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THE FACTORS INFLUENCING CONSUMERS TO USE MOBILE PAYMENT SYSTEMS AT RETAIL AND OUTLET STORES

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This report is submitted as a partial fulfilment of the requirements for the Bachelor of Technopreneurship (Hons)

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DECLARATION

"I admit that this report is the result of my own, except certain explanation and passages where every of it is cited with sources clearly"

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DEDICATION

I dedicate this thesis to my beloved parents, Mr. Sukiman and Mdm Siti Maryam, who always give me support in term of moral, motivation, financial and advices. Without their support and gentle prodding, I believe it will be difficult for me to complete my FYP successfully. Thanks also to my husband, Ahmad Faizal bin Jafrin, who were always support and motivate me throughout my studies for four years.

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ABSTRACT

The world is going cashless and mobile. These are the two trends that required businesses to provide convenience and productivity for their customers. A mobile payment system (MPS) plays an important role in following these two current trends in retail industries. Recently, there are so many new businesses appeared to be services provider's company of cashless technology systems such as Kiple Pay, Ali Pay and many more. Besides that, existing company such as Apple and Samsung are also not being left behind in following this trends. Thus, this research aims to identify the factors that influence consumers to use mobile payment systems at retail and outlet stores. This research was held in Aeon Bandaraya Melaka. Based on theoretical framework, the independent variables are perceived usefulness, perceived trust, perceived ease of use and social influence while dependent variables the use of mobile payment systems. This research will be using quantitative method as the questionnaire survey will be distributed among consumers who visit AEON Bandaraya Melaka. The result indicate that perceived usefulness, perceived ease of use and social influence has been merge into one factor named as perceived benefits while perceived trust is still another factor for this research. Based on the results, all factors have significant relationship with the use of mobile payment at retail and outlet stores. Besides, the study shows that perceived benefits is a higher effected on the use of mobile payment systems followed by perceived trust

ABSTRAK

Dunia kini sedang bergerak ke arah ekonomi tanpa tunai dan mudah alih. Sistem pembayaran mudah alih memainkan peranan penting dalam mengikuti kedua trend semasa dalam industri runcit. Pada hari ini, terdapat banyak perniagaan baru yang muncul sebagai syarikat penyedia perkhidmatan sistem tanpa tunai seperti Kiple Pay, Ali Pay dan banyak lagi termasuklah Samsung dan Apple. Oleh itu, kajian ini bertujuan untuk mengenal pasti faktor-faktor yang mempengaruhi pengguna untuk menggunakan sistem pembayaran mudah alih di kedai-kedai runcit dan kedai. Kajian ini telah diadakan di Aeon Bandaraya Melaka. Berdasarkan kerangka teoretis, pembolehubah bebas ialah kepercayaan yang dirasakan, dilihat berguna, dilihat mudah digunkan dan pengaruh social manakala pemboleh ubah bergantung ialah penggunaan sistem pembayaran mudah alih. Kajian ini akan mengunakan cara kuantitatif dengan mengedarkan borang kaji selidik kepada pengguna yang melawat AEON Bandaraya Melaka. Keputusan kajian mendapati faktor dilihat berguna, mudah digunakan dan pengaruh social telah digabungkan menjadi satu faktor yang diberi nama sebagai dilihat berfaedah manakala faktor dilihat boleh dipercayai kekal sebagai satu faktor yang lain. Berdasarkan keputasan yang didapati, setiap faktor mempunyai hubung kait dengan penggunaan pembayaran mudah alih di kedai kedai runcit. Selain itu, dapatan kajian juga mendapati faktor dilihat berfaedah mempunyai pengaruh yang lebih kuat dengan penggunaan sistem pembayaran mudah alih diikuti dengan faktor dilihat boleh dipercayai.

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CHAPTER 1

INTRODUCTION

The extreme digitalization over the past few years has certainly affected practically every sphere of our lives. One of the most current effects has been the change from a traditional payment method to a cashless transaction technology. In past years, customers are using physical cash money to pay to the seller for what they buy. As the technology become more sophisticated, new form of payment transaction had been created. Generally, the transformation is called by cashless technology transaction. Cashless technology transaction means where the payment is made without involved physical cash money as exchange for the goods or services. It includes debit/credit card, online bank transfer, cheque and also mobile payment. In this research, we are focusing on mobile payment systems (MPS).

1.1 Background of study

Over past few years, an electronic device such as smartphone and tablet becomes important for almost user worldwide. According to Khalifeh (2016), there are 18 million active mobile internet users which indicate 59% of total population are using mobile internet in Malaysia. From total internet user in Malaysia, there are 24% of the user uses

the mobile smartphone to search on something and 31% of the internet user uses the mobile smartphone to purchase something (Khalifeh, 2016). Looking at this encouraging data of internet user uses their mobile smartphone to makes purchasing, many business has make a changes on their daily purchasing process. It is vital for business to improve a better thoughtful of mobile purchasing, as it will help them to meet their customer's satisfaction.

The development of both internet and smartphone was made the evolution of mobile payment systems. Many businesses have been implementing the mobile payment systems to cope with current digitalization era. Mobile payment system not only gives benefits to the customers but it can possibly enable the firms to access to the greater business opportunities. Besides online businesses, the effectiveness of the mobile payment systems has lead retail outlet store to venture into mobile payment systems or MPS. MPS substitutes the physical cash and coin by electronic money stored in the mobile phone, also known as e-wallet.

The implementation of mobile payment system among retail outlet store has made changes to their entire flow of point of sales (POS). MPS also has formed more dynamic method to collect payment from customers thru the seller (Beng & Eze, 2010). Instead of receiving payment from customers, MPS also help merchant or retail outlet to save their times on manually keep track of their customer's purchases, as all the transaction are recorded every time customer makes a payment or purchasing. Other than that, mobile payment may allow business to integrate their customer's loyalty trough several incentive programs such as reward points, discount coupons and so on.

In this globalization era, consumers are demanding for something which is fast and convenience for them. The development of mobile payment technology eliminates the necessity for users to pull out cash to make payment. Oftentimes, potential customers choose not to purchase a product, simple as they do not have the available cash money to pay for it. Thus, MPS seem to be the potential solution to overcome this scenario.

1.2 Problem Statement

According to Economic Transformation Programme (ETP), Malaysia aimed to attract more Multinational Companies (MNC) to operate in Malaysia. The Star (2010) stated, Malaysia's Electronics and Electrical (E&E) abilities are predictable to be strengthened through the value chain in order to attract more MNC to open their business in this country. MPS is one of the systems that involved Electronic devices to successfully operate are also under Malaysia targeted to meet stabilization.

Moreover, statistics shows mobile payment market share predicting In-Store mobile payment systems will expanse $503 billion by 2020, replicating a compound annual growth rate (CAGR) of 80% between 2015 and 2020 (BI Intelligence, 2016). In the U.S. the majority of public already using mobile payments systems are just over age 30, have an usual yearly income of $70k and spend nearly double as much on retail as nonusers (Pure Funds). This record shown that mobile payment systems already well establish in foreign country.

However, percentage of mobile payment systems among Malaysian are less desirable because of some challenges such as less information on internet and this lead less confidence on mobile payment systems (Laurn & Lin, 2005; Paynter & Lim, 2001). Thus, this research paper expected to investigate the factors that influencing consumers to use mobile payment systems and how does that factors can influence consumers to use mobile payment systems. The finding of this research can be used to help industry to makes some improvement in order to initiate the use of mobile payment systems among Malaysian.

1.3 Research Questions

1. What are the factors that influence consumers to use mobile payment technology at retail outlet store?
2. How does that factors influence consumers to use mobile payment at retail outlet store?

1.4 Research Objective

1. To identify the factors that influence consumers to use mobile payment technology at retail store.
2. To measure how that factors does influence consumers to use mobile payment at retail and outlet store.

1.5 Scope of study

The research was carried out to find the factors which influencing consumers to use mobile payment systems at retail and outlet store. The respondent would be Malaysian citizen who visit AEON Bandaraya Melaka and use mobile payment systems when makes purchasing.

1.6 Limitation of study

In this study, the researcher had facing some limitations which relate to times constrain and to distribute the questionnaire to respondents since permission from AEON Management are needed.

CHAPTER 2

LITERATURE REVIEW

In this chapter, the researcher was briefly review on payment systems in general and narrow it down to the types of mobile payment technology while investigate the influenced factors affecting consumer intention to use it. Researcher will look about what the previous study, books and journals that briefly explains about this study. Lastly, researcher also reviews the theories adopted for this studies which is TAM theory. The analysis of the research also included in this chapter.

2.1 Payment Systems

Payment systems is any type of mechanism that can be used to resolve any monetary transaction with the transfer of financial value, and it is contains the institutions, instruments, individuals, rules, procedures, standards, and technologies that make such an exchange possible. According to Bank Negara Malaysia, payment system involves of banking procedures, instruments and typically interbank funds transfer schemes that certify and facilitate the movement of money. In essence, it helps corporations, businesses and consumers to transfer moneys to one another. Payment systems can be divided broadly into Large Value Systems and Retail Payment Systems. Large Value Systems are stringently regulated by the Central Bank of respective country

and their automated based such as Real Time Gross Settlement (RTGS) System and Foreign Exchange Clearing System (The Forex Clearing). Next is Retail Payment which can be classified as Cash Payment, Paper Based Payments (Cheque), Card Based Payments (Credit card) and Electronic Payments ("*Banking Operations: Different Types of Payments & Payment Systems*", 2013)

2.2 Mobile Payment Technology

Mobile payment technology is one of the examples of electronic payments. More and more demanding of new form of payment from consumers prove that conventional way of selling and buying process is outdated and not compatible with current shopping trend. The increasingly demand is resulted of online payment systems, such as PayPal. Other than that, the expansion of payment systems that can be done by mobile devices are also contributes to this high demanding. In modern years, the processing power and memory of smartphones has expanded dramatically, making the devices completely adept to managing the required data to make payments ("*History of Mobile Payments*", 2012). With the advent of the electronic devices and the app market, phones have become small personal computers that capable with multiple functions**.** According to Chen (2008), mobile payment technology refers to making payments using mobile devices. Commonly, mobile payment (MP) describe about the payments for goods, services, and bills with a mobile device such as mobile smart-phone, or any private digital assistant by taking advantage of wireless and other communication technologies (Dahlberg et al., 2008,p. 165). There are several types of mobile payment systems that all work in a different way. The six main mobile payment systems that currently in use which is Online Payment Services, Mobile P2P, In – App Payment, Mobile Point of Sale, Transfers, Bluetooth Low Energy and Near Field Communication.

2.2.1 Online Payment Services

Online payment services are also known as e-commerce payment systems that encourage the acceptance of electronic payment focusing on online transaction (Lowry et al, 2006). To understand online payment technology, there are several terms that are frequently used when describing online payment. The terms are *payment gateways* which refer to the service that obtains the online payment request from website and directs it to the payment processor. Next is *payment processor* which used to validate the purchaser's account detail to ensure purchaser have enough amount to make a transaction. *Payment provider* is also the term which refers to the firm that works as the payment gateways or payment processor services. *Payment service or payment system* is another term in online payment service which explaining the multiple types of payment gateways provide by payment provider. For instance, PayPal is payment provider that offers a number of payment services of payment systems such as PayPal Express Checkout and PayPal Payflow. Lastly, the term *merchant account* refers to the bank account used exclusively by merchant to receive the successful payment. All the terms are referring to a company, service, or applications that function as a financial middleman between online website and customer, and between both merchant and merchant's bank account ("Understanding Online Payment Services," n.d., para. 6). Generally, the purpose of online payment services is to purchase goods or services. All the transaction data will be stored in a Payment Card Industry (PCI) which will be function to ensure companies maintain a secure environment to process, store, and transmit credit card data. Example of online payment services is PayPal, Amazon Payments and Visa Checkout.

2.2.2 Mobile P2P Transfer

Mobile Person-to-Person (P2P) transfer is a technology that allowed consumers to make transaction of funds from their bank account to another person's account through the Internet and or a mobile phone. According to sainvestinganswers (2012, 00:00:28), there are two factors that initiates consumers to use P2P transfer which is strong security and the rapid growth of online interferes on recent daily life. Generally, the purpose of P2P is to make bank transfer and all the transaction data will be stored in a Payment Card Industry (PCI). Venmo is one of the examples of P2P application.

2.2.3 In – App Payment

In – App payments refer to any purchasing of goods and services by using the application on the mobile devices. This application can be downloaded for free from play store or apple store. The subscribers can upgrade the application. The upgraded of the application will involve some fees. This situation occurs due to ability of developer to adding new features from time to time. Example of In – App payment is Games and Starbucks.

2.2.4 Mobile Point of Sale (MPOS)

Mobile point of sale is easy to refer to any kind of wireless electronic device that can perform cash register function at electronic sales terminals. Any tablet or smartphone can be transform to MPOS with a downloadable of mobile app. According to the infographic by emerchantbroker.com, Payment occurs on merchant's device or credit card reader. Example is Shopify and Square.

2.2.5 Bluetooth Low Energy (BLE) based Payment

BLE is the technologies for data transfer that enable nearby device to device payment (Klaarbergen, n.d). BLE play a role in aiding mobile technologies redefine how business and consumers engage with one another. BLE-enabled smartphones listen for signals from wireless transmitters (BLE Beacons) the size of large match boxes. BLE Beacons continually transmit a discovery signal to be received by BLE-enabled smartphones. Wireless transmitter's (BLE Beacons) coverage radius varies according to signal strength which measured in Feet. As a mobile payment tools, BLE will function upon entering a store. The consumer's payment app senses a BLE Beacon and responds by passively "checking-in" to alert the retailer's point of sale of the consumer's presence. At checkout, the consumer tells the checkout clerk to post the sale to their mobile payment account which is visible on the clerk's point of sale terminal. The clerk next will verifies the consumer's identity and completes the transaction. This will requires changes to the retailer's POS and changes to the checkout process (*"BLE vs. NFC: The future of mobile consumer engagement now",* 2014)

2.2.6 Near Field Communication (NFC)

Near Field Communication (NFC) Payment Technology can be works by getting along two electronic devices which is a mobile device such as a smartphone and a reader of that information. It is more convenient to being able to pay for all the goods and services by using the mobile device from anywhere and at any time. Merchant are also had begun to utilize the NFC technology to attract their customers. NFC-enabled smartphones interconnect with wireless transmitters (NFC Tags) the size of postage stamps. NFC Tags only communicate when close to an NFC-enabled smartphone. Wireless transmitter's (NFC Tags) coverage radius is very small measured in centimeters. Upon checkout, the consumer tells the checkout clerk that they wish to pay for the sale via credit card. The consumer opens their mobile wallet, chooses the desired