

**THE INFLUENCE OF ONLINE FOOD DELIVERY
APPS AS THIRD-PARTY LOGISTICS ON THE
OPERATIONS OF RESTAURANTS IN KELANTAN**

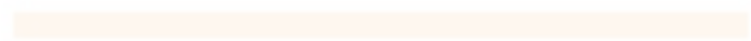
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**DEGREE OF BACHELOR OF ENTREPRENEURSHIP (LOGISTICS AND
DISTRIBUTIVE TRADE) WITH HONOUR**

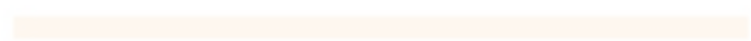
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OPERATIONS OF RESTAURANTS IN KELANTAN**

by

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A thesis submitted in fulfillment of the requirements for the degree of
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**Faculty of Entrepreneurship and Business
UNIVERSITI MALAYSIA KELANTAN**

2023

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LIST OF ABBREVIATIONS

MCO	MOVEMENT CONTROL ORDER
OFD	ONLINE FOOD DELIVERY

ABSTRAK

Seluruh landskap perniagaan restoran telah berkembang sepenuhnya hasil daripada kemajuan teknologi. Ia telah meningkatkan penggunaan perkhidmatan penghantaran makanan dalam talian dan membolehkan kami membandingkan kadar memesan makanan dari kemudahan rumah kami dan menggunakan perkhidmatan ini dengan mudah. Aplikasi penghantaran makanan juga telah meningkatkan perkhidmatan mereka dengan memberi lebih banyak pilihan iaitu masa penghantaran dan kaedah penghantaran seperti 'penghantaran tanpa sentuh'. Seseengah perkhidmatan penghantaran makanan juga menyediakan pilihan khusus untuk keperluan diet tertentu. Dari kertas penyelidikan ini, kami akan dapat memahami kepentingan logistic pihak ketiga mengenai operasi perniagaan restoran sementara kajian ini juga akan mengenalpasti pengaruh aplikasi penghantaran pada pengurusan inventori terhadap operasi perniagaan restoran. Selain itu, penyelidikan ini juga akan menyenaraikan beberapa isu aplikasi penghantaran yang dihadapi oleh pemilik restoran yang membantu restoran meniak taraf system operasi mereka untuk menyediakan perkhidmatan pelanggan yang lebih baik kepada pelanggan yang secara automatic meningkatkan keuntungan mereka..

ABSTRACT

The entire landscape of the restaurant business has entirely evolved as a result of technological advancement. It has increased the use of online food delivery services and allowed us to compare rates, order food from the convenience of our homes and utilize these services easily. Food delivery apps have also improved their services by giving their customers more options which is delivery times and delivery methods such as 'contactless delivery.' Some food delivery services even provide specialized options for specific dietary requirements. From this research paper, we would be able to understand the importance of the third-party logistics on the operations of restaurant business while this study also will identify the influence of the delivery app on the inventory management on the operation of the restaurant business. This research also will list out some issues of the delivery app that faced by the restaurant owner which helps the restaurant to upgrade their operation system to provide a better customer service to the customers that automatically increase their profits.

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF STUDY.

Customers could order food delivery from restaurants via phone or in person by putting prior orders with the eateries before the digital delivery app revolution. Food delivery apps have also improved their services by giving their customers more options such as delivery times and delivery methods such as 'contactless delivery.' Some food delivery services even provide specialized options for specific dietary requirements. As more eateries joined the network during the movement control order (MCO) phase, the landscape of food delivery apps received a further boost. (Oppotus, 2022).

There are two different categories of distributors in Malaysia who offer online food delivery (OFD) services via the meal delivery application. McDonald's Malaysia, Kentucky Fried Chicken (KFC) Malaysia, and Pizza Hut Malaysia are among the retailers in the first group. The second group consists of a large number of delivery service providers for restaurants, including Food panda, Grab, and Halo. The combination of these two kinds of OFD applications creates a useful food and beverage service. The most popular meal delivery app among Malaysians aged 25 to 34 was Food panda, which is owned by the Berlin-based business Delivery Hero SE. (Zolkiffli and others, 2021)

Meal delivery has become more and more popular, and a large part of this growth may be ascribed to Malaysia's greater Internet penetration rate and increased use of mobile phones, both of which are essential for the success of food delivery services where food must be ordered via a computer or mobile phone. OFD is a website or app that enables consumers to order and receive food from a variety of eateries. Orders, payments, and process monitoring are all handled by it, but order preparation is not. Customers often look for their favourite restaurant, select a product from a menu, and enter their delivery address. (Zolkiffli et al. 2021). Food panda has registered over 18,000 eateries in response to the rise in demand, while Grab Food has 5,000 restaurants, with the number expanding since the epidemic in 2019. As a result, the study focused on OFD providers in Kelantan to determine the influence of OFD applications on restaurant operations. (Ray et al., 2019).

1.2 PROBLEM STATEMENT

Online food delivery services are more necessary than ever these days. This is demonstrated by the increase in the use of meal delivery services in the Kelantan region, including such Food panda and Grab Food. The neighbourhood has decided to use online meal delivery services to make it easier for people to purchase the food they desire without having to leave their homes or places of employment. A bad online food delivery service will therefore have a negative effect and interfere with Kelantan's restaurant economy.

All online food delivery businesses must create and maintain a specific application for a food delivery system. Poorly designed and difficult-to-use food

delivery services will have a detrimental impact on the restaurants that work together with them. This is because clients who utilize the food delivery apps will place fewer food orders. Due to this, it will be challenging for the restaurant to maintain regular business operations and find customers. (Tehitic, 2018).

The cost of online food delivery services is one of the key problems. After adding food to the cart and adding delivery fees, the estimated price of the food is fairly close to the actual pricing. For resolving problems with online food delivery applications, it is important to continuously learn and update the app. When the pricing established by the Kelantan online food delivery application is not reasonable for the consumer, the customer will either cancel the transaction or lose interest in using the online food delivery application to place future orders. This will be extremely detrimental to Kelantan's restaurant industry. (Kohar & Jakhar, 2021).

There are numerous instances in which the rider picks up multiple items in a row from a predetermined place for online food delivery, and after all, pickups have been accomplished, the same rider must transport the item to the appropriate delivery location. (Kohar & Jakhar, 2021). Customers who utilize the online food delivery application would feel unsatisfied and upset with the service offered if the online food delivery rider fails to deliver the item on time. To enable the movement of food delivery riders to take orders and deliver the order on time to clients throughout Kelantan, a flexible online food delivery application system is required.

A typical arrangement for this kind of issue is perfectly suited to online food ordering services, which are expanding quickly, particularly in today's society when people prefer to buy food online rather than go out to dine in a restaurant. Multi Pickup and Delivery Problems with Time Windows are issues where some such delivery requests must be

fulfilled within a specific time window. (Kohar & Jakhar, 2021). The operations of restaurants in Kelantan will therefore be negatively impacted by online food delivery services that offer subpar service.

Inventory control of perishable goods like food is crucial in the restaurant industry. This is due to the limited shelf life of perishable goods. The usage of perishable goods after their expiration date is not advised. The management of the perishable goods inventory in the restaurant sector has become more challenging. The market and application for online food delivery are still developing and confront some difficulties. (Das & Ghose, 2019). As a result, restaurant inventory management for perishable goods in Kelantan is impacted by fluctuations in supply and demand in online food delivery applications. The restaurant sector has suffered because of this issue. Therefore, we conduct this research to analyse and understand the influence of online food delivery apps on the operations of restaurants in Kelantan.

1.3 RESEARCH QUESTION

The following research questions were developed for this investigation in order to attain the aforementioned goals:

- I. What is the impact of third-party logistics i.e. out of stock, food waste and high delivery price on inventory management depends on online food delivery apps adapted by Kelantanese?
- II. What is the impact of third-party logistics i.e. out of stock, food waste and high delivery price on significant issues depends on online food delivery apps adapted by Kelantanese?
- III. What is the impact of third-party logistics i.e. out of stock, food waste and high delivery price on operations of restaurants depends on online food delivery apps adapted by Kelantanese?
- IV. What is the relationship between inventory management and operations of restaurants depends on online food delivery apps adapted by Kelantanese?
- V. What is the relationship between significant issues and operations of restaurants depends on online food delivery apps adapted by Kelantanese?

1.4 RESEARCH OBJECTIVE

Due to improve the importance operations and the inventory of the restaurant business for proving a better customer service. This study is aimed to investigate the importance, effect and significant issues on the operation of the restaurant business. The following auxiliary goals are established in order to accomplish the research's primary goals:

- I. To investigate the impact of third-party logistics i.e. out of stock food waste and high delivery price on inventory management depends on online food delivery apps adapted by Kelanteneese.
- II. To explore the impact of third-party logistics i.e. out of stock food waste and high delivery price on significant issues depends on online food delivery apps adapted by Kelanteneese.
- III. To examine the impact of third-party logistics i.e. out of stock food waste and high delivery price on operations of restaurants depends on online food delivery apps adapted by Kelanteneese.
- IV. To study relationship between inventory management and operations of restaurants depends on online food delivery apps adapted by Kelantanese.
- V. To study relationship between significant issues and operations of restaurants depends on online food delivery apps adapted by Kelantanese.

1.5 SCOPE OF THE STUDY

The purpose of the research is to understand how the operations of the restaurant industry are impacted by online food delivery apps. The study is conducted from the perspective of the restaurant, how they are managing their inventories with the response to increasing customer demand and what are the advantages and disadvantages of partnering with third-party food logistics. The study will assist new restaurant owners in understanding how to manage their inventory in the age of online food delivery. It will also help them to weigh the pros and cons to determine what aspects they should concentrate on in order to satisfy the customer demands. The study's geographic focus is in the Kelantan state of Malaysia. The respondents are Kelantan citizens approximately 250 respondents which includes the restaurant owners and workers that use online food delivery apps in their businesses. Another than that, the data will be collected in Kelantan, Malaysia over a certain time period using a questionnaire as a survey.

1.6 SIGNIFICANCE OF STUDY

The study is about the influence of food delivery app on the operations of restaurants in Kelantan.

This study will provide several study's pros and cons towards restaurant owners of the usage of food delivery application in future. The result of this study can be highlighted by companies who operate food app platforms, giving them a better knowledge of what features potential app users would like or expect from these food apps in order to make them more convenient and user-friendly without being overly complicated. These findings will undoubtedly help restaurants and food suppliers improve their online presence by making it

more user-friendly and customer-focused which will encourage repeat business that will increase their bottom line and online visibility.

Besides that, the federal government can evaluate the results to help with the regulation of the online food operators in terms of hygienic practise, obtaining a Halal licence and compliance etc. Therefore, these findings will provide a wider perspective on how to create laws and policies that will safeguard both users of mobile food ordering apps and the restaurants and businesses that run these apps. Consequently, preventing technology from being used unfairly or exploitatively by one party at the cost of another.

E-commerce development has been profitable in recent years, notably in the food and beverage industry where it was discovered that this sector produced roughly US\$207 million in revenue for Malaysia in 2018 and was predicted to expand to US\$511 million in revenue by 2023 (The Statistics Portal, 2018a); The Statistics Portal, 2018b).

Due to the growth of the online food business and the rising customer demand for it as a result of Malaysia's contemporary lifestyle, this study has become more important. In order to maintain growth and meet consumer demand for food delivery, particularly among busy individuals, it is imperative to take into account the present quality of service provided by logistics from the perspective of the client. Although they will be based on the perspectives of restaurant owners and employees, the study's anticipated results will have an impact on how the food sector functions, particularly in terms of enhancing the performance of the logistical service.

There are unavoidable limitations to this research when trying to explore into in. For an accurate analysis of the influence of online food applications on the restaurants business. The study is carried out in Kelantan city of Malaysia, so that the results may differ for the other regions of the nation due to diverse regional and lifestyle factors. Additionally, the

researcher was unable to examine all food delivery apps, therefore accurate data could not be gathered. However, these limitations allow for future research. This study is important in promoting the expansion of the online food market and the effectiveness of online food delivery services for restaurant operations.

1.7 DEFINITION OF TERM

1.7.1 Online Food Delivery apps

People may have relaxed on the traditional purchase of offline food and embraced new platforms of online meal delivery applications since they may acquire a variety of food options as a result of increased knowledge, convenience, and effort among individuals (Lau and Ng, 2019). Pigatto et al. (2017) claim that online meal delivery services are recognised as a platform where only smartphone users are permitted to submit orders. The online meal delivery apps will count the number of orders, receive payments, track and manage the system, but they won't be involved in cooking the food themselves. Online meal delivery start-ups have proliferated as a result of technological changes in the smartphone app market, and local consumers have developed a rising thirst for these start-up applications (Kapoor and Vij, 2018). As significant predictors of the online meal delivery app's global popularity, convenience, ease of use or ordering, and time savings are cited by Raval and Bhatt (2020) as being heavily dependent on users' purchasing intents.

1.7.2 The influence of online food delivery app on the operation of restaurants

The introduction of new conveniences for the both consumers and establishment brought by food delivery application has changed the food delivery service (Oppotus, 2022). According to Oppotus (2022), Food delivery services have already been available for a very long time but before the introduction of smartphones and online distribution application which is the consumers could only book food delivery from restaurants primarily by calling or going in person to place an advance order. Sharavanthi C (2021) said that “there are a lot of advantages that can make us understand the chance and tremendous boost to development potential that food delivery app may offer the restaurant businesses as well as how the consumer may find such programs incredibly beneficial.

1.7.3 Third-Party Logistics

According to Coyle, Bardi and Langley (2003), in the logistics business environment, “third party logistics” has been described in a manner that is quite similar to that of an external supplier to whom the firm outsource some or all of its logistics activities. Additionally, 3PL operates may be separated into five category which is those focus on transportation, distribution center, forwarder, finance and data. For restaurant business, the main factor that used from 3PL is transportation which is using food delivery riders that playing a big role between the restaurant and consumers. According to Anton Sikorsky (2022), restaurants outsource the management of 12 their meal delivery operations to the third-party logistics firms. These are markets that provide different dining option to the consumers. Customers may use the app to instantly order from the restaurant of their choice. The restaurant then receives, confirm and prepares the order. Once the delivery service has joined the process, orders are delivered from the location of the restaurant to the consumers.

Third party logistics are included three factors which is the first one is out of stock. Also known as stock out. It is a situation where the retailer does not physically possess a particular product category, on its shelf, to sell to the customer. It can be estimated from store inventory data (Saurav, 2016). According to Jing and Lewis (2011), define a stock out as any instance in which a customer does not receive all items that were ordered. In addition, Chatfield et. al. (2013) define stock out propagation as the situation where a stock out at one node causes a stock out at an adjacent node.

Food waste is the following factor. Every stage of the FSC, including the farming phase, industrial transformation, distribution, and retail, as well as the final consumption phase, sees food waste and losses (Gustavsson et al. 2011). Food waste happens at the distribution, retail, and consumption stages of the food supply chain (Parfitt et al., 2010). Food waste is influenced by contextual and cultural factors and is linked to behavioural problems at various consuming moments (Porpino et al., 2015). The main issue with food waste is that it wastes energy from various sources, including agriculture, transportation, processing, sales, storage, and preparation (Abeliotis et al., 2014).

High delivery costs are the last aspect of third-party logistics to consider. The price at which one party agrees to deliver the underlying commodity and at which the other party agrees to accept delivery is referred to as the delivery price. The price at which a party agrees to furnish the underlying products and at which a counterparty agrees to sanction the delivery, according to Bhavana (2022), a futures contract executed on a recognised exchange or an over-the-counter forward agreement specifies the delivery price. In the contract, the delivery cost must be predetermined. Instead of the day the items are actually delivered, it must be agreed upon the day the futures or forward contracts are entered. The selling price of a stock in an option contract is another term for the delivery price. Bhavana (2022) further notes that

the delivery price idea is essential because it is established on the day the contract is signed and does not change throughout the term of the contract. The price to enter into or exit new futures or forward contracts, as well as the cash price (or spot price) of a commodity, are some of the rates that are subject to change. Futures contracts are standardised financial products, and daily market markings of profits and losses are made. At the conclusion of each trading day, prices are adjusted based on the settlement price. The delivery fee, however, doesn't change because it was included in the contract at the outset.

The relationship between Third party logistics and operation of restaurants have related. Aghazadeh (2003) asserts that effective third-party relationships include clear lines of communication, a shared commitment to success, and a compensation plan for the third party, and a sense of camaraderie among the parties. Two parties having good corporate chemistry have similar business values and habits. A successful TPL depends on a company's connections with its TPL providers. This connection requires continual upkeep. When a business chooses the best TPL provider, they can anticipate cost savings, productivity gains, hassle-free operation, and quantifiable service enhancements. Any connection with a third-party logistics provider must have good communication. Companies should be clear about their expectations when seeking for a TPL provider.

1.7.4 Inventory Management

The process of placing orders, keeping items in storage, and using a company's inventory is known as inventory management. This includes managing raw materials, parts, and finished goods as well as warehousing and processing such items (Hayes, 2019). An essential operational management tool used in a supply chain is inventory management. It is mostly used to manage a company's inventory using a methodical process that might lower

the expense of maintaining one (Singh et al., 2018). The majority of inventory management systems are built on established inventory principles, models, and procedures. Theoretically, these methods are still relevant in the contemporary setting (Muchaendepi et al., 2019). A company's efficient and successful supply chain in the current global market can only be achieved by timely and appropriate decisions regarding the quality of orders and by maintaining adequate inventory under competitive business conditions. Inventory management, according to Adam Hayes (2022), is the process of purchasing, managing, using, and dispersing a company's inventory.

Inventory management and third-party logistics are linked to one another. Aghazadeh (2003) asserts that the majority of 3PL firms have altered their value propositions to better suit client needs, which has improved warehouse productivity. In these situations, it is necessary to increase operational performance, inventory control, and order processing cycle times. This is crucial in third-party logistics warehouses since they handle a wide variety of items and a lot of different kinds of consumers. Additionally, TPL handles pricing negotiations, oversees product returns, assists with product assembly and installation, offers order fulfilment, and replenishes inventory. The past, present, and future are all significantly impacted by TPL. Depending on the requirements of the firm, TPL offers a wide range of advantages. Despite the link between warehousing and inventory management, according to Vasiliauskas, A. V., & Jakubauskas, G. (2007), less than 10% of respondents outsource their inventory management while more than a third cheerfully give over their warehousing operations to 3PLs.

The connection between inventory control and restaurant operations was then covered. According to Kanya et al. (2016), suppliers are supply network chain members who contribute to the overall performance of the supply chain process. Failure in the supply chain

may be caused by the supplier's poor performance. Building a solid supply chain necessitates a close relationship with the provider.

1.7.5 Significant Issue

The high cost of delivery is a key problem that is frequently encountered while using an online meal delivery programme. A large team of experts may be needed to manually manage courier operations, including order segregation, order allocation, choosing the best delivery vehicle, assigning drivers, arranging delivery routes, and more. Additionally, carrying out various processes takes a fair amount of time and work. For providers of courier services, containing this cost is a significant challenge (Shipsy, 2022). Food prices are quite unpredictable, in addition to the client base. Prices in the food business are influenced by numerous factors. Businesses that deliver food frequently struggle to identify the best pricing strategies and are unable to follow or keep up with market rates (Sonali, 2022).

1.8 ORGANIZATION OF THE PROPOSAL

For the organization of the proposal, will be discuss about what are going to have in the chapter one, chapter two, chapter three, chapter four and chapter five.

In the chapter one of these studies describes introduction, the research background of the study. Then the problem statement, research questions, research objective, scope of the study, significance of study, definition of term and organization of the proposal and conclusion of the chapter.

In chapter two, it will discuss the literature review on introduction, underpinning theory, previous studies, hypotheses statement, conceptual framework and summary of the influence of online delivery app on the operations of restaurants in Kelantan.

In the chapter three, will discuss in detail about research methodology. Begin with the introduction, continue with the research design. Also, this research uses the quantitative study. Next, data collection method, data analysis method, study population, sample size, sampling technique, research instrument development, measurement of the variable, the procedure for data analysis and lastly the conclusion of the chapter.

In this chapter four, will discuss about data analysis and findings. Begin with the introduction, preliminary analysis, and demographic profile of respondents. Next, descriptive analysis, validity and reliability test and normality test. Other than that, hypotheses testing and lastly, summary or conclusion.

In the chapter five of these studies describes about discussion and conclusion. Begin with introduction, key findings, and discussion about hypothesis. Next, implications of the study, limitations of the study, recommendations for future research and lastly overall conclusion of the study.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

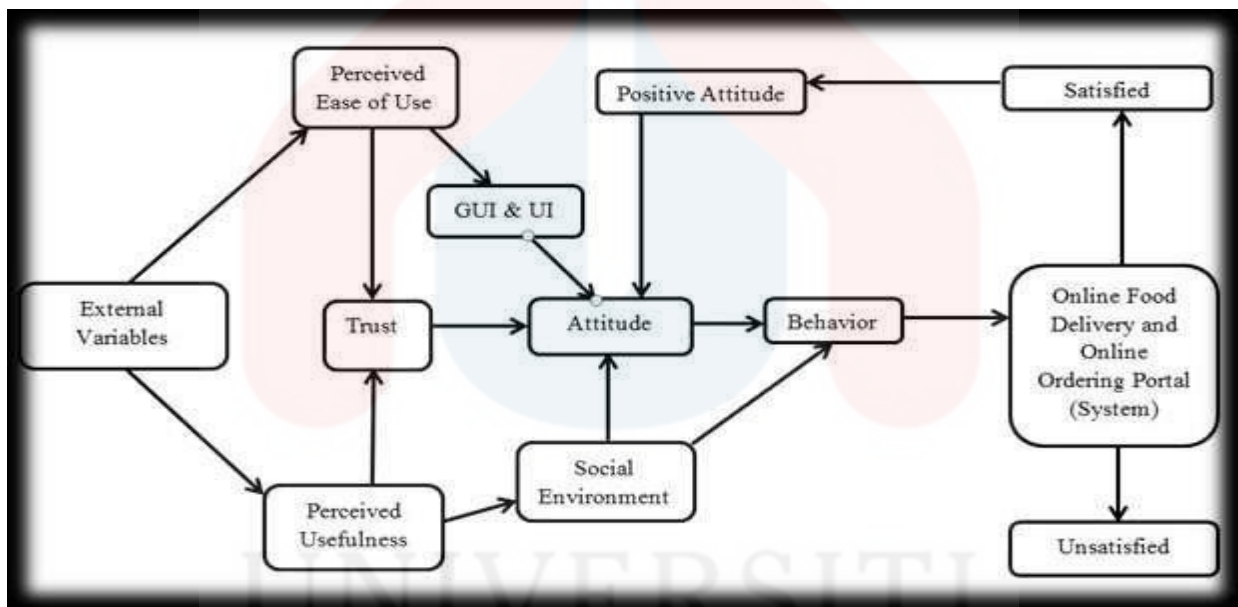
In this chapter, the researcher focuses on identifying and analyzing the influence of online food delivery applications on restaurant operations in Kelantan. The researcher discusses the concept and convenience of online food delivery applications and their impact on restaurant operations. Furthermore, based on reviews by earlier researchers and debates on a given issue or study, this chapter aims to identify and acknowledge existing research that connected keywords and variables that specify in this analysis. This chapter also includes a conceptual framework that links the independent and dependent variables. The researcher also developed some hypotheses based on the independent factors from the conceptual framework to determine the most important link between the independent factors and the dependent variable. Throughout the section of the literature review, it assisted the researcher in developing a clear and deeper knowledge of insights into past work that connected to the research questions and objectives.

2.2 UNDERPINNING THEORY

In the modern world, online meal ordering and delivery services are a growing industry. These food-tech enterprises completely rely on technological platforms, just like e-

commerce companies do. The Technological Acceptance Model (TAM) was created to research how well new technology is received from both the owners' and users' perspectives (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989). Many researchers have used TAM to investigate how well new technologies are received. Perceived information, service quality, and system have a favourable influence on utility and usability in online buying (Hsu, Wu, Chen, and Chang 2012).

Figure 2.1: Technology Acceptance Model (TAM) for online food ordering and delivery system



The graphic above is an expanded TAM for an online food ordering and delivery system developed by Salunkhe et al (2018). The enlarged TAM of earlier study reveals the customer's viewpoint on the adoption of online meal delivery services. Many trust-related criteria were found to be directly correlated with usability while reviewing prior work. While reviewing earlier work, it was found that a number of trust-related elements were directly associated to usability. The graphical interface is the first thing he will see when using the system. Online

customers have access to a wealth of knowledge about goods and services. How information about restaurants, food, and reviews is provided with the use of images is important. .

Since this study is about online meal delivery and how the convenience of this online food delivery service can impact the operation of a restaurant, it will employ this theory, which is the Technology Acceptance Model (TAM). However, delivery people deliver actual goods (meal) to customers' doorsteps when they use food delivery services, and the quality of the food is a crucial factor in creating a more satisfying restaurant business.

2.3 PREVIOUS STUDY

2.3.1 The influence of online food delivery app on the operation of restaurants.

According to Oppotus (2022), Food delivery services have already been available for a very long time but before the introduction of smartphones and online distribution application which is the consumers could only book food delivery from restaurants primarily by calling or going in person to place an advance order. The introduction of new conveniences for the both consumers and establishment brought by food delivery application has changed the food delivery service (Oppotus, 2022). Ng & Yat (2019), Food Panda is the pioneer food delivery business that operated successfully in Malaysia. According to Shravanthi C (2021), no restaurant or other food business can afford to overlook the possibility one of the those on food delivery app present because of how popular they have become and how they reenergized the food sector.

Sharavanthi C (2021) said that “there are a lot of advantages that can make us understand the chance and tremendous boost to development potential that food delivery app may offer the

restaurant businesses as well as how the consumer may find such programs incredibly beneficial in sating their food cravings. According to Robert (2022), online food delivery systems use the internet to gather client orders, send to the restaurant and then distribute the orders to the consumers. They benefit restaurant by enlarging their client bases but detractors contend that they damage their bottom lines diverting off a portion of sales and causing traffic that discourages dine-in consumers.

2.3.2 The Impact of Third-Party Logistics

According to Coyle, Bardi and Langley (2003), in the logistics business environment, “third party logistics” has been described in a manner that is quite similar to that of an external supplier to whom the firm outsources some or all of its logistics activities. Additionally, 3PL operations may be separated into five categories which focus on transportation, distribution center, forwarder, finance and data. For restaurant business, the main factor that is used from 3PL is transportation which is using food delivery riders that play a big role between the restaurant and consumers. According to Anton Sikorsky (2022), restaurants outsource the management of their meal delivery operations to the third-party logistics firms. These are markets that provide different dining options to the consumers. Customers may use the app to instantly order from the restaurant of their choice. The restaurant then receives, confirms and prepares the order. Once the delivery service has joined the process, orders are delivered from the location of the restaurant to the consumers. A study of thousands of restaurant owners revealed that offering online delivery had increased revenues for 60% of the restaurant operators (Technomic Food Trends, 2018). According to Thompson (2019), despite the fact that online food delivery firms claim to boost revenue and successfully so the revenue of the restaurant will increase as online delivery rises.

2.3.2.1 Out of stock

The out of stock defined as when a company runs out of a particular item that needed by the customers. When this happen, buyers are unable to order the item thus the company must modify the item's availability status (Abby Jenkins, 2022). According to Jim Gordon (2015), having a daily special meal that might influence and increase the customer demands when the restaurant's stock for the dish is low is one of the ways for a business to run out of food and he also mentioned that his friend ultimately learned his lesson by adding a weekly special to menu and placing larger orders for suppliers rather than running out of them four or five evenings a week. Besides that, if the restaurant inventory software does not immediately update the stock of the restaurant once an online purchased is placed, replenishing the restaurant inventory might be difficult task. If the customer who is trying to get their favorite food by online discovers that the meal is no longer available than he will proceed to purchased it elsewhere. This issue is might affect the reputation of the restaurant (Vijaya, 2019).

2.3.2.2 Food Wastage

Food production wastes around one-third of it according the eco expects web blog, whether this improbable estimate is correct that we can all probably agree that eliminating food waste is a worthy objective. However, this is not entirely to blame the restaurants but a part of it may be attribute to the booming meal delivery sector (Deliverect, 2022). According to the reports, the increase was brought on by irregular online ordering patterns under the

exceptional conditions. The overproduction of meals was also the primary factors in why eateries threw food waste. Besides that, some recent research justified that the unfavorable views and result associated with the employment of online food delivery systems during the pandemic. For example, Rajat Sharma (2021), justified that over ordering of food and a known cause of food waste is a result of faith in food delivery applications.

2.3.2.3 High Delivery Price

Anton Sikorsky (2022) mention that, the delivery app established historically high delivery price. More and more eateries are now requesting that the cost charged by the third-party companies like Uber Eats to be lowered. According to Anton Sikorsky (2022), charging a percentage to every delivery result in considerable revenues loss for the restaurants. Restaurants earnings have already decrease significantly as a result of the outbreak. According to Vijaya (2019), for each delivery customers makes, the majority of the food delivery demand a substantial delivery fee. Several of online delivery service company charged 30% of the whole cost of the meal which is a real issue for new or tiny restaurant businesses. These delivery businesses continue to grow their profits over time, putting the eateries in the losses.

2.3.3 Inventory Management

According to Adam Hayes (2022), the process of buying, maintaining, utilizing and distributing a company's inventory is referred as inventory management. The covers the handling and storage of such commodities as well as the administration of raw resources, elements and completed goods. The issue of variable pricing and lot sizes for a retailer selling

perishable items (Abad, 2003). The cost of the item might vary throughout the course of an inventory cycle while taking into account the good's age and the value decline that comes with it. A firm's efficient and effective supply chain in the current global market can only be accomplished by timely and appropriate choices about the quality of orders and by keeping appropriate inventory under competitive business circumstances. N. K. D. Linh (2015) conducts research in order to describe a solution to the inventory management problems in a two-echelon model for perishable and appropriate products with multi-period lives.

N. K. D. Linh (2005) states that the study has been examining the inventory theory in order to examine inventory management for consumable and interchangeable commodities with numerous period lives, fixed lead times, and a high degree of customer service. In order to evaluate how well perishable inventory management performs in relation to specified goals, each item is taken into account independently. The main objective of perishable inventory management is to maximise profits while taking into account the product's useable life. The literature has described how inventory systems for perishable items have been developed in accordance with various demand scenarios and life parameters.

2.3.4 Significant issue

According to Agence France-Presse (AFP) (2021), Mathieu Palombino who is the founder of the New York pizza business claims that the boost offered by the delivery app a "Big Illusion" because restaurants do not make more money when they receive more orders. According to Palombino taking to

AFP, you are content when you get 30 or 40 orders everyday but the issue is that it fails to result in earning. Agence France-presse (AFP) (2021) claims that, food delivery providers can charge dining establishments charges of up to 30% of the food's total cost.

The restaurant crowded by the delivery riders are also an issue that faced by the restaurant. According to Deliverect (2022), to make more money the delivery riders must complete as many as they can which nothing is more annoying to them than having to wait for a dinner that is not ready to pick up. The dine-in eating experience for the customers may become uncomfortable if there are several riders awaiting inside the restaurant, particularly if the establishment is small. Dine-in customers at the restaurant could experience a rush or crowding. However, the staff must also deal with all these courier that turn in to pick up orders. Consequently, the staff might quickly side tracked from their work. Finally, inconsistent preparation times and delivery wait time will affect the restaurant's rating and reputation on third-party delivery system which will bring down the restaurants in-app rating.

Literature Chart

Influence of online food delivery	Third party logistics	Inventory management	Significant Issues
<ul style="list-style-type: none"> • Oppotus (2022) • Ng & Yat (2019) • Shrvanathi C (2021) • Robert (2022) 	<ul style="list-style-type: none"> • Coyle, Bardi and Langley (2003) • Anton Sikorsky (2022) • Technomic Food trends (2018) • Thompson (2019) 	<ul style="list-style-type: none"> • Adam Hayes (2022) • Abad (2013) • N. K. D Linh (2015) 	<ul style="list-style-type: none"> • Agence French Press (2021) • Deliverect (2022)

Table 2.1: The Literature Chart

2.4 HYPOTHESIS STATEMENT

H1: There is a significant relationship between the impact of third-party logistics i.e. out of stock, food waste and high delivery price on inventory management depends on online food delivery apps adapted by Kelantnese.

H2: There is a significant relationship between the impact of third-party logistics i.e. out of stock, food waste and high delivery price on significant issues depends on online food delivery apps adapted by Kelantnese.

H3: There is a relationship between the impacts of third-party logistics i.e. out of stock, food waste and high delivery price on operations of restaurants depends on online food delivery apps adapted by Kelantnese.

H4: There is a significant relationship between inventory management and operations of restaurants depends on online food delivery apps adapted by Kelantanese.

H5: There is a significant relationship between significant issues and operations of restaurants depends on online food delivery apps adapted by Kelantanese.

2.5 CONCEPTUAL FRAMEWORK

THE INFLUENCE OF ONLINE FOOD DELIVERY APPS ON THE OPERATIONS OF RESTAURANTS IN KELANTAN.

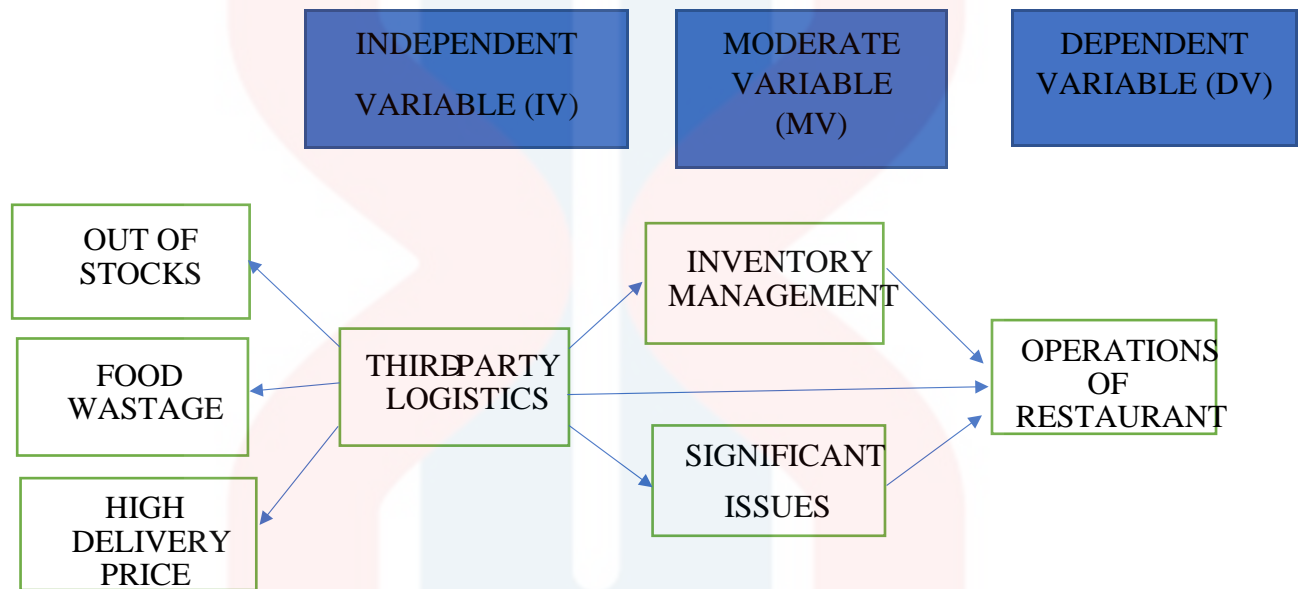


Figure 2.2: The conceptual framework on the influence of online food delivery apps on the operations of restaurants in Kelantan

2.6 SUMMARY

In conclusion, this part has examined a wide range of literature reviews about the previously examined studied components. We were able to develop recommendations for the theoretical framework with the assistance of the prior literature review. Consequently, a proposed theoretical framework was constructed based on the literature review. In this study, third-party logistics were chosen as the independent variables. While, inventory management and significant issues were chosen as the moderate variable. The researchers then tended to evaluate the relationship between independent variables, moderate variables and the dependent variable for the operation of a restaurant. These independent variables and moderate variables have an impact on how the operation of restaurants and were agreed upon by the researchers. Therefore, the type of method covered in the chapter after this one will be used to determine the study's findings.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The research approach employed for this study is described in the chapter. To provide a board overview of the research process, the first segment of this chapter begins with a definition of the study. This goes into additional detail about the research design, data collection methods, study population, sample size, sampling technique and research instrument development that used to evaluate the hypothesis. The second segment will define about the measurement of the variables which analysis the data in two scales which is nominal scale and ordinal scale. This segment also continues with the procedure for data analysis that will have four stage of analytical data which is Reliability test, Descriptive research, Pearson correlation and multiple regression analysis.

In general, this chapter presents the ideas underlying those analyses to help readers fully comprehend the way were used in this study.

3.2 RESEARCH DESIGN

The term “research design” describes to the general method used to logically and cogently combine the several of the study elements. This is done to make sure that the problem of the study is adequately addressed. The research study is the planning process for data collecting, measurement and evaluation. According to Kothari (2004), the core of each study is the research design while it is also a technique of investigation created with the intention of obtaining answers to some specific research questions and also helps us to achieve our research objectives. The objective of the research design is to offer plan that enables accurate analysis of the causal connection among dependent and independent variables. The study requires to acquire data on the importance of the third-party logistics and the effect of food delivery apps on inventory management while issues that faced by the restaurant’s owner from online food delivery services to fulfil the research objectives. Since a result, a series of specially created questionnaires will provide to the respondents in order to gather data directly from the restaurant owners in Kelantan that uses online food delivery services and delivery riders in Kelantan. The questionnaires will be utilized to gather trustworthy for the quantitative approach.

3.3 DATA COLLECTION METHODS

Data collection is the process of gathering, calculating and evaluating relevant insights for study using established and recognised procedures. Based on the data collected, research may assess their hypothesis. Despite of the research topic, the first and most crucial step is typically data collecting. Besides that, primary information was used to conduct thus study. Primary data collection is the procedure of acquiring data through surveys, interviews or experiments. In addition, this study will make use of an online questionnaire that was created

using Google forms. The number of populations to help compensate this study is 300 respondents.

In another hand, the respondents for this study are those restaurant's owners and workers, who are using online food delivery app in their business. They were chosen for this study they are qualified to participate as respondents and have the necessary experience of using online food delivery app in their restaurants. Additionally, the respondents for this study can be located by spreading Google forms through walk-in and websites. The respondents will be approached by giving and sending Google forms personally through walk-in and websites and be asked whether they can complete the questionnaire or not. The data will be collected during working days and the estimated during is about 3 to 4 weeks.

3.4 STUDY POPULATION

Referring to Thomson & Hengen (2007) said that a secret gathering of individuals, creatures or items that may be recognised by routine research and understanding is referred to as the population.

The participants who have used online food delivery services will be chosen as the targeted respondents for this study. The participants in this study were then narrowed down to those in Kelantan who had used online meal delivery apps. They were chosen to participate in the study because they can provide dependable feedback on the current research.

Moreover, the chosen respondent's experience allowed the respondent to provide more precise and relevant information rather than conducting a poll of participants with no past experience in online food delivery apps and who only reacted based on their own opinion. This survey will be carried out in several restaurants in Kelantan from 1st week of December

to 3rd week of December. This is due to the fact that the date coincides with working days which is 5 days in a week and it is simpler to conduct research during the weekdays. Besides that, many respondents are likely engaged in online food delivery apps which that may provide precise data and reach a large number of survey questionnaire in a short amount of time.

3.5 SAMPLE SIZE

The term “sample size” refers to the total number of participate who served as a representative sample of the study’s population. The total number of respondents that take part in a study is referred to as the sample size and in order to guarantee that the sample as a whole adequately represents the entire population, this entire population, this number is typically divided into subgroups depending on factors like age, gender and geography as stated by Frankline Kibuacha, 2021).

Respondents who frequently participate in running activities or who have taken part in different kinds of run events will receive the questionnaire. The respondents were chosen because it was thought they would provide the optimal data for this study. The sample size for this study is 384 respondents based on population in Kelantan. This is because we will using simple random sampling for finds the respondents based on the populations in Kelantan. Besides that, we also can approach the respondents from Kota Bharu and Pengkalan Chepa areas. These areas are near to us and affordable to reach. An accessible table was made by Krejcie and Morgan in 1970 to estimate the sample size for a specific population by (Syed Abdul Rehman Bukari, 2021). We used Krejcie and Morgan to establish sample size, hence the researcher had to manually calculate the sample size using their technique. Table below shows the table of Krejcie and Morgan established table.

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

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

Source: Krejcie & Morgan, 1970

Source: (Syed Abdul Rehman Bukari, 2021)

Figure 3.1: Krejcie and Morgan sample size determination table

3.6 SAMPLING TECHNIQUES

The results of a sample of the population can be used by academics to learn about a community without having to look at every single person, claims Kumar (2018). Reducing the number of research participants not only lowers costs and workload, but also makes it easier to get high-quality data. The two types of sampling techniques are probability sampling and non-probability sampling. A complete sampling frame of all eligible persons from whom to choose your sample is the foundation of probability (random) sampling. Due to the increased possibility that the sample would include every qualified participant, the study's findings will be more broadly applicable. Additionally, non-probability sampling approaches need more time and money than probability sample procedures. Since nonprobability (non-random) sampling does not start with a full sample frame, some individuals will also be removed. Contrarily, nonprobability sampling is more user-friendly and less expensive, making it suitable for exploratory research and hypothesis development. Probability sampling was used in this study to make the selections. Probability is the ideal sampling method since it ensures that the results of the study may be applied to the target population (Aruna Nigam, 2013). On the other hand, by utilising probability sampling, we suggest that each person of the population has an equal chance of being chosen for the study. Simple random sampling, systematic random sampling, stratified random sampling, cluster sampling, multiphase sampling, and multistage sampling are all types of probability sampling. Simple random sampling will be used in this study. Because the data will be chosen using a random number table or a computer-generated list of random numbers, each respondent has the same probability of being chosen from the population to form the sample using this methodology.

3.7 RESEARCH INSTRUMENT DEVELOPMENT.

A tool used to gather, measure, and analyse data from research subjects is known as a research instrument. To analyse each data point, this research will be based on a pilot study and an online questionnaire.

3.7.1 Pilot Study.

The questionnaire should be assessed with the intended audience after instrument validation to determine whether it needs to be tweaked or enhanced. A pilot study, which is a scaled-down version of a bigger study that may be used for any research method, but is especially useful for questionnaire surveys, is typically advised to be carried out before the major data collection activity. For the purpose of locating and validating any instrument defects, a pilot study must be conducted. Before distributing the questionnaire to a significant number of target respondents at this point, researchers test it with a small sample. Various pilot group sample sizes are recommended; some authors claim that the pilot research sample size should range from 25 to 75 participants. The study used 30 samples using SPSS software.

3.7.2 Questionnaire Design.

Three sections make up the questionnaire for this study. Demographic data on the respondents, including their age, gender, experience, work status, and monthly income, were gathered in Part A. Researchers can analyse the differences between respondents in terms of particular qualities thanks to the collection of this data. Part B was created to put the study's research paradigm the test using the constructs and items

that were created. This section concentrated on the dependent variable which is the operations of the restaurant. Part C included the independent variables which are third-party logistics, out of stocks, food wastage, high delivery price and moderate variables which are inventory management, and significant issues.

For assessing the questionnaire items in this study, the Likert scaling technique was determined to be acceptable. A five-point scale is the most common among Likert-type measures. Respondents were therefore asked to rate how strongly they agreed or disagreed with each statement on a five-point Likert scale (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, and 5=strongly agree). A 5-point Likert scale has five possible responses, and researchers utilize an odd-numbered Likert scale question to learn more about a subject by offering a neutral response choice that participants can select if they do not wish to reply to extreme options. This is so that the respondents won't be confused by the use of too many answer options if the researcher utilizes more than the five Likert scale approach. A neutral respondent won't have any alternatives for answers if the respondent selects a Likert scale that is less than 5.

3.8 MEASUREMENT OF THE VARIABLES

The researchers will collect and analyse data to help determine the statistical inference test to examine each variable on the scale. This online questionnaire uses nominal, ordinal, and interval measurement scales (Likert scale). The questionnaires were divided into three (3) sections: respondents' demographic profile in section A, dependent variable questions in section B, independent variable and moderator variables questions in section C.

3.8.1 Nominal Scale.

For qualitative variables, a nominal scale is employed, therefore only numbers are used to categorise or identify things in this situation. The most fundamental and affordable kind of measuring is this one. On a nominal scale, responses are only named or categorised. In section A surveys, the nominal scale is utilised to calculate each respondent's demographic profile. To analyse the target respondents, age, gender, experience, employment type and monthly income are all measured on a nominal scale using questionnaires.

3.8.2 Ordinal Scale.

A measuring variable used in quantitative variables called an ordinal variable takes values in a certain rank or order. It is the second level of measurement and a subset of the nominal variable. Items on this scale are listed from least to most satisfy in descending order of level of satisfaction. Ordinal scales, as opposed to nominal scales, enable comparisons of the levels of the dependent variable in two subjects. One of the scales that was most frequently utilised in this study was the Likert scale. How strongly the assertions agree or disagree is determined using the Likert scale of 1 to 5 (strongly agree (1), disagree (2), neutral (3), agree (4), and strongly agree (5)).

3.9 PROCEDURE FOR DATA ANALYSIS

Data analysis comprises transforming, cleansing, and modelling data to find information that can be used for business decision-making. The purpose of data analysis is to draw out useful information from the data so that decisions may be made. The Statistics Package for the Social Sciences (SPSS) programme will be used to analyse and decipher the data after data collection. Frequency analysis, reliability testing, descriptive studies, correlation analysis, and multiple regression analysis are just a few of the phases that will be used to obtain analytical data for this project.

3.9.1 Reliability Test

Data analysis comprises transforming, cleansing, and modelling data to find information that can be used for business decision-making. The purpose of data analysis is to draw out useful information from the data so that decisions may be made. The Statistics Package for the Social Sciences (SPSS) programme will be used to analyse and decipher the data after data collection. Frequency analysis, reliability testing, descriptive studies, correlation analysis, and multiple regression analysis are just a few of the phases that will be used to obtain analytical data for this project.

3.9.2 Descriptive Research

The findings of a descriptive analysis of some of the associated features based on the demographics of customers who participated in this survey were compared to the findings of the earlier study by Zolkiffli et al. (2021). The findings show that all respondents (100%) had used OFD apps or the web, with 94 (93.07%) preferring the app platform and another 7

(6.93%) preferring the website. The researcher will use SPSS software to review the respondents' questionnaire responses in this section to ensure the aim has been met.

3.9.3 Pearson Correlation Analysis

According to Muhamad et al (2020) .'s earlier study, all independent variables had positive Pearson correlation coefficients, and the result for ease of use was 0.610, the lowest of the other factors. These correlation indices were all significant at the threshold of 0.01 (2-tailed). This study will use Pearson correlation analysis to confirm the association between independent and dependent variables.

3.9.4 Multiple Regression Analysis

The R-squared (R²) values show the variance within the dependent variable, according to the earlier work by Idris et al. (2021). The R² value is .729, according to the findings. This shows that consumer intention toward online food ordering and delivery services is significantly correlated with 72.9% of variations within each of the three independent variables. Other predictor factors so account for the remaining 27.1% of the explanation. Additionally, multiple regression analysis will be used in this study to meet its goals. Third-party logistics, inventory management, and significant difficulties are the three variables in this study. Finally, the study's goal will be accomplished via multiple regression analysis.

3.10 SUMMARY/CONCLUSION

In conclusion, this chapter is about methodology that researcher used to collect data. At the first chapter 3, researcher talks about research design that been used in the study. The data collection method and sampling also being mentioned. Quantitative method which using questionnaire as a tool for data collecting. In population and sample, Krejce & Morgan (1970) was used. Data analysis will be run in SPSS software after completely gathering the data. The analysis of data will be specifically mentioned on the next chapter.

CHAPTER 4

DATA ANALYSIS AND FINDINGS

4.1 INTRODUCTION

In this chapter, the researcher discussed the results gathered from questionnaires distributed using Google Forms and completed by targeted respondents. The tools used to conduct this study were self-administered questionnaires with a Likert scale of 1 to 5. Five types of analysis or tests were used in this study, namely demographic profile of respondents, descriptive analysis, reliability test, normality test and analysing Spearman correlation coefficient. The number of respondents needed for this study was 384 respondents, but the researcher able to collect 300 respondents. Using IBM/SPSS Statistics version 25 (Statistics Package for the Social Sciences), the researcher analyses the data and the results of the statistical analysis were discussed in this chapter. Finally, all the results obtained, whether descriptive or inferential, will be summarized and discussed at the end of this chapter.

4.2 PRELIMINARY ANALYSIS

Any data set must undergo preliminary analysis, which include verifying the accuracy of measurements, assessing the success of any manipulation, looking at the distributions of specific variables, and calculating values. Regarding this study, a pilot test was conducted on the first 30 responses to the data to determine whether the questions were appropriate to be given to the remaining respondents. This questionnaire is broken into three pieces. Five

questions make up Section A's demographic background, while 19 questions each make up Sections B and C's independent variables and dependent factors, respectively. The purpose of this test is to determine whether the questions given to the intended responders are reliable.

Table 4.1: Pilot Test of 30 targeted respondents

Reliability Statistics	
Cronbach's Alpha	N of Items
.947	2

The influence of third-party logistics, which includes food waste, excessive delivery prices, and out-of-stocks, is one of the three independent factors in this study. The operations of restaurants is the sole dependent variable. Five questions make up each independent variable, just as five questions make up each dependent variable. Consequently, there were 25 questions in total. According to Table 4.1, the dependability score for the entire survey is 0.947, which translates to a strong level of internal consistency. All of the questions used in this questionnaire are legitimate and reliable since the coefficients found for all the variables show good consistency and stability.

4.3 DEMOGRAPHIC PROFILE OF RESPONDENTS.

This section included the fundamental study of the 300 respondents who are residents of Kelantan's demographic background. Results for gender, age, monthly income, and experience are shown in this section. Next, simplified charts and tables were used to illustrate the frequency and percentage for each demographic profile of respondents.

4.3.1 Age

Table 4.2: Demographic Profile of Respondents' Age

Age

PART A / BAHAGIAN A DEMOGRAPHIC DATA Consists of general information such as Age, Gender, Experience, Employment type, and Monthly income. Please answer the question correctly by selecting ONE of the options provided. 1) AGE / UMUR:				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	269	90.0	90.0	90.0
18-25 years old / 18-25 tahun	17	5.7	5.7	95.7
26-33 years old / 26-33 tahun	7	2.3	2.3	98.0
34-41 years old / 34-41 tahun	4	1.3	1.3	99.3
42 and above / 42 dan ke atas	2	.7	.7	100.0
Total	299	100.0	100.0	

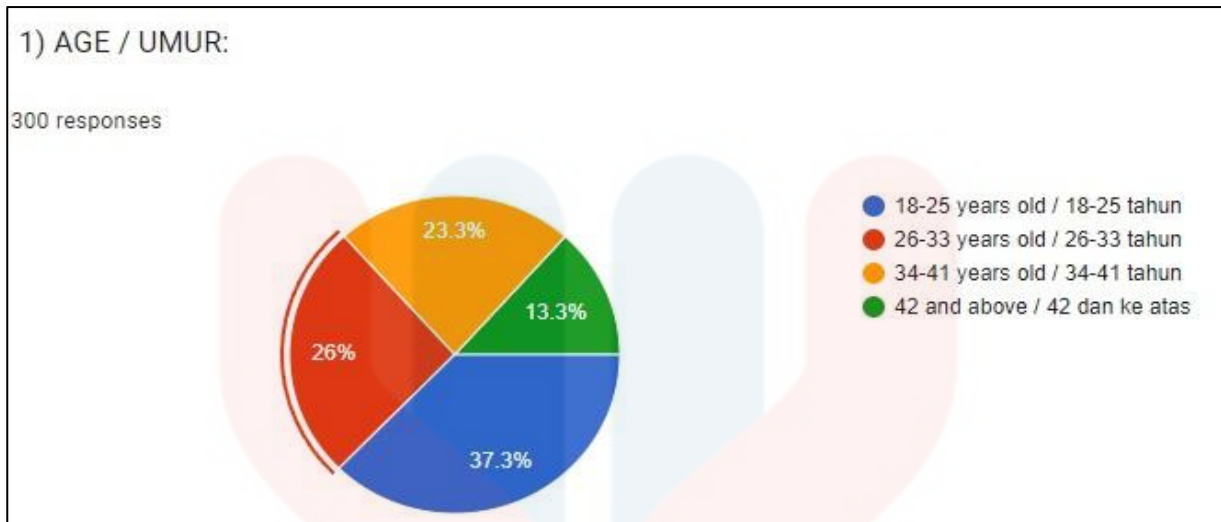


Figure 4.1 Percentage of Respondents' Age

Out of 300 respondents who agreed to fill out the survey for this study, the frequency and percentage of respondents' ages are shown in Table 4.2 and Figure 4.1. According to Table 4.2, of the 300 respondents, 112 were between the ages of 18 and 25 (37.3%), which is the age range with the highest frequency. The age group with the lowest frequency of respondents 13.3%—is 42 and older, with a total of 40 respondents. Following the respondents' age range of 26 to 33 years old with a percentage of 23.3% and 70 respondents, the second greatest frequency age range would be 78 with a percentage of 26%. This demonstrates that respondents between the ages of 18 and 25 are regular customers of Kelantan residents.

4.3.2 Gender

Table 4.3: Demographic Profile of Respondents' Gender

Gender				
2) GENDER / JANTINA:				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	269	90.0	90.0	90.0
Female / Perempuan	20	6.7	6.7	96.7
Male / Lelaki	10	3.3	3.3	100.0
Total	299	100.0	100.0	

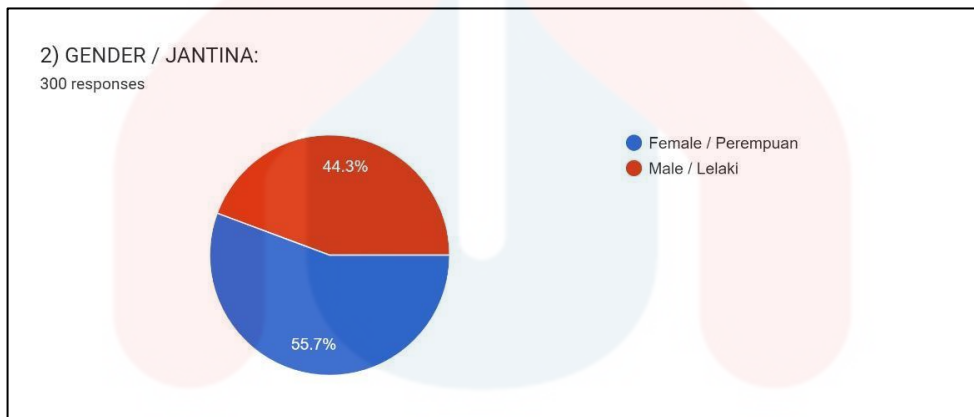


Figure 4.2 Percentage of Respondents Gender

The frequency and percentage of respondents' gender among the 300 participants who agreed to answer the survey for this study are shown in Table 4.3 and Figure 4.2. The frequency of male respondents is 133 out of 300 respondents, according to Table 4.3, whereas the frequency of female respondents is 167. On the other hand, Figure 4.2 demonstrates that the proportion of male respondents accounts for 44.3% out of 300 respondents, while the proportion of female respondents accounts for 55.7% out of 300 respondents. Therefore, it is

safe to claim that both the frequency and the percentage of responders who are female are higher.

4.3.3 Experience

Table 4.4: Demographic Profile of Respondents' Experience

Experience

3) EXPERIENCE / PENGALAMAN:

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	269	90.0	90.0	90.0
1-5 years / 1-5 tahun	10	3.3	3.3	93.3
10 years above / 10 tahun ke atas	3	1.0	1.0	94.3
6-10 years / 6-10 tahun	6	2.0	2.0	96.3
Less than 1 year / Kurang dari 1 tahun	11	3.7	3.7	100.0
Total	299	100.0	100.0	

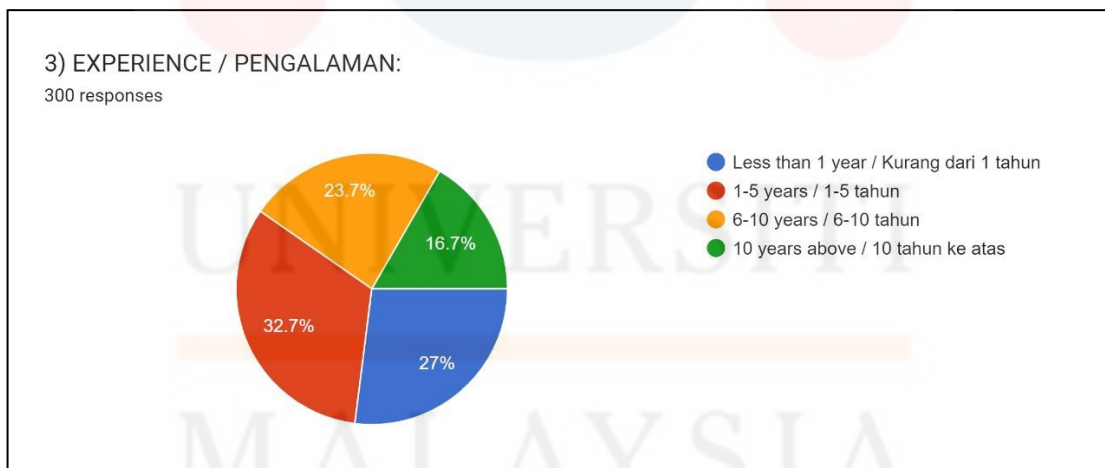


Figure 4.3 Percentage of Respondents' Experience

The frequency and proportion of respondents' experiences out of the 300 respondents who were willing to respond to the research's questionnaire are shown in Table 4.4 and Figure 4.3. According to Table 4.4, the majority and largest frequency of respondents' experiences are between 1 and 5 years, with 98 of the 300 respondents reporting this, while the lowest frequency of respondents' experiences is between 10 and +5 years, reported by 50 respondents. On the other hand, Figure 4.3 demonstrates that the majority and highest percentage of respondents' experience is 1–5 years, which accounts for 32.7% out of 300 respondents, while the lowest percentage of respondents' experience is 10 years and above, which only accounts for 16.7% out of 300 respondents.

4.3.4 Employment Type

Table 4.5: Demographic Profile of employment type of Respondents

Employment Type

4) EMPLOYMENT TYPE / JENIS PEKERJAAN:

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	269	90.0	90.0	90.0
Full-time wokers / Pekerja sepenuh masa	13	4.3	4.3	94.3
Owners' restaurant / Pemilik restoran	3	1.0	1.0	95.3
Part-time wokers / Pekerja sambilan	14	4.7	4.7	100.0
Total	299	100.0	100.0	

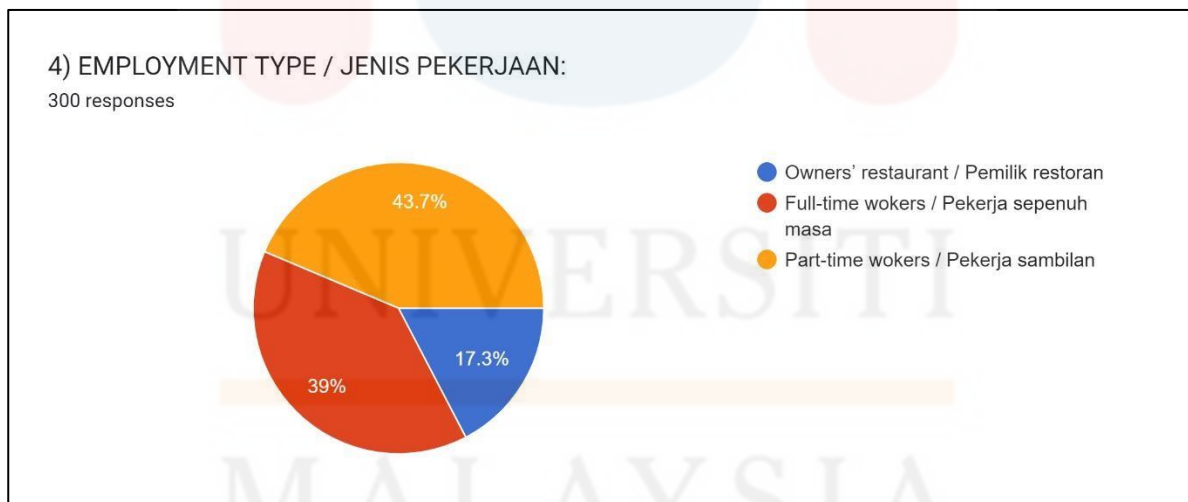


Figure 4.4 Percentage of Employment Type of Respondents

The frequency and percentage of the employment types of the 300 respondents who agreed to complete the survey for this study are shown in Table 4.5 and Figure 4.4. According to Table 4.5, out of 300 respondents, part-time workers had the highest frequency and

proportion reported (43.7%). The restaurant owners, who accounted for 52 of the respondents, had the lowest frequency and percentage noted from the data gathered from respondents (17.3%). This demonstrates that part-time employment makes up the majority of Kelantan residents that replied to the poll.

4.3.5 Monthly Income

Table 4.6: Demographic Profile of Respondents' Monthly Income

Monthly Income

5) MONTHLY INCOME / PENDAPATAN BULANAN:

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	269	90.0	90.0	90.0
Below RM 1000 / Bawah RM 1000	10	3.3	3.3	93.3
RM 1000 – RM 2000	8	2.7	2.7	96.0
RM 2001 – RM 3000	5	1.7	1.7	97.7
RM 3001 – RM 4000	4	1.3	1.3	99.0
RM 4001 and above / RM 4001 dan ke atas	3	1.0	1.0	100.0
Total	299	100.0	100.0	

MALAYSIA

KELANTAN

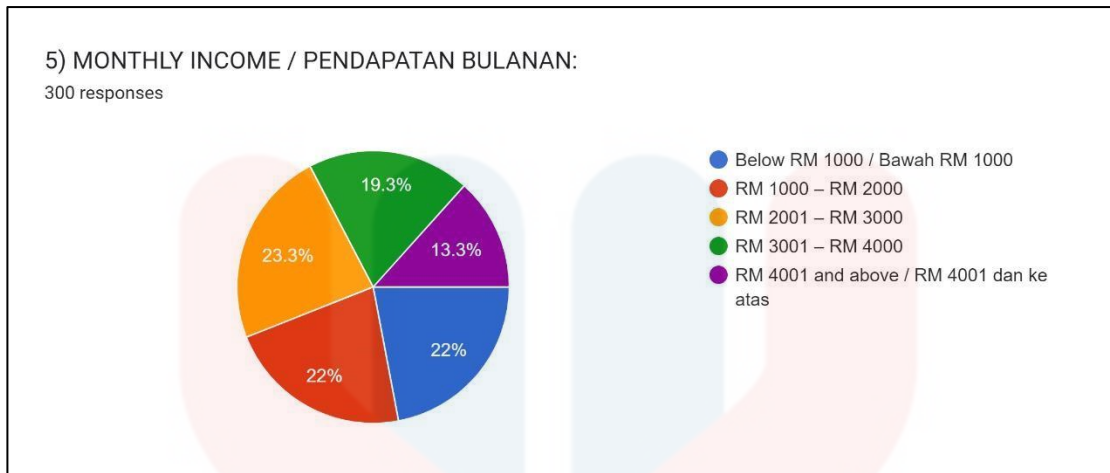


Figure 4.5 Percentage of monthly income of Respondents

The frequency and proportion of respondents' income out of the 300 respondents that answered the survey for this study are shown in Table 4.6 and Figure 4.5. According to Table 4.4, the majority and maximum frequency of respondents' income is between RM2,001 to RM3,000, which accounts for 23.3% of the 300 respondents, while RM4000 and above accounts for the lowest frequency of respondents' income and only accounts for 13.3% of the 300 respondents.

4.4 DESCRIPTIVE ANALYSIS

In this section, the descriptive statistics for the research's dependent variable the operations of restaurants and its independent variables out of stock situations, food waste, and excessive delivery costs were discussed. Starting with section B of the questionnaire, the mean and standard deviation of each variable as a whole, as well as the questions for each variable in each part, were analysed and reported in this section.

4.4.1 DEPENDENT VARIABLE AND INDEPENDENT VARIABLES

Table 4.7: Descriptive Statistics of Dependent Variable and Independent Variables

Descriptive Statistics					
Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
IV	30	4.20	21.00	16.1000	5.14312
DV	30	4.20	21.00	15.5867	5.24514
Valid N (listwise)	30				

The overall descriptive statistics of the dependent and independent variables were displayed in Table 4.7. The independent variable, which comes from third-party logistics and includes out-of-stocks, food waste, and excessive delivery prices, has a mean value of 16.10. The operations of eateries, which are the dependent variable, had a mean value of 15.59, though. Additionally, the standard deviation shows how near the mean the data is. The independent variable's standard deviation is 5.14, according to table 4.7. The standard deviation for the restaurant operations dependent variable, however, is 5.25.

4.4.2 Operations of Restaurants

Table 4.8: Descriptive Statistics of Operations of Restaurants

Descriptive Statistics			
	N	Mean	Std. Deviation
1) The website of online food delivery app should be well organized and all the necessary information should be available / Laman web aplikasi penghantaran makanan dalam talian haruslah teratur dan semua maklumat yang diperlukan harus tersedia.	30	3.77	1.431
2) Strong distribution channel which ensures timely delivery of selected food makes me loyal to the online food delivery apps / Saluran pengedaran yang kukuh yang memastikan penghantaran makanan terpilih tepat pada masanya menjadikan saya setia kepada aplikasi penghantaran makanan dalam talian.	30	3.67	1.269
3) Online food delivery application helps me a lot in ensuring efficient management of food orders and improving punctuality / Permohonan penghantaran makanan dalam talian sangat membantu anda dalam memastikan pengurusan pesanan makanan dengan cekap dan meningkatkan ketepatan masa.	30	3.60	1.354
4) The online food delivery application helps the business to increase sale and get more customers / Aplikasi penghantaran makanan membantu perniagaan anda meningkatkan jualan dan mendapatkan lebih ramai pelanggan.	30	3.80	1.324
5) Controlling the food preparation process by ensuring that workers are in a clean condition to maintain food quality when preparing ordered food / Mengawal proses penyediaan makanan dengan memastikan pekerja dalam keadaan bersih bagi menjaga kualiti makanan ketika menyediakan makanan yang dipesan.	30	3.77	1.223
Valid N (listwise)	30		

The overall descriptive statistics of the dependent and independent variables were displayed in Table 4.7. The independent variable, which comes from third-party logistics and includes out-of-stocks, food waste, and excessive delivery prices, has a mean value of 16.10. The operations of eateries, which are the dependent variable, had a mean value of 15.59, though. Additionally, the standard deviation shows how near the mean the data is. The independent variable's standard deviation is 5.14, according to table 4.7. The standard deviation for the restaurant operations dependent variable, however, is 5.25. As a result, the majority of respondents concur that the statement "The online meal delivery application enables the business to improve sales and gain more consumers" best captures their attitudes toward the management of restaurants. Contrarily, respondents concur that the less explicit and least influenced statement best captures their behaviour when it comes to running restaurants: "Online food delivery application helps me a lot in assuring efficient handling of food orders and enhancing punctuality."

4.4.3 CUSTOMER BEHAVIOUR

Table 4.9 Descriptive Statistics of Third-Party Logistics.

Descriptive Statistics			
	N	Mean	Std. Deviation
1) Third-party logistics service providers assist the restaurant in food delivery. / Penyedia perkhidmatan logistik pihak ketiga membantu restoran anda dalam penghantaran makanan.	30	3.87	1.196
2) Third-party logistics service provider helps the restaurant in order fulfillment. / Pembekal perkhidmatan logistik pihak ketiga membantu restoran anda dalam pemenuhan pesanan.	30	3.93	1.311
3) Third-party logistics help the restaurant in building a brand image. / Logistik pihak ketiga membantu restoran anda dalam membina imej jenama.	30	3.70	1.418
4) Third-party logistics help in the promotion of the restaurant. / Logistik pihak ketiga membantu mempromosikan restoran anda.	30	3.83	1.262
5) A third-party logistics service provides the best service for restaurant. / Perkhidmatan logistik pihak ketiga menyediakan perkhidmatan terbaik untuk restoran anda.	30	3.83	1.367
Valid N (listwise)	30		

Table 4.9 displayed the third-party logistics descriptive data together with the five independent variable assertions. With a mean of 3.93 and a standard deviation of 1.311, the statement "Third-party logistics service provider assists the restaurant in order fulfillment" had the highest average. The statement with the lowest mean and standard

deviation, "Third-party logistics help the restaurant in developing a brand image," has a value of 3.70. The assertion that "Third-party logistics service provider aids the restaurant in order fulfilment" is accepted by the vast majority of responders is the most influenced statement that affecting the third-party logistics in Kelantan. In addition, respondents that the statement of "Third-party logistics help the restaurant in building a brand image." is the less clear and least influenced statement that affecting the third- party logistics in Kelantan.

4.5 RELIABILITY TEST

This section covered the validity of the research's questionnaire, which reflects the operations of a restaurant as the dependent variable and third-party logistics as the independent variable. Starting with section B of the questionnaire, Cronbach's alphas for each item and variable in each section were analysed and given in this section. This reliability test was conducted to determine whether the questions in the questionnaire are still reliable after responses have been collected from the actual number of respondents, which is 300 respondents, as opposed to the pilot test, where only 30 responses from 30 respondents were collected to test the reliability of the questions prior to the questionnaire being distributed.

Operations Of Restaurant

Table 4.10: Reliability Statistics for Operations of Restaurant

Reliability Statistics	
Cronbach's Alpha	N of Items
.959	5

In this study, the dependent variable the operations of a restaurant was measured using four questions that serve as test items. According to Table 4.10, a restaurant's operations have a Cronbach's alpha coefficient of 0.959, resulting in an adequate level of internal consistency. Due to the acquired coefficient, the questions regarding a restaurant's operations have adequate consistency and stability; as a result, all of the questions utilised for this variable are legitimate and dependable.

Third Party Logistics

Table 4.11: Reliability Statistics for Third Party Logistics

Reliability Statistics	
Cronbach's Alpha	N of Items
.957	5

The independent variable in this study, third-party logistics, was measured using five questions that served as test items. Cronbach's alpha coefficient for third-party logistics is 0.957, according to Table 4.11, which shows a strong level of internal consistency. All questions utilised for this variable are valid and dependable since the coefficients derived for the customer behaviour questions have strong consistency and stability.

4.6 NORMALITY TEST

Table 4.12: Test of Normality of All Variables

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
IV	.196	30	.005	.848	30	<.001
DV	.258	30	<.001	.838	30	<.001

a. Lilliefors Significance Correction

The SPSS system was used to verify and analyse the data's normality. In this investigation, the Shapiro-Wilk and Kolmogorov-Smirnov tests were performed to determine whether the data were normal. The two approaches to understand distribution are normal distribution and abnormal distribution. Any variables with a p-value less than 0.05 had information about abnormality.

Based on Table 4.12, it illustrates the Kolmogorov-Smirnova and Shapiro-Wilk tests used to determine if all research variables were normal. Each test's result indicates that the significant value, or p , is less than 0.05 and is therefore less than 0.05, which means that the data is abnormal because it does not follow a normal distribution. Due to the outcome of this test, Spearman correlation analysis should be used during hypothesis testing rather than Pearson correlation analysis to define the relationship between two variables in this study (Newson, 2002).

4.7 HYPOTHESES TESTING (SPEARMAN CORRELATION ANALYSIS)

When the bivariate normal distribution assertion cannot be accepted, the Spearman correlation is usually used (Artusi, Verderio, & Marubini, 2002). The examination of the correlation coefficient revealed independent variables that are correlated with the effect of third-party logistics on Kelantan restaurants' operations. Each table in the hypothesis result summarises and presents the correlation between independent and dependent variables.

4.7.1. Third Party Logistics

H₀: There is a significant relationship between impact of third-party logistics i.e. out of stock, food waste and high delivery price on inventory management.

H₁: There is no significant relationship between impact of third-party logistics i.e. out of stock, food waste and high delivery price on significant issues.

H₂: There is a significant relationship between impact of third-party logistics i.e. out of stock, food waste and high delivery price on operations of restaurants.

H3: There is a significant relationship between inventory management and operations of restaurants depends on online food delivery apps adapted by Kelantanese.

H4: There is a significant relationship between significant issues and operations of restaurants depends on online food delivery apps adapted by Kelantanese.

Table 4.13 Correlation Coefficient between third party logistics and operations of restaurants.

		Correlations		
			IV	DV
Spearman's rho	IV	Correlation Coefficient	1.000	.824**
		Sig. (2-tailed)	.	<.001
		N	30	30
	DV	Correlation Coefficient	.824**	1.000
		Sig. (2-tailed)	<.001	.
		N	30	30

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

Based on Table 4.13, it displays the significant value of the Spearman's correlation coefficient and the 300 respondents. The significant value for this analysis is less than 0.01, which is lower than the result of 0.05 that was significant. This shows that there is a positive correlation between restaurant operations and third-party logistics. The correlation coefficient for third party logistics and operations of restaurants platform is 0.824 and this indicates a strong strength of correlation between third party logistics and operations of restaurants. Therefore, null hypothesis was accepted after Spearman correlation analysis was conducted.

4.8. CHAPTER SUMMARY

This study improved our comprehension of how third-party logistics affect restaurant operations. The goal of this study was to determine how Kelantan's citizens reacted to the dependent and independent factors. All variables significantly affect third party logistics in the operations of restaurants in Kelantan, according to the results of tests including descriptive analysis, reliability analysis, a normality test, and Spearman correlation analysis.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 INTRODUCTION

This final chapter discussed further about the results of research which presented in previous chapter mainly reviewing about the summaries of statistical analysis and discussion of key findings. In the previous chapter, this research applied four type of data analysis which were descriptive analysis, reliability analysis, normality test and correlation analysis. The descriptive analysis was used to illuminate the respondents' profiles and statistics for each variable. A reliability analysis in another hand used to analyses whether the questionnaires that were spread to respondents was reliable or not. While, the correlation analysis executed to measure the strength relationship between two variable which were independent variables and dependent variable and whether the relationship between the variables is positive or negative. This chapter also contained the discussion of hypotheses, implications of the study, limitations of the study, recommendations or suggestion for future research and overall conclusions for the study.

5.2 KEY FINDINGS

5.2.1 DESCRIPTIVE ANALYSIS

From the data gathered from the study, in the third-party logistics section, most of the respondents agree and prefer Third-party logistics help the restaurant in building a brand image. 26.2% which is equivalent with 79 respondents mostly agree with the statement that customers prefer Third-party logistics help the restaurant in building a brand image. A third-party logistics service provides the best service for restaurant and Third-party logistics service provider helps the restaurant in order fulfilment are 25.2% which is equivalent to 76 respondents. Third-party logistics service providers assist the restaurant in food delivery collects around 75 respondents which is equivalent to 24.9%. Finally, Third-party logistics help in the promotion of the restaurant collects around 73 respondents which is equivalent to 24.3%.

As for the section which contains operation of restaurants questionnaires, 27.2% equivalent with 82 respondents mostly agree with the statement that controlling the food preparation process by ensuring that workers are in a clean condition to maintain food quality when preparing ordered food. The statement of website of online food delivery app should be well organized and all the necessary information should be available is agreed by 81 respondents which is equivalent to 26.9%. The statement of the online food delivery application helps the business to increase sale and get more customers collect 25.2% which is equivalent to 76 respondents. 77 respondents support the statement online food delivery application helps me a lot in ensuring efficient management of food orders and improving punctuality which is equivalent to 25.6%. Strong distribution

channel which ensures timely delivery of selected food makes me loyal to the online food delivery apps which is 23.6% equivalent to 71 respondents.

5.2.2 RELIABILITY TEST

The study demonstrates that content has the most trustworthy and accurate information regarding the effects of third-party logistics on restaurant operations. According to the study, third-party logistics, the independent variable, has a Cronbach's Alpha coefficient of 0.957, while restaurant operations, the dependent variable, has the highest Cronbach's Alpha value at 0.959. It can be said that restaurant operations have the highest level of internal consistency for their particular offering. Based on the findings for the Cronbach Alpha coefficient of restaurant operations in this study, the mean for five items of third-party logistics measure runs from 3.7 to 3.93, which falls between the scales of agree and highly agree. In essence, this indicates that the respondents in Kelantan concur on the significance and influence of third-party logistics on the fulfilment of restaurant orders.

The government regulation on how third-party logistics affect restaurant operations in Kelantan, with a Cronbach Alpha coefficient of 0.959 and a mean range of 3.6 to 3.8 but still falling under the category of mean range, is the most trustworthy and legitimate data. Thus, the majority of respondents concur that the online food delivery service aids in growing client base and revenues, which has an effect on Kelantan restaurants' day-to-day operations. In contrast, when compared to the other variables that affect third party logistics on the operations of restaurants in Kelantan, restaurant operations have the least accurate and reliable data.

5.3 DISCUSSION

5.3.1 HYPOTHESIS 1

H₀: There is a significant relationship between impact of third-party logistics i.e., out of stock, food waste and high delivery price on inventory management.

Based on Table 4.21, the first hypothesis displays that the relationship between impact of third-party logistics i.e. out of stock, food waste and high delivery price on inventory management is positive relationship as of result of the significant value, ρ , is less than 0.001 which is lower than 0.05 that resulted as significant and this indicates that there is strong positive relationship between third party logistics and operations of restaurants in Kelantan. From this significance, most of the respondents agree that third party logistics do give an effect to operations of restaurants. The result of correlation coefficient for third party logistics and operations of restaurants is 0.824 and this indicates a strong strength of correlation.

According to third party logistics, 3PL (third-party logistics) providers offer outsourced logistics services, which comprise everything requiring the management of one or more areas of procurement and fulfilment activities. The term "3PL" is used in the business world to describe any service contract that includes the storage or shipment of products. It is evident that restaurant operations in Kelantan are somewhat impacted by third-party logistics.

5.3.2 HYPOTHESIS 2

H₁: There is no significant relationship between impact of third-party logistics i.e. out of stock, food waste and high delivery price on significant issues.

The result of the significant value, ρ , for this analysis is 0.824 which is p-value is higher than 0.05 that resulted as non-significant and this indicates strong evidence for the null hypothesis. The correlation coefficient for third party logistics and operations of restaurants in Kelantan platform is less than 0.001 and this indicates a weak strength of correlation between third party logistics and operations of restaurants in Kelantan. This shows that third party logistics does not affect the operations of restaurants in Kelantan and has a negligible relationship between these two variables.

5.3.3 HYPOTHESIS 3

H₂: There is a significant relationship between impact of third-party logistics i.e. out of stock, food waste and high delivery price on operations of restaurants.

The following hypothesis is supported by Table 4.21 and shows that third-party logistics, such as out-of-stock situations, food waste, and high delivery prices, have a positive impact on restaurant operations. The significant value, is less than 0.001 and lower than 0.05, which resulted in significance, indicating that there is a significant relationship between third-party logistics, such as out-of-stock situations, food waste, and high delivery prices. With regard to this significance, the majority of respondents concur that third-party logistics, such as being out of stock, wasting food, and having high delivery costs, do have an impact on the operations of restaurants. The correlation coefficient for restaurant operations and third-party logistics is 0.824.

5.3.4. HYPOTHESIS 4

H₃: There is a significant relationship between inventory management and operations of restaurants depends on online food delivery apps adapted by Kelantanese.

The next hypothesis, as shown in Table 4.21, indicates that there is a strong positive relationship between inventory management and restaurant operations depending on online food delivery apps adopted by Kelantan's. This relationship is dependent on these apps, and it is positive because the significant value is less than 0.001, which is lower than 0.05 that resulted in significance. Based on this significance, the majority of respondents concur that restaurant operations and inventory management are impacted by Kelantan's adapted online food delivery apps. The association coefficient for Kelantan's adapted online meal delivery services and restaurant operations is 0.824, which denotes a significant strength.

5.3.5. HYPOTHESIS 5

H₄: There is a significant relationship between significant issues and operations of restaurants depends on online food delivery apps adapted by Kelantanese.

The following hypothesis is supported by Table 4.21 and states that there is a strong positive relationship between significant issues and the operations of restaurants dependent on online food delivery apps used by Kelantan's. This is because the significant value, is less than 0.001, which is lower than the threshold of 0.05 that was considered significant. From this significance, most of the respondents agree that online food delivery apps adapted by Kelantan's do give an effect to significant issues and operations of restaurants. The result of correlation coefficient for online food delivery apps adapted by Kelantan's and operations of restaurants is 0.824 and this indicates a strong strength of correlation.

5.4 IMPLICATIONS OF THE STUDY

The results of this study help us to understand how third-party logistics affect restaurant operations. As a result, this study has established a number of implications that may be useful to all three of its intended beneficiaries, including restaurant owners, customers, residents of Kelantan, and researchers.

According to the study, all three independent variables out of stock, expensive delivery, and food waste—had a significant impact on how restaurants operated. The correlation study between the independent factors and the dependent variable, which is restaurant operations, has demonstrated this. This suggests that the operations of restaurants in Kelantan are impacted by third-party logistics, which includes out-of-stock items, expensive delivery fees, and food shortages. This study will be helpful to customers, Kelantan's, and restaurant owners in recognising the considerable effects of third-party logistics on restaurant operations. The researcher anticipates that the results of this investigation will demonstrate how third-party logistics affect restaurant operations. Finally, academics and researchers should find this work useful theoretically. The results offer more details on how restaurant operations are impacted by third-party logistics. This study will also aid in identifying potential issues or crucial areas pertaining to this subject that many local researchers have not yet investigated.

5.5 LIMITATIONS OF THE STUDY

This research is not an anomaly; every scientific endeavour runs into its own setbacks. The absence of scholarly research on the effects of third-party logistics on restaurant operations is one of the study's weaknesses. Information from previous studies is important in helping researchers obtain accurate data from authentic and reliable sources. This is because the understanding of a study depends on the source obtained from the previous researcher's literature review. Furthermore, restaurant owners dan Kelantan citizens understanding and knowledge differ from one person to another and this understanding and knowledge is limited to a certain extent with the unavailability of the proper accessibility and exposure towards what is the impacts of impact of third-party logistics on operations on restaurants.

Second, a potential limitation faced in this research is also the reliability and sincerity of the data from the respondents in responding to the questionnaire. This is because, when completing the questionnaire, not all respondents demonstrated their understanding and enthusiasm in providing the right answer.

Typically, without reading the instructions given first, the respondent will answer the question quickly. As a consequence, the results of the analysis obtained would be incorrect and it is likely that the results obtained for this study are not valid for use. Because of the usage of Likert scale to record respondent perception, this has become the limitation of the study. According to (Oddgeir Friberg, 2006), bias may come from respondents' tendency to respond to items without sufficient regard for its content. This means that respondents' answer may differ from others and may become irrelevant towards the study.

Last but not least, research restrictions are often likely to be caused by insufficient time. The most major issue is time. Researchers do not have ample time to complete this analysis and make changes. The researcher, however, needs to complete the research quickly and finish it within the time allocated. When data is needed to be examined in large quantities, but the time allocated is limited, problems were faced. Time and schedule management should also be structured so that the researcher does not experience difficulties such as delays in completing the research.

5.6 RECOMMENDATIONS / SUGGESTION FOR FUTURE RESEARCH

In order to obtain an even higher degree of accuracy with a smaller margin of error, researchers can expand the sample size of the study for future research. The sample size used in this study has a 0.05 margin of error and a 95% confidence level in the results. Because sampling influences the utility of the data, the sample size must be carefully chosen (Salkind, 2003). In order to include more respondents who are accustomed to making micro transactions and spending once or more throughout their lives, future studies could be based on a larger sample and conducted over a longer period of time.

Future studies may also concentrate on a few techniques for gathering data, such as employing various assessment tools. For instance, in addition to using the survey, the analyst may also convene top-to-bottom meetings and central gatherings. Instead of depending just on one methodology, the researchers can learn more about the factors that influence consumers' perceptions of online meal delivery applications through the direct interview and open-ended questionnaire. The outcome can be more grounded if different estimation methodologies are used rather than just one methodology.

In terms of recommendations for the variables, the researcher might pick any other independent factors that have a significant association with the dependent variable, which is restaurant operations, in future research. Researchers advise future researchers to concentrate on investigating what has the most impact on restaurant operations when it comes to third-party logistics by examining the backgrounds of each demographic profile of the respondents.

Future researchers can improve their understanding of the subject by determining the relationship between this dependent variable, restaurant operations, and another independent variable, such as retailer expertise.

5.7 OVERALL CONCLUSION OF THE STUDY

In addition to determining the association between the three independent variables of the study—running out of stock, wasting food, and paying excessive delivery prices this research sought to determine the effect of third-party logistics on restaurant operations in Kelantan. Through social media channels including WhatsApp, Instagram, Twitter, and Facebook, researchers have gathered data and given Google Form questionnaires to a particular group of people who fall inside the parameters of the study. The link between the dependent variable and the independent variable was examined in this study using four hypotheses. Researchers have used stratified sampling technique in the collection of respondent's data because it is appropriate for samples that are widely dispersed geographically and would otherwise be difficult to sample properly. The minimum sample for this study is 300 people. However, the researcher has managed to obtain a few more responses from the respondents in total of exact 300. Descriptive analysis, reliability tests, test of normality, and Spearman correlation analysis were executed using IBM SPSS 25 software.

The results of the Spearman correlation analysis have shown that there is a strong relationship between the variables third party logistics (out of stock, high delivery price and food wastage) to the dependent variables (operation of restaurant). This study becomes beneficial in all three recipient which are restaurant owners, customers, Kelantan citizens and researcher because of the new understanding and new knowledge it provides to them either directly or indirectly.

6.0 REFERENCES

Adam Barone, Somer Anderson, Yarilet Perez (2022), What Is Total Quality Management (TQM), and Why Is It Important?

<https://www.investopedia.com/terms/t/total-quality-management-tqm.asp>

Abeliotis, K., Lasaridi, K., Costarelli, V., & Chroni, C. (2015). The implications of food waste generation on climate change: The case of Greece. *Sustainable production and consumption*, 3, 8-14.

Agence France-Presse. (2021). Pandemic saviours, food delivery apps now under fire FreeMalaysiaToday. Retrieved from

<https://www.freemalaysiatoday.com/category/business/2021/10/10/pandemic-saviours-food-delivery-apps-now-under-fire/>

Azizul, J., Albattat, A., Shahrman, I. A., & Irfan, K. F. (2019). The relationship between food delivery apps attributes towards customer perceived value among young working adults in Shah Alam. *International Journal of Scientific & Technology Research*, 8(11), 2478-2482.

Bernard, D. (2018, July 30). 3PL (third-party logistics). ERP.

<https://www.techtarget.com/searcherp/definition/3PL-third-party-logistics>

Bhandari, P. (2022, October 10). Population vs. Sample | Definitions, Differences & Examples. Scriber. Retrieved November 22, 2022, from

<https://www.scribbr.com/methodology/population-vs-sample/>

Blog: 3PL (Third-Party Logistics) Pros, Cons, Use Cases. (n.d.). Cleo.

<https://www.cleo.com/blog/knowledge-base-3pl-third-party-logistics>

Chai, L. T., Ng, D., & Yat, C. (2019). Online food delivery services: Making food delivery the new normal. *Journal of Marketing Advances and Practices*, 1(1), 62-77.

Chatfield, D. C., Hayya, J. C., & Cook, D. P. (2013). Stockout propagation and amplification in supply chain inventory systems. *International Journal of Production Research*, 51(5), 1491-1507.

Coyle, J. J., Bardi, E. J., & Langley, C. J. (2003). *The Management of Business Logistics* (7ed.). Mason,

Das, S., & Ghose, D. (2019). Influence of online food delivery apps on the operations of the restaurant business. *International Journal of Scientific and Technology Research*, 8(12), 1372–1377.

Gordon, J. (2015). How often do restaurants run out of food in the middle of service? <https://www.quora.com/How-often-do-restaurants-run-out-of-food-in-the-middle-of-service>

Gustavsson, J., Cedeberg, C., Sonesson, U., Otterdijk, R. van, Meybeck, A., 2011. *Global food losses and food waste - Extent, causes and prevention*. Rome.

<https://www.investopedia.com/terms/t/total-quality-management-tqm.asp>

Idris, N. A., Mohamad, M. A., Manshoor, A., Mohamad, N. H., & Che Ngah, H. (2021). Consumers' intention towards online food ordering and delivery service. *Jurnal Intelek*, 16(2), 37-47.

Hayes, A. (2022). Inventory Management Defined Plus Methods and Techniques Investopedia. <https://www.investopedia.com/terms/i/inventory-management.asp>

How to Tackle Food Waste Using Your Food Delivery Performance Insights. (2022). deliverect <https://www.deliverect.com/en/blog/restaurant-management/how-to-tackle-food-waste-using-your-food-delivery-performance-insights>

Jenkins, A. (2022). Stockouts Defined. ORACLE NETSUITE. <https://www.netsuite.com/portal/resource/articles/inventory-management/stockout.shtml>

Jing, X., & Lewis, M. (2011). Stockouts in online retailing. *Journal of Marketing Research*, 48(2), 342-354

Kohar, A., & Jakhar, S. K. (2021). A capacitated multi pickup online food delivery problem with time windows: a branch-and-cut algorithm. *Annals of Operations Research*, 0123456789. <https://doi.org/10.1007/s10479-021-04145-6>

Kothari C. R. (2004). *Research Methodology: Method and Techniques*. <http://www.kenpro.org/research-design-and-methodology/>

Hood, U. U. T. (2021, December 16). The Impact of Third-Party Food Delivery During COVID-19. Medium. <https://medium.com/uber-under-the-hood/the-impact-of-third-party-food-delivery-during-covid-19-66d775883184>

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

Meikeng, Y. (2022, June 6). M'sians continue to waste food. *The Star*.
<https://www.thestar.com.my/news/nation/2022/06/06/msians-continue-to-waste-food>

Mohd Idros, N. A. N., Mohamed, H., & Jenal, R. (2018, June). Determinant factors of customer satisfaction for e-hailing service: A preliminary study. In *International Conference of Reliable Information and Communication Technology* (pp. 803-811). Springer, Cham

Muangmee, C., Kot, S., Meekaewkunchorn, N., Kassakorn, N., & Khalid, B. (2021). Factors determining the behavioral intention of using food delivery apps during COVID-19 pandemics. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(5), 1297-1310.

Muchaendepi, W., Mbohwa, C., Hamandishe, T., & Kanyepe, J. (2019). Inventory management and performance of SMEs in the manufacturing sector of Harare. *Procedia Manufacturing*, 33, 454-461

Mulyani, N. A. B., Kamal, A. B. M., Fauzan, N. B. M., & Norzabidi, N. S. B. (2020). Factors That Influence Consumer Satisfaction of Food Delivery Service: A Study about Foodpanda Application.

Muhamad, M., Rudi Hartono, M. A., Azizi, M. I. F., Jamaludin, N. A., & Mohd Muslim, N. A. (2020). A study of consumer's perception towards online food delivery apps. *International Journal of Entrepreneurship, Organization and Business (IJEOB)*.

Parfitt, J., Barthel, M., & Macnaughton, S. (2010). Food waste within food supply chains: quantification and potential for change to 2050. *Philosophical transactions of the royal society B: biological sciences*, 365(1554), 3065-3081.

Porpino, G., Parente, J., & Wansink, B. (2015). Food waste paradox: antecedents of food disposal in low income households. *International journal of consumer studies*, 39(6), 619-629.

P. Abad. (2003). Optimal pricing and lot sizing under conditions of perishability, finite production and partial back ordering and lost sales. *European Journal of Operations Research*, 144, 677 & 685.

Oppotus. (2022). Food Delivery Apps in Malaysia. <https://www.oppotus.com/food-delivery-apps-in-malaysia/>

Oppotus. (2022, January 13). *Food Delivery Apps in Malaysia-Cuisine at a Click*. <https://www.oppotus.com/food-delivery-apps-in-malaysia/>

N. K. D Linh, C. W. Lincoln and Y. C. W William Y.C.W. (2015). A multi criteria inventory management system for perishable & substitutable products, products. *2nd International Materials, Industrial, and Manufacturing Engineering Conference (MIMEC2015), Bali Indonesia*.

Ray, A., Dhir, A., Bala, P. K., & Kaur, P. (2019). Why do people use food delivery apps (FDA)? A uses and gratification theory perspective. *Journal of Retailing and Consumer Services*, 51(May), 221–230. <https://doi.org/10.1016/j.jretconser.2019.05.025>

Razak, R. (2020). Demand still high for food delivery riders even under CMCO as most still prefer using online delivery service. *malaymail*. Retrieved from <https://www.malaymail.com/news/malaysia/2020/05/08/demand-still-high-for-food-delivery-riders-even-under-cmco-as-most-still-pr/1864147>

Rheude, J. (2022, November 28). What Is a 3PL? Third-Party Logistics Definition, Process, & Resources. Red Stag Fulfillment. <https://redstagfulfillment.com/3pl-definition-process-resources/>

Salunkhe, S., Udgir, S., & Petkar, S. (2018). Technology Acceptance Model in Context with Online Food Ordering and Delivery Services: An Extended Conceptual Framework. *Journal of Management (JOM)*, 5(5), 73-79.

Sampling Method In Research. (2020). [irelandassignmenthelp.com](https://www.irelandassignmenthelp.com/blogs/sampling-method-in-research/). <https://www.irelandassignmenthelp.com/blogs/sampling-method-in-research/>

Saurav, S. (2016). Customer experience impacting retail management: study of customer centricity strategy by retailers. In *Handbook of research on strategic supply chain management in the retail industry* (pp. 130-150). IGI Global.

Sikorsky, A. (2022, June 21). How Good Are Delivery Apps for Restaurants? Retrieved from <https://triare.net/insights/delivery-apps-hurt-restaurants/>

Shravanthi C. (2021, August 31). Benefits of Food Delivery Apps for business. Retrieved from <https://www.linkedin.com/pulse/benefits-food-delivery-apps-business-shravanthi-chitturi>

Song, Y. E., Jeon, S. H., & Jeon, M. S. (2017). The effect of mobile food delivery application usage factors on customer satisfaction and intention to reuse. *Culinary science and hospitality research*, 23(1), 37-47.

Sharma, R. (2021). Over-ordering and food waste: The use of food delivery apps during the pandemic *International Journal of Hospitality Management* https://www.researchgate.net/publication/351917039_Over-ordering_and_food_waste_The_use_of_food_delivery_apps_during_a_pandemic

Shipsy. (2022, July 27). *The world's leading logistics software provider*. Shipsy. Retrieved November 25, 2022, from <https://shipsy.io/blogs/7-common-challenges-faced-by-courier-service-providers/>

Singh, D., & Verma, A. (2018). Inventory management in supply chain. *Materials Today: Proceedings*, 5(2), 3867-3872.

Sonali (2022) *7 challenges faced by food delivery services and how to address them*, *The Restaurant Times*. Available at: <https://www.posist.com/restaurant-times/restro-gyaan/food-delivery-challenges.html> (Accessed: November 25, 2022).

Technomic Food Trends. (2018). Increased delivery usage shows potential for driving incremental occasions. *Technomic nds in new study* Tecttic. (2018). How To Resolve Food Delivery App Issues? <https://www.techtic.com/blog/how-to-resolve-food-delivery-app-issues/>

Thompson, D. (2019). The Booming, Ethically Dubious Business of Food Delivery. *The Atlantic*.

Times, T. R. (2022, December 24). 10 Steps To Improving Your Restaurant Online Food Delivery Sales In 2023. *The Restaurant Times*. <https://www.posist.com/restaurant-times/restro-gyaan/optimize-restaurant-delivery-orders.html>

Third-party or in-house delivery: pros and cons (2022). (n.d.). <https://www.deliverect.com/en/blog/online-food-delivery/third-party-or-in-house-delivery-service-pros-and-cons>

Wang, W. T., Ou, W. M., & Chen, W. Y. (2019). The impact of inertia and user satisfaction on the continuance intentions to use mobile communication applications: A mobile service quality perspective. *International Journal of Information Management*, 44, 178-193.

Wells, C. S., & Wollack, J. A. (2003). An instructor's guide to understanding test reliability. *Testing & Evaluation Services University of Wisconsin*.

Vijaya. (2022). Problems Restaurant Owners Face in Food Delivery *Enuke Digital Power House*. <https://www.enukesoftware.com/blog/problems-restaurant-owners-face-in-food-delivery.html>

Yasin, M. M., Alavi, J., Kunt, M., & Zimmerer, T. W. (2004). TQM practices in service organizations: an exploratory study into the implementation, outcome and effectiveness. *Managing Service Quality: An International Journal*.

Zolkiffli, N. N., Ramlan, R., & Wei, C. S. (2021). Online Food Delivery (OFD) apps: What do the customers look at? 1797–1803.

Zolkiffli, N. N., Ramlan, R., & Wei, C. S. (2021). Online Food Delivery (OFD) apps: What do the customers look at? In *Proceedings of the International Conference on Industrial Engineering and Operations Management Monterrey, Mexico*.

5 difficulties customers face while ordering food online and how you can fix them. (n.d.). <https://www.restolabs.com/blog/5-difficulties-customers-face-while-ordering-food-online-and-how-you-can>

APPENDIX A- DRAF OF QUESTIONNAIRE

APPENDIX A: QUESTIONNAIRE

TITLE: THE INFLUENCE OF ONLINE FOOD DELIVERY APPS AS THIRD-PARTY ON THE OPERATIONS OF RESTAURANTS IN KELANTAN

PART A / BAHAGIAN A

DEMOGRAPHIC DATA

Consists of general information such as Age, Gender, Experience, Employment type, and Monthly income.

Please answer the question correctly by selecting **ONE** of the options provided.

I AGE / UMUR:

18-25 years old

18-25 tahun

26-33 years old

26-33 tahun

32-41 years old

32-41 tahun

42 and above

42 dan ke atas

II GENDER / JANTINA:

Female

Perempuan

Male

Lelaki

III EXPERIENCE / PENGALAMAN:

Less than 1 year

Kurang dari 1 tahun

1-5 years

1-5 tahun

6-10 years

6-10 tahun

10 years above

10 tahun ke atas

IV EMPLOYMENT TYPE / JENIS PEKERJAAN:

Owners' restaurant

Pemilik restoran

Full-time wokers

Pekerja sepenuh masa

Part-time wokers

Pekerja sambilan

V MONTHLY INCOME / PENDAPATAN BULANAN:

Below RM 1000

Bawah RM 1000

RM 1000 – RM 2000

RM 1000 – RM 2000

RM 2001 – RM 3000

RM 2001 – RM 3000

RM 3001 – RM 4000

RM 3001 – RM 4000

RM 4000 and above

RM 4000 dan ke atas

PART B / BAHAGIAN B

Items related to Dependent Variables (DV): Operations Of Restaurants.

Please indicate the degree of your agreement or disagreement with each statement by filling in the circle on your answer sheet that best represents your point of view. Please choose from the following answers.

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

- 1. The website of online food delivery app should be well organized and all the necessary information should be available / Laman web aplikasi penghantaran makanan**

1 2

3 4 5 dalam talian haruslah teratur dan semua maklumat yang diperlukan harus tersedia.

- 2. Strong distribution channel which ensures timely delivery of selected food makes me loyal to the online food delivery apps / Saluran pengedaran yang kukuh yang memastikan penghantaran makanan terpilih tepat pada masanya menjadikan saya setia kepada aplikasi penghantaran makanan dalam talian.**

1 2 3 4 5

- 3. Online food delivery application helps me a lot in ensuring efficient management of food orders and improving punctuality / Permohonan penghantaran makanan dalam talian sangat membantu anda dalam memastikan pengurusan pesanan makanan dengan cekap dan meningkatkan ketepatan masa.**

1 2 3 4 5

- 4. The online food delivery application helps the business to increase sale and get more customers / Aplikasi penghantaran makanan membantu perniagaan anda**

1 2 3 4 5

meningkatkan jualan dan mendapatkan lebih ramai pelanggan.

- 5. Controlling the food preparation process by ensuring that workers are in a clean condition to maintain food quality when preparing ordered food / Mengawal proses**

1 2

3 4 5 penyediaan makanan dengan memastikan pekerja dalam keadaan bersih bagi menjaga kualiti makanan ketika menyediakan makanan yang dipesan.

PART C / BAHAGIAN C

Items related to Independent Variables (IV): Third-party logistics.

1. **Third-party logistics service providers assist the restaurant in food delivery.** / *Penyedia perkhidmatan logistik pihak ketiga membantu restoran dalam 1 2 3 4 5 penghantaran makanan.*

1 2 3
2. **Third-party logistics service provider helps the restaurant in order fulfillment.** / *Pembekal perkhidmatan logistik pihak ketiga membantu restoran dalam pemenuhan 1 2 3 4 5 pesanan.*
3. **Third-party logistics help the restaurant in building a brand image.** / *Logistik pihak ketiga membantu restoran 4 5 dalam membina imej jenama.*

1 2 3
4. **Third-party logistics help in the promotion of the restaurant.** / *Logistik pihak ketiga membantu 3 4 5 mempromosikan restoran.*

1 2
5. **A third-party logistics service provides the best service for restaurant.** / *Perkhidmatan logistik pihak ketiga 3 4 5 menyediakan perkhidmatan terbaik untuk restoran.*

1 2

Items related to Moderate Variables (MV): Inventory Management.

1. **Online food delivery application is highly helpful to the restaurant's inventory management.** / *Penghantaran makanan dalam talian sangat membantu kepada pengurusan inventori 1 2 3 4 5 restoran.*

1 2 3
2. **Online food delivery application assists the restaurant in avoiding the occurrence of wasted inventory or stock of goods.** / *Penghantaran makanan dalam talian membantu restoran 1 2 3 4 5 mengelakkan berlakunya pembaziran inventori atau stok barangan yang terbuang.*

3. **Online food delivery application causes the restaurant to lose track of its inventory.** / *Aplikasi penghantaran makanan dalam*

talian menyebabkan restoran kehilangan jejak inventornya. 1 2 3 4 5

4. **Excess inventory in the restaurant is caused by the online food delivery application.** / *Lebih inventori di restoran*

disebabkan oleh aplikasi penghantaran makanan dalam talian. 1 2 3 4 5

5. **The use of an online food delivery service causes a low item turnover in the restaurant.** / *Penggunaan perkhidmatan*

penghantaran makanan dalam talian menyebabkan perolehan item yang rendah di restoran.. 1 2 3 4 5

Items related to Moderate Variables (MV): Significant issues.

1. **The quality of food delivered by online food delivery services is determined by the restaurant.** / *Kualiti makanan yang dihantar oleh perkhidmatan penghantaran makanan dalam talian ditentukan oleh restoran.* 1 2 3 4 5

2. **The neatness packaging of the online food delivery service is determined by the restaurant.** / *Kekemasan pembungkusan perkhidmatan penghantaran makanan dalam talian ditentukan oleh restoran.* 1 2 3 4 5

3. **The online food delivery service's payment method makes it easier to manage restaurant operations.** / *Kaedah pembayaran perkhidmatan penghantaran makanan*
 1 2
 3 4 5 *dalam talian memudahkan untuk menguruskan operasi restoran.*

4. **Restaurants can fulfil customer orders on the online food delivery application more quickly than they can fulfil them in restaurants. /**

Restoran boleh memenuhi pesanan

pelanggan pada aplikasi penghantaran makanan dalam talian dengan lebih cepat daripada mereka yang berada di restoran.

1 2 3 4 5

5. **Applications for online food delivery raise restaurant profits. / Aplikasi penghantaran makanan dalam talian**

3 4 5 meningkatkan keuntungan restoran.

1 2

APPENDIX B: GANTT CHART

GANTT CHART

No	ACTIVITIES	WEEK 1 (18/10/22 - 25/10/22)	WEEK 2 (25/10/22 - 1/11/22)	WEEK 3 (1/11/22 - 8/11/22)	WEEK 4 (8/11/22 - 15/11/22)	WEEK 5 (15/11/22 - 22/11/22)	WEEK 6 (22/11/22 - 29/11/22)	WEEK 7 (29/11/22 - 6/12/22)	WEEK 8 (6/12/22 - 13/12/22)	WEEK 9 (13/12/22 - 20/12/22)	WEEK 10 (20/12/22 - 27/12/22)	WEEK 11 (27/11/2 - 3/1/23)	WEEK 12 (3/1/23 - 10/1/23)	WEEK 13 (10/1/23 - 17/1/23)	WEEK 14 (17/1/23 - 24/1/23)
A)	Planning for research i) -Discussion with supervisor -Prepare Gantt chart - finding example of logistics thesis in UMK library														
	ii) -Finding company -Decide the topic														
B)	Action on plans -Discuss with supervisor -Find project title -approach the company -analysis information from the company (identified the problem)														

E)	Conclusion of the research and recommendation														
	-Reference & Appendix -discussion with supervisor about full report (final outcome) -Correction and full report editing														
	-Final report submission -Project presentation														



UNIVERSITI
MALAYSIA
KELANTAN

**FAKULTI KEUSAHAWANAN DAN PERNIAGAAN
UNIVERSITI MALAYSIA KELANTAN**

**BORANG KELULUSAN PENYERAHAN
LAPORAN AKHIR PROJEK PENYELIDIKAN TANPA JILID**

Kepada,

Dekan,
Fakulti Keusahawanan dan Perniagaan
Universiti Malaysia Kelantan

Kelulusan Penyerahan Draf Akhir Laporan Akhir Projek Penyelidikan Tahun Akhir Tanpa Jilid

Saya, DR KIRAN KUMAR THOTI, penyelia kepada pelajar berikut, bersetuju membenarkan penyerahan dua (2) naskah draf akhir Laporan Akhir Projek Penyelidikan Tahun Akhir tanpa jilid untuk pentaksiran.

Nama Pelajar: BOHESHWARAN A/L LETCHIMIKAANTHAN	No Matrik: A19A0089
JEGATHISWARY A/P ILANGO VAN	A19A0201
MOHAMAD SALLEHIN NAZMI BIN MOHD TAHIR	A19A1050
NURSAIYDAH EZZATE BINTI KAMALRUZAMAN	A19A1106

Tajuk Penyelidikan:

**THE INFLUENCE OF ONLINE FOOD DELIVERY APPS AS THIRD-PARTY LOGISTICS ON THE
OPERATIONS OF RESTAURANTS IN KELANTAN.**

Sekian, terima kasih

Tandatangan Penyelia
DR KIRAN KUMAR THOTHI
Tarikh:

ASSESSMENT FORM FOR FINAL YEAR RESEARCH PROJECT (PPTAI): RESEARCH PAPER (Weight 10%)

(COMPLETED BY SUPERVISOR & EXAMINER)

Title of Paper: THE INFLUENCE OF ONLINE FOOD DELIVERY APPS AS THIRD-PARTY LOGISTICS ON THE OPERATIONS OF RESTAURANTS IN KELANTAN

Student's Name: BOHESHWARAN, JEGATHISWARY, Matric No. A19A0089,A19A0201,
MOHAMMAD SALLEHIN NAZMI, NURSAIYDAH EZZATE A19A1050,A19A1106

CATEGORY	POOR (1-3)	AVERAGE (4-6)	GOOD (7-9)	EXCELLENT (10-12)	SCORE
Abstract	Problem is vague, does not provide a summary of the whole project	Summarizes problem, method, results and conclusions with limited details	Summarizes problem, method, results, and conclusions but lacks some details	Clearly states problem to be resolved, coherently summarizes method, results, and conclusions	____ x 5 12 =
Introduction	Fails to identify a relevant research topic or is not clearly defined and/or the paper lacks focus throughout.	Identifies a research topic but may be too broad in scope, somewhat unclear and needs to be developed further.	Identifies a relevant research topic that provides adequate direction for the paper with some degree of interest for the reader.	Identifies a relevant research topic that provides direction for the paper that is engaging and thought provoking.	____ x 15 12 =
Research Methods	Little of explanation provided for the choice of methodology and few links made to the research objective. Research methodology is no connection to the theoretical framework	Some explanation provided for the choice of methodology and its links to the research objective. Research methodology is limited connection to the theoretical framework.	A good explanation of the choice of methodology and its links to the research objective. Research methodology is provided connection to the theoretical framework	Clear explanation of the choice of methodology and its links to the research objective. Research methodology is clearly supports the theoretical framework.	____ x 15 12 =
Analysis and Discussion	Demonstrates a lack of understanding and inadequate analysis of the research topic. Analysis is superficial based on opinions and preferences rather than critical analysis.	Demonstrates general understanding with limited critical analysis of the research topic. Summarizes perspectives, counter-arguments, or opposing positions.	Demonstrates an understanding and some critical analysis of the research topic. Adequately compares/contrasts perspectives, counter-arguments, or opposing positions but broader connections and/or implications are not as thoroughly explored.	Demonstrates a sophisticated understanding and careful, critical analysis of the research topic. Compares/contrasts perspectives, considers counter arguments or opposing positions, and draws original and thoughtful conclusions with future implications.	____ x 30 12 =
Conclusion and Future Research	Presents a conclusion, irrelevant recommendations and/or implications for future research	Presents a conclusion, limited recommendations and/or implications for future research	Presents a conclusion, logical recommendations and/or implications for future research	Presents a coherent conclusion, clear recommendations and/or implications for future research	____ x 15 12 =
Organization	Paper lacks logical organization and impedes	Paper is somewhat organized, although occasionally ideas from paragraph to paragraph may not	Paper is adequately organized. Ideas are arranged reasonably with a progression of thought from	Paper is effectively organized. Ideas are arranged logically, flow smoothly, with a strong progression of thought from	____ x 10 12

**ASSESSMENT FORM FOR FINAL YEAR RESEARCH PROJECT (PPTAI): RESEARCH PAPER (Weight 10%)
(COMPLETED BY SUPERVISOR & EXAMINER)**

	readers' comprehension of ideas.	flow well and/or connect to the central position or be clear as a whole.	paragraph to paragraph connecting to the central position.	paragraph to paragraph connecting to the central position.	=
Format and References	Frequent errors in spelling, grammar, punctuation, spelling, usage, and/or formatting. Does not cite sources.	Some errors in spelling, grammar, punctuation, usage, and/or formatting. Citation style is either inconsistent or incorrect.	Minor errors in grammar, punctuation, spelling, usage, and/or formatting. APA citation style is used in both text and references.	Basically free from grammar, punctuation, spelling, usage, or formatting errors. APA citation style is used in both text and references.	$\frac{\quad}{12} \times 10$ =
TOTAL (100 MARKS)					
GRAND TOTAL (10%)					

Name of Examiner: _____ Date: _____

Name of Supervisor: DR KIRAN KUMAR THOTHI

Recommended For Best Paper Award: **Yes / No**