THE CHALLENGES OF STARTUP ONLINE GROCERY: A STUDY IN MELAKA

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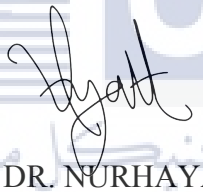
SIGNATURE : 

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DECLARATION OF ORIGINAL WORK

I hereby declare that all the work of this thesis entitled **"THE CHALLENGES OF STARTUP ONLINE GROCERY: A STUDY IN MELAKA"** is original done by myself and no portion of the work encompassed in this research project proposal has been submitted in support of any application for any other degree or qualification of this or any other institute or university of learning.

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ABSTRACT

Online grocery refers to the buying and delivery of food and household essentials through the internet. Consumers can purchase items from a virtual storefront, such as a website or mobile app, and have them delivered to their homes or designated pickup locations. This allows for convenience and flexibility for customers, as they can shop from the comfort of their own homes and have items delivered at a time that is convenient for them. Additionally, many online grocery stores offer features such as personalized recommendations and the ability to save past orders for easy reordering.

As we know, the adoption of online grocery shopping is growing rapidly at the moment. This has led many entrepreneurs want to change brick mortar business to bricks and clicks business. This bricks and clicks is refer to the combination of a physical retail location (the brick) and an ecommerce sales channel, or online store (the click). Therefore, this research was done to examine the challenges to start up an online grocery. This research is purposely target to all the new entrepreneurs that want to start the online grocery businesses. There is three independent variables (efficiency in deliveries, customer's loyalty and inventory management) and a dependent variable (online grocery) in this research. A probability sampling technique is used for the study and the sample was selected from all the entrepreneurs that has stable their online grocery business in Melaka so that we know the exact challenges that will contribute to start up an online grocery. A five-point Likert scale questionnaire will use in acquiring the respondent's information. The questionnaires are analysed with the help of Statistical Packages for Social Science (SPSS). The findings shows that there are two independent variables (customer's loyalty and inventory management) that have a strong relationship towards online grocery. However, an independent variable in this research which is efficiency in deliveries is not significant towards online grocery due to some reasons. For the recommendation, the researcher suggest that future researcher can address other variables that are not included in this research for more accurate data. As conclusion, the researcher really hopes that this study can help new entrepreneurs to have a bright future for their online grocery business.

Keywords: Online grocery, customer's loyalty, inventory management, efficiency in deliveries.

ABSTRAK

Kedai runcit dalam talian merujuk kepada pembelian dan penghantaran makanan dan keperluan isi rumah melalui internet. Pengguna boleh membeli barangan dari kedai maya, seperti laman web atau aplikasi mudah alih, dan menghantarnya ke rumah mereka atau lokasi pengambilan yang ditetapkan. Ini memberikan kemudahan dan fleksibiliti untuk pelanggan, kerana mereka boleh membeli-belah mengikut keselesaan mereka seperti membuat pesanan dari rumah mereka sendiri dan meminta penghantar menghantar barang pada masa yang sesuai bagi mereka. Selain itu, banyak kedai runcit dalam talian menawarkan ciri-ciri seperti cadangan peribadi dan keupayaan untuk menyimpan pesanan masa lalu untuk mengatur semula dengan mudah.

Seperti yang kita ketahui, membeli-belah runcit dalam talian berkembang pesat pada masa ini. Ini menyebabkan ramai usahawan mahu menukar perniagaan Brick and Mortar kepada perniagaan Brick and Click. Brick and Click ini merujuk kepada gabungan lokasi runcit fizikal (brick) dan saluran penjualan e-dagang, atau kedai dalam talian (click). Oleh itu, penyelidikan ini dilakukan untuk mengkaji cabaran untuk memulakan barangan runcit dalam talian. Penyelidikan ini adalah disasarkan kepada semua usahawan baru yang ingin memulakan perniagaan runcit dalam talian. Terdapat tiga pembolehubah bebas (kecekapan dalam penghantaran, kesetiaan pelanggan dan pengurusan inventori) dan pembolehubah bergantung (runcit dalam talian) dalam penyelidikan ini. Teknik persampelan kebarangkalian digunakan untuk kajian ini dan sampel telah dipilih daripada semua usahawan yang telah stabil perniagaan runcit dalam talian mereka di Melaka supaya kita tahu cabaran sebenar yang akan menyumbang untuk memulakan kedai runcit dalam talian. Soal selidik skala Likert Lima mata akan digunakan dalam memperoleh maklumat responden. Soal selidik dianalisis dengan bantuan Pakej Statistik untuk Sains Sosial (SPSS). Penemuan menunjukkan bahawa terdapat dua pembolehubah bebas (kesetiaan pelanggan dan pengurusan inventori) yang mempunyai hubungan yang kuat terhadap barangan runcit dalam talian. Walau bagaimanapun, terdapat satu pembolehubah bebas dalam penyelidikan ini iaitu kecekapan dalam penghantaran tidak kukuh terhadap runcit dalam talian kerana beberapa sebab. Untuk cadangan, penyelidik mencadangkan bahawa penyelidik masa depan boleh menambahkan pembolehubah lain yang tidak termasuk dalam penyelidikan ini untuk data yang lebih tepat. Sebagai kesimpulan, penyelidik benar-benar berharap bahawa kajian

ini dapat membantu usahawan baru untuk mempunyai masa depan yang cerah untuk perniagaan runcit dalam talian mereka.

Kata kunci: runcit dalam talian, kecekapan dalam penghantaran, kesetiaan pelanggan dan pengurusan inventori

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LIST OF ABBREVIATIONS

ABBREVIATION	MEANING
UX	User Experience
UI	User Interface
SMEs	Small and Medium Enterprise
GDP	Gross Domestic Products
COVID-19	Coronavirus Disease
MDEC	Malaysia Digital Economy Corporation
SPSS	Statistical Package for the Social Science

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CHAPTER 1

INTRODUCTION

1.0 Introduction

This chapter will discuss about the challenges to start up online grocery especially in Melaka. The background of study, problem statement, research questions, research objectives, scope and limitation of the study, significant of study and summary will be discussed in this chapter.

1.1 Background of Study

The way businesses are conducted has changed as we go into the twenty-first century, with the fast growth of information and communication technologies. The worldwide has adopted the Internet, which has resulted in the rise of a new commercial channel referred to as e-commerce. The United Kingdom would have the leading telecommunication commerce market in Europe in 2020, accounting for 67 percent of which approximately EUR 210 trillion of European e-commerce revenues (Young, 2021). Most shoppers had already understood the potential of online shopping in their daily lives, including such combating space and time obstacles, accessibility, better pricing, professional guidance, personalized service and larger connect to knowledge (Sohl, Lien & Chen, 2020). Consequently, due to impoverished online experience, numerous shoppers still are hesitant to purchase online. The identification, attraction and maintenance of clients is indeed a connected and probably quite immediate issue for online stores.

E-commerce is indeed frequently characterized as a platform for both major corporations and small and medium-sized organizations (SMEs) to access the global market, giving the greatest attractive means to openly distribute their goods and services. It really is predicted that SMEs would be capable of capturing the worldwide market, fulfill the needs of consumers globally, and acquire possibilities to participate with large, global player corporations through the use of e-commerce. Azmin Ali, Deputy Minister of International Trade and Industry, stated that the e-commerce sector has experienced substantial increase in terms of its contribution to the growth of the economy. He went on to say that statistics

from the Statistics Department revealed that contribution e-commerce's to Malaysia's GDP climbed to 10.4 percent or RM320.0 billion in 2020 from 7.3 percent in 2019 (Berger, Müller & Nüske, 2020). The GDP contribution of the e-commerce industry is expected to reach RM450 billion by 2021. Nonetheless, Bumiputera entrepreneurs are sometimes accused of falling lagging in terms of economic growth achievements (Ro, Zhang, Dayaneni & Chen, 2021).

With the start of the COVID-19 pandemic, numerous counties issued a stay-at-home order to minimize the virus's spreading. The epidemic and repeated quarantines have had a tremendous impact on people's daily life, with grocery shopping and delivery choice being one of the greatest impacted. During the pandemic, several food companies created their own internet purchasing systems to boost sales while delaying the spreading of COVID-19. Individuals who normally shop at traditional grocery shops may now buy items online, a practice known as online grocery shopping (Ro, Zhang, Dayaneni & Chen, 2021). As online grocery buying is becoming more popular, it still trails beyond various online retailing categories. Professionals who were unduly optimistic about the expansion of online grocery have had to confront the fact that customers are slower than usual in embracing online as a distribution platform for purchasing goods. The grocery retail business is unique in that profits are low, rivalry and intensity are strong, and differentiation strategy is low. Furthermore, customers' grocery shopping behavior is mostly influenced by routines and the fulfillment of practical demands. As a result, grocery retailers must be accessible at any time, thus requiring them to retain multiple product offerings, including online buying, despite the hurdles and possible losses.

1.2 Problem Statement

The Food Industry Association (2020) conducted a survey from March 21 to 26 and discovered that approximately 77 percent of participants chose to shop for groceries online, that is more than double the percent of monthly online shoppers found in the research one year ago. Among some of the people in the study, 17 percent were new to online grocery shopping, whereas 4 percent had previous experience and returned to the service for the first time during the epidemic. COVID-19 has increased the popularity and viability of the online grocery shopping service, and this popularity has resulted in significant changes to freight and supply chain management, travel patterns, the environment, in-store shopping, and land

use planning (Giroux-Huppé, Sénécal, Fredette, Chen, Demolin & Léger, 2019). Until May 2020, online grocery-related internet searches increased by 202 percent, demonstrating that the online grocery market is improving with time. With the rise of the business, however, several new online grocery concerns are emerging. Because of consumers, pricing, technology, and other factors, the rising online grocery sector faces several concerns and obstacles. Nevertheless, it could not be denied it is one of the areas with significant opportunity and expansion.

Among the most critical grocery shopping challenges for just any business is the failure to deliver items quickly or in certain places. The greatest critical event for every online business is item delivery (Islam, Rahman, Kabir, Rahman & Kabir, 2020). As a result, it really is critical to concentrate and anticipate situations which may obstruct the process. On top of that, reaching small communities seems to be a difficult undertaking for internet food stores. The rationale behind this is that people in small towns often choose to shop in conventional methods. Furthermore, investors consider it challenging to spend money for business development to small towns due to the lack of enthusiasm in online grocery shopping enterprises from these market locations (Dewi Izzwi, Zila, Zaidatulnisha & Fazrul Radzi, 2018). Customer's loyalty and satisfaction would be other challenges for a startup online grocery. One piece of critical feedback might have a detrimental impact on the business. As a result, it is critical to recognize that while building an online grocery business strategy, client pleasure must be prioritized. Numerous people look at app store ratings prior installing an app. As a result, a high rating is critical for increased installation rates.

Furthermore, glitch in the user interface and user experience may be faced by the startup online grocery because the online grocery shopping experience is all about websites and apps, UI and UX are extremely important (Palvia, Aeron, Gupta, Mahapatra, Parida, Rosner & Sindhi, 2018). One should also be informed of a few grocery shop difficulties and solutions in terms of mobile app design. However, UI and UX might have flaws such as malfunctions, poor navigation, slowness, and so on. As a result, even if it is a bit pricey, a start-up online supermarket would not have the resources to hire mobile app development businesses to create a grocery app that provides an error-free experience (Agung & Darma, 2019). Aside from that, the new online grocery store may not be prepared for ongoing app and website maintenance fees. Inventory management has been ruined. Start-up online grocery stores will almost certainly need to keep an inventory of the items they offer in the background. The truth is that inventory management may be a difficult endeavor. The

proprietor of an online grocery store may have inventory issues such as a shortage of product quantities, expired items, outdated pricing, and so on. There is no sufficient planning being carried out. There is no recurrent inventory management schedule or automatic inventory management mechanism built into the software to make the process easier. Therefore, this study would focus on the challenges to start up online grocery.

1.3 Research Question

The researcher determined five research questions in this study:

i. What is the relationship between efficiency in deliveries and the online grocery in Melaka?
ii. What is the relationship between customers' loyalty and the online grocery in Melaka?
iii. What is the relationship between inventory management and the online grocery in Melaka?

1.4 Research Objectives

In this research, there are five research objectives to be figured out:

i. To identify the relationship between efficiency in deliveries and the online grocery in Melaka.
ii. To identify the relationship between customers' loyalty and the online grocery in Melaka.
iii. To identify the relationship between inventory management and the online grocery in Melaka.

1.5 Scope of the Study

The purpose of this research would be to assess the challenges to start up online grocery in Melaka. In this sense, the population for this study consists of all entrepreneurs that would want to start online grocery business in Melaka. Nevertheless, since convenience

sampling will be employed, the sample frame for this study is that anybody who fulfils the definition of a qualified responder. To accomplish the purpose, a quantitative research study had to be done. This study will take place at Melaka, and participants will be provided the survey form via Google Form. As a result, the results might greatly assist the entrepreneurs in a variety of ways. As a result, the magnitude of the link between the dependent variable of challenges to start up online grocery and the independent variables of efficiency in deliveries, customers' loyalty and inventory management will be the exclusive focus of this study. This study employs the quantitative research approach, which is discussed more in the methodology chapter.

1.6 Limitation of Study

The primary restriction of this research seems to be that it solely addresses a single interstate in Malaysia. As a result, the results could not be applicable to other interstate in the country. Because the results are only context sensitive, a more extensive implementation of the results could be impossible. A survey questionnaire would be the data collection instrument. As elements on the test are present based on existing literature, this could restrict the evidence received. To circumvent this constraint, this is recommended that a case study technique be used, which might also involve interviews or field observation, since this may give in-depth perspectives from other industry players. There are also few secondary materials to draw on while conceptualizing the research framework. Literature from previous research on the subject is cited, however there is relatively little literature in the challenges to start up online grocery. Searching the Internet for articles and publications was done using Google Scholar and other tools, which might be a difficult approach to discover the information source. As a result, the study's collection of data is confined to a few select journals and papers which are only accessible on the internet.

1.7 Significance of the Study

The primary goal of this study would have been to gather data which might enable the company to track the challenges to start up online grocery in Melaka. It could assist to raise awareness of the worries and challenges that entrepreneurs face at work, which would have been useful for businesses and institutions in adopting ways that would increase knowledge and attitude toward the challenges to start up online grocery. As a result, the

study's findings contain recommendations for improving the challenges to start up online grocery, implying that senior management must recognize the importance the start up to every online grocers. Moreover, the findings of this research might serve as a paradigm for future research. Conversely, it enables workers, people, and even future researchers to save time and money while conducting their study on the challenges to start up online grocery in Melaka.

1.8 Summary

This part clearly outlined the context and reason for the research activity. It has been briefly studied based on the concept and history of the hurdles of launching an online grocery store in Melaka. Each method was justified through writing, and research topics and objectives were provided. This section also served to highlight the significance of the study and the shortcomings that were uncovered.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This part covers cited research, articles, journals, papers, and other scholarly materials connected to the difficulties of launching an online grocery store in Melaka. These resources were selected based on the relationship between the variables being investigated in this research. There is information and explanations on how it relates to this study.

2.2 Literature Review

2.2.1 E-commerce and Its Relevance towards SME

E-commerce had also grabbed the globe by surprise and is revolutionizing the way businesses are done. Numerous studies have been conducted, and e-commerce has been characterized from a variety of angles, as there is no universally acknowledged definition of e-commerce. Among some of the concepts of e-commerce are the need for an electronic link to conduct economic operations and the use of computer networks and online infrastructure to perform commercial transactions (Yeo, Tan, Lim & Wan, 2020) This is also referred to as a method of doing business operations that makes use of electronic data transmission technology found on the Internet and the World Wide Web to execute and optimize business processes (Sook, Cheng, Kah & Jia, 2020). The concept proposed by Ramli (2020) is adopted in this investigation. They described e-commerce as commercial interactions among as well as among individuals and organizations that are done electronically.

Technology innovation has also aided e-commerce, since new programs to enable e-commerce have been developed. While some are free to use, allowing merchants to create e-commerce sites (Naseri, 2021). In accordance with this, internet buying, often referred to as online shopping, has now become a popular choice among customers. Consumers gain much from e-commerce, particularly the flexibility to purchase at their leisure from everywhere and at any time. Consumers' desire for e-commerce has compelled firms worldwide to embrace e-commerce or risk being left behind. This is true not only for large and multinational corporations, as well as for SMEs. As per Frank and Peschel (2020), SMEs have better agility to respond to developments in the company than large corporations. This is because smaller organizations are better equipped to adapt to uncertainty since they can

react and adapt in a shorter time frame. Moreover, because they have limited funds and resources, they must find a means to reduce the cost of completing commercial transactions (Ehrler, Schöder & Seidel, 2021). In the aftermath of globalization, this is critical for businesses to seek out for business prospects without limits, and so by leveraging e-commerce, SMEs are enabled to access the same target audience as bigger enterprises, allowing them to thrive and thrive.

Long before the advent of ecommerce, only huge corporations could sell internationally due to the several tiers of middlemen in distribution networks, which contributed to high costs and the requirement for financial health. Nevertheless, with e-commerce, SMEs may enter the picture since it greatly reduces buy transaction costs by removing the intermediary in the distribution chain. In certain cases, corporations can reduce the financial cost of distribution to zero when it comes to information platforms and mobile products (Jones, 1995; Hoffman et al., 1995). The cheap cost and simplicity of use of e-commerce, the high degree of interconnection between numerous parties and the variety of information that can be transmitted among parties all contribute to its broad acceptance. E-commerce has a broad meaning and uses, but the most commonly utilized part of e-commerce is the use of the internet as a means of communications (Kamel, de Montgolfier, Caine, Ringer & Puzio, 2020). This might be because the use of communication and message takes little or no additional expense to deploy, owing mostly to the use of e-mail and social media. Because cost is an important factor in doing business, the majority of SMEs in Malaysia choose to use e-commerce by utilizing low-cost and ready-to-use e-commerce apps such as social networking and e-marketplace apps. In Malaysia, this type of business is generally referred to as online business.

2.2.2 Online Business in Malaysia

The internet as well as the advancement of information and communication technology have resulted in a rise in online buying patterns among Malaysians. According to the Director of E-Commerce Enablement at Malaysia Digital Economy Corporation (MDEC), 7 percent of Malaysian consumers are online shopaholics, with 26 percent attempting to make an online purchase at least once per week, 54 percent making a purchase online at least once a month, and the rest (13 percent) making at least one purchase per year (Zissis, Aktas & Bourlakis, 2018). She went on to say that Malaysia has the greatest

penetration of online shoppers (67 percent) followed by Thailand (57 percent) and Singapore (57 percent). The growing popularity of online shopping in Malaysia has created chances for people to build riches by launching a business online and establishing an online entrepreneur. The potential of beginning an online company is even more appealing because the government has worked relentlessly to improve internet infrastructure and usage. In addition, the government provided several entrepreneurship initiatives to assist entrepreneurs.

The rise of social media has also helped to the beneficial growth of internet business. Facebook, Instagram, and Twitter, to mention a few, are amongst the most popular social media platforms that have revolutionized our lives, particularly in Malaysia. Malaysia was placed first in Southeast Asia and fifth in the globe in associated with social media adoption, according to Hootsuite and We Are Social's newest Digital 2019 study (Khan, Shams-E-Mofiz & Sharmin, 2020). Moreover, the survey indicated that internet access in Malaysia is now at a robust 80 percent, with users spend on average of 8 hours and 5 minutes online every day. It implies that Malaysians spends a quarter of their day online, with social media use accounting for 2 hours and 58 minutes. Malaysia ranked fourth in the world in terms of mobile social adoption, putting it in first place in Southeast Asia, trailed by Singapore in sixth, Thailand in eighth, as well as the Philippines in tenth (Shen, Namdarpour & Lin, 2022). Furthermore, the survey stated that Malaysia had a unique potential for firms because 75 percent of internet users spent their money on e-commerce while 58 percent spent their money on mobile shopping sites.

2.2.3 Challenges for Start-up Online Grocery

2.2.3.1 Efficiency in Deliveries

A reliable delivery service is critical to the success of the business. Consumers have greater expectations with regard to the shipping of their items in this day and age of ecommerce. If business fail to make the delivery deadline, the clients may be unsatisfied with the quality of the service (Brand, Schwanen & Anable, 2020). Businesses must have a system in place if they want to learn how to enhance delivery efficiency. One of the elements that would improve delivery efficiency would be the capability to monitor orders in instantaneously. Consumers want to know where their orders are at any particular time, as immediately as they are shipped out (Newing, Hood, Videira & Lewis, 2022). Businesses may want to make them feel comfortable by allowing them to monitor shipments in timely

manner. This also assures them that they are not sitting on the orders and therefore are working hard to reach the delivery deadline. This openness advantages not just the consumers, but also the delivery procedures. It enables the team to follow down the purchases and be in continual communication regarding the status of delivery. The greatest method to improve the efficiency of the delivery operations is to employ route management software (Aktas, Bourlakis & Zissis, 2021). This solution includes the capabilities of the business to simplify the deliveries and optimize the delivery path. This technique not only guarantees that deliveries are completed on time, but it also allows businesses to plan the path to save fuel and duration. The person who in charge don't have to walk back and forth to accomplish the deliveries by coordinating them depending on a specified location (Figliozzi, 2020). Businesses may obtain real-time information about traffic statistics and road incidents, allowing business to plan an alternative path while the driver drive. As a consequence, because the delivery vans are continually moving, one have far less down time (Nagarathinam & Zhang, 2019). However, as every company owner knows, time is a valuable commodity.

2.2.3.2 Customers' Loyalty

According to Azhar and Bashir (2018), developing loyalty for internet businesses is both more difficult and more vital than in physical retailing. Due to the obvious competitive spirit of the internet industry and the ever-increasing growth of digital businesses, online loyalty seems highly valued. The Internet additionally enables it comparatively easier and less expensive for customers to look for other providers and compare prices, and also change providers with the press of a mouse (Bauerová, 2018). This emphasizes the importance of establishing and maintaining consumer loyalty online. Moreover, because of the high cost of obtaining online clients, numerous relationships with consumers are unprofitable throughout the initial stages of the entire customer lifecycle. Relationships produce profits primarily subsequently in the cycle, whenever the cost of serving loyal clients declines. According to the poll, brand and store loyalty are more important to online customers in general. Participants who exclusively purchase online are 3.5 times more likely to be brand loyal, with 93 percent keeping certain brands in mind while making their shopping list. Online customers are also 14.7 times more likely to stick with the same grocery store (Badenhop & Frasquet, 2021). Consumers in such connections are found to buy more, to be prepared to spend more for goods and/or services, to believe more, to get emotionally

connected to the business, and to recommend consumers to the business. In academia, loyalty is often viewed as a key contributory element to a business's profitability. Customer loyalty has a favourable impact on profitability by lowering marketing expenditures, notably the cost of obtaining prospective consumers, and boosting revenues per consumer (Pitts, Ng, Blitstein, Gustafson & Niculescu, 2018). Relationship quality is a crucial antecedent of client loyalty, according to relationship marketing research.

2.2.3.3 Inventory Management

Inventory management in grocery retailing necessitates decision assistance in a stochastic environment to identify replenishment reorder point in order to optimize economic objectives based on an expected degree of demand fulfilment. This level is determined by the trade-off among shortfall costs (short-term lost sales and long-term customer turnover) and surplus inventory expenses (holding and spoilage) (Winkelmann, Ulrich, Römer, Langrock & Jahnke, 2022). In reality, many shops provide inventory items with several demanding seasons. As a consequence, excess inventory might be sold during the subsequent demand period(s), influencing replenishment order selections throughout these times. In addition to these dynamic inter-period dependencies, merchants confront a confluence of distributions for numerous stochastic variables including need, shelf life, and amount provided by the provider (Ekren, Eroglu, Kazancoglu & Kumar, 2020). These concerns are generally exacerbated by a multiple-day lead period. As a consequence, the costs associated with a particular order selection are unknown, making inventory management a stochastic dynamic optimization issue. Retailers, in particularly, must contend with two factors that make determining ideal replenishment orders challenging (Li, Sun, Zhang & Hu, 2018). Firstly, the underlying statistical distributions' characteristics must be calculated using past data or explanatory factors (features). Secondly, merchants must include diverse sources of variability into their decision-making strategy (Ekren, Mangla, Turhanlar, Kazancoglu & Li, 2021).

2.3 Proposed Research Framework

Based on the literature evaluation, the following study framework, depicted in Figure 2.2, has been developed.

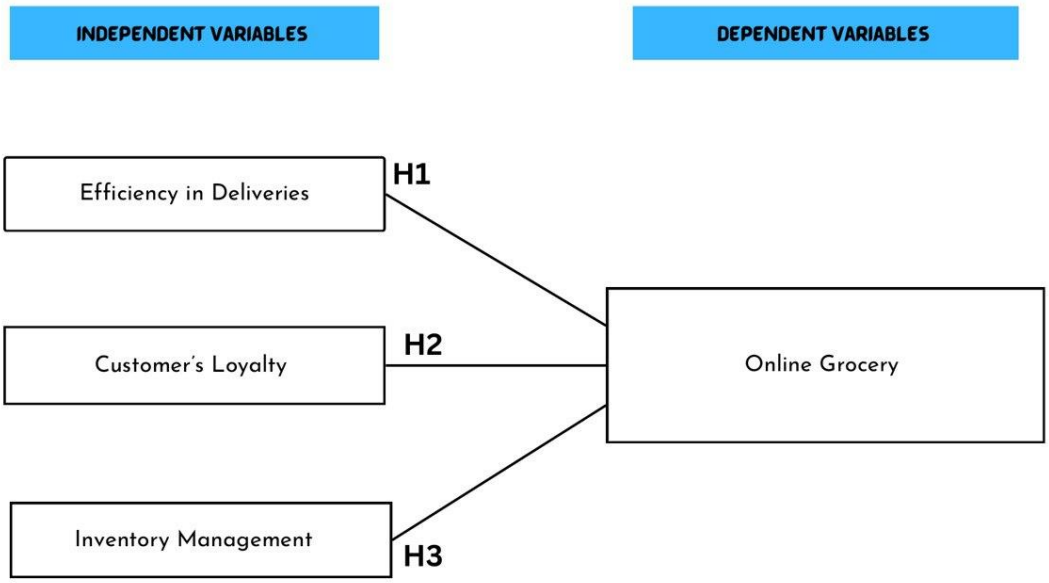

Figure 2.1: Proposed Research Framework

2.4 Hypotheses

i. Efficiency in Deliveries

(H0): There is no relationship between efficiency in deliveries and the online grocery in Melaka

(H1): There is a relationship between efficiency in deliveries and the online grocery in Melaka.

ii. Customers' Loyalty

(H0): There no relationship between customer's loyalty and the online grocery in Melaka

(H2): There is a relationship between customers' loyalty and the online grocery in Melaka.

iii. Inventory Management

(H0) There is no relationship between inventory management and the online grocery in Melaka

(H3): There is a relationship between inventory management and the online grocery in Melaka.

2.5 Summary

This part focused on the theoretical notion of the challenges of starting an online grocery shop in Melaka. This also revealed the connected idea and variables, which were subsequently linked to the degrees and aspects of the investigation's components. The data would be beneficial later in the investigation since it would be used during the data collecting stage and assessment to match the overarching purpose of this research.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the methodology, which explains how the study was conducted. This section goes into further detail about the processes used, such as data collection, sample design, study design, and research methodology. During COVID-19, the data collection technique used to analyse the challenges to start up online grocery in Melaka is described first. In order to achieve the research goal, the study analysis will then apply a quantitative method to data gathering via a series of questions. The research design would define the chosen method, and questionnaires would be sent to supermarket and groceries that sells through online in Melaka. The results would be studied and assessed at the conclusion of this section.

3.2 Research Design

Creswell and Poth (2016) define study design as the whole process of gathering, assessing, and providing reports based on the issue description. During COVID-19, the researchers' engagement in investigating the challenges to start up online grocery in Melaka is minimal. In addition, the learning environment is not interfered with in any way. Non-contrived settings, according to Sekaran and Bougie (2016), are field experiments conducted in the same natural environment. Aside from that, survey research procedures involve gathering information on the target sample and then describing, measuring, and emphasizing the occurrence (Sekaran & Bougie, 2016).

Furthermore, as Sekaran and Bougie (2016) stated, this is a cross-sectional study or a one-time study to collect data to answer the research objectives. As a result, the researchers want to perform a correlation study with minimum engagement from respondents while without disrupting the normal event routine. The researchers will disseminate the questionnaires to the groceries or supermarket that sells through online.

Nonetheless, in order to evaluate the challenges to start up online grocery in Melaka, a descriptive study known as field research will be undertaken in a natural context. According to Patel (2019), quantitative research is concerned with measuring the occurrence.

A quantitative analysis is an example of a sample of population, social, and economic data from a specific location. They would be analyzed statistically. This is mostly focused with primary data, including methods such as surveys and questionnaires. Nonetheless, it is clear that they are interrelated (Patel, 2019). As a consequence, quantitative approaches will be used in this investigation. Cross-sectional surveys will be used in this study to characterise the groceries or supermarket that sells through online.in regards to their challenges to start up online grocery in Melaka across the stated time period. The cross-sectional study design is an example of an observational research design.

As a result of the COVID-19 pandemic scenario in Malaysia, researchers' capacity to disseminate surveys is hampered due to the Movement Control Order (MCO). As a response, data for this research would be collected via self-directed questionnaires. This is due to the fact that questionnaire development questions are organised in a self-directed survey questionnaire, which the respondent completes on paper or via an online questionnaire (Akhtar, 2016). Researchers benefit greatly from this method since massive amounts of data can be obtained from such a wide number of people in a very short amount of time and at such a low cost.

3.3 Population and Sampling

The population refers to the total group of individuals, activities, or significant things that the researchers want to explore (Sekaran & Bougie, 2016). For example, in this study, the population consists of the groceries or supermarket that sells through online. This is due to the fact that the proportion of study is not what is important here. Another name for sample is population, however the complexity of the population impacts the absolute size of the sample, the study's aims, and the type of statistical manipulation employed in data analysis (Taherdoost, 2017). It is necessary to define the demographic features of the population of interest. Observing the characteristics of an ideal research sample is an important part of conceptualizing the population of interest, eligibility conditions, learning environment, and sampling procedures in order to increase recruiting and decrease turnover (Majid, 2018).

Sample procedures are critical in determining the optimum instrument for sampling approaches. Nevertheless, the author, Sekaran and Bougie (2016), distinguishes between two types of sampling techniques which include probability sampling and non-probability sampling. Probability sampling strategies are utilized when the sample representatives are

important for generalization purposes. Otherwise, non-probability sampling would be utilized if the element has a set chance of being picked or where not every element has a chance of being chosen (Sekaran & Bougie, 2016). In a non-probability sampling design, the population components are not given any probabilities as sample subjects (Roscoe, 1975). This means that the results of the sample research cannot be reliably extrapolated to the entire population. However, as the researcher mentioned above, there is typically less worry about generalizability and more concern with the acquisition of some early knowledge in a quick and inexpensive manner. This study report collected information and data from the groceries or supermarket that sells through online in Melaka using a convenience sample technique. Non-probability sampling is represented by convenience sampling approaches. Convenience sampling is most commonly utilized when a difficult-to-reach population has to be studied (Taherdoost, 2016). The primary goal of sampling is to focus on the specific qualities of the participants of interest that will best enable you to reply to the research questions (Ames, Glenton & Lewin, 2019).

Having stated that, it was a simple and dependable technique to conduct this plan, as it saves time and money because this research would disseminate the questionnaire using an internet platform. It was noticed that using this approach limits the ability to generalize survey findings to the full population. Furthermore, it was very susceptible to selection bias and external variables that beyond the researcher's control, and there was a significant amount of sampling error. The advantages of convenience sampling include that it is beneficial in these cases because it provides the researcher with a wide selection of non-probability sample methods that are cost-effective and time-effective. The researchers have chosen someone to help in the collecting of all email addresses and WhatsApp groups in order to carry out this convenience sampling. During the COVID-19 epidemic, this is the most convenient approach for undertaking convenience sampling in this firm. Ultimately, the researcher employed the convenience sample technique to collect data and information from the employees in this investigation, since this is the best strategy for generating results.

3.4 Unit of Analysis

The research's unit of analysis is individuals, who are represented by the groceries or supermarket that sells through online in Melaka.

3.5 Sample Size

According to Pallant (2011), sample size would be important in study, and instead just a couple samples are required to describe the present population. Among the most important aspects of the sampling procedure is the choosing of a sample size. The larger the sample size, the closer the approximation. Unfortunately, greater sample sizes are not always feasible due to time and financial restrictions. Excessively large samples, in excess of what is required for statistical power, are considered a waste of study time as well as could even exaggerate insignificant effects (Barker, Pistrang & Elliott, 2016). According to Roscoe (1975), a sample size of 30 to 500 participants is recommended. When preparing a research report, the most crucial factor to consider is sample size, particularly sample power (Tabachnick & Fidell, 2013). A thorough power analysis can assist you in locating a decent but not extreme sample (Du, Zhang, & Yuan, 2017). If a large sample size is available, a beneficial research strategy would be to do a series of smaller studies on a number of demographics (Barker et al., 2016).

As per Bartlett, Kotrlik, and Higgins (2001), the most popular and time-efficient approach of guaranteeing that minimum sample sizes are fulfilled is to increase the sample size by up to 50 percent during the initial distribution of the survey. In fact, multiple methods for computing sample size for categorical data exist, including formulae. According to Fowler (2009), the population fraction is rarely a significant issue in sample size selection since the approach for determining population sample size has minimal effect on how well the sample is likely to reflect the population (Taherdoost, 2016). As a consequence of this research, it supports Krejcie and Morgan's theories (1970). The sample size for this study would be 108 participants based on the data below.

Table 3.1

Table for Determining Sample Size of a Known Population

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

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

3.6 Research Instrument

As per Brace (2018), a questionnaire is a framework of written questions used in diverse data collection situations to elicit the best responses from targeted respondents. In other words, the questionnaire was designed to elicit a large amount of data. Since the present COVID-19 issue has made cloning unfeasible, the questionnaire for this study would be distributed primarily online. The questionnaires are divided into three sections, which consist of Section A focuses on the demographic information provided by the respondent. The demographic profile was created in order to determine the dominant group that would provide feedback on the study variables. Section B would focus on the dependent variable, whereas Section C will focus on the independent variables.

Nevertheless, the authors chose a Likert scale because it provided benefits such as ease of development and the creation of high-accuracy measures, while respondents could easily understand and complete the entire survey. A balanced neutral decision was necessary, and the Likert scale provided a less biased appraisal on both sides. Throughout this study, a Likert scale is being used to assess various features so that the author may establish if people are pleasant or disagreeable (Taherdoost, 2016).

3.7 Data Collection

In this research, both primary and secondary data were gathered in order to better investigate the relationship between independent and dependent variables. Primary data refers to information collected directly from the source and connected to the study's independent variables, whereas secondary data refers to information obtained via journals or publications. One of the primary data gathering techniques in this study was a survey. Google Form surveys were developed and sent to the general public. Secondary data, on the other hand, is information obtained from previously acquired data by third parties. Secondary data was acquired in this study by using journals, websites, articles, and e-books to complement and confirm the main data.

3.8 Data Analysis

3.8.1 Descriptive Statistics

Descriptive statistics are brief descriptive coefficients that summarise a particular set of data that may represent the full population or a portion of it (Kenton, 2019). Descriptive statistics frequently summarise data in the form of a graph, histogram, or other visual representation, allowing the collected information to be assessed. This is likewise considered preliminary data and cannot be used to evaluate the validity of hypotheses. While data statistics cannot be used to confirm the validity of hypotheses, they might be utilized in future investigations to identify issues that arise throughout the investigation. For example, the independent factors predicting job stress level among instructors in this study were derived from previous descriptive statistics-based research. We may also view the proportion of responders depending on descriptive information such as gender, age, and other survey questions. Descriptive statistics employ two sorts of measurements which are measures of central tendency and measures of dispersion. The first are measures of central tendency. Measures of central tendency are among the statistical concepts of descriptive statistics and variability measurements (Sekaran & Bougie, 2016). It consists of three M's: mean, median, and mode. However, the only M that would be used in the research is mean. The mean is computed by adding the sum of the data values and dividing by the total number of observations (Taherdoost, 2017).

Dispersion measures are the second type. Dispersion measures are less common descriptive statistics, but they are nevertheless important since they describe the distribution

of values within a data set. Dispersion measures include two components: standard deviations and variances. One of the items included in the study is the standard deviation. The standard deviation is the average distance between each data point and the data collection's mean, which is calculated by taking the square root of the sum of all numbers minus the mean (square) and dividing it by one less than the number of values (Sekaran & Bougie, 2016).

3.8.2 Reliability Test

According to Mohamad Adam Bujang (2019), Cronbach's alpha shows the fundamental quality or reliability of numerous components, measurements, or ratings. Cronbach's alpha is also used to determine how trustworthy participant responses to a survey, instrument, or ranking are, exhibiting the tool's dependability (Mohamad Adam Bujang, 2019). Alpha would evaluate how the questionnaire's questions or variables correlated with one another. Cronbach's alpha has a value between 0 and 1. As the alpha value grows, so does the correlation between the variables.

Table 3.2

Interpretation of Cronbach's Alpha Reliability Test by Hair et al., (2003)

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

3.8.3 Pearson Correlation

As per Cohen, Pearson Correlation appears to be a strategy for measuring the magnitude of impact sizes through a series of statistical investigations (1988). Pearson

Correlation is used by many researchers because it allows for conclusions such as estimation of the variance accounted for, but it is also consistent with follow-up analytical processes such as linear regression (or ANOVA) via minimum squares or maximum likelihood factors analysis (Sekaran & Bougie, 2016). Pearson r values of 0.10, 0.30, and 0.50 were recommended by Cohen (1988) for mild, medium, and large effects, respectively.

Table 3.3

Relationship Interpretation by Cohen (1988)

'r' value	**Association Interpretation**
0.10 – 0.29	Weak
0.30 – 0.49	Moderate
0.50 – 1.00	Strong

3.8.4 Multiple Linear Regression

Multiple linear regression is one of the parametric approaches. Plonsky and Ghanbar (2018) define multiple linear regression as a multivariate family of statistics used to investigate the connection between a set of predictor variables (PVs) and a criterion (CV). Correlation analysis is a natural extension of multiple linear regression. ANOVA, like Cohen's (1968) insertion of a major portion of psychology into the general linear model, may be thought of as a subset of regression. Multiple linear regression and ANOVA are clearly different and discernible even though the first is used to characterise the variation in CV that can be attributed to PCs independently as well as in concert, and the second is flexible since it allowed the researcher to choose which sets of variables or measurement rates to use (Plonsky & Ghanbar, 2018).

According to Pallant, assumptions in multiple linear regression include sample size, multicollinearity and singularity, outliers, normalcy, linearity, homoscedasticity, and residual independence (2011). In this study, the sample size assumption was used. The problem with sample size is generalizability, because small samples may provide conclusions that may not apply to larger samples (Pallant, 2011). The number of observations acquired and utilised will vary depending on the study, as some studies may

require a small sample size while others may require a high sample size. Tabacnick and Fidell (2013) developed a formula for computing sample size criterion that takes into consideration the number of independent test and research variables: N more than 50 + 8m (m denotes the number of independent variables).

3.9 Summary

This chapter included important components of technique such as research design, sampling design, data collecting, and instrumentation. The statistical methodologies used in this study's data analysis have been mentioned. A questionnaire was the primary data collection tool.

CHAPTER 4

DATA ANALYSIS AND DISCUSSION

4.0 Introduction

In Chapter 4, the researcher will discuss and present the result of data analysis collected from the respondent. IBM Statistical Package for the Social Science (SPSS) version 20.0 is used to analyse the data collected. This chapter is using descriptive analysis to determine the relationship between the dependent variable and independent variable. The questionnaire is assigned to 108 respondents through an online survey which is Google Form. There are three parts in the questionnaire which are Part A, Part B and Part C. Part A, is about the demographic of the respondent, Part B is influences independent variable of challenges to start up an online grocery while in Part C is about the general knowledge of respondent related to online grocery.

4.1 Pilot Test

The goal of the pilot test is to determine whether or not the respondent understands the question and whether or not data collection will be difficult (Saunders et al, 2016). Furthermore, it will allow respondents to determine the legitimacy and reliability of the data collection query. Furthermore, pilot testing can assist in identifying any faults or problems with the design, methodology, or materials and making required revisions before moving forward with the complete study. The researcher chose 11 respondents to conduct the pilot test for this study.

4.1.1 Reliability Test

The researcher used Cronbach's Alpha to measure reliability test. Cronbach's Alpha is typically used for tests or scales that have multiple items, such as a survey or questionnaire. It provides a single score that represents the internal consistency of the test, which is a measure of how closely related the items are to one another. This can be useful in determining whether or not the items on a test are measuring the same construct or if they are measuring different things. Cronbach's alpha also allows for the identification of items that do not contribute to the overall reliability of the test, which can be eliminated or

modified to improve the test's reliability. Therefore, Table 4.0 showed the pilot test for this study.

Case Processing Summary

		N	%
Cases	Valid	11	100.0
	Excluded[a]	0	.0
	Total	11	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.937	.934	16

Table 4.0: Cronbach's Alpha for Pilot Test

(Sources: SPSS Output)

There were included 11 respondents to be measured. From the table above, the alpha value of the pilot test was 0.937. Table 3.2 in chapter 3 has stated that the accepted value is 0.70 which is categorized as a good strength. Therefore, it can be concluded that all items in the questionnaire were reliable because 0.937 is categorized as excellent strength in Cronbach's Alpha Reliability Test by Hair et Al (2003).

4.2 Descriptive Statistics

Descriptive statistics is the branch of statistics that deals with the collection, presentation, and interpretation of data. It is used to summarize, describe and present the data in a meaningful way. Descriptive statistics are used to provide a general picture of the data and to help identify patterns, trends, and relationships within the data. Descriptive statistics include charts and graphs, such as histograms, bar charts, and scatter plots, which help the researcher to visually represent the data. So, in this part will analyse the demographic of the respondents such as gender, age, position in company and how long does the respondent work in the company?

4.2.1 Gender

What is your gender?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	47	43.5	43.5	43.5
	Female	61	56.5	56.5	100.0
	Total	108	100.0	100.0	

Table 4.1: Frequency and Percentage of Gender

(Source: SPSS Output)

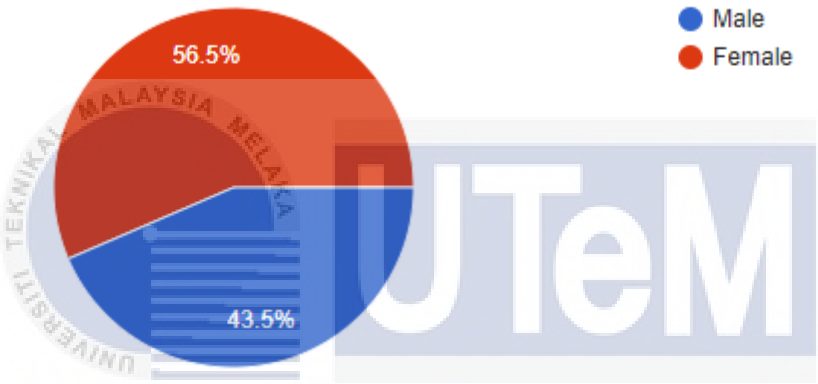

Figure 4.0: Percentage of gender

Table 4.1 shows the number of male and female respondents. Based on the samples collected, the number of female respondent was higher than the number of male respondent. Male respondent consist of 43.5% (n=47) while female respondent consist of 56.5% (n=61).

4.2.2 Age

What is your age?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 - 30 years old	37	34.3	34.3	34.3
	31 - 40 years old	58	53.7	53.7	88.0
	41 - 50 years old	13	12.0	12.0	100.0
	Total	108	100.0	100.0	

Table 4.2: Frequency and Percentage of Age

(Source: SPSS Output)

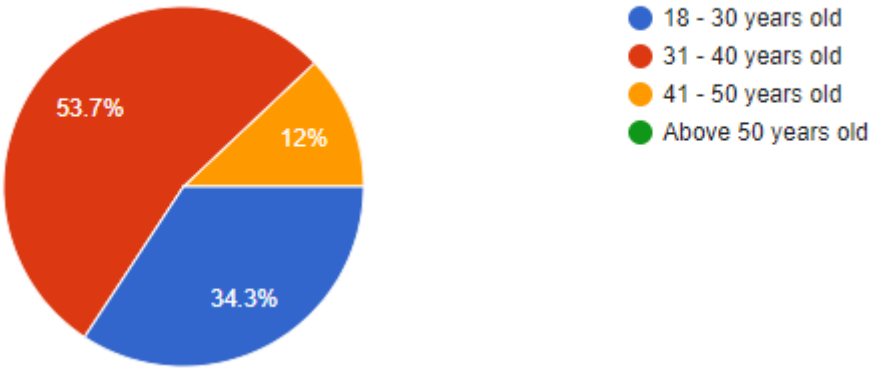

Figure 4.1: Percentage of Age

Table 4.2 above shows the number of respondents based on the segmentation of age. The highest number of respondents is in the range 31 to 40 years old, which are 53.7%. Followed by a range of an 18 to 30 years old which consists of 34.3%. The least respondent from this group is the individual from 41 to 50 years old which are 12%.

4.2.3 Current Position

What is your current position in the company?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Manager	18	16.7	16.7	16.7
	Sales Assistant	23	21.3	21.3	38.0
	Supervisor	29	26.9	26.9	64.8
	Inventory/Warehouse	34	31.5	31.5	96.3
	Others	4	3.7	3.7	100.0
	Total	108	100.0	100.0	

Table 4.3: Frequency and Percentage of Current Position

(Source: SPSS Output)

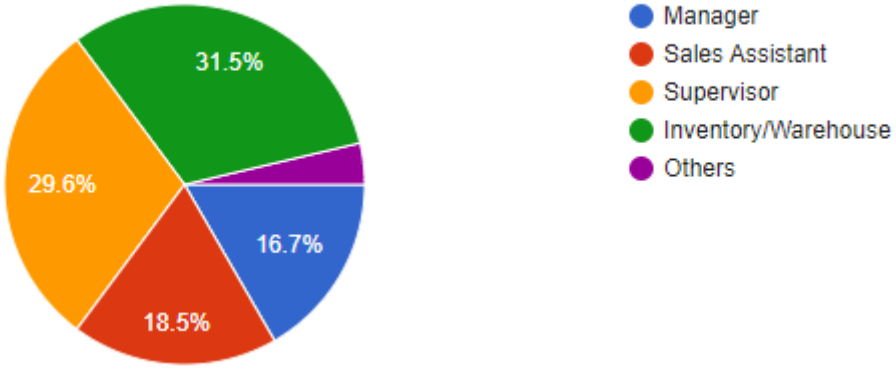

Figure 4.2: Percentage of Current Position

Table 4.3 shows the current position of respondent in their company. The highest position of this research is Inventory/Warehouse which is 31.5% (n=34), followed by Supervisor which consist of 26.9% (n=29). Then, sales assistant which consist of 21.3% (n=23), followed by Manager which is 16.7% (n=18). The least number of position in this research is others which is 3.7% (n=4).

4.2.4 Duration of Work

How long does you work in this company?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 6 months	17	15.7	15.7	15.7
	6 months - 1 year	29	26.9	26.9	42.6
	1 - 3 years	44	40.7	40.7	83.3
	3 - 5 years	13	12.0	12.0	95.4
	More than 5 years	5	4.6	4.6	100.0
	Total	108	100.0	100.0	

Table 4.4: Frequency and Percentage of Duration of Work

(Source: SPSS Output)

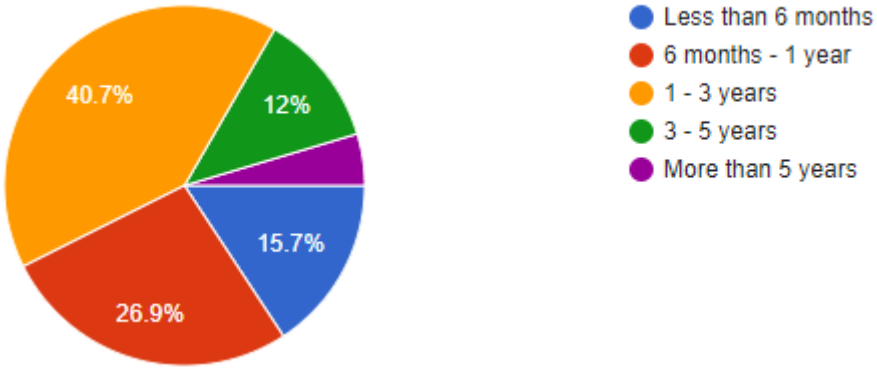

Figure 4.3: Percentage of Duration of Work

Table 4.4 shows that most respondents have already worked for a range of 1 to 3 years in their company. This data consist of 40.7% which is 44 respondents, followed by range of 6 months to 1 year with a total of 26.9% and 15.7% are from the range of less than 6 months. The least range of duration of work is more than 5 years with a total of 4.6% while 3 to 5 years is the last second range with the percentage of 12%.

4.3 Descriptive Analysis

The goal of descriptive analysis is to provide a detailed and accurate picture of the data, rather than making inferences about the population from which the data was collected. Descriptive statistics, such as measures of central tendency (e.g., mean, median, mode), measures of variability (e.g., range, standard deviation, variance), and measures of shape (e.g., skewness, kurtosis) are used to describe the data. In this study, there are three independent variables which are efficiency in deliveries, customer's loyalty and inventory management. In addition, there also a dependent variable in this study which is online grocery. Researcher have released a descriptive analysis to find the mean of each part of the independent variable and the dependent variable.

4.3.1 Descriptive Statistics for Efficiency in Deliveries

Statistics

		If a business fail to make the delivery deadline, the clients may be unsatisfied with the quality of the service	Consumers want to know where their orders are at any particular time, as immediately as they are shipped out	One of the elements that would improve delivery efficiency would be the capability to monitor orders in instantaneou sly.	Therefore, businesses must have a system in place if they want to learn how to enhance delivery efficiency
N	Valid	108	108	108	108
	Missing	0	0	0	0
Mean		4.21	3.82	3.99	4.20
Median		4.00	4.00	4.00	4.00
Mode		4	4	4	4
Std. Deviation		.433	.593	.483	.448

Table 4.5: Mean and Standard Deviation for Efficiency of Deliveries

Table 4.5 shows the means and standard deviation of efficiency of deliveries among 108 respondents. The result shows that all respondent agree with all previous efficiency of deliveries questions stated in the questionnaire. Respondents agreed that if a business fail to make the delivery deadline, the clients may be unsatisfied with the quality of the service with a mean of 4.21 and standard deviation of 0.433. Next, respondent also agree with the statement that consumers want to know where their orders are at any particular time, as immediately as they are shipped out with the mean of 3.82 and the standard deviation of 0.593. In addition, most of respondent accept the statement one of one of the elements that would improve delivery efficiency would be the capability to monitor orders in instantaneously with the mean value of 3.99 and the standard deviation of 0.483. Lastly, 4.20 and 0.448 are the mean and the standard deviation value respectively for the statement of businesses must have a system in place if they want to learn how to enhance delivery efficiency.

4.3.2 Descriptive Statistics for Customer's Loyalty

Statistics

		Customers' loyalty is often viewed as a key contributory element to a business's profitability	Online customers nowadays are more likely to stick with the same grocery store	Internet makes it easier and cheaper for customers to compare prices, switch providers, and shop around	As conclusion, online loyalty seems to be highly valued because internet businesses are competitive and increasing all the time.
N	Valid	108	108	108	108
	Missing	0	0	0	0
Mean		4.58	3.96	3.71	4.52
Median		5.00	4.00	4.00	5.00
Mode		5	4	4	5
Std. Deviation		.514	.492	.581	.520

Table 4.6: Mean and Standard Deviation for Customer's Loyalty

According to table 4.6, it shows that majority of the respondents agree with the question of customer's loyalty. Mostly respondents are admit that customers' loyalty is often viewed as a key contributory element to a business's profitability with the mean value of 4.58 and the standard deviation of 0.514. Furthermore, some respondents also grant the statement of online customers nowadays are more likely to stick with the same grocery store with the mean of 3.96 and the standard deviation of 0.492. Internet makes it easier and cheaper for customers to compare prices, switch providers, and shop around also got the approval from the respondents with the mean of 3.71 and standard deviation of 0.581. Lastly, whereas the mean of 4.52 and the standard deviation of 0.520 of respondents have agreed that online loyalty seems to be highly valued because internet businesses are competitive and increasing all the time.

4.3.3 Descriptive Statistics for Inventory Management

Statistics

		Excess inventory in warehouse will affect the businesses	If lack of technology such as Artificial Intelligence (AI) in business will make the inventory management difficult to handle Example: Radio Frequency Identification (RFID)	Every company needs an inventory system to track outgoing and incoming goods	Companies need to apply a system that allows customer to know how many stocks are still available in the store. Example: Company's website that auto deduct stock
N	Valid	108	108	108	108
	Missing	0	0	0	0
Mean		3.65	4.04	4.37	3.76
Median		4.00	4.00	4.00	4.00
Mode		4	4	4	4
Std. Deviation		.552	.303	.485	.545

Table 4.7: Mean and Standard Deviation for Inventory Management

Mean and standard deviation value for inventory management is shown in Table 4.7 above. Most respondent agree with the statement excess inventory in warehouse will affect the businesses with the mean value of 3.65 and standard deviation of 0.552. In addition, the statement of if lack of technology such as Artificial Intelligence (AI) in business will make the inventory management difficult to handle such as AI like Radio Frequency Identification (RFID) also got approval from most of respondent with the mean value of 4.04 and standard deviation of 0.303. Furthermore, 4.37 and 0.485 is the mean and standard deviation for every company needs an inventory system to track outgoing and incoming goods. This shows that most of respondent are accepting this statement. Lastly, with the mean value of 3.76 and the standard deviation of 0.545, the statement of companies need to apply a system that allows customer to know how many stocks are still available in the store. Example: Company's website that auto deduct stock also manage to get approval from most of the respondents.

4.3.4 Descriptive Statistics for Online Grocery

Statistics

		The term "online grocery shopping" refers to the practice of purchasing food and household through the use of a web-based shopping service such as WhatsApp, website, application, Shopee and others.	Companies can gain the trust of customer by offering the same-day delivery. This strategy gives customers the ability to pick and choose among their preferred brands.	Online grocery is time-efficient. Consumer may obtain online grocery delivery with one click and may spend more time with family and work.	Online grocery have greater variety choice where customer can choose happily. This is because, grocery stores have limited storage space and cannot offer all products.
N	Valid	108	108	108	108
	Missing	0	0	0	0
Mean		4.40	3.93	4.03	3.60
Median		4.00	4.00	4.00	4.00
Mode		4	4	4	4
Std. Deviation		.492	.403	.398	.579

Table 4.8: Mean and Standard Deviation for Online Grocery

From the table 4.8 above, the researcher has state the mean and standard deviation value for her dependent variable which is online grocery. Majority of respondents agree that he term "online grocery shopping" refers to the practice of purchasing food and household through the use of a web-based shopping service such as WhatsApp, website, application, Shopee and others with the mean value 4.40 and standard deviation value of 0.492. In addition, most of respondents agree with the statement of companies can gain the trust of customer by offering the same-day delivery. This strategy gives customers the ability to pick and choose among their preferred brands. This statement have a mean value of 3.93 and standard deviation of 0.403. Furthermore, the mean value of 4.03, with the standard deviation of 0.398, the statement of online grocery is time-efficient, consumer may obtain online grocery delivery with one click and may spend more time with family and work received approval from most of the respondents. Lastly, most of respondent also acknowledge the statement of online grocery have greater variety choice where customer can choose happily. This is because, grocery stores have limited storage space and cannot offer all products with the mean value of 3.60 and standard deviation of 0.579.

4.4 Reliability Analysis

Cronbach's alpha is commonly used to assess questionnaire reliability. As a result, values less than 0.60 are considered weak, while those close to 0.70 are considered good, and those greater than 0.80 are considered highly reliable (Azizi, 2017). Table 4.9 shows the Cronbach's Alpha values for all variables in each section. 16 items with three independent variables and four questions for each variable.

Case Processing Summary

		N	%
Cases	Valid	108	100.0
	Excluded[a]	0	.0
	Total	108	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.874	.870	16

Table 4.9: Reliability Analysis

(Source: SPSS Output)

From the table above, the alpha value of the reliability analysis is 0.874. The acceptable level of alpha value is 0.70 and above. Therefore, it can be concluded that all items in the questionnaire were very good reliability because the Cronbach's Alpha was above 0.80. Furthermore, having this test proves that the questionnaire's results are valid and reliable.

4.5 Pearson Correlation Analysis

Pearson correlation coefficient analysis is one of the tools for the researcher to examine the relationship between two or more dependent variables and independent variables. This analysis is used by researcher in this study to measure the strength of the linear relationship between the two variables. Throughout the study, the researcher aimed to

explore the influence of the linear relationship between independent variables (efficiency in deliveries, customer's loyalty and inventory management) and the dependent variable (online grocery) whether it is weak or strong relationship. Table 4.10 shows the strength of the correlation coefficient by Cohen (1988).

'r' value	Correlation Strength
0.71 to 1 (-0.71 to -1)	Perfect Positive (Negative)
0.31 to 0.70 (-0.31 to -0.70)	Strong Positive (Negative)
0.1-0.30 (-0.1 to -0.30)	Weak Positive (Negative)
0	Perfect Independent

Table 4.10 Relationship Interpretation by Cohen (1988)

Correlations

		EfficiencyInDeliveries	CustomerLoyalty	InventoryManagement	OnlineGrocery
EfficiencyInDeliveries	Pearson Correlation	1	.631**	.664**	.482**
	Sig. (2-tailed)		.000	.000	.000
	N	108	108	108	108
CustomerLoyalty	Pearson Correlation	.631**	1	.647**	.577**
	Sig. (2-tailed)	.000		.000	.000
	N	108	108	108	108
InventoryManagement	Pearson Correlation	.664**	.647**	1	.687**
	Sig. (2-tailed)	.000	.000		.000
	N	108	108	108	108
OnlineGrocery	Pearson Correlation	.482**	.577**	.687**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	108	108	108	108

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

Table 4.11: Pearson Correlation Coefficient Analysis

(Source: SPSS Output)

According to Table 4.11, it shows that the result of Pearson Correlation Coefficient analysis for independent variables and dependent variable. In addition, Table 4.11 also shows that independent variables have a strong relationship with dependent variable based on Table 4.10: Relationship Interpretation by Cohen (1988).

4.5.1 Independent Variables: Efficiency in deliveries, Customer's Loyalty and Inventory Management

Based on the correlation analysis table in Table 4.11 shows that the correlation between independent variables. Firstly, the correlation between efficiency in deliveries and customer's loyalty, there is a statically significant (p-value = 0.00) and have a strong positive correlation (r = 0.631**). Lastly, the correlation between efficiency in deliveries and inventory management also have a strong positive correlation which is the r-value is above 0.31 (r = 0.664**).

4.5.2 Dependent Variable: Online Grocery

Based on the Table 4.11, the result of the correlation analysis between independent variables and dependent variable are strong positive correlation since it has the r-value more than 0.31. The relationship between inventory management and online grocery is strong positive in this research more than efficiency in deliveries and customer's loyalty. The Pearson correlation of the relationship between the inventory management and the online grocery shows 0.687 with the significant level of 0.00. In addition, the level of correlation between customer's loyalty and efficiency in deliveries towards online grocery are also strong positive correlation. Therefore, the researcher can determine that there is a significant relationship between the factors of efficiency in deliveries, customer's loyalty and the factors of inventory management towards online grocery.

4.6 Hypothesis Testing

The researcher came to the conclusion that the best way to test the hypothesis would be to use multiple linear regression analysis because there are more than one independent variables in this study. Because of its well-developed underlying statistical theory, Hair et al (2006) argue that is a well-suited method for researching relationships between two or more independent variables and dependent variables. Hypothesis testing was used to determine whether the developed hypothesis in research has a significant relationship or not.

The independent variables in this regression were efficiency in deliveries, customer loyalty, and inventory management, while the dependent variable was online grocery. The researcher will discuss three tables in this section: model summary, ANOVA, and coefficient table.

Multiple Linear Regression Analysis Decision-Making Process:

- If the value significance is less than 0.5, there is a significant effect on both the independent and dependent variables.
- If the value significance is greater than 0.5, the independent variables have no effect on the dependent variable.

4.6.1 Multiple Linear Regression Analysis

Multiple linear regression is a statistical technique used to model the relationship between multiple independent variables (efficiency in deliveries, customers' loyalty and inventory management) and a single dependent variable (online grocery). In multiple linear regression, the goal is to determine the linear combination of the independent variables that best predicts the dependent variable. It allows to understand the relationship between the independent variables and the dependent variable, and to make predictions about the dependent variable based on the independent variables. The three data below demonstrate the result of independent variables and dependent variable.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.709[a]	.503	.488	.21782	2.044

Table 4.12: Model Summary

(Source: SPSS Output)

Table 4.12 shows the model summary that illustrates the relationships between independent variables and dependent variable. The correlation coefficient value (R) is 0.709. This shows that there was a strong correlation between the variables. Next, the coefficient determinant, R square value 0.503 which means that the online grocery was affected by independent variables by 50.3%. Another 49.7% was other factors which are not involved in this research. Lastly, the adjusted R square value is 48.8%.

4.6.2 ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.989	3	1.663	35.048	.000[b]
	Residual	4.934	104	.047		
	Total	9.923	107			

a. Dependent Variable: OnlineGrocery

b. Predictors: (Constant), InventoryManagement, CustomerLoyalty, EfficiencyInDeliveries

Table 4.13: ANOVA

(Source: SPSS Output)

Table 4.13 shows the F-test value is 35.048 with a significant level 0.000. The significant level was lower than 0.05, which is means the multiple regression models can be used to predict the influence of online grocery. Thus, researcher can conclude that there is a significant relationship between independent variables (efficiency in deliveries, customer's loyalty and inventory management) and dependent variable (online grocery) since significant level is 0.000.

4.6.3 Coefficient

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.364	.283		4.811	.000		
	EfficiencyInDeliveries	-.038	.092	-.041	-.417	.678	.490	2.042
	CustomerLoyalty	.179	.071	.243	2.512	.014	.509	1.964
	InventoryManagement	.514	.093	.556	5.534	.000	.473	2.114

a. Dependent Variable: OnlineGrocery

Table 4.14: Coefficients

(Source: SPSS Output)

Based on Table 4.14, it shows the result of beta value for three independent variables in this study. The inventory management have the highest effect on online grocery which is the unstandardized coefficient beta value is 0.514, followed by customer loyalty with the

beta value of 0.179. The efficiency in deliveries is the least variable that affecting online grocery with a beta value of -0.038.

Based on this table, the equation for the regression line in this study can be generated as below. The equation uses the unstandardized coefficient beta value because the value for constant is included.

Model Online Grocery

$$Y = a + b1x1 + b2x2 + b3x3$$

Y = Online Grocery

a = constant

b1-b3 = Regression Coefficient to be estimated

x1 = Efficiency of Deliveries

x2 = Customer's Loyalty

x3 = Inventory Management

- **Online Grocery** = 1.364 + (-0.38)(Efficiency of Deliveries) + 0.179 (Customer's Loyalty) + 0.514 (Inventory Management)

The results of multiple linear regressions are displayed in the table above. In this study, multiple linear regressions are calculated to find out the online grocery with three variables namely efficiency in deliveries, customer's loyalty and inventory management. Therefore, a significant equation can be outline here is $F(3,104) = 35.048$, $p<0.000$, $R2 = 0.503$. According to data above, customer's loyalty and inventory management are significant to online, while efficiency in deliveries is not significant. In this study, the researcher can concludes that the most influential factor for online grocery is inventory management with a significant value of 0.00.

4.6.4 The Relationship between the Efficiency of Deliveries and Online Grocery

(H0): There is no relationship between efficiency in deliveries and the challenges to start up online grocery in Melaka

(H1): There is a relationship between efficiency in deliveries and the challenges to start up online grocery in Melaka.

Accept H0

Table 4.14 shows the result of coefficient multiple regression analysis. The significant value for efficiency in deliveries towards online grocery is 0.678. Therefore, there is no significant relationship between efficiency in deliveries and online grocery since the significant value is more than 0.05. As the result, the null hypothesis (H0) is accepted and alternative hypothesis (H1) is rejected.

4.6.5 The relationship between Customer's Loyalty and Online Grocery

(H0): there no relationship between customer's loyalty and the challenges to start up online grocery in Melaka

(H2): There is a relationship between customers' loyalty and the challenges to start up online grocery in Melaka.

Accept H2

Table 4.11 shows the relationship between customer's loyalties towards online grocery. The Pearson correlation shows 0.577 with a significant level of 0.00. There is a significant relationship that exists between customer's loyalty and online grocery ($r = 0.577$, $p < 0.02$). The level of correlation between customer's loyalty and online grocery is moderate. Therefore, the study is accepted H2 since the relationship between customer's loyalty and online grocery are significant.

4.6.6 The Relationship between Inventory Management and Online Grocery

(H0) There is no relationship between inventory management and challenges to start up online grocery in Melaka

(H3): There is a relationship between inventory management and the challenges to start up online grocery in Melaka.

Accept H3

Table 4.11 shows the relationship between the inventory management towards online grocery. The Pearson correlation shows 0.687 with a significant level of 0.00. There is a significant relationship that exists between the inventory management and online grocery ($r = 0.687$, $p < 0.01$). The level of correlation between inventory management and online grocery is moderate. Thus, there is a significant relationship between inventory management and online grocery and the researcher accepted H3 in this study.

4.6.7 Summary of Hypothesis Testing

The table below is shown the summarization of the results of the hypothesis.

Hypothesis		Multiple Regression Result
H1	There is a relationship between efficiency in deliveries and the challenges to start up online grocery in Melaka.	Rejected (p-value = 0.678)
H2	There is a relationship between customers' loyalty and the challenges to start up online grocery in Melaka.	Accepted (p-value = 0.014)
H3	There is a relationship between inventory management and the challenges to start up online grocery in Melaka.	Accepted (p-value = 0.00)

Table 4.15: Summarization of Hypothesis Testing

Based on the summary above, it demonstrate the final results of the relationship between independent variables and dependent variables. As shown in table 4.15, there are two variables that are significantly correlated which are customer's loyalty and inventory management while efficiency in deliveries is rejected and not significant towards online grocery. The significant relationship is proved by the calculation of each p-value in multiple linear regressions. The p-values for accepted variables are less than 0.05 while the p-values for rejected variables is greater than 0.05. Thus, their hypothesis for customer's loyalty and inventory are accepted. Overall, there are two independent variables that are significant with dependent variable.

4.7 Discussion on Results and Findings

Three independent variables will be discussed and justify details after analysing the data results.

4.7.1 The Relationship between Efficiency in Deliveries and Online Grocery in Melaka

The result obtained that there is no significant relationship between efficiency in deliveries towards online grocery. Table 4.6 shows that most of respondents are agree with the questions for the efficiency in deliveries with the range value of mean 3.82 – 4.21 while standard deviation range within 0.433 – 0.593. Unfortunately, the hypothesis (H1) for this relationship is rejected due to some reasons which mean the relationship between efficiency in deliveries towards online grocery are not significant. The p-value for efficiency in deliveries towards online grocery is 0.678 which is greater than 0.05 that causes it to be rejected. There are two possibilities that the results could be insignificant (Denis, Michelle & Glenn, 2018). One possibility is that the "null hypothesis" is correct, which would imply that there is no actual effect. There is also the possibility that the study hypothesis is accurate nevertheless, the information presented in this study does not provide sufficient support for

the hypothesis. The second possibilities that also can occur which is Type II error but is not actually an error and is sometimes referred to as a 'miss,' Because the researcher do not have sufficient data to rule out the null hypothesis as an option, she should not come to the conclusion that the null hypothesis is correct. Rather, she should continue to consider it a possibility. There are several factors that might contribute to a Type II error, which ultimately results in non-significance. Some of these factors include a mean difference that is too small, a standard deviation that is too large, or a sample size that is insufficiently large that makes the study is underpowered (Denis, Michelle & Glenn, 2018).

4.7.2 The Relationship between Customer's Loyalty and Online Grocery in Melaka

Based on the interpretation of results, it addresses that there is a significant relationship between customer's loyalty and online grocery. Most of the respondents were agreed on the items of a questionnaire of customer's loyalty. According to the Table 4.14, customer's loyalty is the factor that influences online grocery with the significance value of 0.014. Therefore, the findings are consistent with the previous study by (Azhar & Basir, 2018) state that developing customer's loyalty for online business is more difficult and important than physical business. This can be explained that customer's loyalty is very important to online grocery and having a loyal customer base can give online grocery businesses a competitive advantage over their rivals. Futhermore, Badenhop and Frasquet (2021) propose that online customers nowadays are likely to stick with the same grocery. This statement is acceptable because each customer will stick to one brand if it meets customer satisfaction. By understanding the needs and preferences of loyal customers, online grocery businesses can improve their customer service and tailor their offerings to better meet those needs. Last but not least, customer loyalty has a favourable impact on profitability (Pitts, Ng, Blitstein, Gustafson & Niculescu, 2018). This is true because loyal customers are less likely to switch to competitors, and this will lead to long-term profitability for the business. Therefore, this is proven that the customer's loyalty have a strong relationship with online grocery.

4.7.3 The relationship between Inventory Management and Online Grocery in Melaka

From the results, the correlation analyses have proven that inventory management have a strong relationship towards online grocery. According to Table 4.14, inventory management is the most influential variables that influence online grocery with the significance value of 0.00. Based on previous research, Winkelmann, Ulrich, Römer, Langrock & Jahnke (2022) believed that the excess inventory will have an impact on the business. This statement is acceptable since having an effective inventory management helps to avoid stock outs, which occur when product is out of stock, or overstocking, and also occur when too much inventory is purchased. Both of these scenarios can be expensive for the company. Furthermore, there are some factors that make determining ideal replenishment orders challenging (Li, Sun, Zhang & Hu, 2018). By implementing an effective inventory management system can help keep track of items that need to be re-ordered, making the ordering process more efficient, and reduces the chance of running out of stock. In addition, a good inventory management system also may help in identifying the patterns in customer demand, which can assist in forecasting future demand and purchasing decisions. As the result, this is proven that the relationship between inventory management and online grocery is definitely significant.

4.8 Summary

Overall, this chapter has analysed the detailed methodology of conduct the research. This research has applied the methods of data collection such as mean score and standard deviation test, description statistics of the variables, correlation, hypothesis, and regression test as the description on this research paper. The next chapter will show the result of the analysis of the field data and interpretation of the research findings which discuss the limitation of doing this research.

CHAPTER 5

CONCLUSION

5.0 Introduction

In this chapter, the researcher will review and analyse the result and finding into a summary of review in statistical analysis that are obtained from previous chapter. Discussion of major finding in this research and the study implication would be including in this chapter. The research objective and question that have been stated in Chapter 1 also will be discussed in this chapter. The study limitation of this research is clearly defined and stated. In addition, there have some propose recommendation for future study and research. Lastly, conclusion will be made for the whole research.

5.1 Fulfilment of Research Objective

This part will discuss whether the researcher can achieve her research objectives or not based on the relationship between the independents variable (efficiency in deliveries, customer's loyalty and inventory management) and the dependent variable (online grocery). This research will provide the important result about it.

5.1.1 To identify the relationship between efficiency in deliveries and online grocery in Melaka.

The researcher has successfully found out the relationship between efficiency in deliveries and the online grocery. Unfortunately, the hypothesis (H1) that was proposed to explain this relationship has been shown to be incorrect for a number of reasons. This indicates that the relationship between the efficiency of deliveries towards online grocery is not a significant one. The p-value for efficiency in deliveries towards online grocery is 0.678, which is higher than the threshold of 0.05, so the hypothesis is not accepted. Efficiency in deliveries is an important aspect of running an online grocery business, as it directly impacts customer satisfaction and can affect the overall success of the business. However, there are several reasons why it may not be considered a significant challenge for start-ups such as established online grocery companies already have established delivery networks and

logistics systems in place, and startups may find it difficult to compete with them in terms of delivery efficiency. In addition, setting up an efficient delivery system can be costly, and start-ups may not have the financial resources to invest in expensive logistics and transportation infrastructure. Next, in some markets, the online grocery industry may be relatively new, and there might be less competition, so the delivery efficiency may not be as significant as in more mature markets. Last but not least, start-ups may focus on differentiating themselves from their competitors in other ways such as unique products, personalized service, or different payment options. In summary, efficiency in deliveries is an important aspect of running an online grocery business, but it may not be considered a significant challenge for startups, depending on the specific circumstances of the business and the market conditions.

5.1.2 To identify the relationship between customer's loyalty and online grocery in Melaka

The researcher is effectively discovered that customer's loyalty influences online grocery purchases. This can be proved by the coefficient value in Table 4.14. According to the table, the p-value for customer's loyalty towards online grocery is 0.014, which is less than 0.05 and indicates that this relationship is significant. As we know, customer's loyalty is very important for online businesses especially online groceries. First and foremost, loyal customers are more likely to make repeat purchases, which can enhance the overall revenue and profitability of the business. Another advantages of having customer's loyalty is their positive word-of-mouth. Customers that are satisfied are more likely to suggest the company to others, which can help attract new customers and raise brand awareness. Besides, by having customer's loyalty also help in reducing marketing cost. Customer's retention can be less expensive than customer acquisition, and loyal customers might lessen the need for ongoing marketing activities. As a result, the researcher advises any new entrepreneurs who want to create an online grocery to take care of their clients and give them with the greatest services that will make them loyal to your grocery.

5.1.3 To identify the relationship between Inventory Management and Online Grocery in Melaka

The researcher is successfully achieve the objective of the relationship between inventory management and online grocery. This relationship is significant as shown in Table 4.14 with the p-value of 0.00. In this study, inventory management is the most influential variables influencing online grocery. Some of the advantages of inventory management is that it can help in improving the operational efficiency. Good inventory management can assist in keeping track of items that need to be re-ordered, making the ordering process more efficient, and reducing the chance of running out of stock. Other than that, having a good inventory management also can help in enhancing customer satisfaction. Adequate inventory management ensures that customers can get the products they demand when they want them, which can increase customer satisfaction and loyalty. Furthermore, good inventory management also can boost the forecasting. Inventory management helps to identify patterns in customer demand, which can assist in forecasting future demand and purchasing decisions. As the conclusion, the researcher strongly recommend to all new entrepreneurs to make sure that they have a systems that can manage their inventory management such as Xilnex, IRS Software and others especially to track items in and out. Entrepreneurs also need to install Artificial Intelligence (AI) in their warehouse or grocery store, so it may help to smoothen their inventory management.

5.2 Implication of Study

The finding of this research is to have deeper understanding about critical factors influencing the challenges to start up an online grocery as there is rising online business in Malaysian. According to the findings of the study, only three of these factors are being investigated however, the researcher believes that there are still other factors that can have an impact on the challenges to start up an online grocery store. As a result, the researcher proposed an alternative framework that other researchers in the future may find useful.

Next, by conducting a literature review, an analysis of Pearson's Correlation Coefficients, and a multiple linear regression analysis, the researcher was able to achieve the research objectives of this study. Additionally, the researcher was able to test the hypothesis regarding the relationships between the independent variables (efficiency in deliveries,

customer loyalty, and inventory management) that influence the online grocery. In conclusion, start up an online grocery store is influenced by the loyalty of customers as well as inventory management, with inventory management being the most significant factor that can influence online grocery stores.

It is essential for all new business owners to have a comprehensive understanding of the difficulties involved in launching an online grocery store. Therefore, they will proceed with greater caution in the establishment of an online grocery store. In addition, to ensure that there are no hiccups, every requirement will be prepared to the highest possible standard.

5.3 Limitation of Study

The primary limitation of this study is the difficulty experienced by the researcher in locating the individuals who will participate in the survey. This is due to the fact that there are not a lot of grocery stores in Melaka that have recently begun operating an online grocery business. The vast majority of them are limited to the operation of traditional grocery stores. Despite this, the researcher was still successful in recruiting enough participants to finish this study. The researcher needed at least seven days to locate the people who participated in the study as respondents.

Next, a quantitative approach was used to test the validity of this study. This approach required respondents to answer a questionnaire. The questionnaire was distributed using link of Google Form. The researcher believes that the respondent have knowledge in answering the questionnaire that have been distributed. After disseminating the questionnaire, some of the respondents answer the question without fully understanding it, which results in answers that are different from what the researcher had anticipated. As a consequence, this will have an impact on the findings of the studies that have already been carried out. The researcher will have a difficult time obtaining accurate data from the respondent due to this condition, which is also beyond the researcher's ability to control.

5.4 Recommendation for Future Research

Recommendations for further research are recommendations that need to be improved from the research that has been done now so that the information obtained is better and more accurate.

5.4.1 Designing more suitable questions in a questionnaire

The questionnaire that will be used for present research project is divided into three sections: the first will cover demographic information; the second will focus on independent variables; and the third will be devoted to dependent variables. When it comes to the sections dealing with the independent and dependent variables, there are only a few questions that need to be filled in for each variable that being measured by the Likert scale. Therefore, in a future study, the researcher can suggest to include more questions for each variable to get a more valid result. Another suggestion is trying to put a few questions in open-ended ways to acquire details of the challenges to start up an online grocery store based on the participants' written answers. As a result, the research has the capability of capturing a wide variety of responses from respondents.

5.4.2 Expand sample size chosen from the population

In this particular study, a total of 108 participants were selected to act as target participants. It may be possible to increase the number of people who participate in subsequent research in order to achieve greater precision and dependability in the collected data. Any uncertainty that may have been encountered, such as failing the reliability test as a result of having a small sample size, is more likely to be alleviated when the sample size of the group as a whole is increased. Therefore, increasing the size of the sample can help avoid the occurrence of problems like these when analysing the results.

5.4.3 Including other variables

In future research, it will be possible to investigate additional variables that were omitted from this investigation, such as skills, experience, and so on. When compared with the results of the current investigation, it's possible that the presence of these variables could

lead to different findings. As a result, it is possible to obtain a value of R square that is greater than the one obtained by the current study. As a consequence of this, it is worthwhile to conduct research into insights regarding other variables in order to produce a large number of references for a researcher to use in analysing them.

5.5 Overall summary

As the conclusion, this research is focusing on the challenges to start up an online grocery. The finding of this study objective has been achieved through analysis from SPSS. In term of discussion about hypothesis testing and research objective also mentioned in this chapter to conclude the results finding that had analyse from chapter 4. Moreover, the implications of this research study were discussed in this chapter as a means of elaborating on the research's potential contributions to future investigations of the same topic.

Last but not least, it also includes a discussion of the limitations of the study as well as recommendations for future researchers who are interested in conducting research studies that are comparable to the one that being discussed here. The researcher has high hopes that this study will serve as a guide for a wide variety of parties in attracting potential customers and determining the challenges to start up an online grocery. In addition, the researcher has the hope that any responsible parties, such as retailers and the government, will provide assistance to all of the new business owners who wish to launch an online grocery store in order to provide the very best services to their customers and to achieve a higher level of customer satisfaction overall.

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APPENDIX A

1.0 Gantt Chart of Final Year Project (FYP) 1

WEEK/ ACTIVITIES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
FYP talk									MID SEMESTER BREAK							
Search for FYP topic																
Meeting with supervisor																
Topic discussion																
Title confirmation																
RO & RQ Construction																
Submission Chapter 1																
Submission Chapter 2																
Submission Chapter 3																
First draft of FYP 1																
Submission of FYP 1																
Presentation 1																
Revised of FYP 1																

2.0 Gantt Chart for Final Year Project 2

WEEK/ ACTIVITIES	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
Construct Questionnaire									MID SEMESTER BREAK						
Revised for Questionnaire															
Distribute Questionnaire															
Analysis Data															
Chapter 4 - Findings and Discussion															
Revised Chapter 4															
Chapter 5 - Conclusion and Recommendation															
Slide Preparation															
Submission of FYP 2															
Presentation 2															

3.0 QUESTIONS FOR GOOGLE FORM

Dear respondents, I am a student of Bachelor's of Supply Chain Management and Logistics in Universiti Teknikal Malaysia Melaka. As partial fulfilment for the completion of my degree programme, I am now conducting a research entitled: ― THE CHALLENGES TO START UP AN ONLINE GROCERIES.

In order to make this study successful, your participation in this research is greatly appreciated. There is no right or wrong answers to the questionnaire as the study is on individual perceptions. This questionnaire would take a few minutes of your valuable time to complete answering all the questions.

Your personal particular will remain anonymous and will be treated as strictly confidential. The data collected is only used for the purpose of this academic research and only aggregate data will be used in the report. Once again, thank you very much for your participation.

Sincerely,

Noraisah binti Rezali

Supervised by,

Datin Dr Suraya Binti Ahmad

Faculty of Technology Management and Technopreneurship

Universiti Teknikal Malaysia Melaka.

SECTION A: DEMOGRAPIC

Instruction: This section aims to collect respondent's general information. Please provide your best response to the question. Your response won't be shared. Please tick (/) in the boxes provided.

Arahan: Bahagian ini bertujuan untuk mendapatkan maklumat am bagi setiap responden. Sila sertakan respon mengikut kesesuaian anda. Maklumat anda tidak akan dikongsi. Sila tandakan (/) pada kotak yang disediakan.

1. What is your gender?
    - Male
    - Female
2. What is your age?
    - 18 – 30 years old
    - 31 – 40 years old
    - 41 – 50 years old
    - Above 50 years old
3. What is your race?
    - Malay
    - Chinese
    - Indian
    - Others
4. What is your current position in the company?
    - Manager
    - Sales assistant
    - Supervisor
    - Inventory/warehouse
    - Others
5. How long does you work in this company?
    - Less than 6 months
    - 6 months – 1 years
    - 1-3 years
    - 3 – 5 years
    - More than 5 years

SECTION B: THE CHALLENGES TO START UP AN ONLINE GROCERIES

Instruction: This section aims to gather information from your viewpoint on the challenges to start up an online groceries. Please read the following questions and respond by selecting the appropriate number from the accompanying 5-point Likert Scale.

Arahan: Bahagian ini bertujuan untuk mengumpul data terhadap cabaran yang perlu dihadapi untuk memulakan kedai runcit atas talian. Sila baca setiap soalan dan beri jawapan anda dengan memilih nombor yang sesuai mengikut skala Likert lima mata yang disediakan.

(1) Strongly Disagree */ Sangat Tidak Setuju*
(2) Disagree */ Tidak Setuju*
(3) Neutral */ Neutral*
(4) Agree */ Setuju*
(5) Strongly Agree */ Sangat Setuju*

Part 1: Efficiency in Deliveries

How far do you agree with this statements?

Question	1	2	3	4	5
If a business fail to make the delivery deadline, the clients may be unsatisfied with the quality of the service					
Consumers want to know where their orders are at any particular time, as immediately as they are shipped out					
One of the elements that would improve delivery efficiency would be the capability to monitor orders in instantaneously.					
Businesses must have a system in place if they want to learn how to enhance delivery efficiency					

Part 2: Customer's Loyalty

Question	1	2	3	4	5
Customers' loyalty is often viewed as a key contributory element to a business's profitability					
Online customers nowadays are more likely to stick with the same grocery store?					
Internet makes it easier and cheaper for customers to compare prices, switch providers, and shop around					
As conclusion, online loyalty seems to be highly valued because internet businesses are competitive and increasing all the time.					

Part 3: Inventory Management

Question	1	2	3	4	5
Excess inventory in warehouse will affect the businesses					
If lack of technology such as Artificial Intelligence (AI) in business will make the inventory management difficult to handle. - Example: Radio Frequency Identification (RFID)					
Every company needs an inventory system to track outgoing and incoming goods?					
Companies need to apply a system that allows customer to know how many stocks are still available in the store. - Example: Company's website that auto deduct stock					

SECTION C: THE CHALLENGES TO START UP AN ONLINE GROCERIES

Instruction: This section aims to gather information from your viewpoint on the online groceries. Please read the following questions and respond by selecting the appropriate number from the accompanying 5-point Likert Scale.

Arahan: Bahagian ini bertujuan untuk mengumpul data terhadap kedai runcit atas talian berdasarkan pengetahuan anda. Sila baca setiap soalan dan beri jawapan anda dengan memilih nombor yang sesuai mengikut skala Likert lima mata yang disediakan.

(1) Strongly Disagree */ Sangat Tidak Setuju*

(2) Disagree */ Tidak Setuju*

(3) Neutral */ Neutral*

(4) Agree */ Setuju*

(5) Strongly Agree */ Sangat Setuju*

Question	1	2	3	4	5
The term "online grocery shopping" refers to the practice of purchasing food and household through the use of a web-based shopping service such as WhatsApp, website, application, Shopee and others.					
Companies can gain the trust of customer by offering the same-day delivery. This strategy gives customers the ability to pick and choose among their preferred brands.					
Online grocery is time-efficient. Consumer may obtain online grocery delivery with one click and may spend more time with family and work.					
Online grocery have greater variety choice where customer can choose happily. This is because, grocery stores have limited storage space and cannot offer all products.					