THE IMPACT OF COVID-19 ON THE FIRMS' PERFORMANCE

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SEPTEMBER 2023

ANG, LEE, TAN, & YOW FIRMS' PERFORMANCE

BFN (HONS) SEPTEMBER 2023

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BY

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A final year project submitted in partial fulfillment of the requirement for the degree of

BACHELOR OF FINANCE (HONS)

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF BUSINESS AND FINANCE DEPARTMENT OF FINANCE

SEPTEMBER 2023

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ACKNOWLEDGMENT

This research's completion has been a difficult and drawn-out process for us. We are thankful that we were able to overcome many obstacles we encountered along the way, and we would like to thank a few people for their support and assistance throughout the course of the two trimesters.

First and foremost, we want to thank Assoc Prof Dr Au Yong Hui Nee for all her help and advice during the research process. Assoc Prof Dr Au Yong has supported us through good times and bad, and she has given us a lot of advice to help us write a high-calibre research report. This research project might not be effectively finished without her direction and persistence. With this, we would like to express our sincere gratitude for all of her help over the past few months. On top of that, we would like to thank Dr Zuriawati Binti Zakaria, the examiner, for her important suggestions that could improve the quality of the research.

Moreover, we would want to express our gratitude to Universiti Tunku Abdul Rahman (UTAR) for giving us the chance to perform this research project in our final year. By doing this research project, we are able to deepen our knowledge and learn outside the scope of our academic area. Besides, we would like to express our gratitude to all of the respondents for their assistance in answering the questionnaire. Our research would not be possible without their cooperation. We value their efforts very much.

Finally, we want to thank each and every one of our team members. This research project was completed with the help of each group member. Each team member contributes their skills, hard work, and knowledge to make this research a success. Without each and everyone's dedication and excellent teamwork, we would not have been able to finish this study report.

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LIST OF ABBREVIATIONS

APT	Advanced Persistent Threat
BPN	Bantuan Prihatin Nasional
BRP	Bantuan Prihatin Rakya
CEOs	Chief Executive Officer
CMCOs	Conditional Movement Control Order
COVID-19 PANDEMIC	Coronavirus Disease 2019
DBA	Doctor of Business Administration
DOSM	Department of Statistics Malaysia
EBTIDA	Net Income and Earnings Before Interest, Tax,
	Depreciation And Amortization
EF	Economic Factor
EMCOs	Enhanced Movement Control Order
EPF	Employees' Provident Fund
EPS	Earning Price Per Share
FP	Firm Performance
GDP	Gross Domestic Product
GP	Government Policies
HOD	Heads of Department
KLCC	Kuala Lumpur Convention Centre
KOLs	Key Opinion Leaders

MCOs	Movement Control Order
MIDF	Malaysian Industrial Development Finance
PhD	Doctor of Philosophy
RBV	Resource-Based View
ROA	Return on Assets
ROA	Return on Investment
ROE	Return on Equity
SF	Social Factor
SMEs	Small, And Medium-Sized Enterprises
SOPS	Standard Operating Procedure
SPM	Sijil Pelajaran Malaysia
SPSS	Statistical Package for Social Sciences
STPM	Sijil Tinggi Persekolahan Malaysia
TF	Technological Factor
VIF	Variance Inflation Factor
WFH	Working From Home

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PREFACE

This study is very important for the completion of our undergraduate course which is Bachelor of Finance (Hons) offered by Universiti Tunku Abdul Rahman. The topic of this study is "The Impact of Covid-19 on the Firms' Performance". Therefore, this study aims to find out which factors significantly influence the impact of the COVID-19 pandemic on the firm performance of Malaysian employees.

The COVID-19 pandemic had a significant impact on businesses not only in Malaysia but all over the world. The spread of the virus around the world has forced most businesses to file for bankruptcy and closure. Therefore, the Government of Malaysia should stand out and take measures to control the movement and activities of the population in order to deal with the COVID-19 pandemic.

As a result, this study examines the Impact of Covid-19 on the Firms' Performance as it can increase awareness of the COVID-19 epidemic worldwide. This study studies the influences of four factors, which are economic factors, social factors, technological factors, and government policies on the impact of Covid-19 on the firm's performance. This study can provide important insights to understand how government policies affect business performance.

ABSTRACT

This research has the purpose of examining the impact of COVID-19 on firms' performance. The explanatory variables include social factor, technological factor, economic factor, and government policies. The theory of resource-based view (RBV) and stakeholder theory will be the fundamental theories of this study to investigate how explanatory variables will affect firms' performance during COVID-19. In this research, primary data as well as a stratified sampling method were implemented. Researchers have developed a questionnaire in order to collect data from respondents. There are two ways researchers collect the questionnaire: exhibitions and Google Forms. In addition to Google Forms, which is regarded as the online collection technique, exhibitions and seminars are regarded as physical collection methods. A total of 507 respondents were collected from small and medium-sized enterprises across Malaysia, with most of the respondents being from Selangor, Kuala Lumpur, Penang, and Johor. Data collected for analysis and interpretation was generated with the aid of IBM SPSS Statistics Version 28. Besides that, descriptive analysis, reliability analysis, multicollinearity tests, and multiple regression analysis were all used to examine and interpret the results. In this research, the result of the reliability test for all variables is excellent, and there is no multicollinearity problem among the independent variables. Based on the research outcomes generated from the multiple regression analysis, social factor, technological factor, economic factor, and government policies had a significant impact on Malaysian small and medium firms' performance during the COVID-19 pandemic period. In addition, the implications, limitations, and recommendations of the research are also discussed in this study in order to facilitate future research related to this field.

CHAPTER 1: INTRODUCTION

1.1 Background and Origin of the COVID-19 Pandemic

Coronavirus disease 2019 (COVID-19) pandemic is a highly contagious respiratory infection caused by the SARS-CoV-2 virus. The virus's specific origin is unknown; however, it has been reported to have originated in December 2019 in Wuhan, China (Cascella, 2023). The first cases of the COVID-19 were reported in a seafood and live animal market in Wuhan, which led scientists to initially suspect that the virus may have originated in animals, possibly bats, before jumping to humans. However, later studies have suggested that the virus may have passed through an intermediate host before infecting humans. It is now believed that the virus was likely transmitted to humans from animals, possibly in a wet market, where live animals are sold for food. From there, the virus rapidly spread across China and eventually to other countries around the world, leading to a global pandemic (Maron, 2021).

As previously reported, 229 countries and territories worldwide have reported 677,746,166 confirmed cases of the coronavirus COVID-19 that come from Wuhan, China, with a death toll of 6,783,450 (*Country Where Coronavirus Has Spread - Worldometer*, 2023). In addition to this, the COVID-19 pandemic forced the majority of businesses to file for bankruptcy and shut down. As reported by The Malaysian Insight, some 15% of small, and medium-sized enterprises (SMEs) have shut down because of lack of funding brought on by the pandemic. Governments implemented lockdowns and social distancing measures to control the virus from further spread around the world, but this has caused many businesses to shut down. According to Prime Minister Datuk Seri Ismail Sabri Yaacob, during the COVID-19 epidemic which from the date March 2020 to July 2021, there are 1,246 companies in Malaysia have

been forced to shut down while 10,317 individuals have registered for bankruptcy (Hariz, 2021). In relation to this, several businesses suffered considerable financial losses, while others were forced to go bankrupt due to the pandemic of COVID-19.

According to the Statistics Malaysia Official Report, the Gross Domestic Product (GDP) growth rate of Malaysia has been fluctuating during COVID-19 pandemic. Refer to Appendix 1.1, Malaysia experienced a significant contraction in its GDP growth rate in 2020, largely due to various factors such as restrictions on mobility and business activities, reduced global demand for exports, and the decline in the tourism industry.

Unemployment rate is the percentage of the labor force that is jobless but insistently looking for jobs. The Department of Statistics Malaysia reported that the unemployment rate in Malaysia increased to 4.8% in May 2020, up from 3.3% in the same month in 2019. Also, the rate of unemployment reached its peak in June 2020 at 5.3%, which was the highest in more than a decade (*NEW STRAITS TIMES*, 2021). Refer to Appendix 1.2, unemployment persons and unemployment rate in Malaysia from year 2019 till 2022 was attached. During the COVID-19 pandemic, the unemployment rate in Malaysia has risen. The pandemic led to widespread economic disruption, including the closure of many businesses and a reduction in economic activity. As unemployment increased, this indicated that people lacked income and affected the purchasing power of many households.

The Malaysian government has implemented few initiatives to control population movement and activities on the subject of the COVID-19 pandemic. This contains, among other things, MCOs, CMCOs, EMCOs and others (Khair et al., 2021). The numerous measures implemented by the government during the COVID-19 pandemic was attached in Appendix 1.3. Furthermore, many companies implemented work-fromhome policies as a response to the COVID-19 pandemic to reduce the risk of employee infection and spread of virus. Besides that, work-at-home policies allow employees to

work remotely, often from their own homes, rather than coming to a physical office (Chau, 2022). This reduces the need for employees to commute to work and minimizes the number of people sharing workspaces, which can slow down the spread of the virus. Overall, work-from-home policies have become an effective tool for companies to decrease the risk of spreading the COVID-19 pandemic transmission among employees, while also allowing them to continue to operate and provide essential services.

Other than that, the Malaysian government has provided various measures to support businesses and individuals during the COVID-19 pandemic. Some of the key measures implemented by the government included wages subsidies, cash aid and loan repayment assistance ("Malaysia", 2020). Wage subsidies are the first type of assistance offered by the government. The government introduced wage subsidies for employers to help them retain their employees during the pandemic. The program provided a subsidy of RM 600 per month for three months for each employee's earning less than RM 4,000 per month. Besides that, cash aid is the government's secondary form of assistance. The government provided cash aid to households in need through the Bantuan Prihatin Nasional (BPN) program. The program provided a one-off payment of RM 500 to RM 1,600 to eligible households, depending on their income level. Moreover, the third type of support that the government offered is help with loan repayment. The government provided loan repayment assistance to individuals and businesses affected by the pandemic. This included a six-month moratorium on loan repayments for individuals and small and medium-sized enterprises (SMEs).

Next, the COVID-19 pandemic had a significant impact on Malaysia's government policies, economic, social, and technology. In terms of the government policies, the Malaysian government has implemented a series of policies and measures with the purpose of mitigating the economic impact of the crisis on the country's industries. The main policies and measures include Movement Control Orders (MCOs), economic stimulus programs to support businesses, and financial assistance for industry-specific measures. Besides that, the economic factors that affected Malaysian industries during

the pandemic included reduced consumer spending, supply chain disruptions, reduced demand for exports, business closures and job losses. Overall, the economic impact of the pandemic on Malaysian industries was significant and many businesses struggled to survive. Other than that, the social factors that affected Malaysian industries during the pandemic included changes in consumer behaviour, concerns about health and safety as well as changes in work patterns. Last but not least, the technology factors that affected Malaysian industries during the pandemic included many supply chain management. In order to reduce the risk of contact with others, contactless payment has become a popular payment method. The market offers several types of e-payment methods such as touch' n go, boost and grab pay. In addition to this, due to company closures and lack of job opportunities, people are starting to earn money through social media and become key opinion leaders (KOLs).

1.2 Problem Statement

The COVID-19 pandemic has caused the lockdowns initiated by various countries worldwide with the purpose of limiting the movement of public and protecting national borders from foreigners which encourage the spread of the virus (Onyeaka et al., 2021). However, this lockdown not only cut down the spread of the pandemic, but also led to some widespread consequences in terms of the people's lifestyle that included decreasing human contact by movement restrictions, distance working and disallowed mass assembly (Onyeaka et al., 2021). This global lockdown has had a huge consequence on various areas such as the food cycle security, the worldwide economic condition, education, healthcare and many others.

In terms of the economic condition, Malaysia has achieved the steepest contraction since the aftermath of the Asian Financial Crisis 1998, which decreased by 17.1% in

the second quarter of 2020 as compared to previous year (Cheng, 2020). Besides, the unemployment rate of Malaysia has reached 5.3% in May 2020, it is the highest figure it has seen since 1989 when it hit 5.7% and the amount of unemployed people also rose by 47,300 from April 2020 (Teo, 2020). The annual unemployment rate in 2021 was increased by 0.1 percentage point from 4.5% in 2020 to 4.6% in 2021 (Tan, 2022). On top of that, there were a total of 37,415 entrepreneurs forced to wind up their businesses due to the pandemic and the total number consisted of 26,007 micro-entrepreneurs and the rest were small and medium enterprises (SMEs) (Bernama, 2021). Some of the famous businesses faced shut down during this pandemic which include ESPRIT, Jazz Hotel, Ramada Plaza Melaka and Esquel Group (Chandiran, 2020). The pandemic really gave a huge impact on the economic condition all over the world. The pandemic also brought impact on the recruitment process of the company via postponement or cancellation of the current recruitment plan (Keshavarzi et al., 2021). Around 24.3% of the firms has transformed its recruitment to online mode while some of the firms were unable to find the suitable recruitment channel and a minority of the firms have recruited employees regardless of the increasing labour costs due to the pandemic (Keshavarzi st al., 2021). Due to the evolution of the technology, all the companies need to transform themselves into digital enterprises and there will be challenges for the firms to do it. During the pandemic, e-commerce is not the only digital technology used by the small businesses, but also the social media. Over 60% of the small businesses have used social media to advertise and 55% of them used it for the purpose of communicating with customers (Digital News Asia, 2021). Moreover, 31% of the businesses that have less than 50 employees identified the challenge for them to fintech adoption was lack of fintech understanding among the board or senior management (Digital News Asia, 2021).

Besides, there were also some problems that arose due to the changes in terms of lifestyles during the pandemic. According to Kariuki (2022), people who are working from home are challenging for some of the people, especially those who are unable to self-discipline. The first problem was that other people do not trust that the employees are working during the working time. Many of the CEOs and managers were reluctant

for the employees to work from home as they thought that there would not be any real work being done (Kariuki, 2022). Elon Musk has confidence that working from home is just pretending to work and he even threatened to fire the employees who are not willing to go back to work in the office in 2022 (Kariuki, 2022). Mental and physical health problems also arose due to working from home. An online survey of the working from home employees done by American Psychiatric Association found out that a large number of them suffered from feeling of isolation as well as loneliness, and they have the tendency to work more than the normal working hours (Kariuki, 2022). Musculoskeletal problems also became the common problems for the remote employees as they did not maintain healthy posture throughout the day when they work from home.

Furthermore, the government prepared some stimulus packages to reduce the negative impacts on the public during COVID-19 pandemic such as the PERMAI stimulus package, PEMERKASA stimulus package and PEMERKASA+ stimulus package. For instance, SME Bank and MIDF distributed RM200 million each in order to finance automation, digitalization and green tech development. MIDF also decreased the interest of loan by 2% for 12 months starting from 1 April 2021 (Loong & Wan Amirah, 2022). This would be beneficial to the economic recovery as the SMEs were able to get additional funds and lower costs to do their business operations. However, these development of stimulus packages and fiscal injections with the purpose of maintaining the economy afloat have led to higher government spending but along with the lowered revenue (Loong & Wan Amirah, 2022).

The company might have experienced a number of challenges and hurdles since the start of the pandemic. In the wake of a pandemic, human resource management and other departments may have to deal with new challenges as well as altered work patterns. Several firms that were included in the study started to change and modify their current business models to meet the new consumer demands even though they may have significant loss from their typical revenue sources (Appiah et al., 2022).

According to Dr. Neeraj Sharma, he mentioned how company leaders and industry professionals around the world envision the future of employment. In order to handle situations at work successfully and efficiently, they emphasise the significance of creating an organisational culture, empowering individuals, and encouraging more sensitive (Post-Pandemic personal integrity Human Resource Management: Challenges and Opportunities, 2022). The Movement control order (MCO) initiated by the Malaysian government, affects all industries that are compulsory to work from home. Pranggo and Arabo (2020) found out that cyber criminals are targeting weak individuals and systems have been used as an advantage by cybercriminals and Advanced Persistent Threat (APT) groups during the pandemic. The relationship between the epidemic and the growth in cyberattacks on weak sectors is emphasized in this research paper.

The pandemic recovered stage by stage until it came to the post pandemic stage. According to a study done by the SME Association of Malaysia, it showed that only 26% of the SMEs have decided to use digital technologies as their leading post-pandemic growth strategy. Most of the SMEs which around 57% of them did not even start their transformation towards digitalization. Recently, the technology firms are cutting off their employees which include Google cutting off around 12,000 jobs, Microsoft halting approximately 10,000 jobs and Amazon cutting off around 18,000 jobs due to the increasing inflation and global markets brace for a downturn (Vincent, 2023). The CEO of Google, Sundar Pichai noted that artificial intelligence would be the key direction for the company to move forward (Vincent, 2023). On top of that, the combination of the pandemic and the war between Ukraine and Russia brought a huge impact not only to the economy in European countries but also other countries as well (Ollagnier, 2022). The war hit the economy by elevating the prices of energy and affecting the energy-intensive industries such as utilities, freight and transportation (Ollagnier, 2022).

1.3 Research Objectives

1.3.1 General Research Objective:

The general objective regarding this research is to pinpoint the impact of COVID-19 on the firms' performance. Meanwhile, the impact of government policies on firms' performance are also indicated in this study.

1.3.2 Particular Research Objective:

- RO1 To investigate the relationship between economic factors and the firms' performance during the COVID-19 pandemic period.
- RO2 To investigate the relationship between social factors and the firms' performance during the COVID-19 pandemic period.
- RO3 To investigate the relationship between technological factors and the firms' performance during the COVID-19 pandemic period.
- RO4 To investigate the relationship between government policies and the firms' performance during the COVID-19 pandemic period.

1.4 Research Questions

When addressing a research problem, an inclusive approach is needed. In order to accomplish the aforementioned goals, the present study intends to find out answers to the following research questions.

- 1. Do social factors affect the firms' performance during the pandemic?
- 2. Do economic factors influence the firms' performance during the pandemic?
- 3. Do technology factors affect the firms' performance during the pandemic?
- 4. Do government policies influence the firms' performance during the pandemic?

1.5 Significance of the Study

Through this research, the company will give more attention to solving the threat of outbreaks such as the pandemic of Covid-19 that are actually happening currently since this pandemic fundamentally has a big impact towards the economy. During the Movement Control Order (MCO), the government provided the financial assistance which consists of Bantuan Prihatin Rakyat (BRP), to withdraw from EPF, MARA education loan, internet facilities, Public Service Department (JPA) education loan and others to help to sustain the businesses in Malaysia (*OECD Better Policies For Better Lives, 2020*). Not only that, the government also revised the latest budget in 2023 which offered the tax reduction on the income tax for the small business organisations (*The iProperty.com.my News Team, 2023*).

Although small businesses such as enterprise or proprietorship are having the financial support of the government, however, some of the small businesses still could not sustain due to the pandemic of COVID-19 and the support from government is not able to help in the long run. Hence, as the researcher, we are doing this research to help the future organisations and companies in Malaysia to have better preparation for the outbreaks of COVID-19 even without government support, because companies and organisations cannot always rely on assistance from the government. Hence, it is important for the government and the business owners to create new policy, rules and regulations in the working place. For instance, governments can provide the latest

information about the regulations or rules that need to be obeyed to businesses on the latest COVID-19 pandemic's guidelines and regulations. This can help businesses make informed decisions and keep their employees safe (OECD Better Policies For Better Lives, 2020).

According to Mugiati (2015), the researcher had found that if there is more restriction on the government policies, the financial performance of the business will be decreased. In relation to this, there are many rules and regulations that are enforced by the government in view of the COVID-19 outbreak with the intention of reducing the spread of the pandemic. As a result, there are many businesses such as small and medium-sized enterprises (SMEs) being affected by the social, economic, technological factors and the government policies. In this study, the organisations will have an idea on how to tackle the challenges and difficulties might be faced in the future if the similar situation happened again.

According to Fong (2022), with rising salaries of government workers and debt payment expenditure, the Malaysian government expects its 2023 budget to have a deficit of RM99.07 billion, or 5.5% of GDP. The Ministry of Finance anticipated reduced public revenue of RM272.57 billion while budgeting to spend approximately RM372.3 billion in its 2022/2023 Economic Report. Compared to 2022, when it was RM99.48 billion, the current budget deficit is around RM400 million smaller in size. In fact, the shortfall is more than the RM98.74 billion in 2021 during the time that Malaysia was impacted hardly by the pandemic of COVID-19. The government set up and provided the financial assistance of around RM37.7 billion to solve the healthcare issue during the COVID-19. In general, Malaysia had a budget deficit as in 1998, the deficit in 2023 will rank 26th overall and, after 2022, be one of the largest deficits ever recorded (Fong, 2022). Hence, the government also needs to do some intervention either to restrict or eliminate some regulations based on the situation occurring in order to bear this by suffering a deficit in the budget.

1.6 Conclusion

In conclusion, the COVID-19 pandemic has led to several changes in Malaysia, such as the forced filing of bankruptcy and closure of most businesses, fluctuations of Malaysia's Gross Domestic Product (GDP) rate, an increase in the unemployment rate, and so on. Also, this global lockdown has had a huge impact on various areas such as the food chain security, the global economy, education, healthcare and many others. Hence, the general purpose regarding this research is to pinpoint the impact of economic factors, social factors and technological factors on the firms' performance during COVID-19. Meanwhile, this study will also show how government policies affect business performance.

CHAPTER 2: LITERATURE REVIEW

2.1 Relevant Theories/Concepts/Models

2.1.1 Resource-based View (RBV)

Resource-based view (RBV) theory is the first theory in this study. This theory recognizes that resources, economic advantages, and skills are the elements that make a firm more successful. Competitiveness is the centre of attention of the RBV in order to maintain a firms' competitive benefit (Wernerfelt, 1984). Firms that fulfil the requirements of worth, scarcity, nonpareil, and cannot be substituted can last for a long time since they have better competitiveness compared to others that do not have these requirements (Barney, 1991). Therefore, firms can benefit from the RBV theory to better grasp how to utilise competitive capabilities to maintain business performance and create a competitive advantage during the COVID-19 crisis. As a consequence, this study adopts the RBV theory to assess the business success of Malaysian SMEs and explain their sustainability. Firms with unique resources can create and sustain economic benefits within their organisations. These resources can also be associated with tangible and intangible assets such as brands, capital, information, and technology, as they are integral to the production of products (Lu et al., 2009). In order to improve their capabilities, firms must seek out and adopt the tools that will give them a benefit in competing with others, such as property, skill, operation, information, and proficiency (Zulkiffli et al., 2022).

2.1.2 Stakeholder Theory

Stakeholder theory is the second theory in this study. Due to the importance of stakeholder theory in the discussion of competitiveness and firms' performance (Harrison et al., 2009), it is important to establish a relationship with the stakeholders of the firm according to stakeholder theory (Freeman, 2004). According to Freeman and Dmytriyev (2017), building relationships with and creating value for stakeholders is the basis of all company operations. There is no doubt that the study of stakeholders helps us to understand an increasingly complex environment (Waxenberger and Spence, 2003). Different companies' business models and industries have different stakeholder characteristics but normally consumers, the public, the government, providers, workers of the company or shareholders are the common stakeholders that every business has and they are equally important to the business (Freeman & Dmytriyev, 2017). According to Yuen et al. (2017), stakeholders have the ability to influence the performance outcomes of firms by penalising or rewarding them. Because of this, certain important stakeholders such as suppliers, customers, and banks that place more value on the terms set with SMEs can harm firms and negatively impact their performance. We argue that this pandemic has forced banks to change the amount of financing, terms and guarantees for SMEs to a certain extent, and this has had an impact on SMEs' performance.

2.2 Relevant Past Studies

2.2.1 Dependent Variable – Firms' Performance

In simple terms, what determines a firms' performance is the economic view of the organisation's profit maximisation and the stakeholders' view of addressing the

demands of a group of people or employees who are influenced by the activities of the same organisation (Aifuwa, 2020). According to Aifuwa (2020), the firms' performance can be referred to financial performance is measured by the profitability performance such as return on assets (ROA), return on equity (ROE), return on investment (ROI), net income and EBTIDA, earning price per share (EPS), changing in the stock price and dividend yield (Aifuwa, 2020).

2.2.2 Independent Variable – Social Factor

The social factors also influence the firms' performance as many firms started conducting business in a working from home (WFH) setting during the pandemic of COVID-19. According to Zhang et al. (2021), he mentioned that this beneficial working from home (WFH) impact on small business performance differs among industry sectors. When local epidemic, economic, and demographic factors were taken into consideration, the WFH rate did not decline but rather increased. In addition, he also found out that WFH is an opportunity to improve business' performance or prevent the small business from bankruptcy in the Covid crisis. This highlights several WFH's financial and health benefits.

Besides, Bai et al. (2021) also found out that the businesses may be able to sustain company value through the digital solutions and employee flexibility despite the challenges of the COVID-19. Businesses with more WFH chances can offer greater safety to their employees, and also improve the operations' resilience of the firm (Bai et al., 2021).

The study claims that the aggressive adoption of contactless delivery methods in the retail sector, delivery of food, and all other industries associated with logistics and

delivery services is going to develop a general trend in the market because most of the nations have adopted the coexistence with the spread of COVID-19 (Jiang et al., 2023). Consumers tend to prefer contactless payment due to concerns about their safety and health. At the same time, the study also believes that the promotion of technology-supported contactless delivery services, and that can assist the logistics suppliers in finding solutions to their problems and assist human society in achieving its objectives.

2.2.3 Independent Variable – Technological Factor

According to Zulkiffli et al. (2022), she found out that there is a significant relationship between eco-management innovation and businesses' performance. The recent research done by Fernando also claimed eco-innovation capabilities are advantageous and have an impact on the success of sustainable enterprises in areas such as regulation, technology, cross-functional coordination, supplier participation, and market emphasis (Fernando et al., 2021).

One of the elements that will influence the company's performance including the adoption in digitalization transformation within the firms during the pandemic of COVID-19. Amankwah-Amoah et al. (2021) researched that due to the decrease in costs of communication, information storage, and computers/devices, along with the significant expansion of their capabilities, businesses now have more options for digitalization. In order to maximise their competitive advantages and long-term sustainability while limiting the negative consequences of COVID-19, some firms are starting to recognize and pay attention to the digitally oriented value-chain operations as being essential (Amankwah-Amoah et al., 2021).

Besides, Margaritha Sugianto et al. (2023) researched that the performance of Indonesian transportation companies had a significant relationship with the innovation in digitalization technologies. In this case, the researcher also claimed that higher levels of digitalization were associated with higher levels of business resilience for businesses (Margaritha Sugianto et al., 2023). The advancement of technology has a real impact on the firms' performance during COVID-19.

2.2.4 Independent Variable – Economic Factor

Economic factors include business shut down, for instance, some companies were forced to shut down temporarily, shortage in labour, cost increase, demand decrease. Recent research Aifuwa (2020) has proven that private companies' financial and non-financial performances would be impacted by the government shutdown and a temporary close to the corporate operations. This situation will lead to a sudden drop in sales, which would then result in a lack of cash flow for undertaking different operations, financing, and investing activities. Inventory will outlive its usefulness, which will reduce its value. Private enterprises will eventually shut down and downsize due to the financial consequences of the decline in sales, which will result in job losses (increased unemployment).

In addition, Saad (2021) also mentioned that there is a positive relationship between the unemployment rate and COVID-19 in seven countries, especially in Malaysia, Philippines, and Hong Kong. The rise of unemployment due to many small, mediumsized and large companies were forced to shut down their business that resulted in the layoff of numerous employees. One of the most crucial questions surrounding the COVID-related shutdown, in the opinion of the researchers, is whether a brief period of solid closure will result in the permanent closure of thousands or millions of American firms (Balla-Elliott et al., 2020). The research showing that the restrictions regulated by government (lock down) does not mean are incorrect, but it does imply that the financial costs of prolonged lockdowns, particularly as they affect small businesses, are likely to be high. This is because that researcher found out as the expected restrictions duration are longer, the probability of firms' survival will also be increased.

2.2.5 Independent Variable – Government Policies

According to Turkson et al. (2021), a government policy refers to the effectiveness of government help and provide the financial assistance or financial aid such as Bantuan Prihatin Rakyat (BRP), MARA education loan, internet facilities and others to the businesses who are suffering from the financial problem due to the pandemic of COVID-19. The variable shows which businesses received aid, which anticipated receiving aid at the time of the respondents' interviews, and which did not anticipate receiving any government assistance. The impact of COVID-19 has been extensive since it has affected all aspects of society, including social, commercial, and economic dimensions, going beyond the disease itself and efforts to control it. Governments are under pressure to lessen the pandemic's impact on their constituents all over the world.

In addition, Turkson also found out that the Italian government has implemented a policy called "Liquidity Decree" which aims to help the businesses' owners to sustain and prevent them from bankruptcy during the pandemic of COVID-19. This policy was made up to those businesses that need loan guarantees, taking on non-market risks by the government and providing some targeted tax relief (Turkson et al., 2021).

Recent research (Shah et al., 2020; Donthu & Gustafsson, 2020) have proven that government policies such as COVID-19 Health Protocol (SOPs) and Economic recovery policies against the spread of COVID-19 are significant towards the reduction of the rising number of infection and resuming businesses as usual but with the adherence of safety and protective protocols such as the wearing of the facemask. Alessa et al. (2021) also researched that a lot of business owners are switching to online platforms to conduct their operations as a result of government regulations, which have an impact on customer demand.

A summary table of the literature review was being attached in Appendix 2.1.

2.3 The Study's Theoretical Framework/ Discussion on the Variables

Figure 2.1: Theoretical Framework of the Study


The theoretical framework for the study's analysis of a firms' performance in relation to four variables. And the framework indicated that a firms' performance is determined by four variables, including economic factors, social factors, technological factors, and government policies during the COVID-19 pandemic.

Economic factors that influence how an economy's growth and how the economy affects a firm's financial health are mentioned (Team, 2021). The COVID-19 pandemic's economic effects on Malaysian sectors included businesses shutdown, decreased consumer spending, supply chain disruptions, decreased export demand, businesses going bankrupt and job losses. Numerous industries have been impacted by the COVID-19 pandemic, which has weakened enterprises' financial standing (Economics Observatory, 2021).

Besides that, in terms of social factors, firms would need to adapt their operations to comply with the new health and safety regulations. According to M. Mofijur et al. (2021), they mentioned that the majority of businesses have sought to stop the spread of the virus by conducting extensive COVID-19 screenings and maintaining social segregation rules that place a priority on employee health. As a result, businesses have implemented work-from-home policies in order to decrease the spread of COVID-19 pandemic.

Other than that, numerous firms have had to adjust to remote labour as a result of technological factors that aim to reduce social distance. Hence, the use of technology to assist remote work has increased. According to Dr. Navleen Kaur (2020), he mentioned that the COVID-19 pandemic has completely transformed how we work and live. The way business was conducted in the past has altered as a result. Numerous businesses have switched from operating offline to operating online due to the pandemic's outbreak and lockdowns that occurred in several nations.

Next, the government policies indicate that the firms have been significantly impacted by the rules and regulations that have been implemented by governments in reaction to the COVID-19 pandemic. These regulations on corporate operations, financial support programs, and tax incentives have all been included. Additionally, in reaction to the COVID-19 pandemic, the government has taken a series of measures to regulate population movement and activities. According to Danny Turkson et al. (2021), the government has implemented a number of ongoing policies to reduce the COVID-19 pandemic's economic impact.

2.4 Hypothesis

2.4.1 Independent Variable – Social Factor

H_1 : There is a significant relationship between social factor and firms' performance

The COVID-19 pandemic has caused a major change in consumer behaviour. Consumers are prioritising necessities over non-essentials and are becoming more frugal with their expenditures. To avoid stepping out in public, a lot of people have shifted to online shopping, which has significantly increased e-commerce sales (Lebni et al., 2020). As a result, it demonstrates that consumer preferences and lifestyles have changed. The performance of a firm is significantly influenced by social factor.

2.4.2 Independent Variable – Technological Factor

H_2 : There is a significant relationship between technological factor and firms' performance

During the COVID-19 pandemic, a number of technological factors have had an impact on companies. Innovation, online e-commerce, cashless payments, and other things are included with it. Due to this, many businesses have expedited the use of remote work, which has increased reliance on technology for supporting remote work. In addition, a lot of businesses have converted their working environments to be conducted via online (S, 2022). Due to the limitation imposed by the COVID-19 pandemic, businesses were compelled to innovate when it came to their digitalization investments in order to advance their business technology models. It can be concluded from this that there is a direct correlation between technological factors and the company's performance.

2.4.3 Independent Variable – Economic Factor

H_3 : There is a significant relationship between economic factors and firms' performance

Any factor that affects how commodities and services are produced, distributed, and consumed within an economy is considered to be an economic factor. Many small businesses have closed permanently or face bankruptcy due to government lockdown and other measures aimed at stopping the spread of the coronavirus. This may have had an impact on company performance. According to Kalogiannidis (2020), the consequences of the COVID-19 pandemic on employees and small businesses have influenced overall company policies in response to the current economic imbalance.

To sum up, there is a strong correlation between economic factors and the performance of the firm.

2.4.4 Independent Variable – Government Policies

H_4 : There is a significant relationship between government policies and firms' performance

Governments have implemented rules and regulations into place due to the pandemic of COVID-19 to address the public health emergency and lessen the financial impact. Moreover, it shows that these regulations have had a big effect on firms. Governments have imposed limitations on both individuals and businesses, such as MCO, in an effort to slow down the virus's spread. Furthermore, the government has launched a number of financial assistance programs in order to help individuals and businesses to help in managing the financial impact of the COVID-19 pandemic. According to Shah et al. (2020), on March 18, 2020, a Movement Control Order (MCO) went into force to bolster the Ministry of Health's efforts to reduce transmission and mortality in Malaysia. As a result, it indicates that there is a significant relationship between government policies and firms' performance.

2.5 Gap of Literature Review

Based on the previous studies, we have found that there are some limitations on the research area of this topic. Firstly, the adaptation of firms towards the pandemic are not only focused on the external aspect such as social, technologies and government, but also the internal aspect such as the management of employees by the firm. This can be

proven by Amankwah-Amoah et al. (2021) stating that there are two areas that need to emphasise which are how companies communicate with their clients, distributors and other stakeholders and how the company manages its employees as well as the employer-employee relationships. Our study is more focused on the external aspects but not the internal aspects as most of the articles showed the study on the external aspects.

Besides, the research of this study that we found was mostly from the Western countries and very less of the research came from Asian countries. This can be shown in the literature review done by Popkova, Delo and S. Sergi (2020) in which the data of economic growth are collected from the countries such as Brazil, Russia, India, China, South Africa, the USA, the UK, Australia, South Korea and Japan.

Moreover, another limitation when we were doing our research was the research about the impact of COVID-19 that related to social, technological and government policy was very less. Many of the research were related to the economic aspect and the business recovery. This can be proven by the research done by Aifuwa (2020) whereby the research was more on the impact of COVID-19 towards the economic aspect compared with the impact on the non-financial performance.

Another limitation was most of the research found was analysed from the consumer perspective but not the firm perspective. Our topic of research was about analysing the firms' performance due to the COVID-19. Hence, when we were searching for the relative journal article to be used in our research, we found quite a smaller number of the articles that were related to our research area.

2.6 Conclusion

The literature review elaborated on the independent variables (social factor, economic factor, technological factor and government policies) along with the dependent variable (firm performance). In addition, the theoretical framework, hypotheses, discussion about the variables will also be covered. Finally, gaps will be identified in the study.

CHAPTER 3: RESEARCH METHODOLOGY

3.0 Introduction

A research methodology is a structured approach to gathering and analysing data in order to do research. In this chapter, we will begin to construct the research design first, then followed by the sections on data collecting method, sample strategy, research tools, sources of the questions, data analysis techniques, data processing and the data analysis.

3.1 Research Design

The framework of methods and techniques that we chose to use will be discussed in this section. The design is intricately connected to the conceptual framework and the research structure. For this study, we chose the quantitative approach to examine the connection between the explanatory and response variables. Quantitative research is a result-oriented method, therefore, it will be easier when we are doing tests for the validity of the hypothesis. We use an experimental research design to study how independent variables affect the dependent variable. Hence, we will collect the numerical data from the respondents and do analysis on the data gained and determine the validity of the hypothesis done.

3.2 Data Collection Method

Data collecting is carried out to understand more about the variables and determine their relationships, so that it can be evaluated whether the hypothesis in this study is reliable and come to a more accurate conclusion. In this research, the primary data is chosen as the main data source in our research. Hence, it is important to choose a suitable data collection method in order to collect the data from participants in an effective and accurate way.

Questionnaires are the optimal method that we selected for the study because the main target population and sample size are large. Additionally, a questionnaire can be developed and distributed mainly through the internet and physically. The researcher will collect questionnaires primarily physically and to a lesser extent via the Internet. This method is less time-consuming, which enables us to distribute the questionnaire to many companies at the same time through the internet, but we can also physically visit the company.

3.3 Design of Sampling

3.3.1 Target Population

This study will aim on the small and medium Malaysian business community, as the consequences of COVID-19 are increasingly impacting small and medium enterprises (SMEs) in Malaysia in a greater proportion than large corporations, the study observed a significant disparity in the way these different types of businesses are affected (OECD, 2021). According to Menon (2022), who is the reporter from The Star, SMEs make up

around 97.4% of all enterprises in Malaysia and form the foundation of that country's economy. Moreover, SME Corporation Malaysia (2022) states that 84.7% of Malaysia's SMEs are in the service sector, followed by 7.9% in construction, 5.6% in manufacturing, 1.4% in agriculture, and 0.4% in mining and quarrying. Therefore, the main four components that make up Malaysia's SMEs will be the focus of this research, which are Service, Manufacturing, Construction and Agriculture.

3.3.2 Frame and Location Sampling

The study's frame is that the company that participates must be established before or during the period of COVID-19 in order to provide accurate information. In addition, the company's respondents must possess senior positions within the organisation, such as senior executives, supervisors and heads of department (HOD). Compared to other employees, they are the ones who know the internal business conditions better. As a result, a more accurate answer can be given.

The location of the sampling in this study is the entire Malaysia, with a focus on Selangor, Kuala Lumpur, Penang, and Johor in particular, since these areas were the states that had a significant contribution to the expansion of Malaysia's economy in 2022. The Department of Statistics Malaysia (DOSM) has published data showing that Selangor is the biggest contributor to Malaysia's economic growth, which is 25.5%. Following is Kuala Lumpur, which is 15.9%; Johor is 9.4%; and Penang is 7.4% (Lim, 2023).

3.3.3 Techniques of Sampling

In this study, it is intended to use stratified sampling, which falls under the random sampling technique. Prior to utilising the random sample approach, the entire population is stratified, and stratified random sampling precisely reflects the population under investigation. In other words, it ensures that the sample accurately represents each Malaysian state. This is because stratified random sampling provides greater control over the subgroups, which include the 15 states of Malaysia, Kuala Lumpur, and Putrajaya, and has the ability to guarantee that each is represented in the sampling. In simpler terms, this method of sampling improves the representation of the entire population.

3.3.4 Size of Sampling Sample Size

The sampling size is the number of participants in a study that reflects the intended population. This research is interested in studying the effects of COVID-19 on the firms' performance. It will analyse the relationship between the independent variables and the research framework, using a specific sample size. The Taro Yamane Formula is applied to determine the necessary sample size for this study.

This study assumes that the margin error (e) is 0.05. Based on the SME Corporation Malaysia (2022), the total number of SME in Malaysia is 1.2 million (1,173,601) in the year 2022. Therefore, the figure of n will be included as the population (N) since Malaysian SME are the targeted population in this research. By substituting the number of 1.2 million and 0.05 into the Yamane formula and get the following result which is 400.

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{1,173,601}{1 + 1,173,601(0.05)^2}$$

$$n = 399.86$$

$$n \approx 400$$

Above is the calculation of the minimum sample size that researchers need to obtain in this study to ensure there is more accurate data analysis. The final sample size that we collected for this study was 537 respondents.

Table 3.1:

List of Data Collected

Survey Method	Questionnaires Collected
Online Questionnaires	190
Interview and Exhibition	347
Total amount	537

Source: Developed from research

Based on Table 3.1, a total of 347 designed questionnaires were collected physically from exhibits or interviews in the regions of Kuala Lumpur, Penang, and Johor. Those exhibitions and seminars include BIG Baby Expo 2023, APHM International Healthcare Conference & Exhibition 2023, and Penfurnex Home Expo 2023. The BIG Baby Expo, which was held in Johor, is a show for new and expectant parents. It serves as a one-stop shop for all things pertaining to babies. As a result, a large number of

retailers and manufacturers of baby products have congregated here. APHM International Healthcare Conference & Exhibition is held at Kuala Lumpur Convention Centre (KLCC) Kuala Lumpur, which gathers a large number of Malaysian and foreign businesses engaged in the healthcare sector. Penfurnex Home Expo 2023 is held at Penang Spice, which offers business owners an environment to present their cuttingedge concepts as well as tasteful furniture and furnishing designs that will match the high standards of quality needed by customers today. Last but not least, an online questionnaire is also employed in this study to overcome geographical limitations. In order to execute the pilot test, the first 30 sets of the 190-questionnaire set that were collected over the Internet were excluded from the final assessment. As a result, the final data analysis can only be done with a total of 507 sets of questionnaires.

3.4 Research Instrument

The instrument of the research refers to a method that the researcher can use for gathering, quantifying, and evaluating the information on the research interests which is used by the researcher to obtain, measure and analyse the data. It depends on how we choose the instrument and depends on what type of study that we are researching.

3.4.1 Questionnaire

In social science research, the questionnaire is a widely recognized method for collecting the data about participant's social traits, present and historical behaviour, norms of conduct or attitudes, and their views and motivations relating to the specific subject being studied. Questionnaire should be created or referred by the author which consists of a set of specific questions. These questions should be designed to establish

a connection with the gathered data and ensure that all the data is relevant to the research objectives and hypothesis.

3.4.2 Questionnaire Design

According to Taylor-Powell (1998), the author asserts that a well-crafted survey enables the collection of data that can be organised and discussed. It is important to understand the type of evidence needed to support hypotheses and achieve the study's objectives, as well as how the data will be used, is crucial before you start. The questionnaires comprise 5 sections which the first section will be collecting the respondents' demographic profile. Another 4 sections will be collecting the question regarding the independent variables itself which are social factor, economic factor, technological factor and the government policies, the measurement of these sections will be conducted using a 5-point Likert scale, which is a type of interval measurement. The questionnaire is available in three different languages which are English, Mandarin Chinese, and Malay, in order for compatriots to complete the questionnaire. A higher number represents a more impressive degree of concurrence to the statement. A sample of our questionnaire is attached at Appendix 3.2, Appendix 3.3 and Appendix 3.4.

3.5 Sources of the Question

Please refer to Appendix 3.1 for the sources of the question.

3.6 Data Analysis Techniques

3.6.1 Pilot Test

Pilot testing, also known as beta testing, is a form of software testing that evaluates specific components or the entire system while it is being actively used. The main objective of the pilot test is to evaluate the time, cost, risk, and performance of a research project (Hamilton, 2023).

Table 3.2:

Reliability Analysis of Pilot Test

Variables	Items	Cronbach's Alpha (α)	Reliability
Firms' Performance	10	0.926	Excellent
Social Factor	10	0.917	Excellent
Technological Factor	22	0.977	Excellent
Economic Factor	12	0.959	Excellent
Government Policies	15	0.944	Excellent

Note: n=30

Source: Developed from research

The researcher used a practical strategy in this research study by excluding 30 samples from the final sample population and data analysis. Table 3.2 summarises the reliability analysis and shows that all reliability, as measured by the α coefficient, resides between 0.917 and 0.977. As a result, each build is excellent reliable and meets the 0.70 standard.

3.7 Data Processing

Data processing can be defined as the researcher's focus on to examine, to edit, to code, to transcribe, and to do data cleaning of research data in order to filter out irrelevant data from all collected data (Costanzo, 2020). In other words, data processing occurs when information is collected and transformed into a usable form. The validation of the structural model and measurement model was achieved using SPSS 28.0.

3.7.1 Questionnaire Checking

A questionnaire checking is used by the researcher to evaluate and review the structure of the survey, the questions and the possible answers of the respondents. Any incomplete questionnaires that do not have all boxes checked should be excluded before moving on to the next processing step (Sincero, 2012).

3.7.2 Questionnaire Editing

The primary goal of questionnaire editing is to review and evaluate the questionnaires in order to identify and remove inconsistent, illegible, and unclear responses (Bhandari, 2023).

3.7.3 Data Coding

The data coding of each response to the questions in the questionnaire's Section A and the questionnaire's Section B is attached in Appendix 3.5.

3.7.4 Data Transcribing

Data transcription is entering coded information from questionnaires into a computer in the form of tables or excel sheets (Koch, 2023). The main software utilised in this step is Microsoft Excel.

3.7.5 Data Cleaning

Data cleaning can be referred to as double-checking the information entered into the computer, as well as ensuring that the data there matches the soft or hard copy of the

questionnaire. Any typographical errors that result in missing responses or unclear answers must be corrected (Hillier, 2021).

3.8 Data Analysis

Data analysis is the process of methodically reviewing and interpreting data collected during a study in order to come up with important insights and conclusions. In order to find patterns, relationships, and trends in the data, it entails organising, describing, summarising, and interpreting the data using a variety of statistical and analytical tools (Kelley, 2023).

3.8.1 SPSS

One of the popular sorts of software packages used by many different types of researchers for complex statistical data analysis is referred to as the Statistical Package for Social Sciences (SPSS) (Contributor, 2018). In addition to this, the SPSS software can perform a variety of different types of tests. For example, researchers can perform one-way ANOVA tests, reliability tests, normality tests, multicollinearity analysis, multiple linear regression analysis, and so on.

3.8.2 Descriptive Analysis

This analysis is a statistical method used to identify and list the features of a set of data (Rawat, 2020). It entails using numerical and graphical techniques to arrange and show data in a manner that is simple to understand and interpret.

3.8.3 Frequency Distribution

Frequency Distribution is the role of a statistical illustration of how frequently each value or range of values appears in a collection of data. It is a tabular or graphic depiction of the distribution of data values that reveals the frequency or count of each value or range of values in a dataset (Turney, 2023).

3.8.4 Scale Measurement

3.8.4.1 Reliability Test

This analysis was conducted in order to ensure that the uniformity and reliability of the findings were maintained. The scales were analysed in terms of Cronbach's Alpha coefficients, which are also based on rules of thumb.

Generally, if the value of the Alpha coefficient is less than 0.60, it is considered unreliable, which also has poor reliability. While Alpha coefficient values between 0.60 and 0.70 are considered moderately reliable. Furthermore, Alpha coefficient values between 0.70 and 0.80 are regarded as good reliability, while Alpha coefficient values between 0.80 and 0.90 are regarded as very good reliability. Finally, Alpha coefficient values greater than 0.90 are considered to have excellent reliability (Sekaran, U. & Bougie, Roger., 2009). Please refer to Appendix 3.6 for more details.

3.8.5 Preliminary Data Screening

3.8.5.1 Multicollinearity

Firstly, we use multicollinearity to do data screening. Multicollinearity can be detected by variance inflation factor (VIF). VIF measures the amount of covariance in a multiple linear regression model by comparing the degree to which the variance of the estimated regression coefficients increases with variance when the control variables are not linearly correlated (Hayes, 2023a). A VIF value of 1 indicates that the variables are uncorrelated; a VIF value between $1 \sim 5$ indicates that the variables are moderately correlated; and a VIF value of $5 \sim 10$ indicates that the variables are highly correlated (Hayes, 2023a). Normally, if multicollinearity exists, it can be eliminated by identifying and removing the collinear independent variables or collecting more data under different conditions (Hayes, 2023a).

3.8.6 Inferential Analysis

Inferential analysis is the most significant method for data analysis. In this stage, conclusions about the population are drawn using the sample data that was gathered. Therefore, it is feasible to comprehend the firms' performance utilising the sample data of 507 respondents from various states in Malaysia.

3.8.6.1 Multiple Linear Regression Analysis

When there is just one predicted variable but several controlled factors, multiple linear regression can be carried out (Hayes, 2023b). Given that this study has four independent variables, hence this approach is appropriate to be used for the study.

Once the regression analysis is conducted, the model undergoes evaluation using several tables: the model summary table, the ANOVA table, and the coefficient table. The first table includes an R^2 analysis, which measures the influence of independent factors on the variance of the dependent variable. Besides that, adjusted R^2 value is also provided in this table. To determine if the model effectively accounts for the variability in the dependent variable, we use the F-statistic from the ANOVA table.

The equation for multiple linear regression is shown below:

 $FP_{i} = \beta_{0} + \beta_{1}SF_{i} + \beta_{2}TF_{i} + \beta_{3}EF_{i} + \beta_{4}GP_{i} + \mu_{i}$ Where $FP_{i} = Firms' Performance$ $SF_{i} = Social Factor$ $TF_{i} = Technological Factor$ $EF_{i} = Economic Factor$ $GP_{i} = Government Policies$ $\mu_{i} = error term$

Based on the equation above, this analysis will be carried out. As covered in the hypothesis development in Chapter 2, It is generally accepted that all the controlled variables included in the equation have a substantial impact on the predicted variable.

3.9 Conclusion

In short, this chapter showed how we do our data collection and the sampling of design. Our questionnaire comes from some reliable resources and some ideas. The tests that are being used to analyse our data are also being elaborated in this chapter which include pilot test, multicollinearity, and Multiple Linear Regression Analysis. Excellent reliability is the outcome of the reliability analysis of the pilot test.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

Data analysis will be conducted in this chapter. First, we will perform descriptive analysis on the data. After that, we will conduct a reliability test. The following will be the multiple linear regression to be run. Lastly, we will be using the preliminary data screening which include the multicollinearity test to test whether problems occur. All of these analyses will be conducted by using the SPSS 28.0. The results generated by SPSS were attached at the Appendix 4.7.

4.1 Data Collection

507 questionnaires were distributed to SME owners, managers, supervisors, chief executive officers and senior executives throughout Malaysia. The data collection process started on May 27, 2023 and ended on August 2, 2023 i.e. approximately two months of data collection process.

4.2 Descriptive Analysis

Descriptive analysis involves examining the patterns in the data that has been collected. This analysis initially focuses on the demographic details received in Part A. Subsequently, the information from Part B is also analysed descriptively.

4.2.1 Respondents' Demographic Profile

This study includes nine demographic data categories: age, gender, position in the firm, education level, location of the company, sector of the company, number of full-time employees, yearly revenue (RM), and term of company establishment. In the next sections, they are examined one by one. Please refer to the Appendix 4.1 for more details on the table on demographic profile.

4.2.1.1 Age

The respondents are classified by the age categories to which they belong. Then, according to Figure 4.1, 28.60% (145 respondents) of the participants are between the ages of 26 and 30. Furthermore, 27.22% (138 responses) of the participants are between the ages of 18 and 25 and 21.10% (107 respondents) are between the ages of 31 and 40. Besides that, 15.38% (78 respondents) of the participants are between the ages of 41 and 50. Following that, 6.31% (32 responders) of the participants are between the ages of 51 and 60. Finally, just 1.38% (7 responses) of the participants are beyond the age of 60.

Descriptive Analysis for Age



Source: Developed from research

4.2.1.2 Gender

Figure 4.2 shows that 53.65% (272 responders) of the participants were female. Furthermore, males made up 46.35% of the total (235 responses).



Descriptive Analysis for Gender

Source: Developed from research

4.2.1.3 Position in the Company

31.56% (160 participants) of the participants were senior executives. Aside from that, 29.78% (151 participants) were supervisors. Furthermore, 19.92% (101 participants) of the participants were managers. Following that, 14.20% (72 responders) of the participants were owners or entrepreneurs. Finally, just 4.54% (23 respondents) held the role of Chief Executive Officer (CEO), Managing Director, or General Manager.

Descriptive Analysis for Position in the Company



Source: Developed from research

4.2.1.4 Education Level

According to Figure 4.4, the majority of the participants 34.52% (175 respondents) have a bachelor's degree or equivalent qualifications. Following Figure 4.4 32.54% (165 respondents) of the participants hold Secondary Education/SPM qualifications. Furthermore, 27.61% (140 respondents) of the participants have a Diploma or equivalent/STPM/Certificate qualifications. Lastly, only 5.33% (27 respondents) of the participants held Postgraduate (Master/PhD/DBA) qualifications.

Descriptive Analysis for Education Level



Source: Developed from research

4.2.1.5 Location of Company

According to Figure 4.5, the majority of companies are located in Kuala Lumpur with 29.98% (152 respondents). Then, 23.27% of the companies (118 respondents) are located in Selangor. In addition, 21.50% of the companies (109 respondents) are located in Pulau Pinang. Furthermore, 13.81% (70 respondents) of the companies are located in Johor and 4.73% (24 respondents) of the companies are located in Melaka, Kelantan, Sarawak and Terengganu. Moreover, 0.79% (4 respondents) of the companies are located in Negeri Sembilan. Next, 0.59% of the companies (3 respondents) are located in Kedah and Putrajaya. 0.39% of the companies (2 respondents) are located in Perlis. Lastly, only 0.20% of the companies (1 respondent) are located in Pahang and Sabah.





Source: Developed from research

4.2.1.6 Sector of the Company

According to Figure 4.6, it can be inferred that 75.54% (383 respondents) of the participants are engaged in the service sector. In addition, 16.57% (84 respondents) of the participants are engaged in the manufacturing sector in Figure 4.6. Next, 6.11% (31 respondents) of the participants were engaged in the construction sector. Finally, the least number of participants were engaged in the agriculture sector with only 1.78% (9 respondents).



Descriptive Analysis for Sector of Company

4.2.1.7 Number of Full-Time Employees

According to Figure 4.7, 41.62% (211 respondents) of the companies have 1 to 10 fulltime employees. In addition, 26.04% (132 respondents) of the companies had 11 to 50 full-time employees. Next, 18.74% of the companies (95 respondents) had 51 to 150 full-time employees. Then, 8.48% (43 respondents) of the companies had 151 to 500 full-time employees. Finally, only 5.13% (26 companies) have more than 501 full-time employees.

Source: Developed from research



Descriptive Analysis for Number of Full-Time Employees

4.2.1.8 Company's Yearly Revenue (RM)

According to Figure 4.8, most of the companies have annual revenue between RM250,000 to RM1 million, which is only 36.69% (186 respondents). Secondly, 27.02% (137 respondents) of the company had an annual revenue of less than RM250,000 per year. In addition, 24.46% (124 respondents) of the companies had annual revenue between RM1 million to RM10 million that shown in Figure 4.3.2.8. Lastly, companies with annual revenue of more than RM10 million were the least with only 11.83% (60 respondents).

Source: Developed from research



Descriptive Analysis for Company's Yearly Revenue (RM)

4.2.1.9 Duration of Company Established

According to Figure 4.9, the majority of the companies have more than 10 years established with 36.88% (187 respondents). Next, 31.16% (158 respondents) of the company had been established in 4 to 10 years. Furthermore, 28.40% (144 respondents) of the company had been established in 1 to 3 years. Lastly, the duration of companies established less than 1 year were the least with only 3.55% (18 respondents).

Source: Developed from research



Descriptive Analysis for Duration of Company Established

Source: Developed from research

4.2.2 Measurement of Constructs' Dispersion and Central Tendencies

The answers to the questionnaires associated with the independent and dependent variables gathered in Section B are analysed in the next section. Both the mean, which is a measure of central tendency, and the standard deviation, which is a measure of dispersion, were included in the analyses that were conducted. Each variable is subjected to analysis one at a time.

4.2.2.1 Firm Performance

First and foremost, the questions related to firms' performance are being examined. Refer to Appendix 4.2, FP10 has the biggest mean of 3.88 while its standard deviation is 1.109. Standard deviation more than 1 can be considered high which means that the data are more spread out from the mean. FP2 and FP4 have the same mean which is 3.64, however, their standard deviation is different. It means that FP2 and FP4 are centrally located around the similar value but their spread of data from the central value are different. The lowest mean is 3.53 which is obtained by FP3 and its standard deviation is 1.107.

4.2.2.2 Social Factor

Next, the questions pertaining to social factors are being analysed. According to Appendix 4.3, the largest mean gained by SF10 with 3.83 and its standard deviation with 1.153. For this section, there are also questions with the same mean, which are SF2 and SF3. The average value of the data is 3.71, but the standard deviation is also different. The lowest mean is 3.22 with the highest standard deviation of 1.316 gained by SF5.

4.2.2.3 Technological Factor

Furthermore, we also examined the questions about technological factors. The result is attached at Appendix 4.4. In this section, TF16 has the highest average value of 3.83, with a relatively low standard deviation of 1.103. There are also a few pairs of the

questions that have the same mean but their standard deviation are different which are TF3 and TF5, TF10 and TF17, TF1 and TF22, TF13 and TF15, and TF2 and TF20. When it comes to TF18, it has the lowest average value of 3.28, and it has the highest standard deviation, which is 1.315.

4.2.2.4 Economic Factor

Besides, the questions pertaining to economic factors are also being analysed. The result is attached at Appendix 4.5. EF7 has the largest mean value of 3.72 and its standard deviation is 1.108. There are also questions that have similar mean value in this section. EF9 and EF10 have the same mean value which is 3.58 while their standard deviations are also quite similar, the values are 1.103 and 1.117 accordingly. EF4 and EF8 also have the same mean which is 3.51. The smallest mean value is obtained by EF2 with a value of 3.18 and its standard deviation is the largest, 1.345.

4.2.2.5 Government Policies

The last variable being examined is government policies. Referring to Appendix 4.6, GP15 has the biggest average rate of 3.96 and a small standard deviation of 1.048. The mean value 3.51 gained by two questions at the same time, which are GP4 and GP10. However, each of its standard deviations is different. GP6 and GP8 also have the same average value of 3.50, but their standard deviations differ from each other. The lowest mean value is 3.36 by GP1 and its standard deviation is 1.125.

4.3 Scale Measurement

4.3.1 Reliability test

Table 4.1

Cronbach's Alpha Reliability Analysis

No.	Type of Variable	Name of Variable	Number of	Cronbach's	Reliability Test
			Items	Alpha	
1	Dependent	Firms'	10	0.858	Very Good
	Variable	Performance			Reliability
2	Independent	Social Factor	10	0.867	Very Good
	Variables				Reliability
3	Independent	Technological	22	0.939	Excellent
	Variables	Factor			Reliability
4	Independent	Economic Factor	12	0.939	Excellent
	Variables				Reliability
5	Independent	Government	15	0.917	Excellent
	Variables	Policy			Reliability

Source: Developed from research

According to Table 4.1, independent variables with Cronbach's alpha of more than 0.90, such as technological factor (0.939), economic factor (0.939), and government policy (0.917), have excellent reliability. Social factor whose value is 0.867 has a very good reliability. Moreover, the survey's dependent variable is firms' performance, with a Cronbach's alpha of 0.858. As a result, it has exhibited Very Good Reliability. In

summary, all of the scales exhibit high reliability as Cronbach's alpha for both the independent and dependent variables exceeds 0.80. As a result, everything is retained in the research.

4.4 Preliminary Data Screening

4.4.1 Multicollinearity test

Multicollinearity occurs when there are strong correlations between two or more controlled variables in a multiple linear regression (Hayes, 2023). According to Kim (2019), when VIF is more than 5 to 10 and the tolerance value is less than 0.1 to 0.2, multicollinearity problems do exist in the model.

Table 4.2

Variance Inflati	on Factor (VIF)	and Tolerance Value
------------------	-----------------	---------------------

Independent variables	Collinearity Statistics	
	VIF	Tolerance
Social Factor	2.529	0.395
Technological Factor	2.517	0.397
Economic Factor	2.171	0.461
Government Policies	2.305	0.434

Source: Developed from research

All of the controlled variables' VIF values are lower than 10, and their values of
tolerance are all greater than 0.1, as shown in Table 4.2. As a consequence, it was discovered that there was no multicollinearity problem among the controlled variables.

4.5 Inferential Analysis

4.5.1 Multiple Regression Analysis

Table 4.3

Multiple Regression Analysis

Unstandardized									
	Coefficient								
	Beta	Std. Error	t-statistics	P-value					
(Constant)	0.556	0.102	5.438	< 0.001					
SF	0.281	0.037	7.596	< 0.001					
TF	0.089	0.039	2.287	0.023					
EF	0.375	0.036	10.515	< 0.001					
GP	0.133	0.037	3.553	< 0.001					
R-squared				0.673					
Adjusted R-squared				0.670					
F-test				257.810					
P-value				< 0.001					
Durbin Watson				1.754					

Source: Developed from research

In this research, researchers have evaluated the connection between four controlled variables: Social Factor (SF), Technological Factor (TF), Economic Factor (EF), and Government Policies (GP), and the predicted variable, which is Firms' Performance. Table 4.3 shows the results, which indicate that Social Factor, Economic Factor, and

Government Policies are significant at t-statistics of 7.596, 10.515, and 3.553 correspondingly since their p-values are all smaller than 0.01 when the significant level is at 1%. Additionally, given the Technological Factor's p-value is smaller than 0.05 and its t-statistic value is 2.287, the result indicates that it is significant at a 5% level of significance.

The social factor, economic factor and government policies show a significant effect with a confidence level of 99%. This is due to their p-value, which is less than 0.001, falling below the 1% level of significance. Besides that, the discovery of this research also shows that the technological factor is statistically significant with a 95% confidence level. This is due to the fact that its p-value, which is 0.023, is below 5% level.

Additionally, each of these independent factors has a positive coefficient, indicating a favourable impact on the firms' performance. The value of social factor in this analysis is 0.281. This means that, ceteris paribus, an increase of one unit in the social factor leads to a 0.281 unit increase in the performance of Malaysian SMEs during the pandemic period. The value for the technological factor is 0.089, which means that the technological factor increase per unit will result in a 0.089 unit increase in the performance of Malaysian SMEs during the pandemic, ceteris paribus. Moreover, the coefficient of economic factor is 0.375 suggests that a one-unit increase in an economic factor corresponds to a 0.375-unit increase in the performance of Malaysian SMEs during the pandemic, holding other variables constant. Last but not least, 0.133 is the coefficient value of the government policies. This demonstrates that, while holding other variables constant, a one-unit increase in government policies improves the performance of Malaysian SMEs during the pandemic period by 0.133 units.

Based on the information provided, the regression model is found to be statistically significant with a high level of confidence (99%). This conclusion is drawn from the

fact that the p-value of the F-test is lower than the specified significance level of 1% (p-value < 0.001). Therefore, 257.810 which is the value of the F-statistic is proven to be significant. Consequently, the four independent variables of social factors, economic factors, technological factors and government policies are significantly represented in the model along with the dependent variable of firms' performance.

In addition, R-squared (R^2) is a statistical metric that indicates the percentage of changes in the independent variables that are accounted for by changes in the dependent variables (Filho et al., 2011). The finding of 0.673 R^2 indicates that the combined variance of the social factor, technological factor, economic factor, and government policies are responsible for 67.3% of the variation in the performance of Malaysian SMEs during the pandemic period. Other relevant variables account for the remaining 32.7% of the variation in the performance of Malaysian SMEs during the pandemic period.

Moreover, 0.670 is the value of the adjusted R-squared. This indicates that, after taking into account the degree of freedom, 67% of the variance in the Malaysian SMEs' performance can be attributed to a combination of social factor, technological factor, economic factor, and government policies.

4.6 Conclusion

The data analysis is carried out using SPSS 28.0. It helps with the analysis and summary of the information. The scales for the questions have been determined to be reliable. Additionally, this study has no multicollinearity problems. In summary, the findings from the multiple regression analysis indicate that the firms' performance is

significantly affected by four independent variables which are social factor, technological factor, economic factor, and government policy.

CHAPTER 5: DISCUSSION, IMPLICATION AND CONCLUSION

5.0 Introduction

Throughout this section, researchers are going to explore and provide a thorough explanation and exhaustive discussion of the data findings from our results. We developed a statistical analysis which is shown in Table 5.1 to understand the correlation between the variables. There are discussions on the finding with the key determinants. Besides, the section will also include the study's implication, limitation and recommendation for the business owner as well as to the government in the future.

5.1 Summary of Statistical Analysis

Table 5.1

Summary of Statistical Analysis Result

Independent variables	T-statistic	P-value	Outcomes	Decision
Social factor	7.596	<.001	Significant	Supported
Economic factor	2.287	<.001	Significant	Supported
Technological factor	10.515	0.023	Significant	Supported
Government policies	3.553	<.001	Significant	Supported

Source: Developed from research

5.2 Discussion of Major Finding

More details and information in this section will be explored in order to understand the link between controlled variables and predicted variables after summarizing the main findings in Section 5.1, referring to Table 5.1.

5.2.1 Key Determinants of the Firm Performance in Malaysia

5.2.1.1 Social Factor and Firms' Performance

H_1 = There is a significant relationship between social factor and firms' performance.

Following the statistical analysis which developed from multiple regression analysis, we found that the social factor and the firms' performance has a significant relationship in Malaysia. This can indicate that the social factor gives an impact on the firms' performance during COVID-19. In relation to this, the outcomes of this research are similar to the discoveries of social factors that were researched from Zhang et al. (2021) who claimed that work from home has an impact that would affect the company's revenue and supply chain which affect the firms' performance. In addition, our findings are also in line with the researchers, Bai et al. (2022). The researchers claimed that work from home practices will make the company do well in general business. Additionally, it is also the same with the research done by Jiang et al. (2023), in which the adoption of contactless delivery methods in all industries that are associated with logistics and delivery services is going to develop a general trend during COVID-19. Besides, the p value of the hypothesis that we developed is less than 0.05 significance level and therefore supported in the study. In relation to this, this indicates that the social factor will definitely impact on the firms' performance during the COVID-19.

5.2.1.2 Technological Factor and Firms' Performance

H_2 =There is a significant relationship between technological factor and firms' performance.

Referring to the statistical analysis in Table 5.1, we found that technological factors and firms' performance have a significant relationship in Malaysia. This shows that the firms' performance is being affected by technological factors such as online ecommerce and cashless payments. This discovers is aligned with the studies done by Amankwah-Amoah et al. (2021) in which some of the firms began to recognize and give attention to the digitally oriented value-chain operations for the purpose of maximising their competitive advantages and long-term sustainability as much as possible and reducing the negative effects of COVID-19 at the same time. Besides, research from Margaritha Sugianto et al. (2023) found that higher levels of digitalization were associated with higher levels of business resilience. Therefore, the technological factors did impact on the firms' performance during COVID-19.

5.2.1.3 Economic Factor and Firms' Performance

H_3 = There is a significant relationship between economic factor and firms' performance.

According to the statistical analysis that we developed in Table 5.1, the findings indicated that there is a substantial relationship between the economic factor and the firms' performance. This result is proven by the several researchers done by Aifuwa (2020) who claimed that the pandemic can affect the firms' performance. Besides, our study is also in line with the researcher, Saad (2021). The researcher claimed in which

the unemployment rate rises due to the forced shutting down of the business including many small, medium-sized and large companies. Furthermore, research done by Balla-Elliott et al. (2020) showed that the lockdown regulated by the government did not mean are incorrect but it implied the financial costs of prolonged lockdowns that highly affected the small business. They found out that when the expected restrictions duration is longer, the higher the financial cost and hence, the probability of firms' survival will decrease. This can indicate that the economic factor gives an impact on the firms' performance during COVID-19.

5.2.1.4 Government Policies and Firms' Performance

H_4 =There is a significant relationship between government policies and firms' performance.

Referring to Table 5.1, the results shown are consequently supported in the current investigation. This suggested an obvious relationship between the firms' performance and government policy. This result is the same as the study done by Shah et al. (2020) and Donthu & Gustafsson (2020), which proves that government initiatives to combat the spread of COVID-19, such as COVID-19 Health Protocols (SOPs) and Economic Recovery Policies, are important for lowering infection rates and allowing for the return of business as usual. Firms that follow the SOP initiated by the government will have better performance. According to the research of Alessa (2021), a lot of business owners are moving their activities online as a result of policies from the government, which affect consumer demand. Contactless service through online platforms can help firms improve their performance effectively. As a result, during the COVID-19 epidemic period, government policies had a positive impact on the performance of firms.

5.3 Implication of Study

5.3.1 Theoretical Implication

By applying the two popular theories which are Resource Based View (RBV) theory and Stakeholder theory in this study, it has made a significant contribution to examine the influence of pandemic on the firms' performance. RBV theory was used to examine the firms' performance with their competitive advantage while stakeholder theory explained about the importance of stakeholders' relationship towards the performance of the firms. In this study, we found out that social factors, technological factors, economic factors and government policies were the important factors affecting the firms' performance.

The discoveries of this study proved that the technological factors and the economic factors were important to the firms' performance through RBV theory. In this theory, it mentioned that the company needs to utilise its resources well to keep competitive in the market. Hence, those firms that have applied the latest technologies such as the cashless payments, digitalizations and artificial intelligence into their businesses tend to have competitive advantage during the COVID-19 pandemic. This was because these new technologies helped them to conduct their businesses more efficiently and effectively and therefore, their firms' performance became better. In addition, those firms that have the strong economic advantage such as good financial background were not easily affected by the COVID-19 pandemic since they have lower risks of facing cash flow problems as compared to the other firms. The good financial background provided the firm opportunity to modify or transform into a better operation mode in order to maintain the competitiveness.

The stakeholder theory was being applied most in the social factors and government policies. The firms that were emphasising on the changes of lifestyles due to the COVID-19 pandemic managed to improve or maintain their firms' performance. This was related to the stakeholders' preferences whereby customers began to have online shopping with the purpose of reducing the spread of virus by contactless delivery and the employees also adapted to the work from home basis during the pandemic. When the firms establish good relationships with the employees and also customers by changing or enhancing their business operations, this can affect the firm performance. Government is also one of the stakeholders for firms. This study has shown that the firms were able to manage the firms' performance with a good relationship with the government. This was because the government provided some policies that were beneficial to the firms to help them to reduce the detrimental effects of COVID-19 towards their performance. Once the firms maintain a good relationship with the government by always complying with the rules and regulations, it will be easier to gain the benefit offered by the government and hence can help the firms to perform better.

5.3.2 Practical Implication

Referring to the result of the aforementioned chapter, it showed that social factors have significant impact on the firms' performance. In order to increase the firms' performance, the company can continue to implement working from home basis for the employees as they have changed their social preferences to remote mode. Remote jobs become more popular from time to time and become one of the important requirements when employees are finding jobs. The firms' performance will be able to increase when the firm operations mode and its employees' preferences are matched. A blend mode of working is more likely to improve the firms' performance by lowering down some of the expenditures and hence can increase the revenue earned. In addition, as more and more people like shopping online, there is an opportunity for the firm to perform

better. The firms can adapt to the online platform to expand their business. There are still some of the businesses not expanding into the online mode, therefore, this can make their opportunities to the reach of potential customers become lesser due to the rate of appearance of the business in the eyes of public is lower when it does not handle the online business. The firms actually can fully utilise the benefit of the online network to expand their businesses in order to reach out more customers and generate more sales and revenues.

Technological factors are crucial for improving firms' performance. The new technology keeps developing and those firms that can apply the latest technology in their businesses tend to have competitive advantage to perform better. Hence, everyone in the firm should emphasise on the suitable technology that can be applied in the operations in order to improve the effectiveness and efficiency. In addition, for many Malaysian businesses, technology investments offer quick returns, and the strong link between technology adoption and business performance has undoubtedly influenced this acceptance. However, due to a lack of understanding of the possibilities or mistrust of new solutions, SMEs may only offer a few digital and mobile payment options. As a result, there is more work to be done to convince businesses that accepting payments through digital and mobile channels will expand consumer reach. Businesses can provide their employees with more opportunities to learn about fintech knowledge so that their organisations can successfully implement the latest technology. Additionally, companies are recommended to use more technology in order to adapt to the environment nowadays. For example, they can use automation to simplify the process and this will reduce time consumption and labour cost.

According to the researcher's findings, economic factors have a substantial effect on business performance. Nowadays, Malaysia's economy is recovering gradually from the impact of the COVID-19 pandemic. However, the inflation rate of the country is increasing, and this will increase the cost of the company. Hence, most companies will prefer to import their materials from other countries in order to reduce costs since domestic materials are more expensive compared to imported materials due to high inflation. Based on this situation, companies are recommended to develop a hedging strategy in order to minimise foreign exchange risk.

Not only that, as mentioned in the above theoretical framework, it has been mentioned that government policies show that businesses are greatly influenced by the laws and regulations that the government has issued in counter to the pandemic. This also includes business activities, financial assistance programs, tax exemptions, etc. Based on the recommendations collected from the respondents for this study, a large percentage of respondents were satisfied with the government's implemented policies. However, there were still some respondents who disagreed. This could be attributed to the lack of government funding to address pandemic issues. In addition, some SMEs may face complex procedural issues in accessing government-funded programs in a timely manner. As a result, there are still some SMEs that miss the opportunity to receive government assistance. In response to the above problems, the government should simplify the funding program's cumbersome procedures so that SMEs can acquire funds in a timely manner. Furthermore, the government should maintain clear and transparent communication with the general public and SMEs. This is to ensure that the government communicates with the public on a regular and transparent basis, offering accurate information, updates, and prevention guidelines. Clear and consistent messaging fosters trust and promotes adherence to public health guidelines. Additionally, the government can also consider adapting a new norm, which is a new way to do business, such as providing subsidies to those companies that conduct ecommerce to encourage them to gradually transform their businesses into online modes. The government plays a critical role in moving businesses into the digital age; hence, they must issue more new policies to help companies transform their businesses.

5.4 Limitation of the Study

Like all legitimate studies, this study is troubled with a certain degree of limitation as well. First and foremost, the majority of this study places more emphasis on quantitative data. However, there is no qualitative information. In studying the relationship between the four independent variables and the dependent. The researcher can only collect numerical information data. In addition, it used a 5-point Likert scale, which also consists of closed-ended questions. As stated earlier, this study involves a closed-ended question format, which usually provides a predetermined set of response choices (ranging from 1 to 5). Due to the limited response options, participants may face limitations in expressing their opinions or experiences if their viewpoint does not align with the provided options.

Following that, this study collects data to examine the relationship between the variables including economic factors, social factors, technological factors, and government policies, and the dependent variable, which is the firms' performance during the pandemic of COVID-19. Due to time constraints, this study was only able to use four independent variables to determine the firms' performance. However, this may be too simplistic. Much of what happens in the real world is complex and influenced by a variety of variables. Having only four independent variables may oversimplify the underlying dynamics and interactions, leading to an inadequate understanding of the phenomenon.

As a result, the study's findings are not entirely based on solid ground. Other future researchers should seek out more particular literature in order to provide more solid theoretical foundations, because citing and referencing earlier research forms the foundation of the literature review and allows for a deeper grasp of the variables.

5.5 Recommendation

As a result, there are various ways that the researchers might do better in future studies in researching the factors influencing the firms' performance during COVID-19 pandemic, so that a deeper understanding of this subject can be achieved.

It was recommended that future researchers should plan to distribute the collection of both qualitative and quantitative data evenly. To gather more diverse and extensive data, it would be beneficial to include open-ended questions along with closed-ended questions in the study. It was recommended that future researchers should plan to distribute the collection of both qualitative and quantitative data evenly. To gather more diverse and extensive data, it would be beneficial to include open-ended questions along with closed-ended questions in the study. This could be because open-ended questions prompt participants to provide thorough and extensive responses. As a result, it allows for a more profound comprehension of their experiences, thoughts, and emotions. Moreover, participants have the flexibility to express themselves using their own language, enabling a diverse range of responses.

In addition, it was suggested that future researchers include more independent variables when studying the performance of the firm. This might be because including a number of independent variables in a study might have a number of advantages, increasing the complexity and breadth of your research. The robustness of the results could be improved if future researchers included more independent variables. Also, the results are more solid and reliable when several independent variables regularly display the same pattern of outcomes. The reliability of your conclusions is strengthened by this consistency.

5.6 Conclusion

The main goal of the study is to comprehend how COVID-19 has affected Malaysian firms' performance. The questionnaires were distributed which target the senior-level position in the company. To collect the data, we used SPSS 28.0 for analyzing the data. using different tests in Chapter 4. The results of the analysis showed that H1 to H4 were accepted. In relation to this, this can be indicated as the social factor, economic factor, technological factor and government policies have significant impact on the firms' performance during COVID-19. The implications of these findings are presented after a full discussion of the findings. Finally, the study's limitations are explored, recommendations and related advice is given. for SMEs and the government. Hence, this study may offer future researchers some guidance regarding respondent selection, data collecting, and variable selection.

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APPENDICES

APPENDIX 1.1

GDP Growth Rate (%) in Malaysia from year 2019 till year 2022.

Year	Quarter	GDP Growth Rate (%)
2019	Q1	4.6
	Q2	5.0
	Q3	4.0
	Q4	4.5
2020	Q1	1.4
	Q2	-18.8
	Q3	-3.7
	Q4	-4.5
2021	Q1	0.8
	Q2	23.3
	Q3	2.3
	Q4	12.1
2022	Q1	13.8
	Q2	19.0
	Q3	20.9
	Q4	9.9

APPENDIX 1.2

Unemployment Persons and Unemployment Rate in Malaysia from year 2019 till 2022

Year	Quarter	Unemployment ('000)	Unemployment Rate (%)
2019	Q1	516.6	3.3
	Q2	520.6	3.3
	Q3	512.1	3.3
	Q4	512.2	3.2
2020	Q1	546.6	3.5
	Q2	791.8	5.1
	Q3	745.0	4.7
	Q4	760.7	4.8
2021	Q1	771.8	4.8
	Q2	764.9	4.8
	Q3	746.2	4.7
	Q4	694.4	4.3
2022	Q1	671.2	4.1
	Q2	642.0	3.9
	Q3	611.8	3.7
	Q4	600.5	3.6

APPENDIX 1.3

MCO 1.0	March 18, 2020 - May 3, 2020	During this time, all non-essential businesses were closed, and people were required to stay at home except for essential needs such as buying groceries and seeking medical treatment.
MCO 2.0	January 13, 2021 - February 4, 2021	The restrictions were similar to MCO 1.0, but with some additional measures such as the closure of schools and inter-district travel restrictions.
MCO 3.0	May 12, 2021 - June 7, 2021	This MCO was more relaxed than the previous two, with more businesses allowed to operate and some inter-district travel allowed.
MCO 3.0 (Phase 1)	May 28, 2021 - June 7, 2021	It was a stricter version of MCO 3.0, with inter-district travel banned and more businesses closed.
MCO 3.0 (Phase 2)	June 8, 2021 - June 28, 2021	It was a more relaxed version of MCO 3.0, with most businesses allowed to operate and some inter-district travel allowed.
MCO 3.0 (Phase 3)	June 29, 2021 - August 31, 2021	It was the most relaxed version of MCO 3.0, with most businesses allowed to operate and inter-district travel allowed with some restrictions.
Conditional Movement Control Orders (CMCOs)	March, 2022 - June, 2022	It is a partial lockdown that allows certain economic and social activities to continue while enforcing strict standard operating procedures (SOPs) to reduce the risk of infection.
Enhanced Movement Control Orders (EMCOs)	Depending on the situation and the decision of the authorities	It is a more severe lockdown that is implemented in specific areas or localities that have a high number of COVID-19 pandemic's cases.

Measures implemented by government during COVID-19 pandemic

APPENDIX 2.1

No.	Title	Authors	Purpose	Variables	Research Design	Major Findings
1	Eco-Innovation Capabilities and Sustainable Business Performance during the COVID-19 Pandemic	Siti Nur Atikah Zulkiffl <u>i</u> (2022)	To explores the role that eco-innovation capabilities might play in improving sustainable business performance during the ongoing pandemic.	 Eco-product innovation Eco- management innovation Eco- logistics innovation 	1.Pilot test	Eco-Innovation will significantly affect the firms' performance during the COVID-19.
2	Government policies and firm performance in the COVID-19 pandemic era: a sectoral analysis	Danny Turkson, Nana Boakyewaa Addai (2021)	To examines the impact of government policies on firms using first difference estimation on the firm performance during the COVID-19.	 Demand Remote workers Payment of suppliers Tax payment Loan repayment Government policy Working hours 	1.Ordinary Least Square (OLS)	In sum, the empirical fndings indicated that with the exception of delayed payment to suppliers, delayed payment of taxes and level of exposure all the other variables signifcantly determined frms' sales growth.

Summary Table of Literature Review

					Future expectation Level of COVID exposure		
3	Stakeholder pressure and innovation capacity of SMEs in the COVID-19 pandemic: Mediating and multigroup analysis	Rubio- Andrés et al., (2023b)	To analyze how stakeholder pressure affects both the innovation capabilities of SMEs and their firm performance.		Firm performance Financial performance	1.SEM-Partial Least Square	In our study, we analyzed SME managers who have improved their innovation capacity and have managed to emerge from the COVID-19 pandemic.
4	Working from home: small business performance and the COVID-19 pandemic	Zhang et al., (2021)	This study focuses on the relationship between WFH and small business performance during the pandemic.	2. 3.	changes in operating revenue changes in operating revenue business closures business closure	 fixed- effect cross- section time- series panel- data (FEP) model fixed- effect cross- section time- 	WFH has potential attractiveness for small businesses with lower odds of reduced operating revenue, supply chain disruption, and a better cash flow condition.

						series panel- data (FEP) model 3. fixed- effect cross- section time- series panel- data (FEP) model	
5	Digital Resilience: How Work-From- Home Feasibility Affects Firm Performance	Bai et al., (2021)	Our study's results are robust to a variety of empirical specifications and provide a first look at how WFH practices improved resilience to a major, unanticipated social and economic shock.	4.	Sales Net income Capital expenditures Stock return Total assets	1. Difference-in- differences (DID) research design	Our results indicate that firms with higher digital resilience, as measured through our pre-pandemic WFH index, performed significantly better in general, and in non-essential industries in particular, where WFH feasibility was necessary to continue operation.

6	The Challenges and Opportunities in the Digitalization of Companies in a Post-COVID-19 World	Almeida et al., (2020)	This exploratory study analyzes the impact of digital transformation processes in three business areas: labor and social relations, marketing and sales, and technology.	 Labor and social relations Marketing and sales Technology 	N/A	In this study resulted in Digitization of companies will increase the importance given to the digital channels of marketing and sales of companies.
7	COVID-19 AND DIGITALIZATION: THE GREAT ACCELERATION	Amankwah- Amoah et al., (2021)	In this paper examines how the COVID-19 pandemic is driving or constraining the digitalization of businesses around the globe.	N/A	N/A	Our analysis indicates that adoption of emerging technologies may be hindered by vested external interests, nostalgia, and employer opportunism, as well as negative effects on employee well- being that undermine productivity,

						work–life balance, and future of work.
8	CORONAVIRUS PANDEMIC OUTBREAK AND FIRMS PERFORMANCE IN NIGERIA	Aifuwa, (2020)	To investigate the effect of Coronavirus pandemic outbreak on the performance of private businesses in Nigeria.	1. COVID-19 pandemic	 Mono-method quantitative research design Non- parametric inferential Statistic– Linear regression 	The study concluded that COVID-19 pandemic negatively affects firm performance in Nigeria.
9	Relationship between Covid-19 pandemic and firm's performance towards unemployment across countries	Saad, (2021)		1. Unemployment rate	1.Ordinary Least Square (OLS)	This study it was significant relationship between the unemployment rate and Covid-19 pandemic.

10	Impact of COVID- 19 on Entrepreneurship and Consumer Behaviour: A Case Study in Saudi Arabia	Alessa, Alotaibie, et al., (2021)	The current research aims to examine the impact of coronavirus pandemic on entrepreneur's business activities and their perceptions on the difference in consumer behavior during this time.	N/A	1. 2.	random research design	This paper demonstrates that there is a significant increase in entrepreneurs shift to utilizing online platforms to conduct their businesses due to restrictions instituted by governments, which consequently impact the demand of consumers.
11.	A study of the Indonesian trucking business: Survival framework for land transport during the Covid-19 pandemic	Margaritha Sugianto et al., (2023)	by the COVID-19	 Financial resources Resilient leadership Innovation in Digitalization technology Company adaptability and flexibility Risk and business continuity management 6. Customer relationship 		1. PLS- SEM	Our study indicates that trucking companies that have better resilience were also able to maintain better performance

12.	BUSINESS REOPENING DECISIONS AND DEMAND FORECASTS DURING THE COVID-19 PANDEMIC	Balla-Elliott et al., (2020)	we estimate the relationship between demand expectations and reopening. These estimates suggest that post-lockdown delays in reopening can be explained by low levels of expected demand	1. Business reopen decision	N/A	The average business in our sample expects to be closed two weeks longer than the restrictions last, although some businesses expect to be closed for months after they are legally allowed to reopen.
13.	Exploring the factors that drive consumers to use contactless delivery services in the context of the continued COVID- 19 pandemic	Jiang et al., (2023)	It helps to optimize resource allocation and realize the social environment related to coexisting with the COVID-19 pandemic.	 Convenience Privacy Reliability Security Customers' perceived value 	Structural equation modelling (SEM)	With the exception of convenience, the results show that privacy, reliability, security, and flexibility have a significantly positive effect on consumers' intention to use "contactless" delivery services through

THE IMPACT OF COVID-19 ON FIRMS' PERFORMANCE

			consumers' perceived value.
			I
Variables	Items	Descriptions	Sources
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Firm Performance (FP)	FP 1	COVID-19 pandemic had a major negative impact on my company in the past 36 months.	Adapted from Chai, W., & Li,
	FP 2	My company has already recovered from the negative impacts of COVID-19.	G. (2018)
	FP 3	My company's market share has decreased due to the economic recession.	
	FP 4	My company has changed the business operation to be protected against the COVID- 19 pandemic.	
	FP 5	My company has developed a written business continuity plan following the COVID-19 pandemic.	
	FP 6	The production of products or services of my company has been affected by the COVID-19 pandemic.	
	FP 7	The process of supply chain development has been affected during the COVID-19 pandemic.	
	FP 8	My company's major reaction to COVID-19 was to increase its focus on online sales.	
	FP 9	My company has conducted cost-cutting measures during the COVID-19 pandemic.	
	FP 10	Sales and revenue of my company have been affected during the COVID-19 pandemic.	
Social Factor (SF)	SF 1	Most customers of my company have preferred contactless payment due to the COVID-19 pandemic.	Adapted from Johnson &
	SF 2	Most customers of my company have preferred delivery service to avoid contact with others due to the COVID-19 pandemic.	Moorman, (2022)
	SF 3	My company has faced limited physical interaction due to the COVID-19 Pandemic.	

Sources of the questions for questionnaire

	SF 4	My company implemented work-from-home arrangements due to the COVID-19 pandemic.	
	SF 5	I feel that working from home is efficient.	
	SF 6	Government-imposed MCOs affect employees with mental health issues, such as stress, anxiety, depression, etc.	
	SF 7	My company changed its business hours of operation due to the COVID-19 pandemic.	
	SF 8	My company has conducted Corporate Social Responsibility (CSR) activities such as donating masks.	
	SF 9	My company regular disinfects due to the COVID-19 pandemic	
	SF 10	Most customers of my company demand the hygiene and cleanliness of the product due to the COVID-19 pandemic.	
Technological	TF 1	My company diversifies our business with	Adapted
Factor (TF)		continuous innovation.	from
	TF 2	My company uses multimedia as a digital platform to support innovation growth.	Sugianto et al., (2023)
	TF 3	My company increases investments in new IT technology to deliver automated processes.	Adapted from
	TF 4	My company introduce new software automation technologies to automate tasks.	Hussain & Hussain,
	TF 5	My company uses new technologies such as artificial intelligence (AI), machine learning.	(2023
	TF 6	My company has cybersecurity in place to protect our critical systems and sensitive data.	
	TF 7	My company has successful online business experience.	Adapted from Chai,
	TF 8	The online services of my company is convenient.	W., & Li, G. (2018)
	TF 9	My company has enough resources for the online business during COVID-19 pandemic.	
	TF 10	My company has earned revenue from online business during the COVID-19 pandemic.	

	TF 11	My company used cosicil modia (a a	
		My company used social media (e.g. Facebook, Instagram, Whatapps) for business	
		purposes during the Covid-19 pandemic.	
	TF 12	My company has outsourced e-delivery	
		services (such as food panda, Grab,	
		Lalamove, Shopee food) to deliver our goods.	
	TF 13	My company gets technology-innovative	
		consulting services (planning, evaluation,	
		training, etc.)	
	TF 14	My company has successful technology-	
		innovation experience during COVID-19	
		pandemic.	
	TF 15	My company's R&D team has capable	
		designers.	
	TF 16	My company adopts cashless transactions	
		such as payments made through online	
		transfer, mobile banking applications,	
		mobile digital applications.	
	TF 17	My company's sales have more than 20	
		percent received through digital payment	
		options such as FPX, Touch and Go,	
		Grabpay, WeChat Pay, and others.	
	TF 18	My company adopts new payment methods	
		for customers familiar with biometric	
		fingerprint technology.	
	TF 19	My company works hard to reassure	
		customers about payment security.	
	TF 20	My company has an intelligent transport	
		management system.	
	TF 21	My company uses new technologies such as	
		Global Positioning Systems (GPS), QR	
		Code, Radio Frequency Identification	
		(RFID).	
	TF 22	My company utilizes technology for	
		reducing response time across the supply	
		chain.	
Economic	EF 1	My company faced losses during the	Adapted
Factor (EF)		COVID-19 pandemic.	from
		real production of the second se	

	EF 2	My company underpaid employees during	Verma &
		the COVID-19 pandemic.	Gustafsson,
	EF 3	My company has increased disinfection costs	(2020)
	_	during the COVID-19 pandemic.	`` '
	EF 4	The capacity utilization of our company has	
		improved during the COVID-19 pandemic.	
	EF 5	My company faces the problem of a shortage	
		of laborers during the COVID-19 pandemic.	
	EF 6	My company implemented a work-from-	
		home policy during the COVID-19	
		pandemic.	
	EF 7	COVID-19 pandemic led to a decline in	
		company sales.	
	EF 8	There is a labor shortage because many	
		employees are hesitant to return to work.	
	EF 9	My companies faced difficulty accessing	
		financing during the COVID-19 pandemic	
		due to economic uncertainty among lenders.	
	EF 10	My companies faced difficulty accessing	
		financing during the COVID-19 pandemic	
		due to risk aversion among lenders.	
	EF 11	My company struggled with cash flow issues	
		during the COVID-19 pandemic due to	
		reduced revenues.	
	EF 12	My company struggled with cash flow issues	
		during the COVID-19 pandemic due to	
		increased expenses.	
Government	GP 1	The government's latest budget helps my	Adapted
Policy (GP)		company to sustain effectively during the	from Chai,
	CD 2	COVID-19 pandemic.	W., & Li, G. (2018)
	GP 2	My company has applied for the government	G. (2018)
	CD 2	support measures.	
	GP 3	The measures applied was efficient to my company's performance.	
	GP 4		
	Ur 4	My company has received a COVID-19- related loan or grant tied to re-hiring or	
		maintaining employees on the payroll.	
		mannanning employees on the paylon.	

	GP 5	The government provides preferential tax	
		policies to reduce the tax burden on	
		businesses during the COVID-19 pandemic.	
	GP 6	The government supported businesses during	
		the COVID-19 pandemic.	
-	GP 7	The government provides preferential	
		subsidies for businesses during the COVID-	
		19 pandemic.	
-	GP 8	Financial assistance from the government can	
		be effective in helping my employees.	
-	GP 9	The policies implemented by the government	
		have affected the company's performance.	
	GP	The government has provided effective	
	10	assistance and support to my company.	
-	GP	My company is actively obeying the rules and	Adapted
	11	regulations (MCO, EMCO, CMCO) imposed	from
		by the government during the COVID 19	(Clenia
		pandemic.	Zurlo et al.,
	GP	According to the government policy,	2020)
	12	employees who have contact with someone	
		infected with COVID 19 virus should be	
		immediately isolated in a proper place.	
	GP	According to the government policy,	
	13	employees who have to travel on a business	
		trip should be immediately isolated in a	
-		proper place.	
	GP	My company feel that the government's	
	14	mandate to issue of letter of authorization for	
		the release of travelers to workers on duty is	
		effective in controlling the spread of covid.	
	GP	My company is effective use the	
	15	government's application (My Sejahtera) to	
		ensure the safety of employees.	

Questionnaire (English Version)



APPENDIX B

UNIVERSITI TUNKU ABDUL RAHMAN KAMPAR CAMPUS

THE IMPACT OF COVID-19 ON FIRMS' PERFORMANCE: EVIDENCE FROM MALAYSIAN SMALL ANDMEDIUM ENTERPRISES

Dear valued respondent,

We are Ang Shi Wen, Lee Pei Yan, Nathalie Tan Yi Huang and Yow Ying Yan, undergraduate students who currently pursuing Bachelor of Finance at Universiti Tunku Abdul Rahman (UTAR). In partial fulfillment of our dissertation entitled "The impact of COVID-19 on the firms' performance: evidence from Malaysian small and medium enterprises". We are required to conduct a survey questionnaire to find out the extend of COVID-19 on the SMEs. Your company has been invited to participate in this research due to your company is able to sustain before and after the COVID-19 pandemic.

We would be very grateful if you could spend about 10 minutes of your precious time to complete this survey questionnaire. The validity of this research is highly depending on your truthful response. Therefore, it is very important for you to fully complete the questionnaire. Please be rest assured that all the information collected in this questionnaire will be strictly kept confidential and would only be used for academic purposes. Your cooperation is highly appreciated. Thank you.

If there is any require on addition information or questions, please do not hesitate to contact the project supervisor:Asst. Prof. Dr. Au Yong Hui Nee for further information on Tel: 05-4688888 Ext: 1034 or via email: auyonghn@utar.edu.my. Thank you.

Yours sincerely,

Ang Shi Wen, Lee Pei Yan, Nathalie Tan Yi Huang, Yow Ying Yan Student ID: 19ABB01647, 19ABB04122, 20ABB04542, 20ABB04777

Faculty of Business and Finance Universiti Tunku Abdul Rahman (UTAR)

Contact number: 016-6158323, 011-11193176, 012-292-7970, 010-5120312

Email: shiwenang@1utar.my, peiyan1213@1utar.my, nathalietan@1utar.my, yyy0616@1utar.my

Your information and responses will be kept private and confidential.

(NOTE: Please (v) tick your answers.)

(APPENDIX J3)

PERSONAL DATA PROTECTION STATEMENT

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

Notice:

- 1. The purposes for which your personal data may be used are inclusive but not limited to:-
 - For assessment of any application to UTAR
 - For processing any benefits and services
 - For communication purposes
 - For advertorial and news
 - For general administration and record purposes
 - For enhancing the value of education
 - For educational and related purposes consequential to UTAR
 - For the purpose of our corporate governance
 - For consideration as a guarantor for UTAR staff/ student applying for his/her scholarship/ study loan
- 2. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are

related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.

- 3. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.
- 4. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

Consent:

- 1. By submitting this form you hereby authorise and consent to us processing (including disclosing) your personal data and any updates of your information, for the purposes and/or for any other purposes related to the purpose.
- 2. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.
- 3. You may access and update your personal data by writing to us at _____

Acknowledgment of Notice

[] I have been notified by you and that I hereby understood, consented and agreed per UTAR above notice.

[] I disagree, my personal data will not be processed.

.....

Name:

Date:

Section A: Demographics Profile

- 1) Your age
 - \circ 18-25 years old
 - \circ 26-30 years old
 - \circ 31-40 years old
 - \circ 41-50 years old

- o 51-60 years old
- Above 60 years old
- 2) Your gender
 - o Female
 - o Male
- 3) What is your position in the company?
 - o Owner/Entrepreneur
 - Chief Executive Officer (CEO)/Managing Director/General Manager
 - o Manager
 - o Supervisor
 - Senior Executive
- 4) Education Level
 - Secondary Education/SPM
 - o Diploma or equivalent/STPM/Certificate
 - Bachelor's Degree or equivalent
 - Postgraduate (Master/PhD/DBA)

Company Profile

- 5) Where is your company based in:
 - o Perlis
 - o Pulau Pinang
 - o Kedah
 - o Perak
 - \circ Selangor
 - o Kuala Lumpur
 - o Negeri Sembilan
 - o Putrajaya
 - o Melaka
 - o Johor
 - o Pahang
 - o Kelantan
 - o Sabah
 - o Sarawak
- 6) What is the sector of the economy of your organization?
 - o Services
 - Manufacturing
 - Construction
 - o Agriculture

- 7) Total number of Full-Time Employees
 - o 1-10
 - o 11-50
 - o 51-150
 - o 151-500
 - \circ More than 501
- 8) How much is your company's yearly revenue (RM)?
 - Less than 250,000
 - o 250,001 1 million
 - \circ 1 million 10 million
 - \circ More than 10 million
- 9) Duration of company established.
 - o Less than 1 year
 - 1 3 years
 - o 4 10 years
 - Above 10 years

Section B

Instruction: Indicate the extent that you agree with each statement in Section B. Please refer to the ratings provided and tick $[\sqrt{}]$ the most appropriate option in the relevant column for each statement below.

Rating: 1= Strongly Disagree 2= Disagree 3= Neutral

(Neither Agree nor Disagree) 4= Agree 5= Strongly Agree

Please indicate to what extent you agree or disagree with the following statements.

A.	Firm Performance					
No	Statement	1	2	3	4	5
1	COVID-19 pandemic had a major negative impact on mycompany in the past 36 months.					
2	My company has already recovered from the negative impacts of COVID-19.					
3	My company's market share has decreased due to the economicrecession.					
4	My company has changed the business operation to be protected against the COVID-19 pandemic.					
5	My company has developed a written business continuity planfollowing the COVID-19 pandemic.					
6	The production of products or services of my company has been affected by the COVID-19 pandemic.					
7	The process of supply chain development has been affectedduring the COVID-19 pandemic.					
8	My company's major reaction to COVID-19 was to increase itsfocus on online sales.					
9	My company has conducted cost-cutting measures during theCOVID-19 pandemic.					
10	Sales and revenue of my company have been affected during theCOVID-19 pandemic.					

B. Social Factor								
No	Statement	1	2	3	4	5		
1	Most customers of my company have preferred contactlesspayment due to the COVID-19 pandemic.							
2	Most customers of my company have preferred delivery service toavoid contact with others due to the COVID-19 pandemic.							

3	My company has faced limited physical interaction due to theCOVID-19 Pandemic.			
4	My company implemented work-from-home arrangements due tothe COVID-19 pandemic.			
5	I feel that working from home is efficient.			
6	Government-imposed MCOs affect employees with mental health issues, such as stress, anxiety, depression, etc.			
7	My company changed its business hours of operation due to the COVID-19 pandemic.			
8	My company has conducted Corporate Social Responsibility(CSR) activities such as donating masks.			
9	My company regular disinfects due to the COVID-19 pandemic			
10	Most customers of my company demand the hygiene and cleanliness of the product due to the COVID-19 pandemic.			

No	Statement	1	2	3	4	E
No	Statement	1	2	3	4	5
1	My company gets technology-innovative consulting services(planning, evaluation, training, etc.)					
2	My company has successful technology-innovation experienceduring COVID-19 pandemic.					
3	My company diversifies our business with continuous innovation.					
4	My company uses multimedia as a digital platform to supportinnovation growth.					
5	My company's R&D team has capable designers.					
6	My company increases investments in new IT technology todeliver automated processes.					

7My company introduced new software automation technologiesto automate tasks.8My company uses new technologies such as artificial intelligence(AI), machine learning.9My company has cybersecurity in place to protect our criticalsystems and sensitive data.10My company has successful online business experience.11The online services of my company is convenient.12My company has enough resources for the online business during COVID-19 pandemic.13My company used social media (e.g. Facebook, Instagram, Whatapps) for business purposes during the COVID-19 pandemic.14My company has outsourced e-delivery services (such as foodpanda, Grab, Lalamove, Shopee food) to deliver our goods.16My company adopts cashless transactions such as paymentsmade through online transfer, mobile banking applications, mobile digital applications.17My company soles new payment methods for customersfamiliar with biometric fingerprint technology.					
8My company uses new technologies such as artificial intelligence(AI), machine learning.Image: Company has cybersecurity in place to protect our criticalsystems and sensitive data.Image: Company has cybersecurity in place to protect our criticalsystems and sensitive data.Image: Company has cybersecurity in place to protect our criticalsystems and sensitive data.Image: Company has cybersecurity in place to protect our criticalsystems and sensitive data.Image: Company has cybersecurity in place to protect our criticalsystems and sensitive data.Image: Company has cybersecurity in place to protect our criticalsystems and sensitive data.Image: Company has cybersecurity in place to protect our criticalsystems and sensitive data.Image: Company has cybersecurity in place to protect our criticalsystems and sensitive data.Image: Company has cybersecurity in place to protect our criticalsystems and sensitive data.Image: Company has cybersecurity in place to protect our criticalsystems and sensitive data.Image: Company has cybersecurity in place to protect our criticalsystems and sensitive data.Image: Company has cybersecurity in place to protect our criticalsystems and sensitive data.Image: Company has cybersecurity in place to protect our couring the COVID-19 pandemic.Image: CovID-19 pandemic.Image: CovID-19 pandemic.14My company has outsourced e-delivery services (such as foodpanda, Grab, Lalamove, Shopee food) to deliver our goods.Image: CovID-19 pandemic has foodpand, Grab, Lalamove, Shopee food) to deliver our goods.Image: CovID-19 pandemic has foodpand, Grab, Lalamove, Shopee food) to deliver our goods.Image: CovID-19 pandemic has foodpand, Grab, Lalamove, Shopee food) to deliver our goods.Image: CovID-19 pandemic has food	7	My company introduced new software automation			
intelligence(AI), machine learning.Image: Company has cybersecurity in place to protect our criticalsystems and sensitive data.10My company has successful online business experience.Image: Company has successful online business experience.11The online services of my company is convenient.Image: Company has enough resources for the online business duringCOVID-19 pandemic.13My company has enough resources for the online business during the COVID-19 pandemic.Image: Company has earned revenue from online business during the COVID-19 pandemic.14My company used social media (e.g. Facebook, Instagram, Whatapps) for business purposes during the COVID-19 pandemic.Image: CovID-19 pandemic.15My company has outsourced e-delivery services (such as foodpanda, Grab, Lalamove, Shopee food) to deliver our goods.Image: CovID-19 pandemic such as paymentsmade through online transfer, mobile banking applications, mobile digital applications.Image: CovID-19 pandemic such as FPX, Touch and Go, Grabpay, WeChat Pay, and others.18My company adopts new payment methods for customersfamiliar with biometric fingerprintImage: CovID-19 pandemic such as for customersfamiliar with biometric fingerprint		technologiesto automate tasks.			
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9My company has cybersecurity in place to protect our criticalsystems and sensitive data.Image: company has cybersecurity in place to protect our criticalsystems and sensitive data.10My company has successful online business experience.Image: company has successful online business experience.Image: company has experience.11The online services of my company is convenient.Image: company has enough resources for the online business duringCOVID-19 pandemic.Image: company has earned revenue from online business 	0				
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customersfamiliar with biometric fingerprint		Touch and Go, Grabpay, WeChat Pay, and others.			
	18	My company adopts new payment methods for			
		customersfamiliar with biometric fingerprint			

19	My company works hard to reassure customers about paymentsecurity.			
20	My company has an intelligent transport management system.			
21	My company uses new technologies such as Global PositioningSystems (GPS), QR Code, Radio Frequency Identification (RFID).			
22	My company utilizes technology for reducing response timeacross the supply chain.			

D	. Economic Factor					
No	Statement	1	2	3	4	5
1	My company faced losses during the COVID-19 pandemic.					
2	My company underpaid employees during the COVID-19pandemic.					
3	My company has increased disinfection costs during the COVID-19 pandemic.					
4	The capacity utilization of our company has improved during theCOVID-19 pandemic.					
5	My company faced the problem of a shortage of laborers during the COVID-19 pandemic.					
6	My company implemented a work-from-home policy during theCOVID-19 pandemic.					
7	COVID-19 pandemic led to a decline in company sales.					

8	There is a labor shortage because many employees are hesitant toreturn to work.			
9	My companies faced difficulty accessing financing during the COVID-19 pandemic due to economic uncertainty among lenders.			
10	My companies faced difficulty accessing financing during theCOVID-19 pandemic due to risk aversion among lenders.			
11	My company struggled with cash flow issues during the COVID-19 pandemic due to reduced revenues.			
12	My company struggled with cash flow issues during the COVID-19 pandemic due to increased expenses.			

F	C. Government Policy					
No	Statement	1	l	23	4	5
1	The government's latest budget helps my company to sustain effectively during the COVID-19 pandemic.					
2	My company has applied for the government support measures.					
3	The measures applied was efficient to my company's performance.					
4	My company has received a COVID-19-related grant tied tomaintaining employees on the payroll.					
5	The government provides preferential tax policies to reduce thetax burden on businesses during the COVID-					

	19 pandemic.
6	The government supported businesses during the
U	COVID-19pandemic.
7	The government provides preferential subsidies for
	businessesduring the COVID-19 pandemic.
8	Financial assistance from the government can be
	effective inhelping my employees.
9	The policies implemented by the government have
	affected the company's performance.
10	The government has provided effective assistance and
	support tomy company.
11	My company is actively obeying the rules and regulations
	(MCO,EMCO, CMCO) imposed by the government
	during the COVID 19 pandemic.
12	According to the government policy, employees who
	have infected with COVID 19 virus should be
	immediately isolated ina proper place.
13	According to the government policy, employees who
	have totravel on a business trip should be immediately
	isolated in a proper place.
14	My company feel that the government's mandate to issue
	of letterof authorization for the release of travelers to
	workers on duty is effective in controlling the spread of
	covid.
15	My company is effective use the government's
	application (MySejahtera) to ensure the safety of employees.

Questionnaire (Malay Version)



APPENDIX B

UNIVERSITI TUNKU ABDUL RAHMAN KAMPAR CAMPUS

Dampak COVID-19 terhadap Kinerja Perusahaan: Bukti dari Usaha Kecil dan Menengah Malaysia

Responden yang terhormat,

Kami adalah Ang Shi Wen, Lee Pei Yan, Nathalie Tan Yi Huang dan Yow Ying Yan, mahasiswa yang sedang menempuh pendidikan Sarjana Keuangan di Universiti Tunku Abdul Rahman (UTAR). Penelitian in dilakukan untuk memenuhi sebagian tugas disertasi kami yang berjudul "Dampak COVID- 19 terhadap kinerja perusahaan: bukti dari usaha kecil dan menengah Malaysia". Kami diharuskan untuk melakukan survei kuesioner untuk mengetahui sejauh mana dampak COVID- 19 terhadap UKM. Perusahaan And diundang untuk berpartisipasi dalam penelitian in karena perusahaan Anda mampu bertahan sebelum dan sesudah pandemi COVID-19.

Kami akan sangat berterima kasih jika Anda dapat meluangkan waktu Anda yang berharga selama 10 menit untuk mengisi kuesioner survei ini. Validitas penelitian ini sangat bergantung pada jawaban Anda yang juju. Oleh karena itu, sangat penting bag And untuk mengisi kuesioner dengan lengkap. Yakinlah bahwa semua informasi yang terkumpul dalam kuesioner in akan dijaga kerahasiaannya dan hanya akan digunakan untuk kepentingan akademis. Kerja sama Anda sangat kami hargai. Terima kasih.

Jika ada informasi atau pertanyaan yang ingin ditanyakan, jangan ragu untuk menghubungi dosen pembimbing:

Associate Professor Dr. Au Yong Hui Nee untuk informasi lebih lanjut on Tel: 05-4688888 Ext: 1034 atau melalui email: auyonghn@utar.edu.my. Terima kasih.

Hormat kami dengan tulus,

Ang Shi Wen, Lee Pei Yan, Nathalie Tan Yi Huang, Yow Ying Yan Student ID: 19ABB01647, 19ABB04122, 20ABB04542, 20ABB04777

Faculty of Business and Finance

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Email: shiwenang@ lutar.my, peiyan1213@ lutar.my, nathalietan@lutar.my, yyy0616@lutar.my

* Informasi dan tanggapan Anda akan dijaga kerahasiaannya. *

(CATATAN: Mohon beri tanda centang (V) pada jawaban Anda).

Bahagian A: Profil Demografi

1) Umur

- o 18-25 tahun
- 26-30 tahun
- \circ 31-40 tahun
- \circ 41-50 tahun
- \circ 51-60 tahun
- Berumur 60 tahun ke atas
- 2) Jantina
 - o Lelaki
 - o Perempuan
- 3) Apakah jawatan anda dalam syarikat?
 - o Pemilik/Usahawan
 - Ketua Pegawai Eksekutif (CEO)/Pengarah Urusan/Pengurus Besar
 - Pengurus
 - o Penyelia
 - Eksekutif Kanan
- 4) Peringkat pendidikan
 - Pendidikan Menengah / SPM
 - Diploma atau setaraf/STPM/Sijil
 - Ijazah Sarjana Muda atau setaraf
 - o Lepasan Ijazah(Sarjana / PhD / DBA)

Profil Syarikat

- 5) Di manakah syarikat anda bertapak? :
 - o Perlis
 - o Pulau Pinang
 - o Kedah
 - o Perak
 - o Selangor
 - Kuala Lumpur
 - Negeri Sembilan
 - o Putrajaya
 - o Melaka
 - o Johor
 - o Pahang
 - o Kelantan

- o Sabah
- o Sarawak

6) Apakah sektor ekonomi organisasi anda?

- o Perkhidmatan
- o Pembuatan
- o Pembinaan
- o Pertanian

7) Jumlah Pekerja Sepenuh Masa

- o 1-10
- o 11-50
- o 51-150
- o 151-500
- o Lebih daripada 501

8) Berapakah pendapatan tahunan syarikat anda (RM)?

- Kurang daripada 250,000
- o 250,001 1 juta
- o 1 juta 10 juta
- Lebih daripada 10 juta
- 9) Tempoh syarikat ditubuhkan.
 - Kurang daripada 1 tahun
 - o 1 3 tahun
 - o 4 10 tahun
 - \circ 10 tahun ke atas

<u>Bahagian B</u>

Arahan: Tunjukkan sejauh mana anda bersetuju dengan setiap pernyataan dalam Bahagian B. Sila rujuk kepada penilaian yang disediakan dan tandakan $[\sqrt{}]$ pada pilihan yang palingsesuai dalam lajur yang berkaitan untuk setiap penyata di bawah.

Penilaian: 1= Sangat Tidak Setuju 2= Tidak Setuju 3= Berkecuali (Tidak Setuju atau TidakSetuju) 4= Setuju 5= Sangat Setuju

Sila nyatakan sejauh mana anda bersetuju atau tidak bersetuju dengan penyata berikut.

A.	Prestasi Firma					
No	Penyata	1	2	3	4	5
1	Pandemik COVID-19 memberi kesan negatif yang besar kepadasyarikat saya dalam tempoh 36 bulan yang lalu.					
2	Syarikat saya telah pulih daripada kesan negatif COVID-19.					
3	Saham pasaran syarikat saya telah menurun akibat kemelesetanekonomi.					
4	Syarikat saya telah mengubah operasi perniagaan untukmelindungi daripada pandemik COVID-19.					
5	Syarikat saya telah membangunkan pelan kesinambunganperniagaan bertulis berikutan pandemik COVID-19.					
6	Pengeluaran produk atau perkhidmatan syarikat saya terjejasakibat pandemik COVID-19.					
7	Proses pembangunan rantaian bekalan telah terjejas semasapandemik COVID-19.					
8	Reaksi utama syarikat saya terhadap COVID-19 adalah untukmeningkatkan fokus terhadap jualan dalam talian.					
9	Syarikat saya telah menjalankan langkah-langkah pemotongankos semasa pandemik COVID-19.					
10	Jualan dan pendapatan syarikat saya terjejas semasa pandemikCOVID-19.					

]	B. Faktor Sosial							
No	Penyata	1	2	3	4	5		
1	Sebilangan besar pelanggan syarikat saya lebih suka pembayarantanpa sentuhan disebabkan pandemik COVID- 19.							
2	Sebilangan besar pelanggan syarikat saya lebih suka perkhidmatan penghantaran untuk mengelakkan hubungan dengan orang lain disebabkan pandemik COVID-19.							
3	Syarikat saya telah menghadapi interaksi fizikal yang terhaddisebabkan pandemik COVID-19.							
4	Syarikat saya melaksanakan urusan bekerja dari rumah akibatpandemik COVID-19.							

5	Saya merasakan bahawa bekerja dari rumah adalah efisien.			
6	PKP yang dilaksanakan oleh kerajaan telah memberi kesankepada pekerja dengan masalah kesihatan mental, seperti tekanan, kegelisahan, kemurungan, dan lain-lain.			
7	Syarikat saya menukar waktu operasi perniagaannya disebabkanpandemik COVID-19.			
8	Syarikat saya telah menjalankan aktiviti Tanggungjawab SosialKorporat (CSR) seperti menderma pelitup muka.			
9	Syarikat saya kerap membasmi kuman disebabkan pandemikCOVID-19			
10	Sebilangan besar pelanggan syarikat saya menuntut kebersihandan kebersihan produk disebabkan wabak COVID-19.			

	C. Faktor Teknologi					
No	Penyata	1	2	3	4	5
1	Syarikat saya mendapat perkhidmatan perundingan inovatif teknologi (perancangan, penilaian, latihan, dll.)					
2	Syarikat saya mempunyai pengalaman inovasi teknologi yang berjaya semasa pandemik COVID-19.					
3	Syarikat saya mempelbagaikan perniagaan kami dengan inovasiyang berterusan .					
4	Syarikat saya menggunakan multimedia sebagai platform digitaluntuk menyokong perkembangan inovasi.					
5	Pasukan R&D syarikat saya mempunyai pereka yang berkebolehan.					
6	Syarikat saya meningkatkan pelaburan dalam teknologi IT baruuntuk menyampaikan proses automatik.					
7	Syarikat saya memperkenalkan teknologi automasi perisian baruuntuk mengautomasikan tugasan.					
8	Syarikat saya menggunakan teknologi baru seperti kecerdasanbuatan (AI), pembelajaran mesin.					
9	Syarikat saya mempunyai keselamatan siber untuk melindungisistem kritikal dan data sensitif kami.					
10	Syarikat saya mempunyai pengalaman perniagaan dalam					

		<u> </u>	 - <u> </u>	
	talianyang berjaya.			
11	Perkhidmatan dalam talian syarikat saya adalah mudah.			
12	Syarikat saya mempunyai sumber yang mencukupi untuk perniagaan dalam talian semasa pandemik COVID-19.			
13	Syarikat saya telah memperoleh pendapatan daripada perniagaandalam talian semasa pandemik COVID-19 .			
14	Syarikat saya menggunakan media sosial (contohnya Facebook, Instagram, Whatapps) untuk tujuan perniagaan semasa pandemikCOVID-19.			
15	Syarikat saya telah menggunakan perkhidmatan e- penghantaran(seperti food panda, Grab, Lalamove, Shopee food) untuk menghantar barangan kami.			
16	Syarikat saya mengamalkan transaksi tanpa tunai seperti pembayaran yang dibuat melalui pemindahan dalam talian,aplikasi perbankan mudah alih, aplikasi digital mudah alih.			
17	Jualan syarikat saya telah lebih daripada 20 peratus yang diterimamelalui pilihan pembayaran digital seperti FPX, Touch and Go, Grabpay, WeChat Pay, dan lain-lain.			
18	Syarikat saya menggunakan kaedah pembayaran baharu untukpelanggan yang biasa dengan teknologi cap jari biometrik.			
19	Syarikat saya bekerja keras untuk meyakinkan pelanggan tentangkeselamatan pembayaran.			
20	Syarikat saya mempunyai sistem pengurusan pengangkutanpintar.			
21	Syarikat saya menggunakan teknologi baru seperti Sistem Kedudukan Global (GPS), Kod QR, Identifikasi Frekuensi Radio(RFID).			
22	Syarikat saya menggunakan teknologi untuk mengurangkan masatindak balas di seluruh rantaian bekalan.			

]	D. Faktor Ekonomi					
No	Penyata	1	2	3	4	5
1	Syarikat saya menghadapi kerugian semasa pandemik COVID-19.					

2	Syarikat saya kurangkan gaji pekerja semasa pandemik COVID-19.			
3	Syarikat saya telah meningkatkan kos pembasmian kuman semasapandemik COVID-19.			
4	Penggunaan kapasiti syarikat kami telah bertambah baik semasapandemik COVID-19.			
5	Syarikat saya menghadapi masalah kekurangan tenaga pekerjasemasa pandemik COVID-19.			
6	Syarikat saya melaksanakan dasar bekerja dari rumah semasapandemik COVID-19.			
7	Pandemik COVID-19 menyebabkan penurunan jualan syarikat.			
8	Terdapat kekurangan tenaga pekerja kerana ramai pekerja teragak-agak untuk kembali bekerja.			
9	Syarikat saya menghadapi kesukaran mengakses pembiayaan semasa pandemik COVID-19 kerana ketidaktentuan ekonomi dalam kalangan pemberian pinjaman.			
10	Syarikat saya menghadapi kesukaran mengakses pembiayaan semasa pandemik COVID-19 kerana keengganan risiko dikalangan pemberian pinjaman.			
11	Syarikat saya bergelut dengan isu aliran tunai semasa pandemikCOVID-19 kerana pendapatan yang berkurangan.			
12	Syarikat saya bergelut dengan isu aliran tunai semasa pandemikCOVID-19 disebabkan peningkatan perbelanjaan.			

]	E. Dasar Kerajaan							
No	Penyata	1	2	3	4	5		
1	Belanjawan terbaru kerajaan membantu syarikat saya untuk bertahan dengan berkesan semasa pandemik COVID-19.							
2	Syarikat saya telah memohon langkah-langkah sokongan kerajaan.							
3	Langkah-langkah yang digunakan adalah cekap untuk prestasisyarikat saya.							
4	Syarikat saya telah menerima pengukuhan berkaitan COVID-19yang terikat dengan mengekalkan pekerja							

	dalam senarai gaji.			
5	Kerajaan menyediakan dasar cukai keutamaan untuk mengurangkan beban cukai ke atas perniagaan semasa pandemikCOVID-19.			
6	Kerajaan menyokong perniagaan semasa pandemik COVID-19.			
7	Kerajaan menyediakan subsidi keutamaan untuk perniagaan semasa pandemik COVID-19.			
8	Bantuan kewangan daripada kerajaan boleh efektif dalam membantu pekerja saya.			
9	Dasar-dasar yang dilaksanakan oleh kerajaan telah menjejaskanprestasi syarikat.			
10	Kerajaan telah memberikan bantuan dan sokongan yang berkesankepada syarikat saya .			
11	Syarikat saya secara aktif mematuhi peraturan dan peraturan(PKP, EMCO, PKPB) yang dikenakan oleh kerajaan semasapandemik COVID 19.			
12	Mengikut dasar kerajaan, pekerja yang mempunyai hubungan dengan seseorang yang dijangkiti virus COVID 19 harus segeradiasingkan di tempat yang sepatutnya.			
13	Mengikut dasar kerajaan, pekerja yang terpaksa melakukan perjalanan perniagaan harus segera diasingkan di tempat yangsepatutnya.			
14	Syarikat saya merasakan mandat kerajaan mengeluarkan surat kebenaran pelepasan pengembara kepada pekerja bertugas adalahberkesan dalam mengawal penularan covid.			
15	Syarikat saya berkesan menggunakan aplikasi kerajaan (MySejahtera) untuk memastikan keselamatan pekerja.			

Questionnaire (Mandarin Chinese Version)



APPENDIX B

UNIVERSITI TUNKU ABDUL RAHMAN KAMPAR CAMPUS

COVID-19 对企业绩效的影响:来自马来西亚中小

企业的证据

尊敬的应答者:

我们是洪诗雯,李佩恩,陈苡凰和姚映言,我们是拉曼大学攻读金融学学士学位的本科生。在 部分履行我们的论文题为"COVID-19 对公司绩效的影响:来自马来西亚中小企业的证据"。我们 需要进行问卷调查,了解新冠疫情对中小企业的影响程度。贵公司之所以被邀请参与这项研 究,是因为贵公司在 COVID-19 大流行前后都有能力维持公司的运作。

希望您能抽出 10 分钟左右的宝贵时间来完成这份调查问卷,我们将不胜感激。这项研究的有 效性在很大程度上取决于您的真实回答。因此,完整的回答问卷对您来说非常重要。请放心, 本问卷所收集的所有信息将严格保密,仅用于学术目的。非常感谢您的合作。谢谢您!

如有任何其他信息或问题,请联系我们的副教授: Dr. Au Yong Hui Nee,电话:05-4688888 Ext: 1034 或电子邮件:auyonghn@utar.edu.my。谢谢您!

您诚挚的,

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邮箱: shiwenang@1utar.my, peiyan1213@1utar.my, nathalietan@1utar.my, yyy0616@1utar.my
您的信息和回复将被保密。

<u>A 章节:人口统计</u>

- 1) 您的年龄
- o 18-25 岁
- o 26-30 岁

- o 31-40 岁
- o 41-50 岁
- o 51-60 岁
- o 60 岁以上
- 2) 您的性别
- o女性
- o男性

3)您在公司的职位
o所有者/企业家
o首席执行官 (CEO)/董事
总经理/总经理经理
o 主管
o 高级行政人员

4)您的教育程度
o中等教育/SPM
o文凭或同等学历/STPM/证书
o学士学位或同等学历
o研究生(硕士/博士/DBA)

公司简介

5) 公司所在的州属:

- o 玻璃市
- o 槟城岛
- o 吉打州
- o 霹雳州
- o 雪兰莪
- o 吉隆坡
- o 森美兰州
- o 布城
- o 马六甲
- o 柔佛州
- o 彭亨州
- o 吉兰丹
- o 沙巴

o 砂拉越 6) 公司行业领域 o 服务业 o 制造业 o 建筑业 o 农业 7) 全职员工总数 o 1-10 o 11-50 o 51-150 o 151-500 o 超过 501 8) 公司的年收入(RM) 是多少? o 少于 250,000 o 250,001 - 100 万 o 100 万 - 1000 万 o 超过 1000 万 9) 公司成立的年数 o 少于 1 年 o 1 - 3 年 o 4 - 10 年 o 10 年以上

<u>B 章节</u>

说明:请表明您同意 B 部分中每项陈述的程度。请参考所提供的评级,并在下面每项 陈述的相关栏中勾选 [√] 最合适的选项。

评分: 1= 强烈反对 2= 反对 3= 中立 (既不同意也不反对) 4= 同意 5= 强烈同意

A. 公司运营表现							
编号	声明	1	2	3	4	5	
1	在过去36个月中,COVID-19疫情对公司产生了重大的 负面影响。						
2	公司已经从 COVID-19 的负面影响中恢复过来。						

请表明您同意或不同意以下陈述的程度。

3	由于经济衰退,公司的市场份额有所下降。			
4	公司已更改业务运营以防止 COVID-19 疫情。			
5	公司在 COVID-19 疫情之后制定了书面的业务连续性计划。			
6	公司的产品或服务生产受到 COVID-19 疫情的影响。			
7	供应链发展在 COVID-19 疫情期间受到影响。			
8	公司对 COVID-19 的主要反应是增加对在线销售的关注。			
9	公司在 COVID-19 疫情期间采取了削减成本的措施。			
10	公司的销售和收入在 COVID-19 疫情期间受到了 影响。			

E	B.社会因素					
编 号	声明	1	2	3	4	5
1	由于COVID-19疫情,公司的大多数客户都更喜欢非接触式支付。					
2	公司的大多数客户都喜欢物流运输服务,以避免因 COVID-19疫情而与他人接触。					
3	由于 COVID-19 疫情,公司面临有限的面对面互动。					
4	由于 COVID-19 疫情,公司实施了在家工作的行程。					
5	我觉得在家工作效率很高。					
6	政府履行的行动管制令影响员工的心理健康问题, 例如压力、焦虑、抑郁等。					
7	由于COVID-19疫情,公司更改了营业时间。					
8	公司开展了企业社会责任(CSR)活动,例如捐赠口 罩。					
9	由于COVID-19疫情,公司实施了定期的消毒。					
10	由于COVID-19疫情,公司的大多数客户都要求产品保持卫生和清洁。					

C	技术因素					
编号	声明	1	2	3	4	5
1	公司获得科技创新咨询服务(策划、评估、培训等)					
2	公司在 COVID-19 疫情期间拥有成功的技术创新。					
3	公司通过不断创新实现业务多元化。					
4	公司使用多媒体作为支持数字平台的创新增长。					
5	公司的研发团队具有能力的设计师。					
6	公司提供自动化流程以及增加了对新 IT 技术的投资。					
7	公司引入了新的软件自动化技术来自动化任务。					
8	公司使用人工智能 (AI)、机器学习等新技术。					
9	公司具有网络安全措施来保护用户的敏感数据以及 运营系统。					
10	公司具有成功的在线业务经验。					
11	公司拥有良好的上网环境。					
12	在 COVID-19 疫情期间,公司有足够的资源用于在 线业务。					
13	在 COVID-19 疫情期间,公司通过在线业务达到盈利。					
14	公司在 COVID-19 疫情期间使用社交媒体达到商业 目的(例如Facebook、Instagram、Whatapps)。					
15	公司提供第三方物流服务(例如 food panda, Grab, Lalamove, Shopee)来运送我们的货物。					
16	公司采用无现金交易,例如通过网上转账、手机银 行应用程序、移动数字应用程序进行支付。					
17	公司超过 20% 的销售额是通过 FPX、Touch and Go、Grabpay、微信支付等数字支付方式获得的。					
18	公司采用生物指纹技术支付方式来服务客户。					
19	公司努力让客户对支付安全放心。					
20	公司拥有智能运输管理系统。					
21	公司使用全球定位系统 (GPS)、二维码、射频识别					

	(RFID)等新技术。			
22	公司利用技术缩短整个供应链的运输时间。			

D	经济因素					
编号	声明	1	2	3	4	5
1	公司在 COVID-19 疫情期间面临损失。					
2	在 COVID-19 疫情期间,公司支付较低的员工工资。					
3	公司在 COVID-19 疫情期间增加了消毒成本。					
4	在 COVID-19 疫情期间,公司的产能利用率有所提高。					
5	公司在 COVID-19 疫情期间面临劳动力短缺问题。					
6	公司在 COVID-19 疫情期间实施了在家工作的政策。					
7	COVID-19疫情导致公司销售额下降。					
8	公司面临劳动力短缺,许多员工对重返工作岗位犹豫 不决。					
9	由于贷款方面临的经济风险,公司在 COVID-19 疫 情期间面临融资困难。					
10	由于贷款方的风险规避,我的公司在 COVID-19 疫 情期间面临融资困难。					
11	在COVID-19疫情期间,由于收入减少,公司面临现 金流问题。					
12	由于费用增加,公司在 COVID-19 疫情期间面对现 金流问题。					

E.	E. 政府政策						
编号	声明	1	2	3	4	5	
1	政府最新财政预算帮助公司在 COVID-19 疫情期间有效 维持。						
2	公司已申请政府扶持措施。						
3	政府所采用的措施对我公司的业绩是有效的。						

			I	
4	公司收到了与 COVID-19 相关的补助金,用于维持员 工的工资。			
5	政府提供税收优惠政策,以减轻 COVID-19 疫情期间企 业的税收负担。			
6	政府在 COVID-19 疫情期间支持企业。			
7	政府在 COVID-19 疫情期间为企业提供优惠补贴。			
8	政府的财政援助可以有效地帮助我的员工。			
9	政府实施的政策影响了公司的业绩。			
10	政府为公司提供了有力的帮助和支持。			
11	公司积极遵守 COVID-19 疫情期间政府制定的规章 制度(MCO、EMCO、CMCO)。			
12	根据政府颁布的政策,感染 COVID-19 病毒的员工应 立即隔离在适当的地方。			
13	根据政府颁布的政策,经历出差的员工应立即隔离 在适当的地方。			
14	公司认为,政府授权给出差员工签发释放旅客授权 书,对控制疫情传播是有效的。			
15	公司有效利用政府的应用程序(My Sejahtera)来确保员工的安全。			

Q1	Age	"18-25 years old" = 1
		"26-30 years old" = 2
		"31-40 years old" = 3
		"41-50 years old" = 4
		"51-60 years old" = 5
		"Above 60 years old" = 6
Q2	Gender	"Female" = 1
		"Male" = 2
Q3	Position in the Company	"Owner/Entrepreneur" = 1
		"Chief Executive Officer (CEO)/Managing Director/General Manager" = 2
		"Manager" = 3
		"Supervisor" = 4
		"Senior Executive" = 5
Q4	Education Level	"Secondary Education/SPM" = 1
		"Diploma or equivalent/STPM/Certificate" = 2
		"Bachelor's Degree or equivalent" = 3
		"Postgraduate (Master/PhD/DBA)" = 4
Q5	Location of Company	"Perlis" = 1
		"Pulau Pinang" = 2
		"Kedah" = 3
		"Perak" = 4
		"Selangor" = 5
		"Kuala Lumpur" = 6
		"Negeri Sembilan" = 7
		"Putrajaya" = 8
		"Melaka" = 9
		"Johor" = 10
		"Pahang" = 11
		"Kelantan" = 12
		"Sabah" = 13
		"Sarawak" = 14

Data Coding of Each Response to Questions in Section A and Section B

		"Torronggonu" - 15
		"Terrengganu" = 15
Q6	Sector of the Economy of	"Services" = 1
	Your Organization	"Manufacturing" = 2
		"Construction" = 3
		"Agriculture" = 4
Q7	Number of Full-Time	"1-10" = 1
	Employees	"11-50" = 2
		"51-150" = 3
		"151-500" = 4
		"More than 501" = 5
Q8	Company's Yearly	"Less than 250,000" = 1
	Revenue (RM)	"250,001 - 1 million" = 2
		"1 million - 10 million" = 3
		"More than 10 million" = 4
Q9	Duration of Company	"Less than 1 year" = 1
	Established	"1 - 3 years" = 2
		"4 - 10 years" = 3
		"Above 10 years" = 4

Each response to a question in Section B is coded using a 5-point Likert scale as shown below:

- 1=Strongly Disagree (SD)
- 2= Disagree (D)
- 3=Neutral (N)
- 4= Agree (A)
- 5= Strongly Agree (SA)

Alpha Coefficient range	Strength of Association
Less than 0.60	Poor Reliability
0.60 to <0.70	Moderate Reliability
0.70 to <0.80	Good Reliability
0.80 to < 0.90	Very Good Reliability
0.9 and above	Excellent Reliability

Rules of Thumb about Cronbach's Alpha Coefficient Size

Table of Demographic Profile

Table of Demographic Profile								
	Particulars	Frequenc y	Percentag e (%)	Cumulativ e Frequency	Cumulativ e Percentage (%)			
	18-25 years old	138	27.22	138	27.22			
	26-30 years old	145	28.60	283	55.82			
A = a	31-40 years old	107	21.10	390	76.92			
Age	41-50 years old	78	15.38	468	92.31			
	51-60 years old	32	6.31	500	98.62			
	Above 60 years old	7	1.38	507	100.00			
	<u> </u>	1		I	1			
Gender	Female	272	53.65	272	53.65			
Gender	Male	235	46.35	507	100.00			
	<u> </u>	1		I	I			
	Owner/Entrepreneur	72	14.20	72	14.20			
Position in	Chief Executive Officer (CEO)/Managing Director/General Manager	23	4.54	95	18.74			
the Company	Manager	101	19.92	196	38.66			
	Supervisor	151	29.78	347	68.44			
	Senior Executive	160	31.56	507	100.00			
	1	1	1	1	1			
	Secondary Education/SPM	165	32.54	165	32.54			

Education Level	Diploma or equivalent/STPM/Certificat e	140	27.61	305	60.16
	Bachelor's Degree or equivalent	175	34.52	480	94.67
	Postgraduate (Master/PhD/DBA)	27	5.33	507	100.00
Location of Company	Perlis	2	0.39	2	0.39
	Pulau Pinang	109	21.50	111	21.89
	Kedah	3	0.59	114	22.49
	Perak	24	4.73	138	27.22
	Selangor	118	23.27	256	50.49
	Kuala Lumpur	152	29.98	408	80.47
	Negeri Sembilan	4	0.79	412	81.26
	Putrajaya	3	0.59	415	81.85
	Melaka	5	0.99	420	82.84
	Johor	70	13.81	490	96.65
	Pahang	1	0.20	491	96.84
	Kelantan	5	0.99	496	97.83
	Sabah	1	0.20	497	98.03
	Sarawak	5	0.99	502	99.01
	Terrengganu	5	0.99	507	100.00
	· I				
Sector of the	Services	383	75.54	383	75.54
	Manufacturing	84	16.57	467	92.11
Economy of Your	Construction	31	6.11	498	98.22
--------------------------	------------------------	-----	-------	-----	--------
Organizatio n	Agriculture	9	1.78	507	100.00
		1			-
	1-10	211	41.62	211	41.62
Number of	11-50	132	26.04	343	67.65
Full-Time Employees	51-150	95	18.74	438	86.39
Employees –	151-500	43	8.48	481	94.87
	More than 501	26	5.13	507	100.00
		1	1		
	Less than 250,000	137	27.02	137	27.02
Company's Yearly	250,001 - 1 million	186	36.69	323	63.71
Revenue (RM)	1 million - 10 million	124	24.46	447	88.17
	More than 10 million	60	11.83	507	100.00
		1	1		
	Less than 1 year	18	3.55	18	3.55
Duration of	1 - 3 years	144	28.40	162	31.95
Company – Established	4 - 10 years	158	31.16	320	63.12
	Above 10 years	187	36.88	507	100.00

Question	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
FP1	COVID-19 pandemic had a major negative impact on my company in the past 36 months.	507	3.77	1.160	2	1
FP2	My company has already recovered from the negative impacts of COVID-19.	507	3.64	1.087	7	9
FP3	My company's market share has decreased due to the economic recession.	507	3.53	1.107	9	5
FP4	My company has changed the business operation to be protected against the COVID-19 pandemic.	507	3.64	1.115	7	2
FP5	My company has developed a written business continuity plan following the COVID-19 pandemic.	507	3.60	1.103	8	7
FP6	The production of products or 1 of my company has been affected by the COVID-19 pandemic.		3.69	1.074	6	10
FP7	The process of supply chain development has	507	3.71	1.111	5	3

Central Tendencies Measurement of Firm Performance

	been affected during the COVID-19 pandemic.					
FP8	My company's major reaction to COVID-19 pandemic was to increase its focus on online sales.	507	3.75	1.104	3	6
FP9	My company has conducted cost- cutting measures during the COVID-19 pandemic.	507	3.74	1.089	4	8
FP10	Sales and revenue of my company have been affected during the COVID-19 pandemic.	507	3.88	1.109	1	4

Question	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
SF1	Most customers of my company have preferred contactless payment due to the COVID-19 pandemic.	507	3.77	1.145	2	7
SF2	Most customers of my company have preferred delivery service to avoid contact with others due to the COVID-19 pandemic.	507	3.71	1.120	4	9
SF3	My company has faced limited physical interaction due to the COVID-19 pandemic.	507	3.71	1.064	4	10
SF4	My company implemented work-from-home arrangements due to the COVID-19 pandemic.	507	3.43	1.269	8	2
SF5	I feel that working from home is efficient.	507	3.22	1.316	9	1
SF6	Government- imposed MCOs affect employees with mental health issues, such as stress, anxiety, depression, etc.	507	3.62	1.194	5	5
SF7	My company changed its	507	3.47	1.251	6	4

Central Tendencies Measurement of Social Factor

		r				
	business hours of operation due to the COVID-19					
	pandemic.					
SF8	My company has conducted Corporate Social Responsibility (CSR) activities such as donating masks.	507	3.44	1.257	7	3
SF9	My company regular disinfects due to the COVID-19 pandemic.	507	3.75	1.141	3	8
SF10	Most customers of my company demand the hygiene and cleanliness of the product due to the COVID-19 pandemic.	507	3.83	1.153	1	6

Question	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
TF1	My company gets technology- innovative consulting services (planning, evaluation, training, etc.)	507	3.58	1.106	11	14
TF2	My company has successful technology- innovation experience during COVID- 19 pandemic.	507	3.50	1.150	14	11
TF3	My company diversifies our business with continuous innovation.	507	3.69	1.052	6	19
TF4	My company uses multimedia as a digital platform to support innovation growth.	507	3.81	1.049	2	20
TF5	My company's R&D team has capable designers.	507	3.69	1.052	6	19
TF6	My company increases investments in new IT technology to deliver automated processes.	507	3.60	1.082	10	16

Central Tendencies Measurement of Technological Factor

TF7	My company introduced new software automation	507	3.48	1.149	15	12
	technologies to automate tasks.					
TF8	My company uses new technologies such as artificial intelligence (AI), machine learning.	507	3.38	1.190	16	5
TF9	My company has cybersecurity in place to protect our critical systems and sensitive data.	507	3.66	1.056	7	18
TF10	My company has successful online business experience.	507	3.65	1.175	8	7
TF11	The online services of my company is convenient.	507	3.80	1.061	3	17
TF12	My company has enough resources for the online business during COVID- 19 pandemic.	507	3.61	1.158	9	9
TF13	My company has earned revenue from online business during the COVID-19 pandemic.	507	3.54	1.164	12	8
TF14	My company used social media (e.g. Facebook, Instagram,	507	3.74	1.205	4	4

	1		1	1		
	Whatapps) for					
	business					
	purposes during					
	the COVID-19					
	pandemic.					
TF15	My company	507	3.54	1.302	12	2
	has outsourced					
	e-delivery 1					
	(such as food					
	panda, Grab,					
	Lalamove,					
	Shopee food) to					
	deliver our					
	goods.					
TF16	My company	507	3.83	1.103	1	15
1110	adopts cashless	507	5.05	1.105		10
	transactions					
	such as					
	payments made					
	through online					
	transfer, mobile					
	banking					
	applications,					
	mobile digital.					
	applications.					
TF17	My company's	507	3.65	1.187	8	6
11 17	sales have more	507	5.05	1.107	0	0
	than 20 percent					
	received					
	through digital					
	payment options					
	such as FPX,					
	Touch and Go,					
	Grabpay,					
	WeChat Pay,					
	and others. and					
	others.					
TF18		507	3.28	1.315	17	1
11,10	My company	507	3.20	1.313	1/	1
	adopts new					
	payment methods for					
	customers fomiliar with					
	familiar with					
	biometric fin commint					
	fingerprint					
	technology.					

TF19	My company works hard to reassure customers about payment security.	507	3.72	1.164	5	8
TF20	My company has an intelligent transport management system.	507	3.50	1.153	14	10
TF21	My company uses new technologies such as Global Positioning Systems (GPS), QR Code, Radio Frequency Identification (RFID).	507	3.52	1.207	13	3
TF22	My company utilizes technology for reducing response time across the supply chain.	507	3.58	1.136	11	13

Question	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
EF1	My company faced losses during the COVID-19 pandemic.	507	3.60	1.128	4	6
EF2	My company underpaid employees during the COVID-19 pandemic.	507	3.18	1.345	10	1
EF3	My company has increased disinfection costs during the COVID-19 pandemic.	507	3.63	1.071	2	11
EF4	The capacity utilization of our company has improved during the COVID-19 pandemic.	507	3.51	1.116	8	8
EF5	My company faced the problem of a shortage of laborers during the COVID-19 pandemic.	507	3.53	1.148	7	4
EF6	My company implemented a work-from- home policy during the COVID-19 pandemic.	507	3.46	1.264	9	2

Central Tendencies Measurement of Economic Factor

EF7	COVID-19	507	3.72	1.108	1	9
ЕГ/	pandemic led to	507	5.72	1.108	1	9
	a decline in					
	company sales.					
EF8	There is a labor	507	3.51	1.210	8	3
LI'O	shortage	507	5.51	1.210	0	5
	-					
	2					
	employees are hesitant to					
EEO	return to work.	507	2 5 9	1 102	6	10
EF9	My companies	507	3.58	1.103	6	10
	faced difficulty					
	accessing					
	financing during					
	the COVID-19					
	pandemic due to					
	economic					
	uncertainty					
EE10	among lenders.	507	2 5 9	1 1 1 7	6	7
EF10	My companies	507	3.58	1.117	6	/
	faced difficulty					
	accessing					
	financing during the COVID-19					
	pandemic due to risk aversion					
EF11	among lenders.	507	3.62	1.059	3	12
EFII	My company	307	5.02	1.039	3	12
	struggled with cash flow issues					
	during the COVID-19					
	pandemic due to reduced					
EF12	revenues.	507	3.59	1.143	5	5
	My company strugglad with	507	5.39	1.143	5	5
	struggled with					
	cash flow issues during the					
	during the COVID-19					
	pandemic due to					
	increased					
	expenses.					

Question	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
GP1	Thegovernment'slatestbudgethelpsmycompanytosustaineffectivelyduringtheCOVID-19pandemic.	507	3.36	1.125	13	6
GP2	My company has applied for the government support measures.	507	3.52	1.125	8	6
GP3	The measures applied was efficient to my company's performance.	507	3.47	1.118	11	7
GP4	My company has received a COVID-19- related grant tied to maintaining employees on the payroll.	507	3.51	1.165	9	3
GP5	The government provides preferential tax policies to reduce the tax burden on businesses during the COVID-19 pandemic.	507	3.53	1.127	7	5
GP6	The government supported	507	3.50	1.173	10	2

Central Tendencies Measurement of Government Policies

[1
	businesses					
	during the					
	COVID-19					
	pandemic.					
GP7	The government	507	3.43	1.173	12	2
	provides					
	preferential					
	subsidies for					
	businesses					
	during the					
	COVID-19					
	pandemic.					
GP8	Financial	507	3.50	1.195	10	1
	assistance from					
	the government					
	can be effective					
	in helping my					
CDO	employees.	507	2.54	1.050	6	10
GP9	The policies	507	3.54	1.059	6	12
	implemented by					
	the government					
	have affected					
	the company's					
CD10	performance.	507	2.51	1 1 1 2	9	8
GP10	The government	507	3.51	1.113	9	8
	has provided effective					
	assistance and					
	support to my					
	company.					
GP11	My Company is	507	3.83	1.061	3	11
	actively obeying		5.05	1.001	5	**
	the rules and					
	regulations					
	(MCO, EMCO,					
	CMCO)					
	imposed by the					
	government					
	during the					
	COVID 19					
	pandemic.					
GP12	According to the	507	3.89	1.094	2	9
	government					
	policy,					
	employees who					
	have infected					

	with COVID 19					
	virus should be					
	immediately					
	isolated in a					
	proper place.					
GP13	According to the	507	3.82	1.131	4	4
	government					
	policy,					
	employees who					
	have to travel on					
	a business trip					
	should be					
	immediately					
	isolated in a					
	proper place.					
GP14	My company	507	3.72	1.067	5	10
	feel that the					
	government's					
	mandate to issue					
	of letter of					
	authorization for					
	the release of					
	travelers to					
	workers on duty					
	is effective in					
	controlling the					
	spread of covid.					
GP15	My company is	507	3.96	1.048	1	13
	effective use the					
	government's					
	application (My					
	Sejahtera) to					
	ensure the safety					
	of employees.					
L		I			I	1

SPSS Results

Appendix 4.7.1: Reliability Statistics for Firm Performance

Reliability Statistics					
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items			
.858	.858	10			

Appendix 4.7.2: Reliability Statistics for Social Factor

Reliability Statistics

	Sinty Outlottes	
Cronbach's	Cronbach's Alpha Based on Standardized	
Alpha	Items	N of Items
.867	.868	10

Appendix 4.7.3: Reliability Statistics for Technological Factor

Relia	bility Statistics	
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.939	.940	22

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.939	.940	22

Reliability Statistics

Appendix 4.7.4: Reliability Statistics for Economic Factor

Appendix 4.7.5: Reliability Statistics for Government Policy

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.917	.917	15

Reliability Statistics

Appendix 4.7.6: *Multicollinearity Results*

Coefficients^a

		95.0% Confidence		Correlations		Collinearity	/ Statistics
Model		Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	.757					
	SF	.354	.727	.321	.194	.395	2.529
	TF	.166	.656	.102	.058	.397	2.517
	EF	.445	.749	.425	.269	.461	2.171
	GP	.206	.662	.157	.091	.434	2.305

a. Dependent Variable: FP

			Nioue	er Summary			
					Change Statistics		
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1
1	.820 ^a	.673	.670	.42135	.673	257.810	4

Appendix 4.7.7: *Multiple Regression Analysis Results* Model Summary^b

Model Summary^b

Change Statistics

Model	df2	Sig. F Change	Durbin-Watson
1	502	<.001	1.754

a. Predictors: (Constant), GP, SF, EF, TF

b. Dependent Variable: FP

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	183.083	4	45.771	257.810	<.001 ^b
	Residual	89.124	502	.178		
	Total	272.207	506			

a. Dependent Variable: FP

b. Predictors: (Constant), GP, SF, EF, TF

Coefficients^a

		Unstandardize	d Coefficients	Standardized Coefficients			95.0% Confidence
Model		В	Std. Error	Beta	t	Sig.	Lower Bound
1	(Constant)	.556	.102		5.438	<.001	.355
	SF	.281	.037	.309	7.596	<.001	.209
	TF	.089	.039	.093	2.287	.023	.013
	EF	.375	.036	.396	10.515	<.001	.305
	GP	.133	.037	.138	3.553	<.001	.059

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