

# THE FACTOR INFLUENCE CONSUMER ON ADOPTION OF MOBILE PAYMENT IN AEON SELANGOR, MALAYSIA.



## UNIVERSITI TEKNIKAL MALAYSIA MELAKA

I hereby acknowledge that this project paper has been accepted as part of fulfillment for the degree of Bachelor of TECHNOLOGY MANAGEMENT (TECHNOLOGY INNOVATION) WITH HONORS (BTMI)

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# THE FACTOR INFLUENCE CONSUMER TOWARDS ADOPTION OF MOBILE PAYMENT IN AEON SELANGOR, MALAYSIA.

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



07/01/2023

#### **DECLARATION OF ORIGINAL WORK**

I hereby declare that all the work of this thesis entitled "THE FACTOR INFLUENCE CONSUMER TOWARDS ADOPTION OF MOBILE PAYMENT IN AEON SELANGOR, MALAYSIA." is original done by myself and 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.



## **DEDICATION**

I would like to express my appreciation for the efforts made by my family members to educate and motivate me to accomplish my degree. In addition, I would like to thank Dr. Amizatulhawa Binti Mat Sani, who is also my supervisor for my senior thesis, and my classmates. Throughout my investigation, they have provided me with comprehensive direction, assistance, and advice. Without their approval and encouragement, it is difficult to accomplish this study in a timely manner.



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#### **ABSTRACT**

In Malaysia, mobile payments were accessible, but only 8% of the population used them (Abdullah, Fauziah and Daud, 2020). This study will investigate the elements that impact Malaysians' decision to utilise digital wallets as the use of this technology rises.

This study examines the factors that impact customer adoption of mobile payments. The data suggests that 57% of Malaysians own a smartphone, and it is projected that this number would increase by 1% over the next three years (Statista, 2019). As smartphone usage increases, so will the chance to provide clients a payment option with extra value.

Moreover, this study will apply the enlarged Unified Theory of Acceptance and Use of Technology model by include performance expectation as an independent variable, underlining the uniqueness of this research. The respondents in this study were a convenience sample of 384 Malaysians, and the gathered data were analysed using Statistical Package for the Social Sciences.



Keyword: Customer Behaviour, Mobile Payment, Aeon Selangor, Malaysia

#### **ABSTRAK**

#### **BAHASA MALAYSIA VERSION**

Pembayaran mudah alih tersedia di Malaysia, walaupun hanya 8% daripada penduduk menggunakannya (Abdullah, Fauziah dan Daud, 2020). Apabila penggunaan teknologi ini semakin meningkat di Malaysia, kajian ini akan meneroka faktor-faktor yang mempengaruhi keputusan rakyat Malaysia untuk menggunakan dompet digital.

Kajian ini menyiasat aspek atau faktor yang mempengaruhi penerimaan pengguna terhadap pembayaran mudah alih. Data menunjukkan bahawa 57% rakyat Malaysia menggunakan telefon pintar, dan peratusan ini dijangka meningkat sebanyak 1% dalam tempoh tiga tahun akan datang (Statista, 2019). Apabila kadar penembusan telefon pintar akan bertambah baik, begitu juga peluang untuk menyediakan mekanisme pembayaran dengan nilai tambah untuk pelanggan.

Di samping itu, kajian ini akan menggunakan model Teori Penerimaan Bersepadu dan Penggunaan Teknologi yang diperluaskan dengan memasukkan jangkaan prestasi sebagai pembolehubah bebas, menonjolkan keaslian penyelidikan ini. Dalam kajian ini, sampel kemudahan seramai 384 rakyat Malaysia menjadi responden, dan data yang diperolehi dianalisis menggunakan Pakej Statistik untuk Sains Sosial.

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

Kata kunci: Tingkah Laku Pelanggan, Pembayaran Mudah Alih, Aeon Selangor, Malaysia

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## CHAPTER 1 INTRODUCTION

#### 1.0 BACKGROUND OF STUDY

Smartphones would be called the first generation if they were the first revolution to change the way people live their daily lives. Without a doubt, the second would be the rise of mobile payments around the world. A mobile payment, also called a "m-payment," is any transaction for goods or services that is started, authorised, and confirmed through a mobile device. (LuLu, 2019)

Using digital wallets, consumers may transfer money between transaction accounts (such as traditional bank accounts or electronic money deposit accounts) and use additional payment methods. The phrase "mobile wallet" refers to a digital wallet on a mobile device (such as a smartphone or tablet) (see Bezhovski, 2016, Kaur, et al., 2020, Mumtaza, et al., 2020). In order to make mobile payments, users can keep a variety of payment instruments (such as credit cards and bank transfers) in a mobile wallet that mimies a traditional wallet. Since so many transactions cannot be completed using standard payment methods, e-commerce has created new financial demands. As e-commerce transactions have grown, so have the number of e-payment systems and service companies that offer them.

There are three alternative ways to pay using a mobile phone in Malaysia, and each has its own advantages. The first sort of payment system is the retail payment system. National check information clearing, shared Automated Teller Machine (ATM) network and direct debit are only few of the various types of retail payment systems that may be classified. Retail payment instruments, such as credit cards, debit cards, charge cards, and e-money, make up the second type of payment tools. Last but not least, retail payment methods include ATMs, internet banking, mobile banking, and more. The mobile wallet is a new payment app for mobile phones that can be used in place of traditional payments and more (Sumathy & KP, 2017). Mobile payments broaden the applicability of a smartphone by turning it into a digital debit card and granting the user the ability to take their money with them wherever they go. Mobile wallets provide businesses with an extra channel via which

they may interact with customers and boost sales by making it simpler for customers to make spur-of-the-moment purchases because they always have their money on hand.

Along with extraordinary technical advancements in the twenty-first century, a deadly sickness dubbed Coronavirus disease 2019 (Covid-19) was not anticipated to have a substantial influence on global growth, economics, socialising, and globalisation. However, the Covid-19 epidemic has resulted in significant changes in a variety of worldwide spheres. Eventually, the style of living that the majority of people follow was forced to be suspended for months owing to the disease's broad spread. Whether youngsters or the elderly, their everyday lives as regular people have been extremely difficult since then. As a result of the epidemic, Malaysia's progress was stalled, resulting in a fall in the country's prosperity. Subsequently, the epidemic had a profound effect on Malaysia's economy, with the country's unemployment rate skyrocketing as a result of layoffs and young graduates unable to find work. Thus, many governmental and private sector authorities have taken several measures to halt the disease's spread and rehabilitate the country's economy.

There are long-term behavioural, cultural, and governmental obstacles to the reduction of cash transactions. For many people, cash remains the preferred payment method for minor transactions. In addition, elderly customers may be suspicious of digital payment methods, and consumers without bank accounts and with lower incomes may be excluded from non-cash payment options. Having a more tangible relationship with their money is frequently identified as a factor that helps some customers budget and manage debt. (Weimert & Saiag, 2020)

The Unified Theory of Acceptance and Use of Technology, or UTAUT for short, is a paradigm that users may use to describe their behaviour in relation to information technology. It is possible to utilise it to make predictions on how customers will react to mobile payment systems. According to this model, there are four factors that have a significant impact on the consumers' willingness to accept a product and use it: performance expectation, effort expectation, social influence, and perceived security (Venkatesh et al. 2003; Zhou Lu and Wang, 2010; Parameswaran Kishore and Li, 2015). Performance expectation, effort expectation, social influence,

perceived security are the consumer behaviours and elements that determine their desire to embrace new technology (Abraho et al., 2016).

#### 1.1 PROBLEM STATEMENT

While reading various study papers on the elements affecting consumer behaviour, the issue of mobile payment piqued our attention owing to the widespread use of mobile phones and the new trends that provide clear proof to Asian areas of their recent growth in use. The trends in the usage of mobile payment and the variables that influence a user's decision to use mobile payment may vary by country and location and by factor. In a conventional consumer behaviour theory, cultural trends, social trends, life style, and motivation all influence consumer purchasing behaviour (Yuvaraj, S. 2016).

According to Alwi, Salleh, Alpandi, Ya'acob, and Abdullah (2021), customers desire to utilise a form of payment that lessens the chance of infection and makes it simpler to complete the payment process. This indicates that the convenience that consumers attribute to an e-wallet has a significant impact on the likelihood that they will use one. The Covid-19 epidemic has had a direct impact on economies all across the world, as well as on health care systems and social mores (Haleem, Javaid, & Vaishya, 2020). According to Elengoe (2020), the first known instance of the Covid-19 virus was discovered in Malaysia on January 25, 2020. Since that time, people in Malaysia have been engaged in the fight against the disease for almost two years.

Additionally, there are other significant aspects that contribute to our understanding of the behavioural intention to utilise mobile payment. Numerous research papers have been cited regarding the factors influencing mobile payment usage; however, they have used a variety of independent variables to determine which factors have the greatest influence on mobile payment usage, depending on the theory they have chosen; some may be a combination of several theories altogether (Melisa Krisnawati, Jessica Wienadi, Trianggoro Wiradinata 2021). It is critical that

researcher use just those aspects that are required and be aware of those that are irrelevant.

As well, the researchers will find out if users in the Selangor region have the right expectations for performance, effort, social influence, and perceived security. From this point, we can look at the trends in the region to see the internal and external factors. Researcher would like to examine the effects of the crisis on the use of mobile payment methods in Aeon Selangor due to social isolation and lockout practises. In Malaysia, for example, mobile payment shares are still in significant. During the epidemic, Malaysians may shift their cash-based habits to mobile payment usage in order to assure sanitary difficulties. As a result, this research will greatly benefit the mobile payment sector in general, particularly AEON Selangor, when it tries a new influential factor such as Covid-19.

#### 1.2 RESEARCH QUESTIONS

A research question is a very specific question that the research tries to answer. It is the most important part of a systematic investigation, and it helps you set a clear path for your research.

- i. How do the performance expectancy impact towards adoption on mobile payment in AEON Selangor, Malaysia?
- ii. How do the effort expectancy impact towards adoption on mobile payment in AEON Selangor, Malaysia?
- iii. How do the social influence impact towards adoption on mobile payment in AEON Selangor, Malaysia?
- iv. How do the perceived security impact towards adoption on mobile payment in AEON Selangor, Malaysia?

#### 1.3 RESEARCH OBJECTIVES

While mobile payments continue to grow, cash circulation (CIC) has stayed consistent or grown somewhat from 4% to 7% yearly over the previous five years ("World Payments Report 2019", 2020). It demonstrated how mobile payment's market share can be constantly expanded by encouraging cash payment consumers to switch to mobile payment. This research will interview both users and non-users of mobile payment services to ascertain their preferred reasons for utilising this payment method. As a consequence, Malaysian businesses may be aware of the most significant elements affecting the use of mobile payment services and use them into their marketing strategy and business techniques. As a result of the research findings, enterprises in this sector will be able to expand their market shares and convert cash payment users to mobile payment users.

As a result, our main objectives are as follows:

- 1. To investigate the relationship between performance expectancy and adoption on mobile payment in AEON Selangor, Malaysia.
- 2. To investigate the relationship between effort expectancy and adoption on mobile payment in AEON Selangor, Malaysia.
- 3. To investigate the relationship between social influence and adoption on mobile payment in AEON Selangor, Malaysia.
- 4. To investigate the relationship between perceived security and adoption on mobile payment in AEON Selangor, Malaysia.

#### 1.4 SIGNIFICANCE OF THE STUDY

The COVID-19 epidemic is definitely a big problem for Malaysia. In the wake of the Covid-19 outbreak, this study looks at how consumers act when they want to use an e-Wallet. In 2021, Daragmeh, Sági, and Zéman wrote that the pandemic made it easier for people to use mobile wallets. They came to the conclusion that people in charge of making decisions should think about using health risk constructs as a stand-in for people's protective actions during a pandemic. Not only has the epidemic changed how people buy things, but it has also changed how they pay for things. During this epidemic, people have had to make big changes to their lives because of how quickly contactless payment technologies have become popular. People are using cash less and less, so contactless payment is a hot trend that is likely to keep going (Rupesh et al., 2021).

The findings of the study are significant because they may give academic researchers, authorities (such as lawmakers), local businesses (such as mobile wallet providers), and users of e-Wallets with useful feedback that can be put into practise. A cashless society is something that many societies are moving toward. The cashless community seems to have left the option of using a mobile wallet open to the general public, as shown by a number of pieces of advice from industry professionals. It is clear, then, that understanding customer behaviour in regard to their desire for mobile payment usage is essential. During and after the COVID-19 outbreak, consumers are beginning to realise the need of using m-payments instead of traditional cash transactions. A strong yearning for safety is to blame for the current state of affairs. Based on this explanation, the use of mobile payment services in the new normal era needed to be thoroughly investigated in terms of the intensity of its use and its impact on technology adoption behaviour towards mobile payment for Aeon Selangor Malaysian user.

#### 1.5 SCOPE OF THE STUDY

This study will concentrate on the important characteristics that influence consumer behaviour toward adopting mobile payment of the middle-age in AEON Selangor, Malaysia. Selangor is a fully developed and industrialised state with a broad industry base, central position to markets and a trained labour population, and sufficient connectivity to global transportation and infrastructure. Furthermore, Selangor is the most populous area in Malaysia. Selangor's population in 2017 was 6,380.8 thousand, representing 19.91% of Malaysia's total population. Since the opinion and experience of recently active consumers is required for this exploratory study, AEON in Selangor are the top of the list of most branches in Malaysia. Webbased questionnaires were utilised to collect data from 384 respondents in Selangor who are all smartphone owners and have expertise with mobile payment applications accessible in their respective nations.

#### 1.6 LIMITATION

The findings do not sufficiently represent the middle-age groups' behaviour feedback throughout the respective region because the study's focus is restricted to AEON Selangor's metropolitan districts. Furthermore, since all of the respondents own a smartphone or other analogous device, and the majority are aware with and have used mobile payments, the results will only reflect a restricted viewpoint of non-users.

#### 1.7 DEFINITION OF TERMS

#### Performance Expectancy

The degree to which an individual believes that employing a system will assist him or her in improving work performance is referred to as performance expectation (Venkatesh et al., 2003). It may also be described as the extent to which consumers believe that utilising smart phones would improve their performance while using mobile payment.

### Effort Expectancy

The amount of ease of use connected with the usage of information technology is measured by effort expectancy. Venkatesh et al. (2003) defined effort expectation as the ease with which an information system may be used.

#### Social Influence

The degree to which an individual believes that important individuals (such as family, classmates, and subordinates) feel that he or she should utilise the new system is characterised as social influence (Venkatesh et al., 2003). According to Pietro et al. (2012), reference groups, which include friends and IT professionals, affect word of mouth, which in turn has a significant effect in the adoption of communication technologies.

#### Perceived Security

Perceived security is the uncertainty that a buyer feels while purchasing products that are very expensive, such as automobiles, homes, and computers. Every time a buyer contemplates purchasing a thing, he or she has some reservations about the product, especially if the product is expensive.

## CHAPTER 2 LITERATURE REVIEW

#### 2.0 INTRODUCTION

Since mobile payment solutions confront higher security and privacy difficulties than e-commerce and e-payment, a substantial quantity of research has concentrated on technical issues and new security identification of payment methods. The main sections of the literature review were classified into mobile payment, adoption to mobile payment, independent variables and dependent variables, theoretical framework, and hypotheses. The major goal of the independent variable and dependent variable is to understand the definition, the factor of adoption mobile payment, and the impact on customer behaviour. In addition, it is important to gain an understanding of the disagreements and arguments that exist between the current research as well as the original theoretical definition and how it has been utilised from the past to the present within the theoretical framework. This can be accomplished by conducting research into these topics. In the final step of the research process, the researcher created hypotheses based on the independent variable and the dependent variable. in order to get an understanding of the existing information and contributions about mobile payment research in the demographic being targeted.

#### 2.1 MOBILE PAYMENT

Mobile payments refer to a variety of financial transactions conducted using a mobile device. Mobile money services were originally introduced in Kenya in 2007 and are currently accessible in more than 90 countries, with over 866 million registered users conducting daily transactions totaling over \$1.3 billion (GSMA, 2019). According to the GSMA (2019) research, there are around 163 operating mobile payment systems in developing nations, with an additional 107 in development. There were around 90 organisations active in Africa, 40 in Asia-Pacific, and 17 in the Americas. Islam et al., 2016 indicates that there is a favourable

association between mobile payment and a business's capacity to acquire fixed assets, which compares to Laura (2014), who observed high profits among microenterprises that had embraced mobile payment, a sign of improved firm performance.

The global usage of mobile payments is on the rise, but its momentum is contingent on consumers' access to new technology, their changing and differing lifestyle preferences, and a variety of economic considerations (Liébana-Cabanillas and Lara-Rubio, 2017). Mobile payments are a type of digital wallet that is based on a mobile device (such as a smartphone or tablet), and they allow users to make mobile payments in the form of transfers between transaction accounts, as well as online and offline purchases. Mobile payments are categorised as paytech solutions (see Bezhovski, 2016, FSB, 2017, Kaur, et al., 2020, Mumtaza, et al., 2020). (Mumtaza, et al., 2020) Movie is one example of a mobile wallet that also gives its customers the ability to withdraw cash from an ATM. Mobile wallets extend the functionality of a smartphone by transforming it into a virtual debit card and allowing a person's money to go with him. With mobile wallets, businesses get an additional method to reach consumers and increase sales by enabling customers to make impulsive purchases since they have ready access to money. Mobile transactions have become more convenient and transparent as a result of technological advancements, which is fostering confidence among customers who are using this means of payment (Khan et al., 2017).

#### 2.2 MOBILE PAYMENT SERVICE IN MALAYSIA

Mobile payments have the potential to streamline and popularise a wide range of financial transactions, including government-to-person transfers, person-to-person transfers, online and offline purchases of goods and services (also known as person-to-business transfers), and the payment of bills and fees (see Bezhovski, 2016, Iman, 2018). Mobile payments and mobile wallets are therefore regarded as beneficial for persons of the upper middle class and lower class who do not have bank accounts, as well as a useful tool for disaster recovery and emergency response (see Iman, 2018, Surtikanti & Mustofa, 2019). Alternative payment methods, such as mobile payments, can be used instead of traditional payment methods, such as cash, checks, or bank

cards, when purchasing goods. There are a variety of server-based electronic wallets available in Malaysia, including Touch 'n Go eWallet, Grab Pay, Boost, WeChat Pay MY, MAE, BigPay, AliPay, and a lot of more options. It has been reported by the Malaysian Reserve that the most popular electronic wallets among Malaysians are the Touch 'n Go eWallet, GrabPay, and Boost (Birruntha, 2019). As cellphones become a more popular and vital component of Malaysians' daily life, the spending degree of online shopping has increased. According to Datuk Seri Alexander Nanta Linggi, Minister of Domestic Trade and Consumer Affairs, (2022), the percentage of Malaysians who utilised cash payments had declined 11% to 78%, from 89% before to the epidemic. According to data, the use of cashless payment methods is becoming more common.

#### 2.3 TYPE OF MOBILE PAYMENT

Traditional ways of paying have been replaced by cellular mobile payments because so many people have mobile phones. Mobile payments are the backbone of e-commerce because combining mobile devices and payment systems has made it easier and safer for customers to pay (Herzberg, 2003). Perhaps the first transaction involving mobile payments was carried out through the use of the Short Message Service (SMS). Following the user's selection of the purchase option, the service provider sent the customer a confirmation text message. After the user verifies the message, the appropriate amount will be deducted from their account. According to Chang, Y. P., Lan, L. Y., and Zhu, D. H. (2018), information and communication technologies, such as telecommunication networks, were integrated in mobile payment services. According to Chen and Nath (2018), the two most prevalent types of mobile payments are cellular mobile payment and contactless mobile payment.

#### 2.3.1 CELLULAR MOBILE PAYMENTS

This payment method is conducted via mobile devices for online and in-store purchases (POS). Consumers may link their mobile devices to their bank accounts or other transaction accounts (such as PayPal). When consumers begin payments with a mobile device, the payment operations commence. Two-factor authentication enables users to enter a PIN in addition to a fingerprint, facial scan, or iris scan. Other versions of two-factor or multi-factor authentication allow users to answer a personal question or supply an email address or phone number connected with their account. Using a robust password enhances the security of a phone (Nicole Dieker, 2020).

#### 2.3.2 CONTACTLESS MOBILE PAYMENT

This form of payment refers to the "wave and go" payment approach, which does not involve any kind of direct physical contact between the payment device and the reader used by the retailer. Contactless payments include those made with mobile devices that make use of radio-frequency identification (RFID) and near field communication (NFC) (Attaran, 2006). Retailers and customers all around the world are rapidly adopting the principles behind mobile payment apps and are beginning to accept payments through Samsung Pay, Apple Pay, Alipay, PayPal, and other platforms. Because of shifts in lifestyle and the growth of online shopping, the prevalence of this technology has been steadily increasing over the past several years (Amit Samsukha, 2021).

#### 2.4 ADOPTION INTENTION OF MOBILE PAYMENT

Straub (2009) stated that the theory of adoption investigates how individuals select and react when new technology is introduced and determine whether or not to accept it. The adoption of mobile payments is a central topic in the existing research on technology adoption; hence, past research has examined mobile payment adoption from a variety of angles, integrating a range of theoretical frameworks and factors (Dahlberg et al., 2015; Zhao & Bacao, 2020). Despite the fact that mobile payments