THE FACTORS THAT AFFECT CUSTOMERS' INTENTION TO ADOPT SELF-PICKUP IN E-COMMERCE DELIVERY

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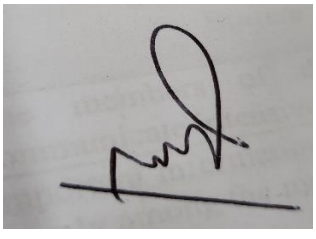
SIGNATURE : 

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THE FACTORS THAT AFFECT CUSTOMERS' INTENTION TO ADOPT SELF-PICKUP IN E-COMMERCE DELIVERY

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DECLARATION OF ORIGINAL WORK

I hereby declare that all the work of this thesis entitled "The Factors That Affect Customers' Intention to Adopt Self-Pickup in E-Commerce Delivery" is originally done by myself, except for certain explanations and passages where sources are clearly cited. There is no portion of the work encompassed in this research project proposal has been submitted in support of any application for any other degree or qualification of this or any other institute or university of learning.

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DEDICATION

I would like to dedicate this research to my beloved parents who have always motivated and educated me until now. Furthermore, a big appreciation for my beloved supervisor and panel for guiding me throughout this research. With their care and support, I could complete my final year project (FYP) successfully.

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Last but not least, I would like to express my appreciation to my fellow friends. They shared with me a lot of their own research experiences that inspired me to create my own title for this project and ways to conduct research independently.

ABSTRACT

Nowadays, the development of e-commerce activities is increasing over years due to the technology advancement and its convenience. The exponential e-commerce growth has led to a surge in parcel delivery services. However, local logistics providers face challenges such as traffic congestion, complex delivery schedules, and high transportation costs in last-mile delivery. The self-pickup service is an innovative way to overcome inefficiencies caused by conventional home delivery. The benefits of self-pickup services include reducing delivery failure, eliminating inefficient costs, and reducing environmental impact. Therefore, the customer's intention to adopt this service in e-commerce delivery is very important for the future development of infrastructure in our country in order to improve the living standards of Malaysian. This study attempts to investigate the factors such as convenience, reliability, and simplicity that affect customers' intention to self-pickup parcels in the last-mile delivery. Last but not least, this research will provide insights into how logistics service providers or courier service providers can improve the existing self-pickup service system in order to encourage customers to self-collect their parcels instead of selecting home delivery services.

Keyword: customers' intention, self-pickup services, e-commerce delivery

ABSTRAK

Pada masa kini, perkembangan aktiviti e-dagang semakin meningkat dari semasa ke semasa disebabkan oleh kemajuan teknologi dan kemudahannya. Pertumbuhan e-dagang telah membawa kepada peningkatan dalam perkhidmatan penghantaran bungkusan. Walau bagaimanapun, pembekal logistik tempatan menghadapi cabaran seperti kesesakan lalu lintas, jadual penghantaran yang kompleks dan kos pengangkutan yang tinggi dalam penghantaran. Servis pengambilan sendiri ialah cara inovatif untuk mengatasi ketidakcekapan yang disebabkan oleh penghantaran ke rumah konvensional. Faedah servis pengambilan sendiri termasuk mengurangkan kegagalan penghantaran, menghapuskan kos yang tidak cekap dan mengurangkan kesan alam sekitar. Oleh itu, hasrat pelanggan untuk menggunakan perkhidmatan ini dalam penghantaran e-dagang adalah sangat penting untuk pembangunan infrastruktur di negara kita pada masa hadapan bagi meningkatkan taraf hidup rakyat Malaysia. Kajian ini adalah untuk menyiasat faktor-faktor seperti kemudahan, kebolehpercayaan dan kesederhanaan yang mempengaruhi niat pelanggan untuk mengambil sendiri bungkusan selepas membeli belah dalam talian. Akhir sekali, penyelidikan ini akan memberikan pandangan tentang bagaimana syarikat perkhidmatan logistik atau syarikat perkhidmatan kurier boleh menambah baik sistem servis pengambilan sendiri sedia ada untuk menggalakkan pelanggan mengambil sendiri bungkusan mereka dan bukannya memilih perkhidmatan penghantaran ke rumah.

Kata Kunci: niat pelanggan, servis pengambilan sendiri, penghantaran e-dagang

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INTRODUCTION

1.1 Introduction

This chapter will begin with the background of the study based on self-pickup services and e-commerce delivery. Next, this chapter will identify the problem statement according to the research background. Thus, the research questions and research objectives of the research will be identified. Later on, the scope and limitations of the study will be stated**.** Then, the significance of the study provides readers with information and details about how the study contributes to the various parties. The thesis outline is the last part of this chapter and will discuss the research flow from chapters one to five.

1.2 Background of Study

In Malaysia, there are various local logistics companies parcel delivery services in both rural and urban areas from the distribution center to the end customer (Siali et al., 2018). The rapid development of the logistics industry has been largely driven by the exponential growth of e-commerce and the growing demand for faster services (Cheng et al., 2019). A growing amount of customer prefers online shopping due to high living standards and the convenience of e-commerce (Zhen et.al, 2021). In 2004, e-commerce entered Malaysia with the launch of eBay, followed by Lazada in 2012, and Shopee in 2015 (J.P. Morgan, 2020).

Before the emergence of COVID, Malaysian e-commerce was recognized as one of the Southeast Asian nations' fastest-growing business models. (ecommerceDB, 2020; J.P. Morgan, 2019). Therefore, lockdowns during the pandemic covid-19 forced individuals to stay indoors and many businesses to stop operating, Malaysians turned to the digital world for essential goods. Thus, customers adopted e-commerce as one of the most preferred and easiest solutions to get around the continuing pandemic lockdown, and this pattern is expected to expand across Malaysia from 2020 (Aprameya,

2020). As a result, the COVID-19 pandemic has accelerated the expansion of e-commerce in Malaysia, with traditional offline purchases being changed into online purchases (GlobalData, 2020; Export.gov, 2019).

Due to the increasing growth of e-commerce, the amount of parcel delivery services has increased (Tsai & Tiwasing, 2021). However, logistics companies are continuously faced with traffic congestion that makes it difficult for them to meet delivery schedules and leads to inefficient and costly last-mile logistics services (Tsai & Tiwasing 2021). As the current logistics services in online shopping fail to accomplish the objectives of conventional delivery in a timely and accurate manner, it will lead to the disappointment of online customers. Most courier service providers perform the routine job of collecting and distributing large volumes of parcels, and experiencing the daily stress of carrying heavy loads of parcels up and down stairs, calling customers, and requesting signatures. (Chen et al., 2018).

To save time, most couriers usually schedule a delivery time with the customer in advance, so that customers can pick up their parcels at the most appropriate time (Chen et al., 2018). According to Mangiaracina et al., (2019), innovative last-mile delivery solutions include smart lockers, parcel lockers, reception boxes, self-pick-up points, drones, and crowdsourcing logistics. One of the most widely discussed options is the parcel locker or smart locker, which is a more convenient delivery point for customers to pick up their parcels at their ideal time and place. Furthermore, logistics companies can place smart lockers in the most appropriate locations to eliminate inefficiencies.

From the perspective of economics, the construction of self-pickup stations can save transportation and logistics costs. In China, self-collection saves up to 70% compared to the cost of using traditional home delivery (Song et al., 2019). Based on the study from Van Duin et al. (2020), costs can be reduced by around 15% when self-pickup points or services are established within the existing last-mile delivery network in Amsterdam. Last but not least, the construction of the self-pickup system can help logistics companies reduce labor costs because the delivery staff can deliver the parcels to each collection point more efficiently than delivering them to the door one by one (Boysen et al., 2020).

1.3 Problem Statement

The development of e-commerce was directly proportional to technological advancements. The Department of Statistics Malaysia (2021) reports that in the third quarter of 2021, Malaysia's corporate e-commerce revenue totaled RM279 billion, a growth of 17.1% from the same period in the previous year. Since most of the Malaysian, regardless of age, has a smartphone with an active internet connection, which could lead to commerce growth outpacing total e-commerce development (Raj. S & Gohain, 2021). According to the Compound Annual Growth Rate (CAGR), Malaysia's e-commerce market is estimated to be worth US$4.3 billion in the year 2024. (Aprameya, 2020; J.P. Morgan, 2020).

As the e-commerce market expands, the demand for courier services grows. When reviewing the viewpoint of the logistic service providers, last-mile delivery is the least efficient and most costly part of the delivery process due to small dimension of orders, high degree of destination dispersion, and challenging target service levels. (Vakulenko et al., 2018). Self-service delivery can be one of the innovative solutions for our local logistic companies since it has many advantages like cost-saving and flexible time arrangement compared to conventional home delivery services (Chen et.al, 2018).

Delivery failure, which occurs when a carrier attempts an attended delivery but no one picks it up, is one of the inefficiencies of last-mile delivery. Failed deliveries have an influence on transportation costs since they need redeliveries, which are usually the next day and increase the overall number of kilometers traveled (Lin et al., 2022). Alternatively, logistic service providers offer a function that allows the recipient to select the time of day when the delivery should be delivered. However, allowing time slots to be chosen will lead to more complex and inefficient routes, which also increases transportation costs due to the increased number of kilometers traveled. (Mangiaracina et al., 2019).

In research from Boysen et al. (2020), traditional home delivery will cause issues of labor shortage and environmental pollution from the sustainability perspective. For instance, conventional home delivery will lead to carbon dioxide emission increases and other pollutants that affect ozone layer depletion (Schnieder et al., 2021a). This situation can be explained by the fact that delivery vehicles have to travel to different

houses in short distances and deal with traffic congestion which will increase air pollution (Bandeira et al., 2018). Hence, local logistics companies must consolidate their delivery and transportation systems, optimize delivery lead times, and reduce vehicle travel distance in order to reduce carbon emissions caused by door-to-door delivery (Wang et al., 2020).

The customer self-collect parcel intention has a significant impact on overcoming inefficiencies and high costs caused by the growing demand for courier service over years. Nevertheless, most consumers prefer home delivery over self-pickup in e-commerce delivery which will increase the environmental impact (Vakulenko et al., 2018). Importantly, consumers' positive attitudes toward self-pickup services in e-commerce delivery are required in order to obtain operational and societal benefits. Thus, consumers must be encouraged to convert from conventional home delivery to self-collection options (Wang et al., 2019).

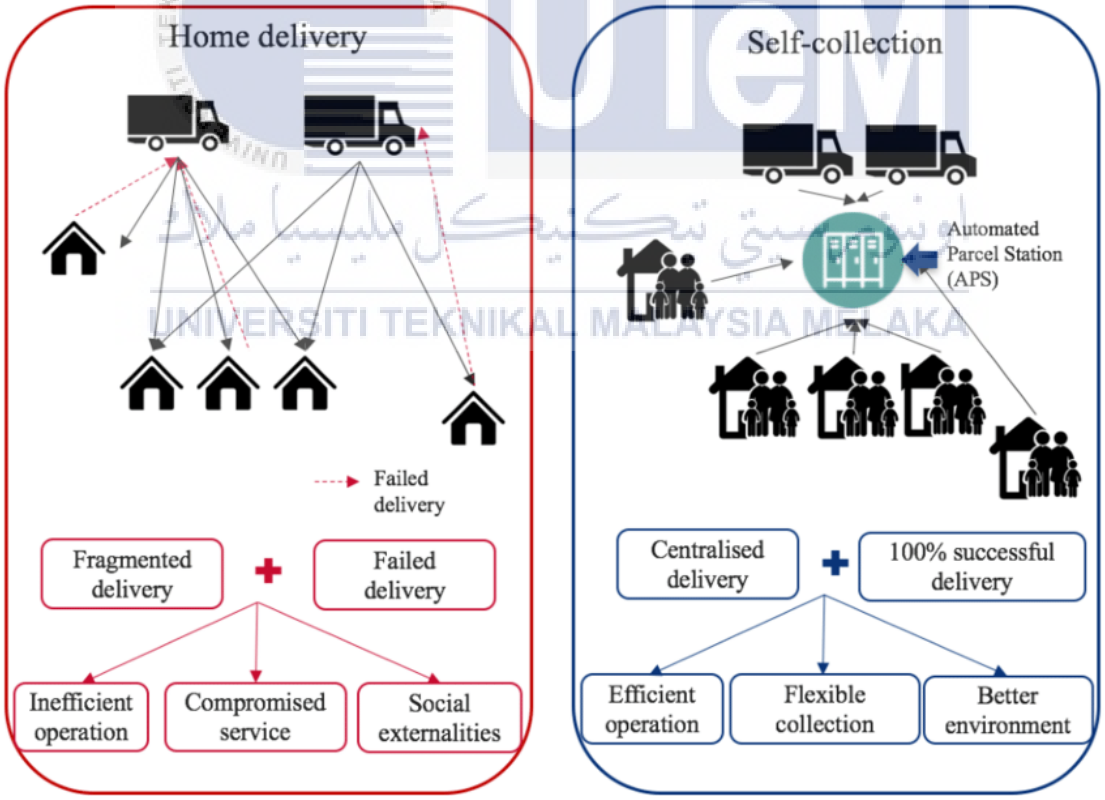

Figure 1.3: Comparison between home delivery and self-collection

Source: Wang et al. (2018)

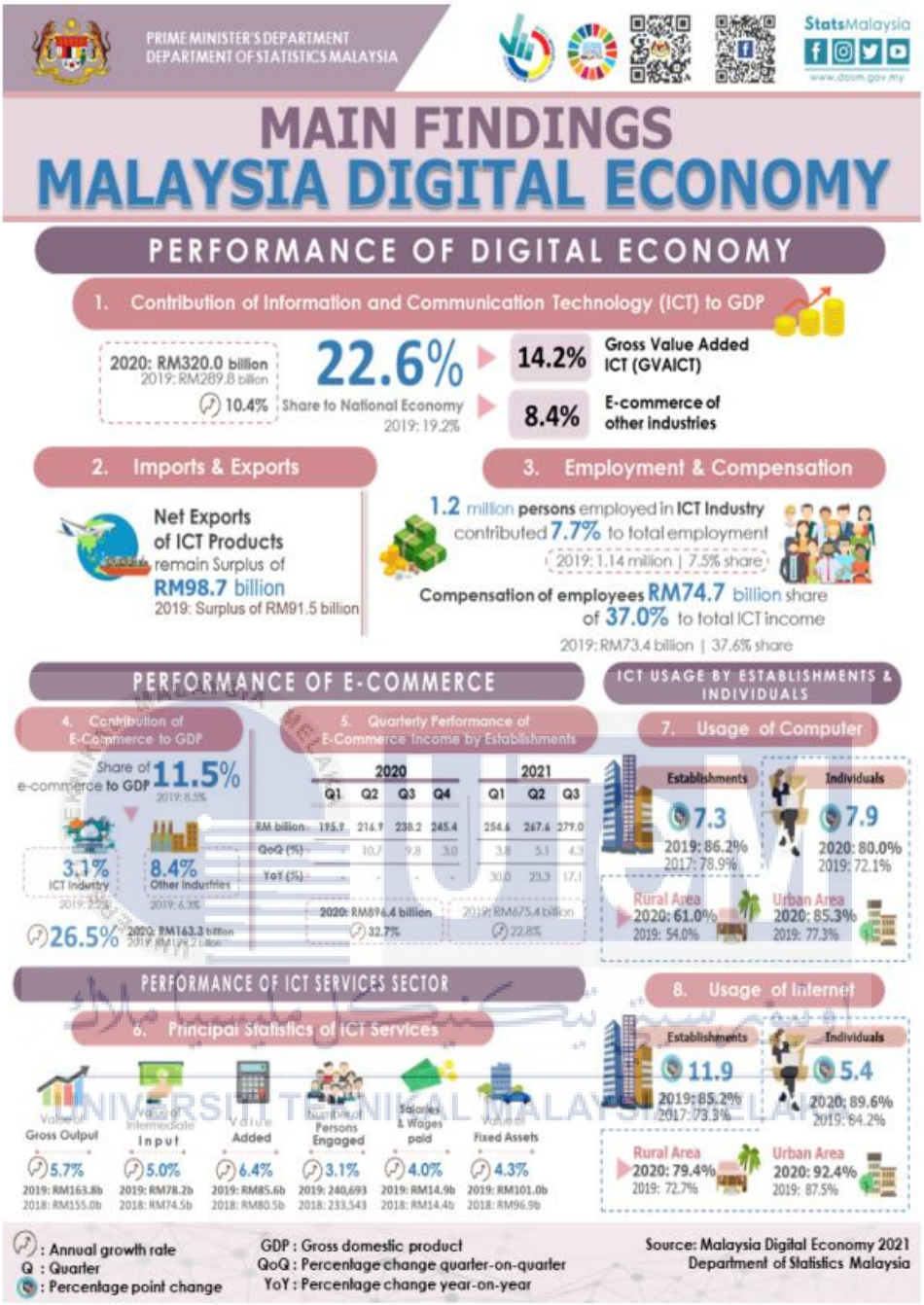

Figure 1.3.1: Malaysia Digital Economy 2021

(Source: Department of Statistics Malaysia)

1.4 Research Questions

There are three research questions to be list out to allow the researcher to choose the right research methodology and focus on the area related to the topic. The research questions are:

1. What are the factors that affect customers' intention to adopt self-pickup in e-commerce delivery?

2. What is the relationship between the attribute of self-pickup services and customers' intention to self-pickup parcels in e-commerce delivery?

3. Which factor has the greatest relationship with customers' intention to adopt self-pickup in e-commerce delivery?

1.5 Research Objectives

Based on the research questions above, the objectives of this research are:

1. To identify the factors that affect customers' intention to adopt self-pickup in e-commerce delivery.

2. To investigate the relationship between the attributes of self-pickup services and customers' intention to self-pickup parcels in e-commerce delivery.

3. To determine the factor that has the greatest relationship with customers' intention to adopt self-pickup in e-commerce delivery.

1.6 Scope and Limitations of the Study

The scope of this study will emphasize whether the factors such as convenience, reliability, and simplicity will affect customers' intention to adopt self-pickup services in e-commerce delivery. The respondents will be targeted as online customers from Johor Bahru. Next, the researcher will collect the suggestion from the respondent to adopt self-pickup services in e-commerce delivery. The limitation of this study is the lack of infrastructure and technology for customers to adopt self-pickup services in Malaysia, which may cause respondents not to have sufficient viewpoints to answer the survey. Therefore, it may lead to the results obtained varying greatly.

1.7 Significance of the Study

The study aims to provide a comprehensive knowledge of the factors that can affect customers' intention to adopt self-pickup in e-commerce delivery. At the end of the research, it would benefit local logistic service providers that have interested to encourage customers to adopt self-pickup services in e-commerce delivery. They will gain relevant data and information that can be used to motivate customers to convert from conventional home delivery to self-collection options in e-commerce delivery. They also can better understand what customers want in e-commerce delivery in order to improve customer satisfaction.

In addition, the findings of this research will help logistic professionals in gaining data insights into whether to develop advanced self-pickup services in e-commerce delivery to reduce logistics costs and increase efficiency by establishing self-pickup points such as smart lockers, parcel lockers, and self-pickup stations.

1.8 Key Concepts

1.8.1 E-Commerce Delivery

E-commerce delivery is the most expensive logistics activity and is classified as the last step in fulfillment for an online purchases order, distributing goods from regional parcel centers, warehouses, or distribution centers to the customer's desired location or address (Van Duin et al., 2020). Individual customers, businesses, and

institutions are represented on the demand site for online buying products. The infrastructure side contains online stores, e-commerce platforms, and their services, while the supply site represents the delivery of online shopping products, primarily via courier businesses (Bandeira et al., 2018).

1.8.2 Self-Pickup Services

Self-pickup services are a convenient way provided by logistics service providers to facilitate online customers to pick up their orders themselves instead of dealing with couriers face-to-face (Chen et al., 2018). The advantages of self-pickup services include reducing traffic congestion, eliminating inefficient costs, reducing delivery failure, and reducing the impact of environmental issues (Liu et al., 2019).

1.8.3 Adoption of Self-Pickup Services in E-Commerce Delivery

The adoption of self-pickup in e-commerce delivery is defined as whether the customers decide to choose self-collection services as their method of receiving parcels after placing an order in e-commerce (Wang et al., 2018). Customers are more likely to adopt self-pickup service because it saves money on shipping and brings the convenience of delivery and return services (Van Duin et al., 2020).

1.8.4 Customer Intention

Customer intention to adopt self-pickup services refers to the willingness of an individual performing various behaviors and the probability of customer engagement with an innovative service (Wang et al., 2018). Customers are mostly are still in the pre-adoption stage of making the decision whether to attempt the new option or stick with the traditional method, so the recent development of self-collection services by a variety of commercial operators, including online retailers, logistics service providers, governments, and customers, is critical in motivating customers to adopt this innovation service (Yuen et a., 2018).

1.8.5 Convenience

Convenience is known as customers' ease of access to self-pickup services (Pham et al., 2018). In terms of convenience, the self-pickup system for e-commerce deliveries should be located in a convenience place for customers, as well as save their time and effort (Roy et al., 2018). Therefore, the location of pickup and delivery stations has a significant impact on consumers' wants and logistic businesses' operational expenses in the e-commerce marketplace (Xu et al., 2021).

1.8.6 Reliability

Reliability is considered the constancy and precision of self-pickup services (Gulc, 2020). In terms of reliability, companies should guarantee that provided services are accurate and error-free. Lack of reliability in service often wastes customers' time and causes customer dissatisfaction (Tang et al., 2021). Delivery failures, missed deliveries, and late deliveries are common examples of affecting service reliability (Van Duin et al., 2020).

1.8.7 Simplicity

Simplicity is referred to the degree to which customer considers the self-pickup service to be easy to understand and use (Harris & Hodges, 2019). Simplicity basically reduces when customers interact with unfamiliar systems or services to perform various actions. Therefore, it takes a while for users to adapt and acquire the skills to operate a new innovative system or service (Chen et al., 2018).

1.9 Outline of Thesis

First and foremost, chapter one focus on providing an introduction for overall research. This chapter will include the study background, problem statement, research objectives, research questions, significance of the study, scope and limitations of the study, and thesis outline. Research questions are established from the research background and the problem statement, and research objectives are used to answer the research questions.

Secondly, chapter two will discuss the literature review of the studies and analyzes the results of previous studies as a reference, reviewing dependent and independent variables. The customers' intention to adopt self-pickup represents the dependent variable while attributes of self-pickup services such as convenience, reliability, and simplicity will represent independent variables in this research.

The third chapter will introduce the research framework and conceptual framework to develop research hypotheses. Then, the components of the research methodology will be discussed including the construction of the research design, data collection methods, data analysis technique, and sampling design. These components are used to generate results that respond to hypotheses in the research.

Furthermore, chapter four will focus on presenting the data analysis and analysis results using SPSS tools. The data analysis will include descriptive statistics, reliability analysis, normality test, correlation analysis, and multiple regression analysis. The correlation analysis and multiple regression analysis is used to determine the relationship between variables. To collect the data, distribution of questionnaires is carried out within one month.

Lastly, chapter five will discuss the results from the collected data and provide a comprehensive recommendation for future researcher and conclusion for this research. A discussion of research hypotheses and research objectives, limitations of the study, suggestions for future research, and overall conclusions will be included in this chapter. The discussion of research hypotheses and research objectives is based on the data results generated by SPSS tools.