 year and 10 year and above. 16.7% percent and 12.0% of respondents respectively.

4.3.1.7 Turn Over Per Year

Table 4.9: Frequency and Percentage of Turn Over Per Year

(Source: Output from SPSS)

Turn Over Per Year		Frequency	Percent (%)	Valid Percent	Cumulative Percent
Valid	Below RM 50,000	89	59.3	59.3	59.3
	RM 500,00 and Above	9	6.0	6.0	65.3
	RM100,000- RM500,000	12	8.0	8.0	73.3
	RM50,000 - RM100,000	40	26.7	26.7	100.0
	Total	150	100.0	100.0	

Table 4.9 shows turn over per year of the respondents. The turn over per year of respondents who range below RM50,000 shows the highest percentage which is 59.3%. Meanwhile the second top is the respondents who earn from RM50,000 to RM 100,000 which is 26.7%. The least number of respondents are from RM100,00 to RM500,00 which is 8.00% and RM 500,000 and above which is 6.0%

4.3.1.8 How many employees that you have

Table 4.10: Frequency and Percentage of how many employees that you have
(Source: Output from SPSS)

		Frequency	Percent (%)	Valid Percent	Cumulative Percent
Valid	10-20 People	22	14.7	14.7	14.7
	20-30 People	21	14.0	14.0	28.7
	30 and above	13	8.7	8.7	37.3
	People	94	62.7	62.7	100.0
	Below 10 People	150	100.0	100.0	
Total					

Table 4.10 shows the employee that SMEs have on their business in the SMEs of the respondents. The employee who ranges below 10 people shows the highest percentage which is 62.7%. Meanwhile the second top is the respondents 10-20 people which is 14.7%. The least number of respondents are from 20-30 people and 30 and above people. 14.0% percent and 8.7% of respondents respectively.

4.3.1.9 Does your SMEs currently use any FinTech applications or services

Table 4.11: Frequency and Percentage of Does your SMEs currently use any FinTech applications or services

(Source: Output from SPSS)

Does your SMEs currently use any FinTech applications or services

	Frequency	Percent (%)	Valid Percent	Cumulative Percent
Valid Yes	250	100.0	100.0	100.0

Table 4.11 shows the SMEs currently use any FinTech applications or services or not. All the respondent chooses yes on this item

4.4 Descriptive Statistic

The researcher has conducted descriptive analysis to summarize all the data from the survey questionnaires

Table 4.12: Descriptive Statistic

(Source: Output from SPSS)

	Descriptive Statistics				
	N	Std. Deviation	Mean	Minimum	Maximum
Independent Variables					
Digital Payment	150	.34404	4.2276	3.29	5.00
Peer-to-Peer (P2P) Lending	150	.41954	4.2324	3.00	5.00
Mobile Banking Apps	150	.35022	4.2162	3.57	5.00
Insurtech	150	.45045	4.3610	1.00	5.00
Dependent Variables					
SMEs Business Performance	150	.38209	4.1867	3.29	5.00

Table 4.12 has displayed the result from descriptive statistics of independent variables and dependent variable by using SPSS. The independent variables were Digital payment, Peer-to-peer (P2P) lending, mobile banking apps and Insurtech. From the table above, Insurtech scored the highest mean value which was 4.3610 the most respondent agreed with the statement about Insurtech has the most influence on the SMEs business performance.

Peer-to-peer (P2P) lending with the mean value of 4.2324 ranked second, Digital payment with the mean value was 4.2276 ranked third and was followed by Mobile banking with the mean value 4.2162. From the result of mean value, it can be seen that respondents were also agreed that Peer-to-peer(P2P) lending, digital payment, and mobile banking apps will effect on SMEs business performance.

Besides, for the dependent variable which was SMEs business performance, the mean value of 4.1867 which reflect that respondent were agreed.

4.5 Reliability Analysis

Reliability analysis is conducted to test for the consistency or repeatability in measurements and Cronbach's Alpha will be used to measure the result of reliability. The result from Cronbach's Alpha will then able to indicates the questionnaire was reliable, consistent and stable If the result of Cronbach's is larger than 0.9 indicates very high reliability of the questionnaires. Besides, the Cronbach's Alpha of 0.7 to 0.9 indicates high reliability and Cronbach's Alpha of 0.5 to 0.7 indicates that the reliability is quite high. However, Cronbach's Alpha lower than 0.5 means low reliability of the questionnaires.

Table 4.13: Cronbach's Alpha Coefficient

(Source: Cronbach (1951))

Cronbach's Alpha Coefficient	Internal consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Table 4.14 Reliability Result

(Source: Output from SPSS)

Case Processing Summary			
		N	%
Cases	Valid	150	100.0
	Excluded ^a	0	.0
	Total	150	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.865	.863	35

Based on table 4.14, the Cronbach's Alpha value of 0.865 indicates that the reliability of the questionnaires was considered good for this research and reliable to measure the construct consistently.

4.6 Relationship between FinTech Application and SMEs business performance

Firstly, Pearson Correlation Analysis is used to measure the statistical relationship between two continuous variables. In this research, researcher has intended to investigate relationship between independent variable (FinTech application) and dependent variable (SMEs business performance). The result of correlation will be able to reveal the level of strength and significance of the relationship between independent variables and dependent variables. The strength of correlation coefficient matrix is shown in table 4.15 and 4.16 as follow.

Table 4.15: Strength of the Correlation Coefficient

(Source: Anesthesia & Analgesia, 2018)

Correlation Coefficient (r)	Correlational strength
0.0-0.09	Negligible
0.10-0.39	Weak
0.40-0.69	Moderate
0.70-0.89	Strong
0.90-1.00	Very Strong

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Table 4.16: Correlation between variables

(Source: Output from SPSS)

		SMEs business performance
Digital Payment	Pearson Correlation	.457**
	Sig. (2-tailed)	.001
	N	150
Peer-to-Peer (P2P) Lending	Pearson Correlation	.524**
	Sig. (2-tailed)	.001
	N	150
Mobile Banking Apps	Pearson Correlation	.492*
	Sig. (2-tailed)	.001
	N	150
Insurtech	Pearson Correlation	.352**
	Sig. (2-tailed)	.001
	N	150
SMEs business performance	Pearson Correlation	1
	Sig. (2-tailed)	
	N	150
**. Correlation is significant at the 0.01 level (2-tailed).		

Table 4.16 has showed the result of correlation between independent variables digital payment, peer-to-peer (P2P) lending, mobile banking apps, Insurtech and dependent variable (SMEs on business performance). The relationship between digital payment and SMEs on business performance was a moderate positive relationship with r value of 0.457, $n=150$, $p<0.01$. The peer-to-peer(P2P) lending with r value of 0.524, $n=150$, $p<0.01$ with moderate relationship. Besides there was also a moderate relationship between mobile banking apps r value of 0.492, $n=150$, $p<.001$ and Insurtech have weak positive relationship with r value of 0.352, $n=150$, $p<0.01$

From the result of correlation analysis, it showed that peer-to-peer lending (P2P) is the most FinTech application on SMEs business performance. This is because peer-to-peer (P2P) lending has showed the highest coefficient value of 0.524. The result has been proved by (Hakim Ghazali,2018) has been related that majority of respondents have a slightly positive response and perception to the development of FinTech. This result reflects a good sign regarding the acceptance of new financing options in Malaysia.

4.7 Multiple Regression Analysis

In this study also, multiple regression analysis was used to study the effects of four independent variables (digital payment, peer-to-peer (P2P) lending, mobile banking apps and Insurtech) on dependent variable (SMEs business performance). Moreover, it can help researcher to understand how much the dependent variable change when independent variable was change. The result of regression analysis was shown as below:

Table 4.17: Model Summary of Multiple Regression
(Source: Output from SPSS)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.657 ^a	.431	.416	.29209

a. Predictors (Constant). Insurtech, Mobile banking apps, Peer-to peer (P2P) lending, Digital Payment

Based on table 4.17 about the result of the model summary of multiple regression analysis, there is a positive R value of 0.657 of the independent variables, which meant that there was a relationship exists between the independent variable and dependent variable in this study. Besides, the value of R square represents 0.431 and this indicate that only 43% of the SMEs business performance can be explained by the for FinTech Application which were

Insurtech, mobile banking apps, peer-to peer (P2P) lending, digital Payment. There were another 57% represents other factors that was not mentioned in this research. Moreover, the adjusted R Square values of 0.416 which means that around 42% variance in the SMEs business performance (dependent variable) could be clarified by the regression predictor variables.

Moreover, the one-way analysis of variance (ANOVA) was carried out to test the differences between two or more means

Table 4.18 ANOVA Table
(Source: Output from SPSS)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.382	4	2.345	27.492	<.001 ^b
	Residual	12.371	145	.085		
	Total	21.753	149			

a. Dependent Variable: SMEs Business Performance

b. Predictors: (Constant), Insurtech, Digital Payment, Mobile banking apps, Peer-to-peer (P2P) lending

Based on table 4.18 above, the value of F-test result was 27.492 with a significance value $p=0.000$. This indicate that the overall probability of the relationship between dependent variable (SMEs Business Performance) and independent variables (Insurtech, Digital Payment, Mobile banking, Peer-to-peer lending) occurring by chance. The p-value of 0.000 indicates that fewer than 0.05 probability of these outcomes occurring by chance. Therefore, there is significant relationship between all the independent variable (Insurtech, Digital Payment, Mobile banking apps, Peer-to-peer (P2P) lending) and dependent variable (SMEs Business Performance).

4.8 Hypothesis Testing Discussion

In order to test for the hypothesis, regression analysis was selected to determine the consequence of independent variables. Moreover, hypothesis testing is also a way to test whether or not the results of a survey or experiment produce meaningful outcomes. That is being accepted or rejected. In the regression analysis, Insurtech, digital Payment, mobile banking apps, peer-to-peer (P2P) lending were independent variables of this research and dependent variable was SMEs Business Performance. The result of hypothesis testing was presented in Table 4.8

If the value of significance, $p < 0.05$, there was a significant effect between the two variables. However, if the value of significance, $p > 0.05$, there was no significant effect of independent variable toward the dependent variable. Hence, the value of t must be exceeding 1.96 in order to achieve a significance level of 0.05 for a two-sided test, (Puri & Treasaden, 2010).

Table 4.19: Coefficients Table
(Source: Output from SPSS)

Model		Unstandardized Coefficients		Standardized Coefficients	t	P value/ Sig.
		B	Std. Error	Beta		
1	(Constant)	.297	.384		0.772	.441
	Digital Payment	.189	.083	.170	2.267	.025
	Peer-to-peer (P2P) lending	.261	.067	.286	3.898	<.001
	Mobile banking apps	.289	.080	.265	3.591	<.001
	Insurtech	.176	.055	.208	3.181	.002

a. Dependent Variable: SMEs Business Performance

Table 4.20 Summary of result coefficient

Independent Variable	T value	P value
Digital Payment	2.267	.025
Peer-to-peer (P2P) lending	3.898	<.001
Mobile banking apps	3.591	<.001
Insurtech	3.181	.002

Researcher has made four hypotheses to analyse the which FinTech Application was the most effect on SMEs business performance as shown in below:

Hypothesis 1:

H₁₀: Digital payment has no significant relationship in SMEs business performance

H₁₁: Digital payment has significant relationship in SMEs business performance

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Table 4.19 and table 4.20 had presented the result of regression of digital payment as independent variables and SMEs as dependent variable. The significant value of $p=0.25$ which is below than 0.05 indicates that it had significant on SMEs business performance. The researcher accepted the alternative hypothesis and accepted the null hypothesis This result similar to Darma et al. (2020), Dumitriu et al. (2019) and Djakasaputra et al. (2021) to see the relationship between digital marketing and digital payments to SMEs. For example, it was found that the benefits and convenience of digital payments will have an impact on the intention of SMEs to use it. One of the results shows that there is a significant influence between the benefits and ease of using digital payments on the intentions of SMEs actors in using it(Daud et al., 2022).

Hypothesis 2:

H2₀: Peer-to-peer (P2P) Lending has no significant impact on SMEs business performance

H2₁: Peer-to-Peer Lending has significant impact on SMEs business performance

The significant value of Peer-to-Peer (P2P) Lending, $p=0.000$ which is lower than 0.05 indicates that Peer-to-Peer (P2P) Lending had a significant impact on SMEs business performance. Therefore, the alternative hypothesis was accepted and rejected the null hypothesis. The Peer-To-Peer Lending showed the most significant effect towards SMEs business performance with the highest β value 0.286. This result is similar to the results Kurniawan (2019) showed that people who had used and were using P2P lending were more positive about it when they thought it was useful and easy to use. The respondent thought this service was a good idea because it was easier and more convenient than the loan services that banks and multi-finance companies already offer. (Yoke Chin et al., 2021)

Hypothesis 3:

H3₀: Mobile banking apps has no significant relationship on SMEs business performance

H3₁: Mobile banking apps has significant relationship on SMEs business performance

The significant value of mobile banking apps, $p=0.000$ which is lower than 0.05 indicates that mobile banking apps had a significant relationship on SMEs business performance. Hence, the researcher accepted the alternative hypothesis and rejected the null hypothesis. The Mobile banking apps with the β value 0.265 showed the significant towards SMEs business performance. This research is similar to the results of the study that stated people who are still far from accessing public services, namely ATMs or banks, can be helped by mobile banking to save time, energy, and costs (Iskandar, Ahmad S., et al., 2020)

Hypothesis 4:

H₄₀: Insurtech has no significant relationship on SMEs business performance

H₄₁: Insurtech significant relationship on SMEs business performance

The significant value of Insurtech, $p=0.002$ which is lower than 0.05 indicates that Insurtech had a significant on SMEs business performance. Therefore, the alternative hypothesis was accepted and rejected the null hypothesis. The Insurtech showed significant effect towards SMEs business performance with the β value 0.208. According to a report by Insurtech Insights, SMEs have historically been under-served in insurance terms, as insurers have opted to concentrate on the corporate market with its greater premiums. However, data, analytics and automation are making it possible for insurers old and new to offer and service policies for SMEs more efficiently and profitably (Bunty Aranja et al., 2021)



Table 4.21 Summary result of Hypothesis Testing

Hypothesis	Results
Hypothesis 1: H ₁₀ : Digital payment has no significant relationship in SMEs business performance H ₁₁ : Digital payment has significant relationship in SMEs business performance	H₁₀ is rejected H₁₁ is accepted
Hypothesis 2: H ₂₀ : Peer-to-Peer (P2P) Lending has no significant impact on SMEs business performance H ₂₁ : Peer-to-Peer (P2P) Lending has significant impact on SMEs business performance	H₂₀ is rejected H₂₁ is accepted
Hypothesis 3: H ₃₀ : Mobile banking apps has no significant relationship on SMEs business performance H ₃₁ : Mobile banking apps has significant relationship on SMEs business performance	H₃₀ is rejected H₃₁ is accepted
Hypothesis 4: H ₄₀ : Insurtech has no significant relationship on SMEs business performance H ₄₁ : Insurtech significant relationship on SMEs business performance	H₄₀ is rejected H₄₁ is accepted

4.9 Summary

In this chapter, there were 4 types of tests used to analyse the data collected from 150 respondent by using questionnaires, which were the reliability analysis, descriptive analysis, Pearson correlation analysis and multiple regression analysis. SPSS Software were used and the reliability of questionnaires tested were considered high. Moreover, the researcher found that digital payment, Peer-to-Peer (P2P) Lending, mobile banking apps and Insurtech have significant relationship on SMEs business performance as all the alternative hypotheses were accepted. The conclusion and recommendations will then be discussed at the following chapter.



CHAPTER 5

CONCLUSION AND RECOMMENDATION

5.1 Introduction

In this chapter, all the research carried out will be concluded and the limitation as well as recommendation for future study on FinTech application on SMEs business performance will be discussed. The research objectives will also answer accordingly

5.2 Accomplished of the Research Objectives

In this study, our focus is to examine the impact of Financial Technology (FinTech) applications on the performance of Small and Medium-sized Enterprises (SMEs). Small businesses play a vital role in the economy, and understanding how FinTech tools influence their operations is crucial. The research objectives are designed to explore the specific ways in which FinTech applications contribute to or affect the overall business performance of SMEs. The objectives formulated previously in the beginning of the research will be analysed and elaborated as following

5.3 Discussion on Research Objectives

In this research, there are three objectives that need to be achieved after the data from the questionnaire had been analyzed. 150 of the respondents had contributed in this survey.

5.3.1 Objective 1: To investigate the FinTech applications by SMEs

The investigation into FinTech applications adopted by SMEs in Melaka has provided valuable insights into the evolving financial landscape of local businesses. The study uncovered that digital payment solutions play a crucial role in simplifying transactions for SMEs, with a focus on user-friendly interfaces and efficient processing. Peer-to-Peer (P2P) lending platforms were found to be gaining traction among Melaka's SMEs, offering alternative financing options that address funding needs with flexibility. Furthermore, the widespread adoption of mobile banking apps emerged as a significant trend, indicating a shift towards more convenient and accessible financial management for SMEs in Melaka. The ease of use, coupled with real-time insights, contributed to the growing reliance on these applications. Additionally, the integration of Insurtech was observed as a forward-thinking approach among SMEs in Melaka, highlighting a commitment to leveraging technological innovations for enhanced risk management strategies. Overall, the research demonstrates that Melaka's SMEs are actively embracing FinTech applications to streamline their financial processes. The findings underscore the importance of the FinTech application towards SMEs business performance and continued support to ensure SMEs in Melaka fully harness the benefits of digital payment, P2P lending, mobile banking apps, and Insurtech, ultimately contributing to the resilience and growth of the local business ecosystem.

5.3.2 Objective 2: To analyze the relationship between Fintech applications and SMEs business performance

The investigation aimed at determining the relationship between FinTech applications, including digital payment, Peer-to-Peer (P2P) lending, mobile banking apps, and Insurtech, on Small and Medium-sized Enterprises (SMEs) business performance has yielded insightful findings. The study revealed a clear correlation between the adoption of these FinTech applications and enhanced SME business performance. Digital payment solutions were found to contribute significantly to streamlined financial transactions, positively impacting the overall efficiency of SMEs. Moreover, the utilization of Peer-to-Peer(P2P) lending emerged as a key factor in supporting SMEs' financial health by providing alternative avenues for funding. The research demonstrated that SMEs leveraging mobile banking apps experienced improved accessibility to financial services, contributing to better cash flow management and informed decision-making. The integration of Insurtech was identified as a positive influence on SME risk management strategies, fostering resilience in the face of uncertainties. Overall, the findings suggest a symbiotic relationship between FinTech application adoption and SME business performance. The positive impact of digital payment, P2P lending, mobile banking apps, and Insurtech on various aspects of SME operations underscores the potential for continued growth and efficiency within the SME sector. This research contributes valuable insights that can inform both SMEs and FinTech developers in optimizing the benefits of these applications for sustained business success.

5.3.3 Objective 3: To determine the most significance of FinTech applications on SMEs business performance

Peer-to-peer lending, often known as P2P lending, is a financially technology application that stands out as being particularly important for small and medium-sized businesses (SMEs) in Melaka. This indicates that the use of platforms for peer-to-peer lending has a significant influence on the performance of small enterprises in the area. Businesses in Melaka are able to interact with individual investors online via the use of peer-to-peer lending, which eliminates the need for them to depend on conventional banks. This direct relationship makes it easier for small and medium-sized enterprises (SMEs) to have access to capital, which in turn makes it simpler for them to expand and run their operations. Moreover, peer-to-peer (P2P) lending has the potential to improve the financial condition as a whole of small and medium-sized enterprises (SMEs) in Melaka by offering an alternative and more effective method for securing the financial resources that are required for a variety of business operations. In conclusion, the use of peer-to-peer lending has a major impact on the business performance of small and medium-sized enterprises (SMEs) in Melaka. This is because it provides direct access to funds and therefore contributes to the financial well-being of these businesses.

5.4 Contribution of research

The study on the effect of fintech applications by SMEs on business performance contributes theoretically by advancing our understanding of the intersection between financial technology and small business operations. It provides insights into the theoretical frameworks guiding the adoption and impact of fintech in the SME sector. The research adds to the theoretical foundation by identifying key variables, relationships, and mechanisms influencing how fintech applications contribute to enhanced business performance. This theoretical clarity aids scholars and practitioners in

comprehending the dynamics of fintech adoption within the SME context. The incorporation of FinTech in Small and Medium-sized Enterprises (SMEs) not only streamlines operations but also fosters inclusivity by democratizing access to financial services. This inclusivity is a key driver for sustainable growth and innovation within the SME sector. FinTech solutions, such as online lending platforms and digital payment systems, break down traditional barriers to capital, enabling a broader spectrum of SMEs to secure funding. This expanded access enhances financial inclusivity, empowering businesses that may have faced challenges in obtaining financing through traditional channels. The valuable insights derived from the symbiotic relationship between FinTech and SMEs serve as a guide for businesses, policymakers, and stakeholders. SMEs can leverage these insights to adopt tailored FinTech solutions, optimizing their operations and expanding their market presence. Policymakers benefit by understanding how regulations can support responsible FinTech growth, fostering an environment conducive to innovation. Stakeholders, including investors and industry players, can identify opportunities to contribute to the development of FinTech solutions that address the specific needs of diverse SMEs, thus driving sustainable growth and innovation in the sector. Overall, the practical contributions aim to facilitate the effective implementation of fintech solutions in real-world business scenarios.

5.5 Limitation of research

limitation in the research on the effect of FinTech applications for Small and Medium-sized Enterprises (SMEs) is the constraint in time to locate an adequate number of participants. The rush to gather respondents may impact the diversity and representativeness of the sample, potentially leading to skewed results. Additionally, the research focuses exclusively on Melaka, without including SMEs from various regions within the country. This geographical restriction raises concerns about the broader applicability of the findings, as different locations may have distinct business environments and

FinTech adoption patterns. Consequently, the study's outcomes may lack the necessary diversity to offer comprehensive insights into how FinTech applications impact SMEs on a national scale. Furthermore, the choice to concentrate solely on Melaka contributes to a small sample size, limiting the scope of the study. A confined sample may not adequately capture the diversity of SME experiences and practices, hindering the research's ability to make broad generalizations about the effectiveness of FinTech applications across different contexts. This geographical specificity may constrain the study's external validity, emphasizing the need for caution when extrapolating its findings to SMEs operating in other regions or countries, as the dynamics of FinTech adoption and business performance can vary significantly.

5.6 Recommendation for Future Research

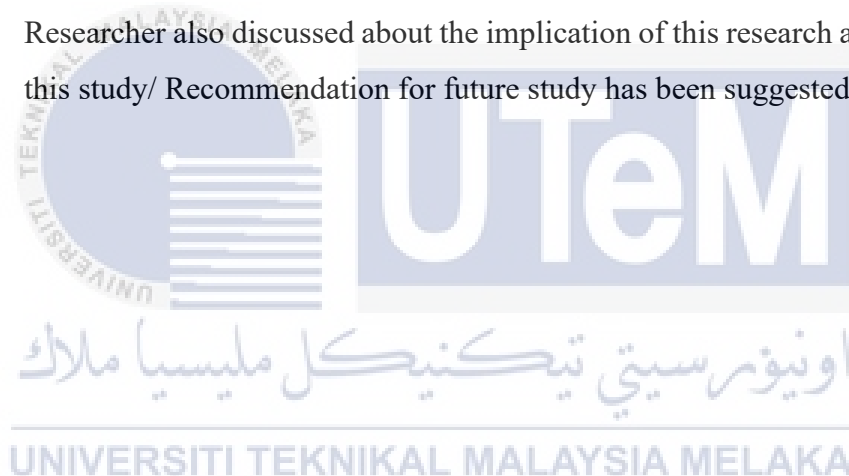
Future research on "The Effectiveness of FinTech Applications by SMEs on Business Performance" should prioritize the inclusion of a larger sample size to enhance the robustness and applicability of findings. A more extensive participant pool would allow researchers to capture a diverse range of SME experiences and perspectives, enabling a more accurate understanding of how FinTech applications impact business performance across various industries and regions. This step is crucial in providing comprehensive insights that can guide SMEs, policymakers, and stakeholders effectively.

Moreover, researchers are encouraged to specifically address the limited coverage of FinTech-related topics in Malaysia. Considering the scarcity of research in this area, it is essential for scholars to explore the unique challenges and opportunities faced by Malaysian SMEs in adopting FinTech solutions. This targeted approach not only contributes to filling a critical research gap but also provides valuable insights that are directly relevant to the local business environment. By addressing these recommendations, future research can make

meaningful contributions to the understanding of FinTech's effect for SMEs, especially within the context of Malaysia.

5.7 Summary

In summary, all the objectives of the research title the effectiveness of FinTech Application on SMEs business performance have been achieved by using the questionnaire survey method. In this research, it was found that digital payment, Peer-to-Peer Lending, Mobile banking and Insurtech have impact on SMEs business performance. Among the four independent variable, indicate that Peer-to-Peer Lending are the most effectiveness on SMEs business performance. Researcher also discussed about the implication of this research and limitation of this study/ Recommendation for future study has been suggested by researcher.



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APPENDICES

Appendix A: Questionnaire



FACULTY OF TECHNOLOGY MANAGEMENT AND TECHNOPRENEURSHIP
BACHELOR OF TECHNOLOGY MANAGEMENT WITH HONOURS (HIGH
TECHNOLOGY MARKETING)

Research Topic: The Effectiveness of FinTech Application by SMES on Business Performance

Dear Respondent,

I am a student at the Universiti Teknologi Malaysia Melaka. Bachelor of Technology Management with Honours (High Technology Marketing) from the Faculty of Technology Management and Technopreneurship. I am currently engaged on my final year project as part of my degree requirements. The purpose of this study is to determine the Effectiveness of FinTech Applications by SMEs on Business Performance. The target of this respondent is the owner or manager of SMEs. To be able to finish this questionnaire, which should take around ten minutes of your time, I need your help and cooperation. Kindly be advised that all of the data obtained is utilised only for academic purposes, and we will guarantee that all of the information is kept secret. Thank you for your cooperation.

Please do not hesitate to contact me at nurshuhadahrohaizat@gmail.com or my supervisor, Dr. Nor Azah Binti Abdul Aziz, at azahaziz@student.utm.edu.my if you have any question about this survey.



FAKULTI PENGURUSAN TEKNOLOGI DAN TEKNOUSAHAWAN
IJAZAH SARJANA MUDA PENGURUSAN TEKNOLOGI DENGAN KEPUJIAN
(PEMASARAN TEKNOLOGI TINGGI)

Topik Penyelidikan: Keberkesanan Aplikasi FinTech Oleh PKS Terhadap Prestasi Perniagaan

Responden yang dihormati,

Saya seorang pelajar di Universiti Teknologi Malaysia Melaka. Sarjana Muda Pengurusan Teknologi dengan Kepujian (Pemasaran Teknologi Tinggi) daripada Fakulti Pengurusan Teknologi dan Teknousahwan. Saya pada masa ini terlibat dalam projek tahun akhir sebagai sebahagian daripada tugas ijazah saya. Tujuan kajian ini adalah untuk menentukan Keberkesanan Aplikasi FinTech oleh PKS terhadap Prestasi Perniagaan. Sasaran responden ini ialah pemilik atau pengurus PKS. Untuk menyelesaikan boring soal selidik ini yang akan mengambil masa anda dalam anggaran 10 minit, saya amat memerlukan pertolongan dan Kerjasama daripada anda. Harap maklum, maklumat dan data yang diambil daripada anda hanyalah semata-mata untuk tujuan akademik sahaja dan kami menjamin bahawa semua maklumat akan dirahsiakan. Terima Kasih atas kerjasama anda.

Saya ingin mengucapkan ribuan terima kasih diatas masa dan penyertaan yang anda berikan dalam melengkapkan soal selidik ini. Jika anda mempunyai sebarang masalah berkaitan tinjauan soal selidik ini, sila menghubungi saya di nurshuhadahrohaizat@gmail.com atau penyelia saya, Dr. Nor Azah Binti Abdul Aziz, di azahaziz@student.utm.edu.my

Section A: Respondent Information
(Bahagian A: Maklumat Responden)

Please ticks your answer for each question
 (Sila tandakan jawapan anda untuk setiap soalan)

1. Gender
 (Jantina):

☐ Male
 (Lelaki) ☐ Female
 (Perempuan)

2. Age
 (Umur)

☐ 20-29 ☐ 30-39 ☐ 40-49 ☐ 50 and Above
 (50 dan ke atas)

3. Race
 (Kaum)

☐ Malay
 (Melayu) ☐ Chinese
 (Cina) ☐ India
 (India) ☐ Other:.....
 (Lain-lain):.....

4. Role/ Position in the SMEs
 (Peranan/ Jawatan dalam PKS)

☐ Owner
 (Pemilik) ☐ Manager
 (Pengurus) ☐ Employee
 (Pekerja) ☐ Other:.....
 (Lain-lain):.....

5. Business Sector/ Industry
 (Sektor Perniagaan/ Industri)

☐ Food and Beverage
 (Makanan dan minuman) ☐ HealthCare
 (Penjagaan Kesihatan)

☐ Manufacturing
 (Pembuatan) ☐ Other:
 Lain-lain:.....

6. Years of experience in the SMEs
(Pengalaman tahun dalam PKS)

☐ Below 1 Year
(Bawah 1 Tahun)

☐ 2-5 Years
(2-5 Tahun)

☐ 6-9 Years
(6-9 Tahun)

☐ 10 Years and Above
(10 Tahun dan Keatas)

7. Turn Over Per Year
(Pusing Balik Setahun)

☐ Bawah RM 50,000
Below RM 50,000

☐ RM50,000 - RM100,000

☐ RM100,000 - RM500,000

☐ RM 500,000 and Above
RM 500,00 dan Keatas

8. How many employees that you have
(Berapa ramai pekerja yang anda ada)

☐ Below 10
Bawah 10

☐ 10-20

☐ 20-30

☐ 30 and Above
30 dan Keatas

9. Does your SMEs currently use any FinTech applications or services
(Adakah PKS anda pada masa ini menggunakan sebarang aplikasi atau perkhidmatan FinTech)

☐ Yes
(Ya)

☐ No
(Tidak)

Section B: The effect of FinTech application among SMEs
(Bahagian B: Kesan aplikasi FinTech di kalangan PKS)

Please tick (/) in the appropriate box to indicate the extent of your level agreement with each statement using Likert Scale, Where 1: Very Dissatisfied. 2: Dissatisfied 3: Neutral 4: Satisfied 5: very satisfied

(Sila tandakan (/) dalam kotak yang sesuai untuk menunjukkan sejauh mana persetujuan tahap anda dengan setiap pernyataan menggunakan Skala Likert, Di mana 1: sangat Tidak Puas Hati. 2: Tidak Puas Hati 3: Neutral 4: Puas hati 5: sangat berpuas hati.)

1. (Digital Payment
(Pembayaran Digital)

Statements		1	2	3	4	5
1.	I find that digital payment improves the quality of payment transactions (Saya mendapati bahawa pembayaran digital dapat meningkatkan kualiti transaksi pembayaran)					
2.	I find that digital payment makes transactions more flexible (Saya mendapati bahawa pembayaran digital menjadikan transaksi lebih fleksibel.)					
3.	I find that digital payment improves the accuracy of the transaction (Saya mendapati bahawa pembayaran digital meningkatkan ketepatan dalam transaksi..)					
4.	I observe that digital payment reduces the time of the transaction (Saya perhatikan bahawa pembayaran digital dapat mengurangkan masa transaksi.)					
5.	I trust that transactions are more trustworthy through the digital payment system (Saya percaya bahawa urusan niaga lebih boleh dipercayai melalui sistem pembayaran digital.)					
6.	I am interested in using digital payment for my business (Saya berminat menggunakan pembayaran digital untuk perniagaan saya.)					
7.	I find it easy to use digital payment for my business (Saya rasa mudah untuk menggunakan pembayaran digital untuk perniagaan saya)					

2. Peer-to-Peer lending (P2P)

Statements		1	2	3	4	5
1.	I find that Peer-to-Peer(P2P) is the best alternative way of getting my business funded (Saya mendapati bahawa pinjaman terbuka antara rakan setara ialah cara alternatif terbaik untuk mendapatkan pembiayaan perniagaan saya.)					
2.	I found that peer-to-peer open lending offers good service, along with enhanced security and fraud protection (Saya mendapati bahawa pinjaman terbuka antara rakan setara menawarkan perkhidmatan yang baik, bersama-sama dengan keselamatan yang dipertingkatkan dan perlindungan penipuan.)					
3.	I find that Peer-to-Peer(P2P) lending provides timely and efficient service (Saya mendapati bahawa pinjaman pinjaman terbuka antara rakan setara menyediakan perkhidmatan yang tepat pada masanya dan cekap.)					
4.	I find that Peer-to-Peer(P2P) lending has provided quality for my SME business with easier access to financing (Saya mendapati bahawa pinjaman pinjaman terbuka antara rakan setara telah memberikan kualiti untuk perniagaan PKS saya dengan akses yang lebih mudah kepada pembiayaan)					
5.	I have confidence that Peer-to-Peer(P2P) lending has a robust or strong borrower protection (Saya yakin bahawa pinjaman pinjaman terbuka antara rakan setara mempunyai perlindungan peminjam yang teguh atau kukuh.)					
6.	I find that Peer-to-Peer(P2P) offers better interest rates compared to existing financing (Saya dapati pinjaman pinjaman terbuka antara rakan setara menawarkan kadar faedah yang lebih baik berbanding pembiayaan sedia ada)					
7.	I find that Peer-to Peer (P2P) has an easy application process (Saya dapati pinjaman terbuka antara rakan setara mempunyai proses permohonan yang mudah)					

3. Mobile banking App

(Aplikasi perbankan mudah alih)

Statements		1	2	3	4	5
1.	I am able to pay my suppliers through mobile banking with ease <i>(Saya boleh membayar pembekal saya melalui perbankan mudah alih dengan mudah)</i>					
2.	I am able to access my bank account for savings deposits and cash withdrawals with ease at any time of the day <i>(Saya boleh mengakses akaun bank saya untuk deposit simpanan dan pengeluaran tunai dengan mudah pada bila-bila masa sepanjang hari)</i>					
3.	I have noticed that mobile banking reduces incidences of cash loss in the business and improves cash management <i>(Saya mendapati bahawa perbankan mudah alih mengurangkan kejadian kehilangan tunai dalam perniagaan dan menambah baik pengurusan tunai.)</i>					
4.	I save my money through mobile banking since I believe it is secure <i>(Saya menyimpan wang saya melalui perbankan mudah alih kerana saya percaya ia selamat.)</i>					
5.	I find that it is safe to send or withdraw money from my bank using mobile banking <i>(Saya mendapati bahawa adalah selamat untuk menghantar atau mengeluarkan wang dari bank saya menggunakan perbankan mudah alih)</i>					
6.	I find that the use of mobile banking leads to more financial transactions being done <i>(Saya mendapati bahawa penggunaan perbankan mudah alih membawa kepada lebih banyak transaksi kewangan dilakukan)</i>					
7.	I find that mobile banking makes financial services available to any business at all times <i>(Saya mendapati bahawa perbankan mudah alih menyediakan perkhidmatan kewangan kepada mana-mana perniagaan pada setiap masa)</i>					

4. Insurtech

Statements		1	2	3	4	5
1.	I find that Insurtech protects insurance companies from financial losses <i>(Saya mendapati bahawa Insurtech melindungi syarikat insurans daripada kerugian kewangan)</i>					
2.	I have seen that the adoption of Insurtech enhances the existing product offering <i>(Saya telah melihat bahawa penggunaan Insurtech meningkatkan penawaran produk sedia ada)</i>					
3.	I have experienced that Insurtech has facilitated better communication and collaboration with insurance providers for my SME business <i>(Saya telah mengalami bahawa Insurtech telah memudahkan komunikasi dan kerjasama yang lebih baik dengan penyedia insurans untuk perniagaan PKS saya.)</i>					
4.	I find that Insurtech requirements provide business wants and needs <i>(Saya mendapati bahawa keperluan Insurtech menyediakan kehendak dan keperluan perniagaan)</i>					
5.	I find Insurtech brings potential commercial benefits for the company and it is feasible to implement <i>(Saya dapati Insurtech membawa potensi manfaat komersial untuk syarikat dan ia boleh dilaksanakan)</i>					
6.	I find that Insurtech has effectively met the specific insurance needs and challenges for my business <i>(Saya mendapati bahawa Insurtech telah memenuhi keperluan dan cabaran insurans khusus untuk perniagaan saya dengan berkesan)</i>					
7.	I find that Insurtech has improved my business risk management and insurance coverage <i>(Saya mendapati bahawa Insurtech telah meningkatkan pengurusan risiko perniagaan dan perlindungan insurans saya.)</i>					

Section C: The relationship of Fintech application between SMEs business performance
(Bahagian C: Hubungan antara aplikasi Fintech dengan prestasi perniagaan PKS)

(Please tick (/) in the appropriate box to indicate the extent of your level agreement with each statement using Likert Scale, Where 1: Very Dissatisfied. 2: Dissatisfied 3: Neutral 4: Satisfied 5: Very Satisfied.)

(Sila tandakan (/) dalam kotak yang sesuai untuk menunjukkan sejauh mana persetujuan tahap anda dengan setiap pernyataan menggunakan Skala Likert, Di mana 1: sangat Tidak Puas Hati. 2: Tidak Puas Hati 3: Neutral 4: Puas hati 5: Sangat berpuas hati.)

Statements		1	2	3	4	5
1.	I find that FinTech applications have resulted in a noticeable increase in turnover for my business (Saya mendapati bahawa aplikasi FinTech telah menghasilkan peningkatan yang ketara dalam perolehan untuk perniagaan saya)					
2.	I find that my business has increase in sales when using FinTech application (Saya dapati perniagaan saya mengalami peningkatan dalam jualan apabila menggunakan aplikasi FinTech.)					
3.	I find that my business has increased in operating profit rate (Saya mendapati perniagaan saya telah meningkat dalam kadar keuntungan operasi.)					
4.	I find that my interaction with the application I use to access FinTech services is clear and understandable (Saya mendapati bahawa interaksi saya dengan aplikasi yang saya gunakan untuk mengakses perkhidmatan FinTech adalah jelas dan boleh difahami)					
5.	I am satisfied with the overall performance of FinTech in increasing my SMEs business success (Saya berpuas hati dengan prestasi keseluruhan FinTech dalam meningkatkan kejayaan perniagaan PKS saya)					
6.	I find that FinTech applications have introduced modern techniques to improve my business's operational performance (Saya mendapati bahawa aplikasi FinTech telah memperkenalkan teknik moden untuk meningkatkan prestasi operasi perniagaan saya)					
7.	I believe that FinTech tools and applications can automate many financial processes, reducing the need for data entry and paper-based manual work. This leads to increased efficiency in areas such as payments, invoicing, and financial record keeping. (Saya percaya bahawa alat dan aplikasi FinTech boleh mengautomasikan banyak proses kewangan, mengurangkan keperluan untuk kemasukan data dan kerja manual berbentuk kertas. Ini membawa kepada peningkatan kecekapan dalam bidang seperti pembayaran, invois, dan penyimpanan rekod kewangan.)					

Section D: Open Ended Question
(Bahagian D: soalan terbuka)

1. What problems have you encountered when using FinTech applications in your business?
 (Apakah masalah yang anda hadapi semasa menggunakan aplikasi FinTech dalam perniagaan anda?)

.....

.....

.....

.....

.....

.....

2. In your opinion, what recommendation or improvements could be made to enhance the effectiveness of FinTech applications for SMEs in terms of your business performance?
 (Pada pendapat anda, apakah cadangan atau penambahbaikan yang boleh dibuat untuk meningkatkan keberkesanan aplikasi FinTech untuk PKS dari segi prestasi perniagaan anda?)

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.....

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Appendix B: Gantt Chart FYP 1 & FYP 2

STEPS IN THE RESEARCH PLAN	MONTHS									
	March	April			May			June		
Choosing title										
Decide research topic										
Design of a strategy for research										
Background Of Study										
Problem Statement										
Research question, objective, theories conceptual framework										
Hypotheses Development										
Union Model: Research Methodology										
Construct Measurement										
Design and testing of questionnaire, if appropriate										
Presentation Viva										
Report PSM Correction										
Submission of PSM report										

Gantt Chart 1: FYP 1

STEPS IN THE RESEARCH PLAN	MONTHS									
	Oktober	November			December			January		
Discussion on the questionnaire										
Construct questionnaire										
Pilot test										
Identify of the target respondent and collect data										
Analysing Data										
Report for Chapter 4										
Report for Chapter 5										
Presentation Viva										
Report FYP II Correction										
Submission of full thesis										

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Gantt Chart: FYP 2

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