AN INSIGHT OF CUSTOMER'S BEHAVIOUR INTENTION TO USE SELF-SERVICE KIOSK IN MELAKA'S FAST FOOD RESTAURANT

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

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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 Honours

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DECLARATION OF ORIGINAL WORK

I hereby declared that this report entitled

"AN INSIGHT OF CUSTOMER'S BEHAVIOUR INTENTION TO USE

SELF-SERVICE KIOSK IN MELAKA'S FAST FOOD RESTAURANT"

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

SIGNATURE: ……………………………........

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ABSTRACT

Self-service kiosks (SSKs) are mostly implemented and promoted to substitute traditional service encounters and the influencers of SSK acceptance have been investigated by researchers. The study project's aim is to determine important perceived variables in the use of self-service kiosks (SSK) to determine Malaysian's intention to conduct SSK. It would also be possible to display the results of this research whether the consumer perceived SSK as a supporting role or already becoming a vital role for daily life. In this study include four independent variables, namely perceived ease of use, perceived usefulness, need for interaction and risk to measure the relationship towards behavioural intention on SSK. Secondary data was used for literature review; the proposed research framework was the results after analysing information from literature review contributed from many researchers. TAM model was adopted for the study with some modification, added more perceived factors that has been prove to be significant to SSK in research done by other researchers. Primary data was collected 150 questionnaire surveys using probability sampling technique – cluster sampling method, through questionnaire. The findings of this study contribute to business management as well as government over Malaysia behaviour over using self- service kiosk.

Keyword – *Self-service kiosks (SSKs), Technology acceptance model (TAM), need for interaction, risk, behavioural intention*

ABSTRAK

Kiosk Layan-diri (SSK) merupakan teknologi baru yang diperkenalkan dan disokong untuk mengganti perkhidmatan yang tradisional maka terdapat ramai penyelidik telah membuat penyelidikan tentang penerimaan orang awam terhadap kegunaan SSK. Tujuan projek penyelidikan ini adalah untuk menentukan faktor-faktor yang mempunyai pengaruhi terhadap penerimaan kegunaan kiosk layan diri (SSK), malah melalui faktor tersebut, niat tingkat laku rakyat Malaysia terhadap penggunaan SSK dapat dikenal pasti. Hasil penyelidikan ini juga dapat menunjukkan bahawa pengguna menganggap SSK sebagai peranan yang menyokong atau telah menjadi peranan yang penting dalam kehidupan seharian. Dalam kajian ini, terdapat empat faktor yang dikaji untuk mengenal pasti pengaruhnya terhadap niat tingkah laku penggunaan SSK. Faktor-faktor tersebut adalah mudah digunakan, berfaedah, keperluan untuk berinteraksi dan risiko. Kajian ini telah menggunakan data sekunder untuk semakan sastera dan rangka kajian yang dicadangkan adalah hasil daripada analisis maklumat dari kajian literatur yang disumbangkan oleh para penyelidik. Selain itu, model TAM telah diaplikasi dalam kajian ini dengan beberapa pengubahsuaian serta menambah lagi beberapa faktor yang disahkan mempunyai pengaruh terhadap penggunaan SSK dalam penyelidikan yang telah dilakukan oleh penyelidik lain. Di samping itu, data primer kajian ini adalah dikumpul daripada 150 soal selidik yang menggunakan teknik pensampelan kebarangkalian iaitu kaedah pensampelan kluster, melalui soal selidik dalam talian. Hasil kajian ini dapat menyumbang kepada pengurusan perniagaan serta pihak kerajaan terhadap niat tingkah laku rakyat Malaysia terhadap penggunaan SSK.

Kata Kunci - *Kiosk Layan-diri (SSK), Technology acceptance model (TAM), keperluan untuk berinteraksi, risiko, niat tingkah laku*

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ABBREVIATION	MEANING
SST	Self-Service Technology
ATM	Automated Teller Machine
KLIA	Kuala Lumpur International Airport
PTPTN	Perbadanan Tabung Pendidikan Tinggi Nasional
EPF	Employees Provident Fund
MEPS	Malaysian Electronic Payment System Sdn Bhd
ICT	Information and communications technology
MAMPU	Malaysian Administrative Modernization and Management Planning Unit
TAM	Technology Acceptance Model
SPSS	Statistical Package for the Social Sciences
CSS	Customer Self-Services
EOU	Ease of use
U	Usefulness
NFI	Need for interaction
R	Risk
BI	Behavioural Intention
IV	Independent Variable
DV	Dependent Variable
ANOVA	Analysis of Variance

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CHAPTER 1

INTRODUCTION

1.0 Introduction

In this chapter, there is explanation an outline of this research paper that helps to understand the factors that will influence the behaviour intention to use of Self-Service Kiosk (SSK) in Melaka which mainly focus on fast food industry example like McDonald's. This study aims to study the consequence of perceived factors over the customer behaviour intention to use the Self-Service Kiosk. There are seven main areas to be discussed in this chapter, including research background, problem statement, research questions, research objectives, the scope of the study, and lastly the significance of the study.

1.1   Research Background

Over the past two decades, the rapid growth of ICT has enabled hospitality operations to use different innovations to encourage client administration and upgrade client practise and fulfilment (Dabholkar and Bagozzi, 2012). Self-service technology (SST) is one of the ICTs that enables customers to make their own services (e.g. personal service, self-service or combination of both) without the assistance of employees or service providers, or with minimal assistance from them (Bitner, Ostrom and Meuter, 2002).

Lin and Hsieh (2017) it demonstrated that an ever increasing number of customers are eager to receive these new innovations to make their own services and that ' high-touch and low-tech ' tools or devices are being gradually changed by ' low-touch and high-tech ' tools or devices. For instance, 36% of consumers in the restaurant sector are now less likely than two years ago to accept technological options (National Restaurant Association [NRA], 2017). Self-service technology (SST) plays a role in Malaysian daily life, since Maybank announced the first self-service automated teller machine (ATM) in Malaysia back in 1981 (Lizasoain *et al.*, 2015). After Malaysia's banking industry has announced the self-service kiosk such as cash deposit machine and cheque deposit machine, it helps support the banking industry's substantial daily transaction activities.

One generally utilized SST is the kiosk (Rowley and Slack, 2018). In some segments of the hospitality industry, kiosks have been a common feature (e.g. self-service check-in kiosks and airport information kiosks). Restaurants and hotel companies have additionally received this innovation to serve their guests or visitors efficiently and effectively. Restaurants use self-service kiosks (SSK) for clients to put, modify and pay for their food and drink orders while lodgings utilize this innovation to give information and self-check-in and out administrations for hotels areas. Fast food restaurant has forcefully embraced SSK innovation since it lessens work costs (Hanks, Line and Mattila, 2016), improves speeds of service and order accuracy increases sales through upsales. Millennial customers and their younger counterparts are generally attractive (Kincaid and Baloglu, 2005).

In addition, MCT Consortium Berhad launched its operation in Premium-X Cinemas in December 2013 with the opening of Malaysia's fully self-service kiosk cinema (Cinema Online, 2014). While one of the Sakae Sushi selling points is their iPad menu, in addition to customers can place their order by picking up the sushi on the conveyor belt by surfing and clicking on the iPad menu, the order will go to the kitchen immediately and the waiter will serve it once the dishes are prepared.

AirAsia replaces counter check-in services for passengers departing KLIA 2 to self-check-in services. A few of SST was accessible to customers, including the website, smartphone, and kiosk to do check-in. Website and smartphone check-in option were available that was up to 1-hour prior before departure for AirAsia's flights,

and 4 hours before departure for AirAsia X. Before customer proceeds to the baggage drop counters at KLIA 2, customer has to check in and print out their tags, whether at home printing or kiosks machine, (FCM Travel Solution, 2016).

In addition, under a strategic partnership with AmBank Islamic Bhd, Perbadanan Tabung Pendidikan Tinggi Nasional (PTPTN) has opened 20 JomPay kiosks at selected PTPTN branches to encourage more online transactions and 42 banks are participating with PTPTN for online transactions through JomPay (NST Online, 2017). The result shows that up to RM6.98 million loan repayments have been collected in January, and another RM11.52 million has been collected in July 2017. By using JomPay kiosks, this showed an increase of about 60% in the collection.

Table 1.1 shows the Self-Service Technologies (SST) options that were accessible in Malaysia. The information was obtain based on the review of the newspaper, websites, magazines and own observations.

Table 1.1

Categories and examples of SST Adoption

		Interface		
		Mobile phone / Interactive Voice Response	Online / Internet Interactive	Interactive Kiosk
Purpose	Consumer Services	• Mobile phone Banking • Air Flight information • Ordering status tracking	• Purchase package tracking • Bank account information	• ATM • Hotel check-in/out
	Transaction	• Mobile phone banking	•Online store purchasing	• Pay utility bill • Airport check-in

		• Online transaction	
Self-help	•Information telephone line	•Online information search • Online learning	•Tourism information • EPF statement

Adapted from Meuter et al. (2000)

1.1.1 The Self-Service Kiosk of Fast Food Industry in Malaysia

Fast food industry is one of the emerging industries in Malaysia which that has been established since 1970's. This industry shows the great growth due to the transformation of business process into ICT. Malaysia fast food restaurant have transformed the way of doing business into online which increase their sales. Fast food restaurant has provided the online ordering services which make convenient ordering process. Online ordering is the main activity that need website that can distribute easy access to ordering process. Website quality can be evaluated based on accessibility, easefulness of navigation, website design, content of website, technical consideration and security perspective. Most of this outlook is a common characteristic that control the quality of website as defined in most of the website quality literature.

By using SSK, customers can individually customize their products, create a meal with greater process control based on their personal choices and pay conveniently with no time taken. Nearly 80% of consumers consider restaurant technological solutions to be more expedient and 70% consider restaurant technology to be accelerating service and more accurate ordering (NRA, 2017). Perutkova (2010) has shown that customers are prepared to pay higher prices at the fast food restaurant and pay USD 2.47 on average, if service is faster (Perutkova, 2010). The promise that the customer will use SSK will certainly be affected by a shortened waiting time (ie, faster

service) (Kokkinou and Cranage, 2015; Wang, Haris and Patterson, 2012). All these factors indicate that in the hospitality sector in general, but particularly the fast food segmento, the trend towards SSK is likely to become increasingly significant–a fact which strengthens the importance of today's study.

Malaysian Electronic Payment System Sdn Bhd (MEPS) supports local, development, Islamic and foreign banks. Through its interbank e-payment services for consumers, MEPS provide interbank payment network service that had been a fundamental part in the Malaysian financial landscape (Malaysian Electronic Payment System Sdn Bhd (MEPS). MEPS provide "Shared ATM Network" that give any bank users to get their money anywhere from any banks' ATMs. So, customers can use debit or credit card to pay their bill without interacting with employees through various technology and innovative customer service concepts of cashless payment option.

1.1.2 Information and Communication Technology (ICT)

Curran and Meuter (2011) stated that information and communications technology (ICT) which focus the part of unified communications is an expanded term for information technology (IT). Integration of telecommunications (wireless signals and phone lines), computers as well as essential capacity, middleware, audio-visual systems and enterprise software which allow users to store, access, control information and transmit data.

The term ICT is also used to refer to computer network mobile phone networks through a link system or a single audio-visual cabling and convergence. Combining the computer network system with the telephone network using a single unified cabling, signal distribution and management system brings with its large economic incentives as huge cost savings due to the phone network being disposed of.

ICT is defined as ICT concepts, methods and applications are constantly evolving on a day-to-day basis. However, an ICT hierarchy where all levels of the hierarchy "contain a few degrees of commonality in that they are related to technologies that encourage data transfer and different types of electronically mediated communications" (Colrain M, 2012) ICT broadness covers any product that will recover, store, transmit, control or electronically obtain information in a digital form, e.g. digital TV, email, personal computers, and robots.

1.1.3   Malaysia Science and Technology Policy

Malaysia Government had found the key driver of the new economy - Internet technology. As the key to improving society, economy and politics, Malaysia's 3rd long-term plan - Third Outline Perspective Plan (2001-2010) had underlined that Information Communications Technology (ICT) was that key. In the declared of 10th Malaysia Plan, the 12 New Key Economic Areas (NKEA) and ICT had been classified as one of the 12 in order to improve Malaysia to high-income economy (EPU, 2010).

Malaysian Administrative Modernization and Management Planning Unit (MAMPU), (2016), state that The Malaysian Public Sector ICT Strategic Plan (2016-2020) has 5 ICT Strategic Thrusts and their objectives were identified to ensure optimum usage of ICT to achieve maximum benefits and results:

(1) Integrated digital services
- Provide quality end to end digital services
- Provide inclusive and citizen-centric digital services

(2) Data-driven government
- Manage and realize the value of data in a holistic and efficient manner
- Strengthen cross-agency data sharing

(3) Optimize shared services and strengthen cybersecurity
- Increase sharing of ICT resources through a centralized and structured initiative
- Ensure secure and trusted digital services

(4) Collaborative and dynamic ICT governance

- Strengthen leadership and governance for planning and coordination of digital initiatives
- Strengthen ICT management and organization functionality to be more dynamic and efficient

(5) Professional and capable workforce

- Strengthen the capabilities of public sector ICT personnel

By the Malaysian Public Sector ICT Strategic Plan (2016-2020), Malaysia Government will rise Malaysian's assignation in building services that give Malaysian to give response on policies and Government services. Services will be gathered around key moments in Malaysian's lives, rather than organized around Government agencies, and it will be accessible from a single Government portal. Government will improve cloud services, combining public sector data centre and offer "everything as a service". Government's roles, structures and performance indicators will be reshaped to put in order with the Digital Government plan. It will produce a new "operation model" for ICT units at ministries and agencies in future (Govinsider, 2016).

Figure 1.1 Malaysian Administrative Modernization and Management Planning Unit (MAMPU) Logo's

1.2   Problem Statement

Many studies have helped us understand why SSK is used by customers, identifying the particular factors which affect this study. The majority of SSK studies were conducted in hotels and airport settings in a hospitality context. Relatively few have been conducted in fast food restaurant settings and fewer customer satisfaction with the acceptance of technology has been studied (Kim and Qu, 2017).