

THE IMPACT OF CONSUMERS' ATTITUDE TOWARDS  
MOBILE PAYMENT FEASIBILITY

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## **APPROVAL**

‘I hereby declare that I have read  
this thesis and in my opinion this project  
is sufficient in terms of scope and quality for the award of a  
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MOBILE PAYMENT FEASIBILITY

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degree of Bachelor of Technopreneurship with Honours

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## DECLARATION

“I hereby declare that this report is my own work except for each summaries and quotes that have been duty acknowledged.”

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## **DEDICATION**

I would like to dedicate the appreciation to my family members who supported me from spiritually and my supervisor who guided me throughout the research. Additionally, a special thanks to Universiti Teknikal Malaysia Melaka for the chance to conduct this meaningful research.

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## ABSTRACT

This thesis discussed about the impact of consumers' attitude towards mobile payment feasibility in Malaysia. The research focused on three research objectives which are; (1) to identify the consumers' concerns that influencing the mobile payments feasibility in Malaysia, (2) to investigate the relationships between perceived security, payment culture, perceived usefulness and perceived ease of use, and (3) to identify the main consumers' concern that influencing the mobile payment feasibility in Malaysia. In this research, the researcher carried out the case study in quantitative research method by conduct a survey among the young public to access the performance of mobile payment services available in Malaysia. Besides, the direct opinion from the consumers able to enhance the insight of the service providers. In conclusion, mobile payment feasibility is important to realise Bank Negara Malaysia (BNM) strategy which is Malaysia becomes a cashless society by 2050.

*Keywords: consumers' attitude; mobile payment adoption; perceived value; payment culture*

## ABSTRAK

Tesis ini membincangkan tentang kesan sikap pengguna terhadap kebolehlaksanaan pembayaran mudah alih di Malaysia. Kajian ini memberi tumpuan kepada tiga objektif penyelidikan iaitu; (1) untuk mengenal pasti kebimbangan pengguna yang mempengaruhi kebolehlaksanaan pembayaran mudah alih di Malaysia, (2) untuk menyiasat hubungan antara keselamatan yang dianggap, budaya pembayaran, kegunaan yang dianggap dan kemudahan penggunaan yang dianggap, dan (3) untuk mengenal pasti kebimbangan utama yang mempengaruhi kebolehlaksanaan pembayaran mudah alih di Malaysia. Dalam kajian ini, penyelidik menjalankan kajian kes dalam kaedah penyelidikan kuantitatif dengan menjalankan tinjauan di kalangan orang muda untuk mengakses prestasi perkhidmatan pembayaran mudah alih yang ada di Malaysia. Di samping itu, pendapat langsung dari para pengguna dapat meningkatkan wawasan pembekal perkhidmatan. Kesimpulannya, kelayakan pembayaran mudah alih adalah penting untuk merealisasikan strategi Bank Negara Malaysia (BNM) yang mana Malaysia menjadi masyarakat tanpa tunai menjelang 2050.

*Kata kunci: sikap pengguna; penerimaan pembayaran mudah alih; nilai yang dirasakan; budaya pembayaran*



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## LIST OF ABBREVIATIONS

ATMs		Automatic Teller Machines
BLE		Bluetooth Low Energy
BNM		Bank Negara Malaysia
CIA		confidentiality, integrity and availability
CIMB		Commerce International Merchant Banker Berhad
Dr.		Doctor
FSBP		Financial Sector Blueprint
IT		Information Technology
MBF		Mobile Payment Feasibility
NFC		Near Field Communication
OTA		over the air
PDAs		Personal Digital Assistants
PC		Payment Culture
PEOU		Perceived Ease of Use
POS		point of sale
PS		Perceived Security
PSP		payment service provider
PU		Perceived Usefulness
QR		Quick Response
RFI		Radio Frequency Interference
SMS		Short Message Service
SPSS		Statistical Package for the Social Science
TAM		Technology Acceptance Model
TPB		theory of planned behaviour
TRA		theory of reasoned action
UTAUT		Unified Theory of Acceptance and Use of Technology
Wi-Fi		Wireless Fidelity

**LIST OF SYMBOLS**

$\alpha$	Alpha
$\beta$	Beta
$r$	correlation coefficient
$H_0$	null hypothesis
$H_1$	alternative hypothesis
$\bar{x}$	sample mean

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.0 Introduction**

Mobile payment development would be explained globally and specifically in Malaysia in this chapter. Consumers' attitude has been considered as the primary determinant on the development of the modern payment mode. Accordingly, this research focused on identifying consumers' perceptions that affect mobile payment feasibility in Malaysia. There are seven sections deliberated in this section including the background, problems identified, questions, objectives, scope, importance and operational definition of the study.

## 1.1 Background of the Study

Bartering considered as a type of exchange that relied upon by early civilizations. It is defined as the trading services or goods with another person when there is no money involved. However, if there are a lot of people participated in the exchanges, then a common medium of exchanges is needed. Hence, money act as the medium. Marco Polo introduced the concept of banknotes to Europe from China in the 13th century, and it took another 300 years for them to adopt the concept (Daychopan, 2016). Then, the first credit card created in the year 1950 and the invention of Automatic Teller Machines (ATMs) in the year 1967. Hereafter, internet banking was introduced in the year 1990 and it took more than ten years for Bank America to acquire two million users for the services.

Two disruptive types of currency risen in the 21<sup>st</sup> century which are virtual currency and mobile payments. Bitcoin is the virtual currency that invented in the year 2009 which provides the guarantee of lower transaction costs than the conventional online payment mechanism and is served by a scattered expert (Beattie, 2018). Dissimilar with the government issued currencies, there are no physical bitcoins but only remainders stored on a public ledger in the cloud. However, technological advancement has driven the adoption of mobile wallets in the market. Mobile payment normally refers to payment functions that fulfilled from or through a portable electronic appliance such as cellular phones, smartphones or PDAs, and mobile digital computers. It is said to be a safer payment method compared to debit or credit card with the encryption of payment information during the transmission.

In 2014, the first mobile payment introduced to the public was Apple Pay from the United States. Apple Pay allowed users to pay with Apple devices. There is nearly 40 percent of United States retailers were accepting contactless payment in 2016 (Daychopan, 2016) and the use of cards is almost being eliminated by the current society. Even though the United States is the first country that introduced mobile payments to the public, the services are more widely used in China. In China, common mobile payments such as WeChat Pay and Alipay are operated by scanning QR codes at the POS which connect to the client's bank account. Accordingly, China has been one of the earliest adopters and widespread use of mobile payments which possibly

because they are having the highest amount of smartphone users in the world (Tan, 2018). The delayed card adoption enables the country to adopt mobile payments easily (Pikri, 2018). Even the technologically sophisticated country like our neighbour country Singapore, cash still remains the first choice while paying for goods.

Innovations in mobile technology will drive the sharing economy (Blum, 2016). Therefore, Bank Negara Malaysia (BNM) strategized to optimise and strengthen the current infrastructure that supports mobile payments which could be verified in the Financial Sector Blueprint 2011-2020 (FSBP). Bank Negara Malaysia aimed to create a cashless society starts from 2017 and will actively promote mobile payments as the complementary of debit cards in order to replace cash in 2018 (The Star Online, 2018). Currently, cashless payments only hold for a relatively small portion of total payments in Malaysia which is about 20 percent and with only half of that are mobile payment transactions. There are various mobile payment systems provided in Malaysia including Samsung Pay, Alipay, Razer Pay (previously One2pay), GrabPay, Touch 'n Go Digital and the most recent entry of WeChat Pay, etc. In December of 2017, Maybank introduced cashless payments using QR code called "Maybank QRPay" which made it the first bank to introduce such a service in Malaysia.

Malaysia's Prime Minister Tun Dr. Mahathir Mohamad stated that the government's initiative to move towards a cashless society will further curb corruption (Jamil, 2018). From his statement, every transaction will be recorded in the bank among others, thereby whoever gives and receives cash inducements would be able to find out. Thus, living costs could be decreased if there is no corruption. In short, mobile payments could be the main driver that helps Malaysia to create a cashless ecosystem in order to improve our living conditions.

## 1.2 Problem Statement

Malaysia is aimed to achieve a cashless ecosystem by the year 2050 (The Star Online, 2017). However, in Malaysia, 80 percent of the transactions are still in cash, with 10 percent of credit cards and 10 percent online (Azmi, 2018). Mobile payment is considered as a convenience service, lower risk compared to cash and cards, a spends tracker and etc. Despite the advantages, it is still hard to achieve the widespread use of the technology. Most of the Malaysians are concerned with mobile payment security, and it resulted in the low percentage of mobile payment use in the nation (Joifin, 2017). Therefore, the sense of security would be the biggest challenge for the Malaysian to migrate from cash (The Star Online, 2017). Improvements on the safeguard need to be done by the developers to encourage the adoption of mobile payment among consumers and avoid the risk of identity theft. The high rate of safety features will lead to the usage of mobile payment becomes a habit when making any payment transactions.

Tradition barrier influenced the intention to use mobile financial services, thereby customers are struggling and hard to change their habits while performing payment (Chemingui, & Lallouna, 2013). Malaysians have a common problem which is the over-dependence on cards and cash. The mindset is hard to change that cash is intuitive. The strategy to promote the use of debit cards as an alternative to cash has been less successful (The Star Online, 2016). Even the widespread use of debit cards still in progress and increase in recent years. Therefore, Malaysian unwillingness to wean from using cash is the obstacle to make mobile payments become mainstream (Azmi, 2018). Malaysians' refusal of migration to mobile payment probably to avoid overspending. Behavioural finance theorists stated that memory of transactions was more deeply if use physical cash instead of card (Dave, 2016). Thence, some people are difficult to control their budget using cards or mobile wallet instead of cash.

Emerging cashless payment systems are more convenient and efficient than the traditional methods (Patrick, & Kendal, 2017). Despite having a variety of mobile payments, Malaysia still lacks with merchants' support on the execution. Only a small number of merchants accept the pay with mobile payments. It makes consumers having inconveniences when using technology. Besides, the more complicated steps

to use the wallet affect the efficiency of the technology. Many e-wallets in Malaysia required the users to transfer money into it before making any transactions (Pikri, 2018). Malaysia is consequently different from China, which is leading in the current market with the use of Alipay and WeChat Pay. Most of the mobile payments in Malaysia require users to add card into the wallet and choose which one to use when making transactions or top up the wallet with bank money before using it. Thus, it is not user-friendly for those are low technical knowledge or elders.

In conclusion, the full implementation of mobile payments in Malaysia would be failed if no active engagement from the public and the efforts of consumer protection (Chin, 2018). Therefore, the security and reliability of the mobile payment services are consequently significant.