

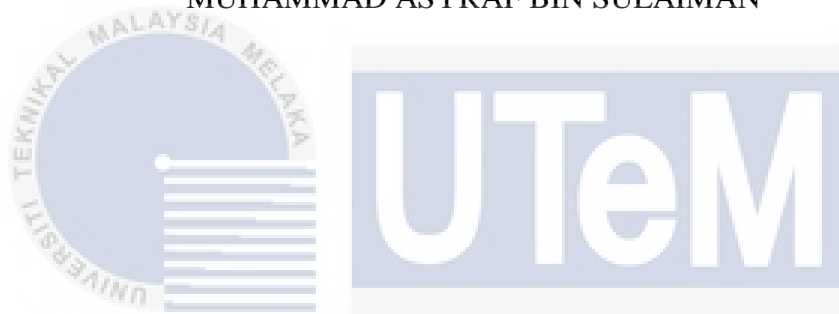
FACTORS OF SELF-CHECKOUT COUNTER TOWARDS CUSTOMER USAGE
INTENTION IN MALAYSIA DRUGSTORE.



UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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INTENTION IN MALAYSIA DRUGSTORE.

MUHAMMAD ASYRAF BIN SULAIMAN



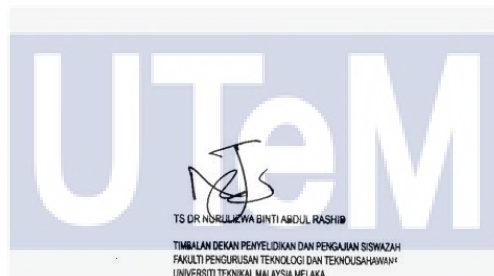
This thesis is submitted in partial fulfilment of the requirements for the award of
Bachelor of Technology Management (Technology Innovation) with Honors

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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Universiti Teknikal Malaysia Melaka (UTeM)

APPROVAL

I/ We hereby declare that I/ we have read this dissertation/report and in my opinion, this dissertation/report is sufficient in terms of scope and quality as a partial fulfilment the requirements for the award of Bachelor of Technology Management (Technology Innovation) with Honors



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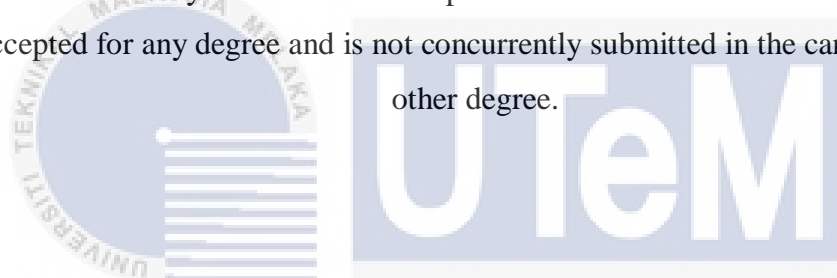
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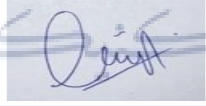
DECLARATION

I hereby declared that this thesis entitled

**“FACTORS OF SELF-CHECKOUT COUNTER TOWARDS CUSTOMER
USAGE INTENTION IN MALAYSIA DRUGSTORE”**

This is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in the candidature of any other degree.



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DEDICATION

This research paper is wholeheartedly dedicated
to dear parents

which is my main source of motivation.

They always give us strength when we think of giving up, which continues to provide
their moral, spiritual, emotional, and financial support.

To supervisors, family and friends who shared words of advice, encouragement, and
support to complete this research project.

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Finally, I would like to thank my parents and colleagues for their support and encouragement in completing this research.

ABSTRACT

Self-Checkout Counter is implemented to make it easier to make payment transactions. In Malaysia, Self-Checkout Counter technology is beginning to grow and become a concern because it can provide benefits to consumers in many ways, especially when the country is hit by the Covid-19 virus. It is evident from the available literature that research related to Self-Checkout Counter prioritizes technical, organizational and implementation aspects while attention is given to understanding the usage aspects and user satisfaction. Therefore, this study aims to examine the factors and customer usage intention of Self-Checkout Counter by empirically testing the constructs related to the Diffusion of Innovation model. The models developed include constructs such as Compatibility, Ease of Use, Trialability, Perceived Trust and Usage Intention. A survey based on a questionnaire was used to collect data from 150 respondents consisting of students and random people. This research uses simple random sampling as probability sampling in which samples are selected at random. The data obtained were analysed using the Statistical Package from the Social Sciences (SPSS). The results of this study indicate that all relevant constructs have shown a significant relationship to the intention of using Self-Checkout Counter technology. As a result, this research can benefit students, communities and governments to develop better financial systems for consumers.

Keywords – *Self-Checkout Counter, IS Success Model, Compatibility, Ease of Use, Trialability, Perceived Trust, Usage Intention*

ABSTRAK

Kaunter Daftar Keluar Sendiri dilaksanakan bagi memudahkan untuk membuat transaksi pembayaran. Di Malaysia, teknologi Kaunter Daftar Keluar Sendiri mula berkembang dan menjadi perhatian kerana dapat memberi manfaat kepada pengguna dalam pelbagai segi, terutamanya ketika negara dilanda virus Covid-19. Terbukti daripada literatur yang ada bahawa penyelidikan berkaitan Kaunter Daftar Kendiri mengutamakan aspek teknikal, organisasi dan pelaksanaan manakala perhatian diberikan kepada pemahaman aspek penggunaan dan kepuasan pengguna. Oleh itu, kajian ini bertujuan untuk mengkaji faktor dan niat penggunaan pelanggan Kaunter Daftar Kendiri dengan menguji secara empirikal konstruk yang berkaitan model Diffusion of Innovation. Model yang dibangunkan termasuk konstruk seperti Keserasian, Kemudahan Penggunaan, Kebolehcubaan, kepercayaan and Niat Penggunaan. Tinjauan berdasarkan soal selidik telah digunakan untuk mengumpulkan data daripada 150 responden yang terdiri daripada pelajar dan orang rawak. Penyelidikan ini menggunakan persampelan rawak mudah sebagai persampelan kebarangkalian di mana sampel dipilih secara rawak. Data yang diperolehi dianalisis menggunakan Pakej Statistik daripada Sains Sosial (SPSS). Hasil kajian ini menunjukkan bahawa semua konstruk yang berkaitan telah menunjukkan hubungan yang signifikan terhadap niat penggunaan teknologi Kaunter Daftar Keluar Sendiri. Hasilnya, penyelidikan ini boleh memberi manfaat kepada pelajar, komuniti dan kerajaan untuk membangunkan sistem kewangan yang lebih baik untuk pengguna.

Kata kunci – *Kaunter Daftar Keluar Sendiri, Model Kejayaan IS, Keserasian, Kemudahan Penggunaan, Kebolehcubaan, Kepercayaan, Niat Penggunaan*

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LIST OF ABBREVIATIONS

ABBREVIATIONS	MEANING
SCO	Self-Checkout
IT	Information Technology
IoT	Internet of Things
SST	Self Service Technology
WHO	World Health Organization
SDG	Sustainable Development Goals
MCO	Movement Control Order
ISSM	Information System Success Model
SOP	Standard Operational Procedures
SPSS	Statistical Package for Social Science

CHAPTER 1

INTRODUCTION

1.0 Introduction



This research aims to analyzing factors of Self-Checkout Counter towards customer usage intention in Malaysia Drugstore. This chapter consists of five parts of chapter one which is including research background, research problem, research questions, research objectives, and scope of research. All of this part will describe a clear idea for whole project research.

1.1 Background of Study

Economic growth is described as a rise in a country's ability to generate products and services from one period to the next. This expansion is measured in nominal or real terms, which are then adjusted for inflation. Economic growth is generally concerned with the potential for long-term economic productivity. Economic development is a vital factor in developing or less developed countries' quick economic shift to a stable income level. (Shaukat, Zhu & Khan, 2019).

Nowadays, self-checkout is a good technology for customers to make it easier for them to pay or buy goods in certain areas. This self-checkout is better than traditional payment or payment to staff at the counter. Customers use self-checkouts (SCOs) to finish their transactions. Automated checkouts eliminate the need for a human checker. ACOs (assisted checkouts) and self-service checkouts are other terms for self-checkouts. Customers collect the items at self-checkouts and scan the barcodes on them. They do all of their shopping by themselves. Shoppers are increasingly using self-checkout systems in supermarkets. Staff members are on hand to help consumers if they encounter any issues when using Self-checkout locations. Self-service checkout is done in a different way at checkout-free stores. Customers do not have to wait in line to get scanned in this method. Customers' purchases are tracked, and the bill is automatically sent to their phone. Self-service technologies (SSTs) have gained popularity. introduced in the supermarket sector, providing chances for grocery stores to go beyond self-service checkout. The expanded The Technology Acceptance Model was used in this study to assess the existing usage of self-checkout systems by comparing different categories of customers, with the goal of determining the causative elements that allow these groups to adopt smart grocery shopping technologies. According to the research, several categories of consumers already have accepted self-checkout, albeit at various degrees. It implies that consumers are generally eager to adopt smart grocery purchasing practises., with behavioural intentions primarily determined by consumers' sentiments toward the form of shopping and convenience. (Thomas-Francois and Somogyi, 2022)

This self-checkout counter can make it easier for the public to make any payment transaction without having to face the staff at the place of purchase. With users only need to use the counter machine that has been provided and follow the guidelines that have been provided but self-counter counter is easy to use. In addition, this self-checkout is more efficient without having to wait a long time compared to using cash registers that have to queue by taking longer.

1.1.1 Self-Checkout Counter in Malaysia

Self-checkout innovation has emerged as a popular choice in general stores all over the world because it offers customers the opportunity to save money, be more helpful, and get their purchases faster while also improving their shopping experience. The current study seeks to ascertain the connection between administration quality, consumer loyalty, and the goal of repurposing among customers who have visited the selected Malaysian general shop. An organized survey with a seven-point Likert scale was planned, based on the quality-based model scale. Customers who used the self-checkout framework in the grocery store provided 394 pieces of information, which was compiled into a report. This investigation investigates the possibility of improving grocery store tasks by redesigning themselves into current day innovation, rather than the traditional way. Self-checkout is becoming increasingly popular among consumers, and retailers can benefit from this plan by making better decisions based on the increasing practicality of this desire.

Self-checkout is a technology-driven system that enables customers to scan and bag their own purchases without the assistance of a cashier. In Malaysia, self-checkout has become increasingly popular in recent years as retailers aim to enhance the shopping experience for customers. Self-checkout machines are equipped with a touch screen, barcode scanner, and weigh scale, which customers use to scan and pay for their purchases. The technology also integrates with the store's inventory system, ensuring that the correct price is charged for each item. This system provides customers with a

convenient and efficient way to complete their shopping transactions, saving them time and effort compared to traditional checkout methods. One of the primary benefits of self-checkout is increased speed. Customers can scan and bag their own items, allowing them to move quickly through the checkout process. This can reduce the wait time in lines and improve the overall shopping experience. Additionally, self-checkout machines are designed to be user-friendly, making it easy for customers to use them even if they are not familiar with technology.

Another advantage of self-checkout is increased convenience. Customers are able to purchase their items at any time, even outside of business hours, as the machines are usually available 24/7. Additionally, the machines provide customers with a greater degree of privacy and control over their shopping transactions. However, there are also some drawbacks to self-checkout. One concern is that customers may not be aware of all the items they are purchasing, leading to incorrect charges or missed items. Additionally, the machines may not be able to recognize certain types of items, such as produce or bulk goods, requiring assistance from a cashier. Finally, the technology may also create job loss for cashiers as more retailers adopt self-checkout.

1.1.2 Information Technology (IT)

One of our country's most important industries right now is information technology (IT). The IT and IT-enabled services business employed 3.5 million people and earned approximately 160 billion dollars in sales during the 2016-2017 fiscal year. Newspapers are filled with job ads for IT pros and other professionals who have a working knowledge of IT, and the number of these ads is growing daily. Students at many colleges and universities are now required to complete an IT course as part of their degree requirements. IT knowledge is crucial in today's world. As a result, students must be well-versed in IT and the apps that run on it. The book's primary goal is to make IT accessible to all undergraduates, regardless of their area of interest. IT is a continuously evolving

field of study. It's critical to emphasize the technology's rock-solid foundational ideas in a university degree programmed. Rather than focusing on the day-to-day operations of computers, this book aims to take a more holistic perspective. In this book, you'll learn why and how some aspects of computers work. The book also discusses a number of major computer applications that are widely used, as well as the underlying ideas used in the construction of these programmers. The fundamental focus of information technology is the capture, storage, processing, and management of data. Additionally, it aims to make organized and processed data publicly available to a variety of individuals and groups. Information technology (IT) used to refer to data primarily as numbers and text. This is no longer the case. In addition to numbers and text, computers can also process images, audio, and video data. As a result, we must learn how to collect, organize, store, process, and communicate all of these sorts of data. (V. Rajaraman, 2018) For example, the use of IT in performing payment transactions, i.e. payments using self-checkout counters, is highly relevant to the current situation during the Covid-19 pandemic.

Due to the competitive environment, particularly in developing nations, technology and inventiveness have played a significant role in service businesses. The implementation of forward-thinking technologies like automated check-out lanes in retail establishments is widely regarded as beneficial for retailers in a variety of contexts. However, if customers are unable to utilize these innovations, the deployment of these technologies in retail establishments becomes counterproductive. In spite of the importance of customer acceptance of self-checkout systems to the continued existence of businesses, the available research provides only limited insight into this topic. (Ufuk Cebeci, Abdullah Ertug, Hulya Turkcan, 2022)

1.1.3 Malaysia Science and Technology Policy

The goal of Malaysia's Science and Technology Policy is to promote advancement and development in the fields of science, technology, and innovation. As a result of market failures, government intervention is frequently required. There is a strong case for governments to give additional incentives for investments in technology development because of this market failure. Innovation's Malaysia has introduced payment in supermarkets through payment using self-checkout counters in one area to facilitate purchases and see how the effectiveness can be coordinated in other areas.

Given that science and technology in Malaysia are at an all-time high, the government's policy has a significant impact. Spending on research and development as a percentage of GDP has continuously increased over the last two decades, exceeding that of most other high-income countries. To date, the government has contributed the remaining funding for research and development, but domestic businesses are rapidly contributing more and more. This is because of a rise in the country's innovation skills and the promotion of research and development (R & D). The impacts of globalization also include a stronger capacity for research development and infrastructure, as well as a promotion of corporate innovation and entrepreneurialism, as well as an increase in human resources and skills.

Regarding self-checkout counter technology, there are several challenges in developing this technology. This is because, self-checkout counters face a complex regulatory environment designed for a long and slow business model to accept change. The development of self-checkout counter technology globally has led to restrictions on storing and transmitting data with rules designed to protect domestic officials. The use of technology in this sector also cannot escape the growing security threats, from theft and fraud.

If the Self-checkout counter is involved in any business or activity that is regulated or licenced in Malaysia, the regulatory and legal requirements for conducting such business or activities must be met in accordance with Malaysian law.

1.1.4 Sustainable Development Goals (SDGs)

Sustainable Development Goals (SDGs) are a set of 17 global goals adopted by the United Nations in 2015. The SDGs aim to end poverty, protect the planet, and ensure peace and prosperity for all people. The following is a detailed explanation of each of the 17 SDGs.

No Poverty: The goal is to eradicate extreme poverty and reduce inequality by 2030. This involves improving access to education, healthcare, and economic opportunities, and empowering the most vulnerable groups. **Zero Hunger:** The goal is to end hunger, achieve food security, and improve nutrition by 2030. This requires strengthening food systems, investing in agriculture, and improving access to markets and financial services for small-scale food producers. **Good Health and Well-being:** The goal is to ensure universal access to quality health care and reduce the burden of disease by 2030. This involves strengthening health systems, improving health education, and investing in research and innovation.

Quality Education: The goal is to provide inclusive and equitable quality education and promote lifelong learning opportunities for all by 2030. This requires expanding access to quality education, especially for girls and marginalized communities. **Gender Equality:** The goal is to eliminate all forms of discrimination and violence against women and girls by 2030. This requires addressing gender inequalities in areas such as education, employment, and political representation. **Clean Water and Sanitation:** The goal is to ensure availability and sustainable management of water and sanitation for all by 2030. This involves improving access to safe drinking water and basic sanitation, and reducing water-related diseases. **Affordable and Clean Energy:** The goal is to ensure access to

affordable, reliable, and modern energy for all by 2030. This requires increasing the use of renewable energy, improving energy efficiency, and expanding energy access in rural areas. Decent Work and Economic Growth: The goal is to promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all by 2030. This requires creating good jobs, improving workers' rights, and fostering entrepreneurship and innovation. Industry, Innovation, and Infrastructure: The goal is to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation by 2030. This involves improving transportation systems, upgrading infrastructure, and increasing access to finance and technology.

Reduced Inequalities: The goal is to reduce income inequality and improve social, economic, and political inclusion by 2030. This requires addressing the root causes of poverty and inequality, such as discrimination, and promoting equal opportunities for all. Sustainable Cities and Communities: The goal is to make cities and human settlements inclusive, safe, resilient, and sustainable by 2030. This involves improving urban planning, reducing air pollution, and increasing access to housing and basic services. Responsible Consumption and Production: The goal is to ensure sustainable consumption and production patterns by 2030. This involves reducing waste, improving resource efficiency, and promoting sustainable consumption and production. Climate Action: The goal is to take urgent action to combat climate change and its impacts by 2030. This requires reducing greenhouse gas emissions, improving climate resilience, and supporting sustainable development. Life Below Water: The goal is to conserve and sustainably use the oceans, seas, and marine resources for sustainable development by 2030. This involves reducing marine pollution, protecting biodiversity, and ensuring sustainable fishing practices. Life on Land: The goal is to protect, restore, and promote the sustainable use of terrestrial ecosystems, forests, and biodiversity by 2030. This requires reducing deforestation, conserving wildlife habitats, and promoting sustainable agriculture. Peace, Justice, and Strong Institutions: The goal is to promote.

A coordinated effort from all sectors of society, including governments, civil society, the private sector, and individuals, is required to achieve the SDGs. The SDGs

cannot be accomplished just by governments; they require the participation and commitment of all players in society. Through their business practises, investment strategies, and supply chain management, private sector enterprises, for example, may play a vital role in advancing progress toward the SDGs. Furthermore, the SDGs are interconnected and interdependent, which means that achievement in one area might have a positive impact on progress in others. Investing in clean energy, for example (Goal 7) can help reduce greenhouse gas emissions and battle climate change (Goal 13), but improving access to quality education (Goal 4) can boost economic growth and alleviate poverty.

Finally, the SDGs provide a comprehensive framework for addressing the world's most pressing development concerns and supporting sustainable development. To achieve the SDGs, all actors in society, including governments, civil society, the commercial sector, and individuals, must work together. The SDGs serve as a road map for governments to work toward a more sustainable future, as well as a call to action for all players to collaborate in order to achieve a better and more sustainable world for all.



Source: Malaysia Sustainable Financial Initiative (2020)

1.2 Problem Statement

In Malaysia, many businesses had been compelled to shut due of the COVID-19 outbreak, causing an unusual interruption in commerce across multiple industry sectors. Short-term issues challenge retailers and brands, including those pertaining to supplier chain, health and safety, labour, consumer demand, sales, marketing, and cash flow. However, overcoming these challenges will not guarantee a prosperous or even a future. This is because when we emerge from this pandemic, the world will be very different from what it was before the outbreak. Numerous marketplaces have vanished, particularly in the tourist as well as the hospitality industry. Every organisational function is intended to prioritise and optimise expenses, or to defer activities that will not add value in the current context. Businesses, particularly start-ups, have adopted a permanent hiring freeze (J Bus Res,2020) Businesses in Malaysia experienced a high decline due to the occurrence of Covid-19, so businesses had to close due to the Covid-19 outbreak that spread, so companies like Watson also experienced this because strict standard operating procedures (SOP) could not afford sales and premises closed temporarily. There have lack of study regarding of Self-Checkout Counter implementation at Drugstore especially at developing country such as Malaysia. There have lot of study discuss about the e-wallet application. RFID, BINGO BOX, TOUCH N GO but there have limited research discuss about what is the factor that will improve Self-Checkout Counter as mainly for the customer usage intention in Malaysia. In the practical field, it is related to the current Covid-19 epidemic situation which caused various obstacles and problems regarding payment at the Drugstore such as obstacles regarding social imprisonment when queuing at the counter. Therefore, counter payments are reduced. However, this study examines why people need and use the Self-Checkout Counter service. This is due to the fact that many individuals prefer counter payments to Self-Check Out Counters since they are less aware of the benefits of this technology, while Self Check Out Counters are speedier and save time. That is why this study must provide or should provide information on what elements may improve client purchasing intentions, particularly in Malaysian drug stores.

Therefore, based on the information problem and gaps in the literature and also the practical is crucial to research the factors of Self-Checkout Counter especially in the Drugstore because we know that store is very heavy and a lot of customer and in order to mitigate the Covid-19 spreading is important to know what is the factors that will affect their usage on intention to use.

1.3 Research Questions

This research consists of the three main of research questions:

- 1) What is the self-checkout counter factors influencing usage intention among customer during pandemic COVID-19?
- 2) What is the relationship between self-checkout counter factor and usage intention behaviour among customer during pandemic COVID-19?
- 3) What is the most significant self-checkout counter factor that influence usage intention among customer during pandemic COVID-19?

1.4 Research Objectives

The research objectives consist of three mains based on research questions:

- 1) To investigate the self-checkout counter factors influencing usage intention among customer during pandemic COVID-19.
- 2) To measure the relationship between self-checkout counter factor and usage intention behaviour among customer during pandemic COVID-19.
- 3) To determine the most significant self-checkout counter factor that influence usage intention among customer during pandemic COVID-19.