EIA3005 GRADUATION EXERCISE

ADOPTION OF E-WALLET AMONG UNIVERSITY OF MALAYA STUDENTS

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DECLARATION OF ORIGINALITY OF WORK

I admit that this Graduation Exercise is my own work except the information, excerpts and references used have been acknowledged. I also admit that the contents of the Graduation Exercise are original and have not been submitted to the University Malay for any other purposes. I am solely responsible for all the contents of this Graduation Exercise. Faculty of Economics and Administration and University Malaya shall be absolved from any form of legal actions arising from this research.

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ABSTRACT

Malaysia is towards a cashless nation and factors that delaying the process of cashless society are still unclear. The objective of this paper is to examine the adoption of e-wallet among University of Malaya (UM) students. The purpose is examined by key determinants which include social influence, perceived ease of use, perceived usefulness, perceived security and trust among university students. Data is collected by a self-administered survey questionnaire from University of Malaya (UM) students. Software IBM SPSS is adopted to analyse the data collected from survey questionnaires. The findings in this study shows that social influence and perceived usefulness are a significant determinant towards adoption of e-wallet. While, perceived ease of use, perceived security and trust are not an important determinant on adoption of e-wallet.

Keywords E-wallet, Social Influence, Perceived Ease of use, Perceived Usefulness, Perceived Security, Trust

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CHAPTER 1: INTRODUCTION

1.0 Introduction

In this part, it introduces the overview of the study. In this study, we will discuss the association between adoption of e-wallet and selected independent variables (social influence, perceived ease of use, perceived usefulness, perceived security and trust) among University of Malaya (UM) students. In addition, it stated the research background and problem statement, followed by research objectives and research questions. Also, the scope of study and significance of the study are included. This study is able to assist the marketers to figure out the factor of the refusion towards adoption of e-wallet and make improvement on it. In the other hand, this study also brings a greater understanding to the intention of university students regarding the use of e-wallet.

1.1 Research Background

E-wallet refer to an electronic wallet which allows to make transaction via a computer or a smartphone. Payment mode have varied over years, from the oldest mode, system barter to cash money, cheque, credit and debit card, online transfer and cashless society with e-wallet in 21st century. Furthermore, e-wallet is seen as a next phase of the technology revolution to remodel of the traditional physical wallet into the e-wallet. Users can purchase goods easily and quickly by using e-wallet with near-field communications technology. This advancement of payment mode creates opportunities for consumption in Malaysia. The expansion of innovation in e-commerce field is developed by e-payment which majority of the business cooperation believes this system is a critical concern to make their business and financial services successfully (Kousaridas et al., 2008). Therefore, e-wallet system is developing in the market such as PayPal, GrabPay, Boost, Touch'n Go and Alipay.

According to Forex Bonuses, the statistics showed that some countries are view as 'most cashless countries' including Germany, Japan, Russia, China, United Kingdom (UK), France, America, and Australia (Nag, 2018). China is categorized as a country which is closest to cashless economies. In 2017, China had checked a record of 12.8 trillion in

US$ which determined by the significant amount of users within the nation which have looked over the credit cards to a convenient and easy method in making transaction which is e-payment system. (Alice, 2017). M-Payment (Mobile payment) are used widely in whole wallet country. They pay for movie tickets, gaming, food delivery, taxi by their smartphones and even replacing a physical red packet by electronic 'Hongbao' during Chinese New Year or sending as a gift.

In 2011, BNM (Bank Negara Malaysia) has reported a Financial Sector Blueprint 2011-2020, which stated the guidance for the future financial framework of the nation over these 10 years. Bank Negara Malaysia has set the targets of 200 transactions per capita of e-payment and reduce the use of paper cheques to 100 million in a year.

In addition, news from The Star (2019) reported that Axiata Digital Services Sdn Bhd, the developer of Boost (e-wallet application) is aimed 30 times of rises in gross transaction value (GTV) by Boost in 2019. The chief executive officer of the company mentioned that the weekly gross transaction value (GTV) of Boost had grown 50 times from the end of January 2018 to January 2019. In 2018, user-base of Boost is expanded nearly 6 times and it has 3.9 million new registration today (The Star, 2019).

In Malaysia, e-wallets have been growing rapidly over years and it does not look like to slow down anytime. There are 40 licenses for e-wallet system issued by Bank Negara Malaysia which included Alipay, BigPay, GrabPay, WeChatPay and so on. Central bank Malaysia is aim to be a cashless nation in year 2020, with mobile-based payments method and electronic wallet being a centre to the blueprint. Therefore, the barriers or the concern of people while using E-wallet are needed to be figured out. Besides, youths in Malaysia stated that holding a smartphone is an elemental portion of their life (Abdullah, 2004). According to Koshel, V. A. (2019), Generation Y is the people that born in years 1983 to 2000 and generation Y witnessed the rapid development of the Internet, mobile communications, and digital technologies. They spend a lot of time on accessing the Internet, and they usually prefer to communicate by texting. According to China Channel (2018), there are 42.5% of post 90s generation user reported in 2018. Thus, the target population will be focus on student of University of Malaya in this study due to student that are having their tertiary education are generally birth in the cohort 1994 to 1997 and they are currently 17 years old and above, according to MOHE (2014). Hence,

the association between acceptance of e-wallet and selected independent variables will be determined.

1.2 Problem Statement

In the modernization of era, credit card and debit card are both recognized as plastic money while paper money is substituted by plastic money to make daily transaction. For example, online shopping, funds transfer by mobile phone, bill payment online with just a simple and time-saving procedure (Shethna, 2015). An e-wallet (electronic wallet) is an application that allow to make transaction by a smartphone with the synchronize credit cards and debit cards of the user. User can also able to top up via online banking into their e-wallet for transaction or payment, the service is similarly as credit card and debit card (Ray, 2017). In recent years, the dramatic growth of smartphone users along with the growth of applications of smartphone, e-wallet is grabbing the attention over the world. In China, Alipay which is an e-wallet that supported by Alibaba has become the largest e-payment service over the world, not only that, Wechat Pay also contributes $5.7 trillion in mobile payment sector in the nation (Lu,L., 2018). Alipay has entered over 70 countries including the Malaysia, South Korea, United Kingdom, United Sates, Japan and Australia (Lu,L., 2018).

However, the application of e-wallet system in Malaysia still in the early stage as it is unfamiliar compare to China. Even though there is a cooperation with several financial institutions such as Malayan Banking Berhad (Maybank) and Public Bank Berhad to accept this payment system within Malaysia, yet, it is still present a small quota. (The Star, 2017). In addition, Malayan Banking Berhad (Maybank) worked together with Alipay in China to focus on providing this new payment method to Chinese tourists who will have a spending of approximately RM9 billion in Malaysia (Chong, Z. Y. et.al., 2018). Same as for Public Bank, the partnership between Public Bank and Alipay is mainly targeted to assist local dealer to accommodate the nearly 520 million Alipay's user, it is also included China tourists (Chong, Z. Y. et.al., 2018).

In the other hand, e-wallet provides new modes of payment and a platform for transforming into a cashless society and digital economy. While, WeChat Pay MY is

launched in Malaysia by June 2018. There is reported that 20 million of WeChat monthly active user are from Malaysia while there is a total of 980 million monthly user in WeChat, user from Malaysia are comprises approximately 2% from the total user (Hollander, 2017). The financial institution, Hong Leong Bank has collaborated with WeChat Pay and allowed merchants to pay by using WeChat Pay (The Star, 2018). Hence, with the collaboration between Hong Leong Bank and WeChat Pay would expand the tourism sector in Malaysia for sure as attracting tourist from China.

E-wallet is an essential item to further boost economy in Malaysia. Hence, the financial institutions and developers need to figure out the barriers on the application of mobile payment in Malaysia as they could renovate the e-wallet system. Thus, this study is significant as its purpose is to find out the determinant on theuse of e-wallet among university students. Furthermore, to my knowledge, there is no literature that are focusing on elements which brings impacts to the adoption of e-wallet among University of Malaya student. Hence, it is very useful to examine intention on the use of e-wallet among the youth.

1.3 Research Question

1. What is the relationship between the social influence and the adoption of e-wallet among students in University of Malaya?
2. How does the perceived ease of use affect the adoption of e-wallet among students in University of Malaya?
3. What is the relationship between the perceived usefulness and adoption of e-wallet among students in University of Malaya?
4. Is perceived security a key determinant of adoption of e-wallet among students in University of Malaya?
5. Will trust brings effect towards the adoption of e-wallet among University of Malaya students?

1.4 Research Objectives

1.4.1 Main Objective

The main objective is to determine the adoption of e-wallet among University of Malaya (UM) student in this paper.

1.4.2 Research Aims

1. To study the relationship between the social influence and the adoption of e-wallet among University of Malaya students.
2. To analyse the relationship between the perceived ease of use and the adoption of e-wallet among University of Malaya students.
3. To test the significant relationship between the perceived usefulness and the adoption of e-wallet among students in University of Malaya.
4. To analyse the relationship between the perceived security and the adoption of e-wallet among University of Malaya students.
5. To define the relationship between the trust and the adoption of e-wallet among University of Malaya students.

1.5 Research Methodology

Primary data is adopted in this study. This is a quantitative research as a self-administered questionnaire which created by using Google Form is formed to collect data. The target population is the University of Malaya students which comprise of any gender, faculties, ethnicity, and nationality as there is some international student in University of Malaya. The questionnaire will be distributed through social networking platform for example *siswamail,* WhatsApp, and sending e-mail to the target population. Before distributing the questionnaire, a pilot test will be performed to ensure the smooth running of the survey. Next, Software IBM SPSS is conducted to study the data collected among respondents. To clearly show the data collected, the descriptive analysis will be displayed in tables, graphs and charts.

1.6 Scope of Study

The main focus is to analyse the adoption of e-wallet among University of Malaya students. The determinant to be analysed including social influence, perceived ease of use, perceived usefulness, perceived security, and trust among university students. Population targeted is the University of Malaya students. According to official website of University of Malaya, the total number of University of Malaya is 22425 students including 2877 international students in 2020. The expecting number of respondents is 200 to 300 for this study.

1.7 Significance of Study

This study is focusing on measure the relationship between adoption of e-wallet and independent variables which included social influence, perceived ease of use, perceived usefulness, perceived security and trust among University of Malaya students. Meanwhile, this paper also helps to merge the knowledge of previous studies and results of this study so as to generate a study that able to reveal the key determinant towards the application of e-wallet. Primary data is used to determine all the variables. Next, we use survey questionnaire to collect data. Thus, this paper is able to help the marketers to figure out the factor that people refuse to use e-wallet and make improvement on it. Financial institution and software developer would get more information about the intention and the issue concerned when using e-wallet through this study. Hence, Financial institution and software developer able to improve and develop e-wallet in Malaysia. And eventually could generate the economic growth of Malaysia.

In the other hand, this study also brings a greater understanding to the intention of university students regarding the adoption of e-wallet since university students are young generation that witnessed the rapid development of digital technology. As a result, this study is able to be a guideline to other researchers on method to run a research on implementation of e-wallet among university students. Not only that, this study also contributes to literature academically by providing empirical evidences on the elements that influencing to an adoption of e-wallet. For other parties, this study provides a valid

source of valuable updated messages and an overview of implementation of e-wallet among university students.

1.8 Organisation of Study

In this study, we are primarily focusing on the adoption of e-wallet among University of Malaya students. We will examine the factors included social influence, perceived ease of use, perceived usefulness, perceived security and trust to measure the relationship between the variables and the acceptance of e-wallet.

This study comprises of five chapter where Chapter 1 is introduction part which included study background and problem statement, research objectives and questions of research. Next, significance of study and organization of study are encompassed in this chapter. While Chapter 2 is the review of literature which revealed a summary of the past studies and descriptive analysis of the variable that similarly or link to this study. For Chapter 3, Methodology is done in this chapter and it covers the research framework, methods of sampling, collection of data and data analysis methods applied. Chapter 4 revealed the data analysis outcomes and the discussion about the outcomes. Lastly, conclusion, summarizing the outcomes and conclusion the research included limitations and future research are presented in Chapter 5.

Chapter 2: Literature Review

2.0 Introduction

This section aims to review of the journal article, newspaper, books, and other type of document that associated to this study. We will review past empirical studies and summarize their findings related to every variable selected. Moreover, conceptual framework is created based on selected variable.

2.1 Related Theory

2.1.1 Digital Economy

The continuous development of technology has digitally driven the world's economy and forming a digital transformation over the world. Digital economy defined as an economy that primarily based on the digital technologies, which included digital communication networks, computer, and other related information of technology (UK Essays, 2016). Also, this new economy also named as web economy or internet economy (UK Essays, 2016). According to Brynjolfsson, (2002) is defined by the transformation of characteristics of information and communication and it is one of the key drivers of economic growth and social change. In addition, Knickrehm et al., (2016) stated that digital economy known as the share of total economic production based on several "digital" inputs which including digital devices such as software and hardware.

The digital economy identified as a wide range of economic activities which adopt digitized information as an important factor of production processes in the future. Digital information technology has minimized the production cost such as labour, transporting cost retail rental as consumer can consume via online platform (Cardona, 2015). Hence, e-commerce rises, and it is a new distribution of technology which have a close to 0 marginal transport costs. Both consumers and retailers obtain more information and the business able to access a wider geographical area with a lower cost of production. According to the theory of macroeconomics, human labour is increasingly replaced by technology, such as machine, computers and robots, developer would hire labour with

cheaper price as labour can accept a lower wage in this digital market (Thieb Petersen, 2019). The digital economy of a country is driven up as e-commerce is rapidly developed.

This new economy is developed faster than overall (Bukht, R., & Heeks, R., 2017). This can be proven by the study of (Manyika & Roxburgh, 2011) which showed that the internet contributed over 20% of GDP growth in developed economy countries. Besides that, digital technology is transforming the labour market, education, and entertainment by forming opportunities and provide a significant impact on economic in several sectors (APALKOVA, S. T. V., 2016). Not only global wealth, digital economy also refers to the changing competitiveness of a country and start a modern business process (Domazet et al., 2018). When the competitiveness is strengthening, there are more goods and services of a country can be produced which leads to an increase of GDP. In short, the digital transformation of economy can be a prerequisite of a country to develop the nation and accelerate the economy growth (Atkinson et al., 2007).

In fact, Malaysia is looking forward to becoming a digitalized economy of the country. According to International Telecommunication Union, (2016), internet users doubled to 21millions within 11 years (2005 to 2016) while the fixed broadband user increases up to 3millions in the nation. While in year 2015, over 80% of official government services can be access through official website (MAMPU, 2016). In a digital economy, a secure e-payment service is the essential to develop the new economy of the nation (Kylasapathy et al., 2018). In addition, Bank Negara Malaysia (BNM) promotes the adoption of online transfer and mobile wallet system to accelerate the transformation to mobile payment system in Malaysia (Bank Negara Malaysia, 2018).

2.1.2 Definition of E-wallet

An e-wallet refers to digital wallet which referring to a service that able to make transaction or payment via electronic devices such as computer, tablet, or smartphone. Dospinescu, O. (2012) stated that an e-wallet is a software application which allowed customer to save and keep their e-money inside, it also allowed user to check balance, receive funds and transfer fund through an electronic device. While, according to Ray (2017), E-wallet is a type of electronic card that allow to make payment via mobile phone

by storing money credit card or debit card and bank account number that linked by user for payment.

Electronic wallet is convenience to user in their daily life. According to Law, (2007), electronic wallet is very convenient as it can be adopted in a multitude of transaction environment such as e-commerce and online shopping. Hence, instead of holding purse and cards, an electronic wallet is a more convenient choice due to it is just an application in smartphone as it keeps user's credit cards and debit cards. Moreover, Law, (2007) also stated that adoption of an electronic wallet is more secured. With the synchronized of the bank account, user can verify or check their available funds for a payment so that the risk of pre-determined funds balance is minimize. Also, the risk for carrying credits cards is higher, if it does, the cards that we lost might be hacked as the cards are available to "payWave" which is a payment feature that allow user to pay by simply scanning the card without security pin number (Zaharudin,2018). E-wallet always require user to input PIN to authorize for every payment. It provides an additional layer of protection against unauthorized payment and identity theft as smartphone with biometrics, it required user's thumbprint before making payment (Kumar, 2009).

Although e-wallet system brings several benefits to user, however it might see to be a trigger to the normal baking system as the user of e-wallet are enable to transfer money and make payment more efficient and it is less time-consuming (Blockchains, 2018). In contrary, the adoption of e-wallet is a huge advance that encourage the transformation into cashless society of Malaysia. The news from The Malaysian Reserve reported that, e-wallet market is expected to rise to US$20 billion (RM83.8 billion) in five years later which is year 2024, said by professional services firm Price Waterhouse Coopers Malaysia (PwC) (S.Birruntha, 2019). Applications like Grab Pay, Alipay, FavePay, BigPay, Touch NGO and so on are distribute in this sector in Malaysia.

2.2 Past Studies on Factors affecting the Adoption of E-wallet

2.2.1 Social Influence

According to Raven, B. H., (1964), social influence known as the changes in an individual's attitude, perception, and behaviour, which has its origin in another individual or group. Schöbel, M. et al., (2016) mentioned that there are 2 types of social influence which included normative and informational. The researcher explained the normative social influence defineds as behaviour that has been determined by the hope to convey their feeling and impression to others (Chaiken, 1996). While the informational social influence occurs when reliable and valid information shared by the others that able to improve decision making (Allen, V. L., & Levine, J. M., 1971). The example of social influence included social network marketing, media, and opinions or recommendations that shared by friends, relatives, colleague, family. These are powerful and strongest path to distribute in the recognition, promotion, and application of e-payment system.

Moreover, there are some previous researches stated that influence from the social is significantly related for social influence towards the intention of adopting digital wallet , and some study showed there is no relationship between them. The findings in study conducted by Shin (2009) has determined that influence by social and the application of e-wallet are positively related to each other. Social influence is important determinant in many studies of the lives of people who are influential.

Furthermore, the study of Oliveira, T. et al., (2016) has ensured the significant relationship of the social influence towards the behaviour of consumer for using e-payment. To reach a huge amount of the adoption of e-payment, application developers need to approach that take advantage on the social influence among consumer (Oliveira, T. et al., 2016). In addition, influence from society has a relationship that show significantly affect toward application of e-wallet are mentioned by Slade, Williams et al., (2015). The study focuses on the correlation among acceptance of e-payment for non-users in UK.

However, past research conducted by Yang, et al., (2012) implies that influence by society is indirectly affected at the beginning adoption. Another study that also proved

the indirect relationship is the study by Aydin and Burnaz (2016). Researchers mentioned that it is insignificant related between influence by social and the use of mobile payment. The finding presented that there is lack of effect in social influence for adopting because the responds from small amount mobile payment user in initial of life cycle.

2.2.2 Perceived Ease of Use

The adoption of e-wallet services is affected by the perceived ease of use. The consumer may refuse to apply e-wallet when the procedure is complex and time-consuming (Chong, Z. Y. et.al., 2018).

In numerous researches, perceived ease of use is a crucial variable which affect the adoption of e-wallet. Perceived ease of use also known as “the level to which an individual deems that adopting a certain system will be easy” by Devis (1989) (Sahut, J. M.,2009). The ease of using e-payment is directly related with the behavioural intentions for accepting e-wallet (BI) (Trivedi, J, 2016). This can be proved by the research paper by Pham and Ho (2015), which mentioned that perceived ease of use is significantly related to the implementation e-payment by consumer. Even though most of the people are familiar with using smartphones nowadays, but the electronic wallet is not uncommon to them. It might be a hard task for a new user of e-wallet to performing a financial transaction through a mobile application (Sunny, P., & George, A., 2018). Thus, it is a great response on the application of e-wallet if the system is simple as well as not complex (Moore & Benbasat, 1991).

Perceived ease of use also involved in the paper done by Xie and Lin (2014), to reveal behaviour of consumer on the application of e-payment systems which provided by third party. In the other hand, the research conducted by Dastan and Gurler (2016), the analysis results show the ease of use is indirectly associated with the acceptance of e-wallet, meaning that the intention towards adoption of e-wallet does not influence by the ease of apply of the system. Hence, Dastan and Gurler (2016) further study the level of technology literacy brings impacts to the perceived simplicity of use of e-wallet. They found that an individual who lack of the knowledge of utilizing technology service with smartphone or computer is having a lower technology literacy. This would lead to the

refusion to use technology service included the use of e-wallet. Hence, the perceived ease of use needs to be examined whether it is affecting the use of e-wallet by consumer.

2.2.3 Perceived Usefulness

Perceived usefulness referring to particular probability that adopting the technology able to enhance the route of a consumer could achieve a given mission(Jahangir, N., & Begum, N. 2008). Correspondingly, Childers et al., (2001), illustrated that perceived usefulness as the user's behaviour of functional and utilitarian dimensions. Perceived usefulness also indicated as level to which an individual accepts that adopting a system would assists in their improvement of occupation achievement (Trivedi, J, 2016). This is supported by the study conducted by Gefen and Straub (2003), they indicated that usefulness is a determine in the developed information equipment in exact mission regards to the framework that presented by of the person's subjective appraisal of the value.

Besides that, perceived usefulness is referring to intention of consumer regarding the outcome of the experience (Khayati & Zouaoui 2013). This implies that, people will not adopt e-wallet system if the system is not seen to be useful for them as perceived usefulness on a system may change over individuals (Murthy & Mani 2013). Hence, we can understand the adoption of e-wallet system in Malaysia, by understanding consumers perceive usefulness on the system.

Based on the study of Taufan, A., & Yuwono, R. T. (2019), usefulness of the system and the application of E-wallet are significantly related to each other. The evidence to show positive association between perceived usefulness and the use e-wallet can be founded in the study conducted by Sahut, J. M., (2009). He indicated that people would prefer to use cash if the perceived usefulness of e-wallet is low and costly. On the contrary, people would likely to adopt e-wallet instead of using cash if this system is useful to improve their productivity and efficiency of job. Additionally, the study of Davis, F et.al., (1989) expressed that perceived usefulness and adoption of e-wallet are significantly related as decision making of users towards the use the e-payment service is affected by usefulness of system.

2.2.4 Perceived Security

Perceived security is known as the degree of consumer thinks the procedure of transaction with using an e-wallet system will be secure and protected (Shin, D. H., 2009). Linck, et al. (2006) defined security as the degree of the intention of consumer towards the safety of procedure from the e-payment system. At the same time, Grandinetti (1996) stated that security is destruction of consumers' data and information is accidental or purposely disclosure and leaked.

Numerous past studies proved that the safety of the e-wallet service is a concern of consumers to use the system. From the study conducted by Batra and Kalra (2016) revealed that security or the safety are important indicator the affecting the adoption of e-wallet among consumer. This finding is leading us to believe that consumer is more ready to apply e-wallet if the security of the system is strong enough to protect their information and money. In contrary, consumer is likely to refuse the adoption of E-wallet as the system has low level of security (Tsiakis & Sthephanides, 2005). Batra and Kalra (2016) also expressed that protection of their fund transaction is the main consideration of consumer. Therefore, the quality of security on the system will be the key determinant in influencing the application is e-payment system (Hegarty et al., 2003)

In addition, Sardar (2016) identified majority of respondents are concern the security when purchasing something via online shop. This is proven in the study by Kurnia and Benjamin (2007), the researchers found that the security of system is significantly affecting the intention of consumer towards adoption of e-payment system. Therefore, to encourage consumers in transformation to an e-payment system, the developer should increase and strengthen the security level for the E-wallet systems (Goh, S. W. 2017). This is because all stages of e-payment system in transactions process that can meet the expectation of user will be considered as confident (Baddeley, 2004).

2.2.5 Trust

Trust defined as the level of threat in monetary transactions that cause trust on the system is decline perceived risk, hence, results in a positive intention of user on the application of e-payment (Yousafzai et al., 2003). Trust of user explained by the performance of transaction via e-payment system. Also, user of the e-wallet can decide to trust or not to trust the system as some of the user not willing to trust their privacy and personal information with the system (Dahlberg, et al., 2003). Generally, consumers are more preferring to adopt mobile payment system that developed by trustworthy developer. The most trustworthy providers for mobile payment services were financial institution like banks and large mobile network operators. On the other hand, trust can gain a higher outcome, on the contrary, distrust is the barrier to gains and potential to loss (Kousaridas et al., 2008).

The study done by Kniberg (2002) indicated that consumers is more likely to adopt an insecure system that provided by a trustworthy developer compared to an untrustworthy developer. Besides that, Chou et al. (2004) had indicated trust is crucial to understand individual intention and business term in economic exchanges which influenced the intention of user towards use of e-payment system. This is proved by Kniberg (2002) which determined that it is reliable when the system and developer are trustworthy. If the system and developer are trusted, consumer are willing to use the system because they think that their personal information are protected and secured.

Furthermore, Gefen (2000) mentioned that the trust of user is very important for a network environment whether the it is safe with their personal information and with or without guarantee or promise that online seller will not play any untrustworthy and unethical behaviour. For example, display wrong information of product, unreasonable pricing and leakage of consumer privacy information without permission. Another study of Gefen, D., & Straub, D. (2003) and Wang et al. (2003) proved that trust on the transaction of funds online is significant influencing the willingness of consumer to use e-payment system.

Nevertheless, trust alone is insufficient to convince consumers to change from a physical wallet to an e-wallet due to presence of several crucial elements (Hoffman et al., 1999). Hence, this study is leading us to believe that trust is not the only concern of user, there

are some others indicator that will affect intention of customer on the adoption of e-payment system. Yet, the system is hard to achieve wider and broader utilisation if there is no trust from consumer on the system (Lim et al., 2006).

2.2.6 Perceived Benefits

Perceived benefits towards a particular action is defined as an assessment of individual towards possible gains associated with engaging the action (Brown, S. A., 2005).

Based on the paper conducted by Eastin (2002), there are 4 e-commerce electronic activities that user can engage through online which are shopping, banking, investing, and electronic payment for internet service. The past research completed by Chou et al. (2004) expressed that perceived benefits is a significantly important variable on the adoption of e-payment service. Customers are required to pay low transactions fees or even not need to pay to the bank which offered the e-payment service as this is one of the benefits for the system (Gerrard & Cunninghamm, 2003; Martin & Lo´pez-Catala´n, 2013). Chou et al. (2004) also mentioned that fixed costs as a cost of instalment of e-wallet system that are burdened on the merchant and consumer in every transaction. Also, an e-wallet system provided an appropriate and convenience payment method, which consumer able to store, pay and transfer their fund efficiently (Chakravorti, 2003). It is a less consuming and cost saving payment method.

According to the survey of 2016 Visa Consumer Payment Attitude, 74% of Malaysian are prefer using electronic payment mode for their daily expenses rather than cash (Francis, D, 2017). Moreover, in the research performed by Teoh et al., (2013), statistics shows awareness of Malaysians towards the adoption of e-payment slowly as they gradually change from traditional payment mode to this new payment mode.

However, there are some researchers debated that the application of e-payment system may be costly as user need to spend time to discover how to apply the new digital technology (Kim et al, 2010). Additionally, Hataiseree (2008) claims that some buyers prefer cash and cheques rather than using e-wallet to pay because they are not perceived benefits of the new payment mode.

2.2.7 Self-Efficacy

Self-efficacy is known as consequential by the by the experience of one's individual ability (Bandura, 1986). In the other hand, Dory et al, (2009) defined self-efficacy as belief of a person to complete a task depend on his or her own ability and skills. Dinev et al., (2009) illustrated self-efficacy is a capability of a person to succeed at an adequate stage. In fact, the self-efficacy of an individual is based their experience in life. While, in the context of e-payment system, self-efficacy indicated as opinion of a user's capacity on adoption of the system (Teoh et al., 2013).

Hill et al. (1987) mentioned that self-efficacy is significantly influencing towards the perception of consumer on adopting information systems. Luarn & Lin (2005) and Goh, S.W (2017) also pointed out that self-efficacy is a main element towards intention towards adoption to e-payment system. User who have higher self-efficacy is usually engaged in several kinds of communication system compare to those who do not (Burton-Jones and Hubona, 2006). Thus, self-efficacy has an impact towards the application of e-wallet system by consumer.

Dinev et al., (2009) had further explained that, new user that have certain knowledge of using internet is more confidence to apply technology as well as e-wallet system. People have knowledge are more confidence towards the adoption of technology due of the ease of use of the system (Chan and Liu, 2004). Also, in the study of Schunk (2000), self-efficacy of individual can be rises when a person successfully adopted web technology by learning from the others. In addition, Motter (1995) indicated that a good experience on adoption of computer will improve user's confidence use technology and leads to adopt technology successfully. Biggs and Moore (1993) mentioned that user's belief and the toughness of task will significantly affecting individual's self-efficacy.

2.2.8 Convenience

Convenience is defined as the ease and not troublesome for the user to adopt something (Chern et al., 2018). As well as the achievement of some advantages via the use something depends on its portability and speed of accessibility (Chern et al., 2018). As

stated by Bezhovski (2016), convenience is one of the determinants that affects the intention of consumer and their willingness to adopt the new payment mode. Consumer are more willing to apply a payment system which is convenience and fulfil their need effectively. In contrary, if the payment system is troublesome and did not meet their expectancy, consumer will refuse to adopt the system. Moreover, (Batra & Kalra, 2016) indicated that consumers prefer using e-wallet due to time efficiency, simple and easy to access. A user-friendly and perceived convenience of a e-payment system has higher degree of acceptability by consumer and it is an important for the development of an e-payment system (Anyanwu et al., 2012)

2.2.9 Subjective Norms

Subjective norms are identified as perceive of an individual on social pressure that should perform or not for the behaviour in a specific situation (Fishbein and Ajzen (2005). The researcher Bhattacherjee (2000), defined that subjective norms into 2 different categories which are interpersonal and affected by external. For example, mass media and social influence as the external influence while family, relatives and friends as the interpersonal. Albarracin et al. (2001) stated that subjective norms are taken into account as one of the social influences, but it is in the form of pressure by social.

The findings of Fishbein, M., & Ajzen, I. (1980), shows that there are 2 dependent variables of subjective norms which comprise belief on how others whom they would like them to behave. Also, Theory of Reason Action (TRA), which is a model which suggested that individual have to achieve in some manner that individual would probably to fulfil that perceive on the others. Hence, this is leading us to conclude that subjective norms and the use of e-wallet system and significantly related.

2.2.10 Attitude

Attitude indicated as a measurement of behaviour that known as the assessment on individual's behaviour (Goh, S.W, 2017). Also, Tella, A., & Olasina, G. (2014) defined

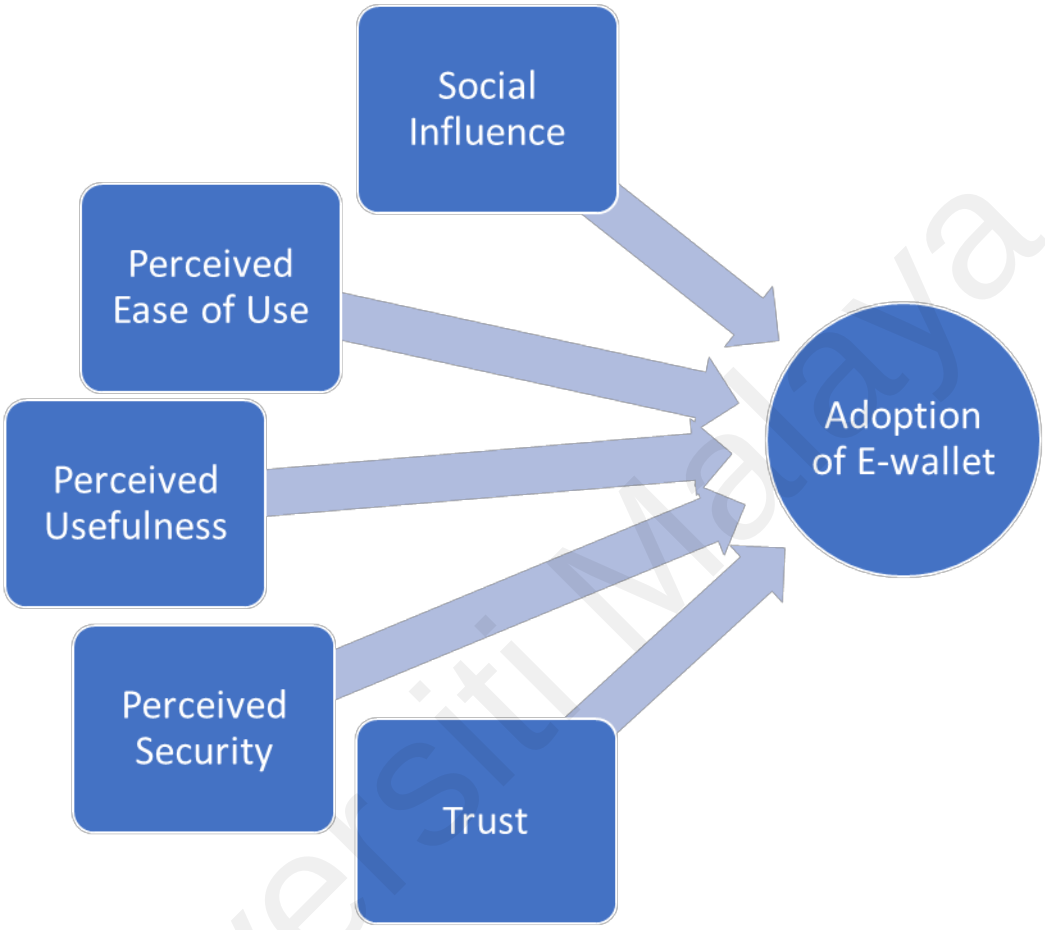
attitude toward an application of e-wallet as the user's feelings to use a technology information and a e-wallet system.

According to a past study that conducted by Amoroso, & Hunsinger (2009) proposed that attitude and the behavioural intention on implementation of e-wallet are positively related. This is validated by the study of Davis et al. (1989) which stated that attitude of an individual is the key determinant of the application of information technology and the system. The acceptance towards use of e-payment is highly depend on the attitude of user and their perception (Abrazhevich, 2001). Moreover, the study of Cook et al. (2002) also stated that the attitude of individual is the major determinant that significantly affects the individual's behavior. This leads us to believe that attitude is one of the main components that would impact user's intention towards the use of e-wallet.

2.3 Conceptual Framework

Figure 1 represent the conceptual framework which created as regards to the major objective of this study. In the framework, it shows independent variables and dependent variable is adoption of e-wallet which influence by the independent variables. The association between independent variable and dependent variable will be examine.

Figure 1: Conceptual Framework



Sources: (Goh, S.W, 2017)

The independent variables including social influence, perceived ease of use, perceived usefulness, perceived security and trust. The intention of consumer is the key factors towards the adoption of e-wallet. While, all independent variables that have been chosen are the variables that bring impact to the intention of user.

Firstly, social influence is the important variable as consumer's behaviour are mostly shaped by society. Social influence has been shown to influence human behaviour extremely towards technology adoption (Lorenz et al., 2017). Vannoy et al. (2010) indicated social influence driven the application of technology as consumer will suggest or encourage the use of a new technology to their family and friends after experiencing

the new technology by themselves. For example, a new application in smartphone, texting or emailing each other and online shop. Hence, social influence has been chosen as one of the independent variables.

Secondly, perceived ease of use and perceived usefulness are derived from a model, UTAUT which formed by Venkatesh, et al. (2003) and revealed that there is a direct affect between the reactions of individual towards application of technology and the adoption of technology that in turn affecting the actual use of information technology. In this model, the perceived ease of use and perceived usefulness are the main variables that explaining the intentions to adopt an information technology. Also, in several past studies, the perceived ease of use and perceived usefulness are the strong variable that are significant affecting the adoption of technology. Consumer are keen to adopt the system if the system is perceived useful and easy to use (Lu et al., 2005). In short, both variables are taking into account in defining the issues influencing the implementation of e-wallet.

Next, perceived security also cannot be ignored in examining the adoption of e-wallet. This is proven by past studies that shown perceived security and the adoption of e-wallet are positively related such as the study of Batra and Kalra (2016), Hegarty et al. (2003) and Kurnia and Benjamin (2007). As a user, security is one of the most concern because they keep their private information and wealth inside the system. According to Tsiakis & Sthephanides (2005), consumer is not willing to adopt a system that has low level of security as their wealth and information will not be secured. As a result, perceived security needed to be examined for an implementation of e-wallet system.

The last independent variable is trust. This variable must be taken into consideration of this study because a trustworthy developer of a system will be preferred by consumer as it is more reliable. The trust of consumer on a system is represent the development of that system in future as trust from consumer brings a higher outcome to developer (Kousaridas et al., 2008). Since, the trust is a key determinant towards the adoption of e-wallet, it is selected as one of the independent variables of this study.

Chapter 3: Research Methodology

3.0 Introduction

In chapter 3, significant of the hypothesis is going to be tested to resolve the research questions. This chapter also concentrate on research design, sampling design, questionnaire design, method of data collection and pilot test. In addition, research instrument, construct measurement, measurement scale and data analysis method.

3.1 Research Design

Akhthar, (2016) mentioned research design refers to the arrangement, or the layout of a research and it is an equipment that improves the research study with all the key components and information. Design of research is applied to collect and investigate the data by showing the procedures and methods (Cooper & Schindler, 2006). Moreover, research design also includes the way to determine and verify the whether the dependent and independent variables are significantly related.

3.1.1 Quantitative Research

Quantitative research performs a method to investigate the phenomena statistically, mathematically, and computationally by collecting numerical data (Aliaga & Gunderson, 2000). According to Muijs, D. (2010), quantitative research method is appropriate to apply in this study as this study collect a wide number of respondents through a structured questionnaire. The data collected can be analyse mathematically and show it by displaying charts, tables or graphs therefore the results are well visualized (Van Ham, F et al., 2001).

3.1.2 Descriptive Research

According to the study of Isaac et al. (1995), descriptive research study the characteristics of individuals, groups and given population with which certain phenomenon occurs. Moreover, descriptive research is applicable for a study which have wide population that recognize the effect of certain phenomena (Burns & Bush, 2006). The main idea of descriptive research is to prove current issue or situation by forming hypothesis (Goh, S. W, 2017). Overall, descriptive research is appropriate in this study as it able to survey a representative sample and create a more productive data for a clearer understanding on the use of e-wallet among University of Malaya students.

3.2 Data Collection Method

3.2.1 Primary Data

Primary data is used in this study. It is known as unique data as it collects directly from the target population (Ajayi, V, 2017). Besides, Ajayi, V (2017) also stated that primary data is always specific to the research objectives and solve a specific problem. One of the methods to obtain data through survey questionnaire which being adopted in this study. A self-administration questionnaire is distributed to the sample of target population which are University of Malaya students to collect information related to this research topic. This method is relatively more accurate and reliable as respondents able to answer the questionnaire by themselves. From this questionnaire, the information, behaviours, attitudes, and opinions of respondents will be gathered. Moreover, a total of 200 sets of questionnaires to distribute among University of Malaya (UM) students.

3.3 Sampling Design

3.3.1 Target Population

The report done by Alvi (2016), target population means a grouping of individuals who are eligible and meet the criterion for the research paper. The major aim is to analyse the adoption of electronic wallet (E-wallet) among University of Malaya students. They are chosen as target population due to most of the university students used smartphones from an early age so that they are more familiar with the application in their mobile phone. Also, university students are the young generation that witnessed the rapid development of digital technology and they are interested and familiar with new technology. According to the study of Burns & Bush (2005), students who are in their tertiary education are relatively heavy users of mobile phone and they are highly depending on it for their daily life. Then again, a local university in Malaysia which is University of Malaya is selected to narrow the scope of this study.

3.3.2 Sampling Frame and Sampling Location

Frame of sampling refers to a full listing of the elements or people in the population (Zikmund, 2003). Besides, sampling location refer to venue of the research is carried out. In this study, the sampling frame is the students at University of Malaya (UM) which located at Wilayah Persekutuan Kuala Lumpur. University of Malaya (UM) was selected as sampling location due to it has a large population of students which consists of 22425 students included local and international students in year 2020. Moreover, students in University of Malaya (UM) are based in different states in Malaysia with different major courses. To gather answers from different faculties, the questionnaire was distributed in several sites within the campus such as college residence, faculties, main library and bus stop.

3.3.3 Sampling Elements

200 sets questionnaire distributed within the target population. Students who are pursuing foundation, undergraduate, and postgraduate in University of Malaya (UM) will participate in this survey. The respondents in this survey are in different gender, age, race, and faculty. All of the target respondents are 00's to 90's generation with age within 19 years old to 24 years old and above. In addition, a smartphone user is also one of the main elements in this survey.

3.3.4 Sampling Techniques

There are two different types of sampling techniques, which categorized into probability sampling method and non-probability sampling method. The technique of sampling adopted is non-probability sampling which are snowball sampling, convenience sampling, quota sampling and judgemental sampling (Panacek et al., 2007). In this study, convenience sampling is the most appropriate approach due to the time and budget limitation. By using this sampling technique, the data and information of respondents can be accessible to the researcher, less time-consuming and affordable (Etikan et al., 2016). Hence, respondents who are conveniently available or easy to reach in the target population will participate in this study.

3.3.5 Sampling Size

Etikan et al. (2016) stated that size of sampling is the amount of observations taken from the target population for the specific research purpose. On the other hand, a total of 30 to 500 samples are suitable for most of the research study (Roscoe, 1975). Thus, 200 sets self-administered questionnaires are distributed in several places within University of Malaya (UM) campus. The period of collecting data are scheduled from March 2020 until April 2020.

3.4 Research Instrument

An appropriate research instrument is required to accomplish the main objective of this study. Hence, self-administered questionnaire with structured questions that related to the main topic is the most appropriate instrument in this study. Questionnaire is preferred instrument for most of the researchers as it is affordable and effective path to collect large quantities of responses from a large population (Wilkinson et al., 2003). Lavrakas (2008) mentioned that self-administered questionnaire refers to a survey form which are distributed to target respondents and response to the question by themselves without the existing of the researchers in this data collection process.

3.4.1 Questionnaire Design

Questionnaire design refers to the structure or outline of the survey from. The questionnaire in this study is designed a cover page and followed by 2 sections. The cover page has listed down the main topic of this study, short introduction of the researcher, main objective, and instructions to respondent before starting this survey. A total of 33 questions in both sections. In first part, the questions are primarily focus on the demographic profile of the respondent included gender, age, nationality, race, faculty, year of study. Screening questions also included in this section to ensure the respondent is eligible to respond the following questions. Next, following part comprises a total of 22 questions which related to the independent variables in this study. The main purpose of section B is to test the elements affecting the implementation of electronic wallet (E-wallet). In this section, respondents are allowed to rate the statements using a 5-point Likert scale based on their opinions and behaviour. In general, all the questions and statements in this questionnaire are using simple English to ensure respondents can understand easily and able to provide accurate answer.

3.4.2 Pilot Test

Zikmund (2003) indicated that, pilot test is identified as a trial in a small scale of respondents before running the large-scale questionnaire. Van Teijlingen et al. (2001) mentioned that, the aim of pilot test before conducting the questionnaire is to identify the weakness of the questionnaire and measure its reliability. By running pilot test, quality of the questionnaire will be further increase as it is available to do adjustment and improvement. 10 sets of questionnaires are distributed to the students of University of Malaya (UM) for pilot testing on 10 March 2020. The reliability test of the collected data will be conducted through SPSS software. Hence, the readjustment or improvement on the questionnaire will be done if there are any discovered problems.

3.5 Constructs Measurement

According to the findings of Sekaran et al. (2003), the scale of measurement is used to identify the reaction of every respondent on several variables in a study. There are four types of measurement scales which are nominal, ordinal, internal and ratio. In this study, the measurement scales being used in the questionnaire are nominal, ratio and interval.

3.5.1 Nominal Scale

Salkind (2010) indicated that nominal scale is a scale of measurement applied to identify objects into discrete categories or groups. A nominal scale is applied on an object for classification purpose. In the study of Sekaran et al. (2003), the object of nominal scale will be classified into mutually exclusive and collectively exhaustive sets to summarize the result by calculating the frequency or proportion. Besides, the standard of nominal scale question in this questionnaire is gender which grouped the respondents into male and female. To determine the demographic profile of respondent, the questions listed in Section A are nominal scale except the question which asked for the age of respondent.

3.5.2 Ratio Scale

Ratio scale is a scale that consists all the properties of an interval scales and has a clear definition of zero. In this study, ratio scale is applied in Section A of the questionnaire which is the question about the age of respondent. In this question, respondents are required to select an age group that greatest describe their age from four age groups which are below 19 years-old, 19 to 21 years-old, 22 to 24 years-old and above 24 years-old.

3.5.3 Interval Scale

Chern et al. (2018) explained that an interval scale is appropriate in measuring the quantitative attributes. Additionally, Sekaran et al. (2003) indicated that interval scale is an ordered scale in which the difference among the numbers are meaningful yet do not include true zero point. Meanwhile, Likert scale are one of the favoured scales which applied in the research questionnaire. In past study by Zikmund (2003), Likert scale rank as of range “strongly disagree” and “strongly agree” are used in the questionnaire to examine the degree of agreement or disagreement. Hence, in Section B of the questionnaire, interval scale is adopted in the questions and presented by 5-Likert scale. Respondents are require to analyse the level of agreement or disagreement from range strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5) in each statement in the questionnaire.

3.6 Data Processing

Total of 200 sets survey form are collected from the University of Malaya students in this study.

3.6.1 Descriptive Checking

First, check the data is the initial phase and need to implement to go through once and verify the completeness of questions in questionnaires (Chern et al., 2018). Data checking ensure the high quality of the responses as the incomplete questionnaire and ineligible respondent will be discovered during the checking process. Data or the responses collected will be detected automatically if any error occurs such as missing data and omission data. Overall, data collected are more precise and reliable by data checking process (Zikmund, 2003).

3.6.2 Data Editing

Data editing is a technique of evaluating of data gathered to increase the accuracy, completeness, and precision of data. This procedure assists to minimize the missing, omission or ambiguous responses by respondents. The partial answer and missing value need to be eliminated throughout this procedure with the purpose to prevent inaccurate and inappropriate responses that will deceiving the results.

3.6.3 Data Coding

Malhotra (2006) stated that data coding is conducted to categorize every item in questionnaire, so a code or number is assigned to correspond to the possible reaction to every items. In this process, researcher is assigned a numerical code to the responses to differentiate all categories in the questionnaires. To minimize the time-consuming and to make the data entry process easier, process of data coding is conducted in this survey. For example, “Male” is coded as 1 while “Female” is coded as 2 in section A. While in section B, “strongly disagree” as 1, “disagree” as 2, “neutral” as 3, “agree” as 4 and “strongly agree” as 5.

3.6.4 Data Transcription

Data transcribing refers to final step in handling of data. In this process, coded data will be exported from questionnaire and import into SPSS software. Data analysis will be done once all data had successfully imported into this software.

3.7 Data Analysis

Data analysis is the procedure that generates data gathered to find actionable insights that extremely useful in decision making. The analysis included descriptive analysis, factor analysis, reliability test and inferential analysis were conducted to analyse data.

3.7.1 Descriptive Analysis

In the past study done by Trochim (2008), indicated that descriptive analysis is a procedure in converting raw data into a form which are simpler to identify and to visualize. In the other word, descriptive analysis decreases the complexity of data amounts in a sensible way (Chern et al., 2018). Descriptive information is performed by interpreting, rearranging, ordering and manipulating data (Zikmund, 2003). On the other hand, frequency distribution analyses help to summarize the demographic profile of the respondents. The data collected will be well organized in straightforward graphic analysis such as charts, tables and graphs form after analysing of data.

3.7.2 Reliability Test

Based on the study of Chee et al. (2018), reliability is the level to which measures are free from random error. Zikmund (2003) had stated that reliability test is an indicator of measure's internal consistency reliability and stability. Thus, before resolving the research questions, the reliability test for each independent variable should be carried out which are social influence, perceived ease of use, perceived

usefulness, perceived security and trust. Hence, researcher can come out with a consistent and reliable result. The reliability coefficient was calculated regards to Cronbach's coefficient alpha. The range of Cronbach's alpha reliability coefficient is fall within zero to one. It will have better consistency within variables if coefficient is high or closer to 1. The greater the value of alpha, the more reliable the findings. In addition, Churchill Jr (1979) suggested that a Cronbach's Alpha of 0.6 is acceptable.

Table below is explaining the strength of the correlation between two variables:

Table 3.1: Scale of Cronbach's Alpha

Cronbach's Alpha	**Level of Reliability**
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Source: Sharma, B. (2016)

Table below is the result of reliability analysis:

Table 3.2: Cronbach's Alpha Reliability Analysis

Variables	Cronbach's Alpha	No of Item	Level of Reliability
Social Influence	0.732	4	Acceptable
Perceived Ease of Use	0.803	4	Good
Perceived Usefulness	0.708	5	Acceptable
Perceived Security	0.744	5	Acceptable
Trust	0.821	4	Good
Adoption of E-wallet	0.704	4	Acceptable

Table above presents the result of Cronbach's Alpha reliability analysis. As shown in above, all factors are believed reliable as alpha value are larger than 0.6. Based on the findings, trust is the most reliable variable in this study as it has top alpha value of 0.821 with 4 items followed by perceived ease of use with alpha value of 0.803 with 4 items and perceived security (5 items) with alpha value of 0.744. For social influence (4 items) and perceived usefulness (5 items) the level of reliability is only acceptable which have alpha value of 0.732 and 0.708, correspondingly. The dependent variable which is the adoption of e-wallet (4 items) has the smallest value of alpha with 0.704. It is considered in an acceptable according to Table 3.1. In short, this test is reliable as all the independent variables are satisfied the degree of reliability based in the value of Cronbach's Alpha.

3.7.3 Inferential Analysis

Inferential Analysis is a skill undergone which allow researcher to conclude the properties of the sample that draw from target population through analyses and observation. In this study, Pearson's Correlation Analysis and Multiple Linear Regression Analysis are conducted via SPSS software.

3.7.3.1 Pearson's Correlation Analysis

Pearson's correlation analysis is applied to define the strength and directions between dependent variable and independent variables (Sekaran et al., 2003). The degree of vary in other variables can be studied by conducting correlation analysis. This analysis assists to resolve the research questions in this study as it define the relationship between selected independent variables and implementation of e-wallet among University of Malaya students. As, this test is to define the relationship between social influence and adoption of e-wallet and to show the strength of the correlation between two variables. For its result, it can be a positive correlation or a negative correlation (Sekaran et al., 2003). Also, this test will be run for every research question in this study.

Table below is explaining the strength of the correlation between two variables:

Table 3.3: Rules of Thumb of Pearson's Correlation

Coefficient Range	Strength of Association
± 0.91 to ± 1.00	Very Strong
± 0.71 to ± 0.90	High
± 0.41 to ± 0.70	Moderate
± 0.21 to ± 0.40	Small but definite relationship
± 0.00 to ± 0.20	Slight, almost negligible

Source: Hair et al. (2008)

3.7.3.2 Multiple Linear Regressions Analysis

Zikmund et al. (2013) indicated that Multiple Linear Regressions Analysis is conducted for the purpose of examine the relationship between two or more independent variables on a specific dependent variable. The aim of performing this analysis is to verify whether the independent variables have significant relationship between the adoption of e-wallet. Moreover, the percentage of variation or the level of effect of each independent variable on the adoption of e-wallet will be explained by the value of square of multiple-r (R-square / R^2). Hence, the research questions in this study are clearly resolved as researcher can check whether the independent variables have relationship between the adoption of e-wallet among University of Malaya (UM) students. At the same time, researcher also can determine whether the independent variables are important to define the adoption of e-wallet among University of Malaya (UM) students.

The multiple linear regression models are shown as below:

$$Y= a + b1X1 + b2X2 + b3X3 + b4X4 + b5X5+ \dots + bkXk$$

The equation for this study:

$$AEW = a + b1SI + b2PEOU + b3PU + b4PS + b5T$$

Whereby,

AEW = Adoption of E-wallet
SI = Social Influence
PEOU = Perceived Ease of Use
PU = Perceived Usefulness
PS = Perceived Security
T = Trust

3.8 Conclusion

In short, this chapter had outlined the methodology of research applied in this study. The subsequent chapter will highlight on the outcomes of data analysis and tests as the methodologies stated in this chapter by SPSS software.

Chapter 4: Data Analysis

4.0 Introduction

In Chapter 4, data analysis is conducted regarding to the responses collected from the questionnaire. A total of 202 responses were gathered from University of Malaya students. The data collected are analysed through SPSS software. There are four main parts which are descriptive analysis, reliability test, and inferential test (Pearson's Correlation Analysis and Multiple Linear Regressions Analysis) to analyse the data.

4.1 Descriptive Analysis

Descriptive Analysis provides the characteristics and complete information of the respondents. This analysis assists to summarize the data on demographic summary of the respondents. The major highlights of the data are showed in charts and tables to visually depicts relationships from the data.

4.1.1 Gender

Table 4.1: Data of Gender

Gender	Frequency	Percentage (%)
Male	87	56.9
Female	115	43.1

Figure 4.1: Data of Gender

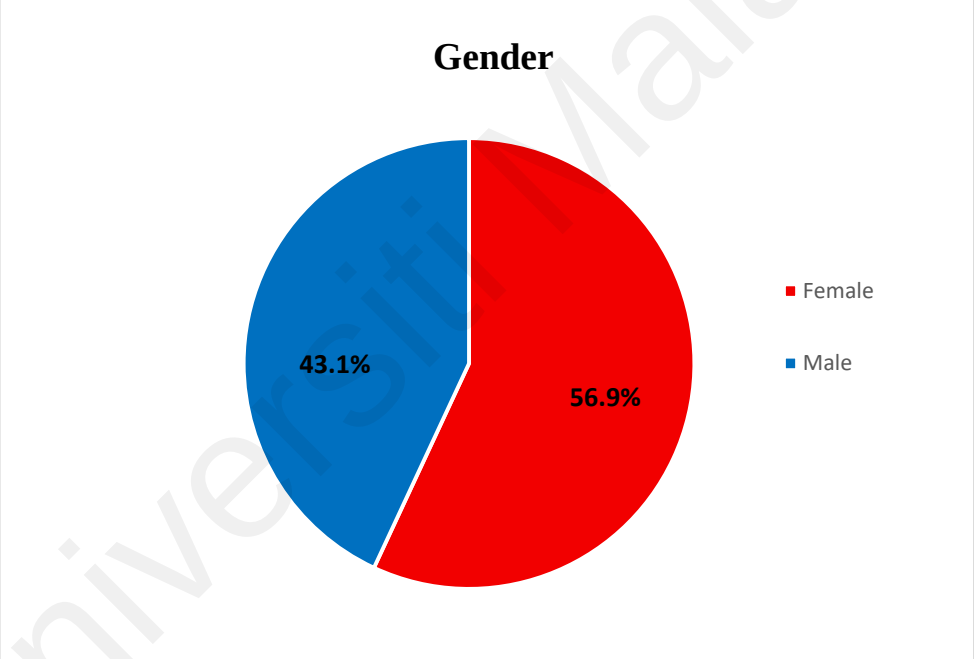


Table and Figure above depict the numbers and proportion of respondents by gender. The target population in this study is students form University of Malaya. A total of 202 respondents are have taken part in the questionnaire. There are consists 43.1% of male student and 56.9% of female student filled up the questionnaire. In the other word, there are 87 male students 115 female students are participated in this survey.

4.1.2 Age

Table 4.2: Data of Age

Age	Frequency	Percentage (%)
Below 19 years old	1	27.7
19 - 21 years old	56	68.8
22 - 24 years old	139	3.0
Above 24 years old	6	0.5

Figure 4.2: Data of Age

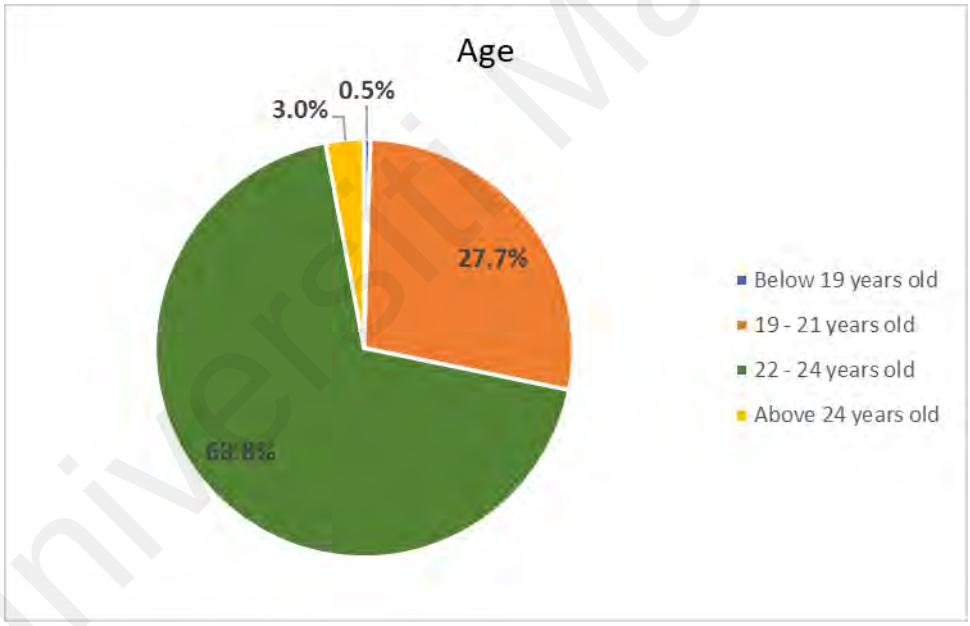


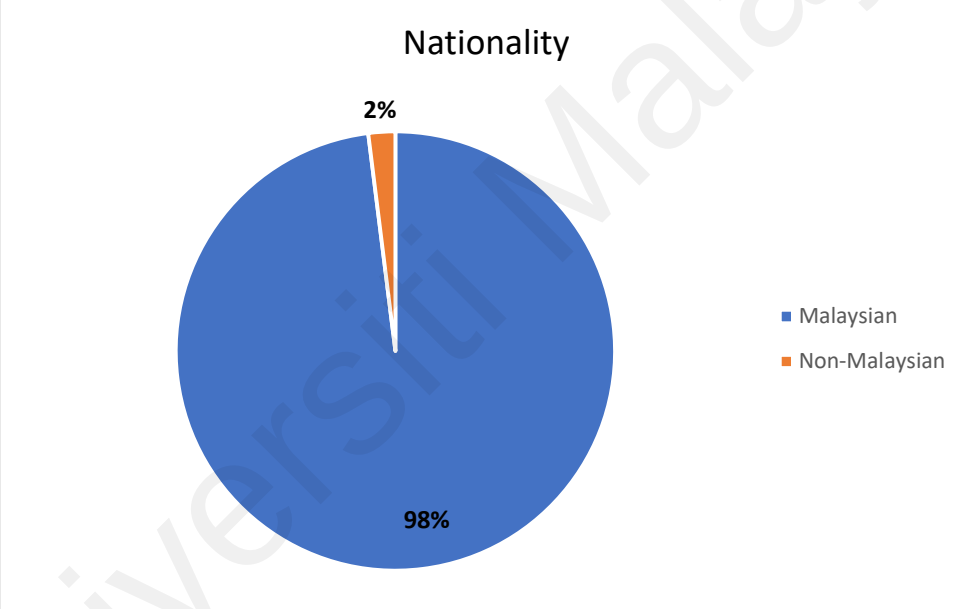
Table and figure above show the frequency and proportion of respondents by age. As shown above, the age range of 22-24 years old has a higher percentage which comprises of 139 respondents (68.8%). While, the 19-21 years old group is the second large group which comprises of 56 respondents (27.7%), followed by the 24 or above years old group which is 6 respondents (3%). There is only 1 respondent who age below 19 years old, this age group reveal the lowest proportion which is 0.5% only.

4.1.3 Nationality

Table 4.3: Data of Nationality

Nationality	Frequency	Percentage (%)
Malaysian	198	98.0
Non-Malaysian	4	2.0

Figure 4.3: Data of Nationality



The data of nationality of respondents is shown in Table 4.3 and figure 4.3. There are a small percentage of non-Malaysian among the respondents which is 4 respondents out of 202 respondents only. On the other hand, Malaysian or local students consists of large portion which is 198 respondents (98%) while foreign students are only comprises of 2% in this survey.

4.1.4 Race

Table 4.4: Data of Race

Race	Frequency	Percentage (%)
Chinese	127	62.9
Indian	11	5.4
Malay	64	31.7

Figure 4.4: Data of Race

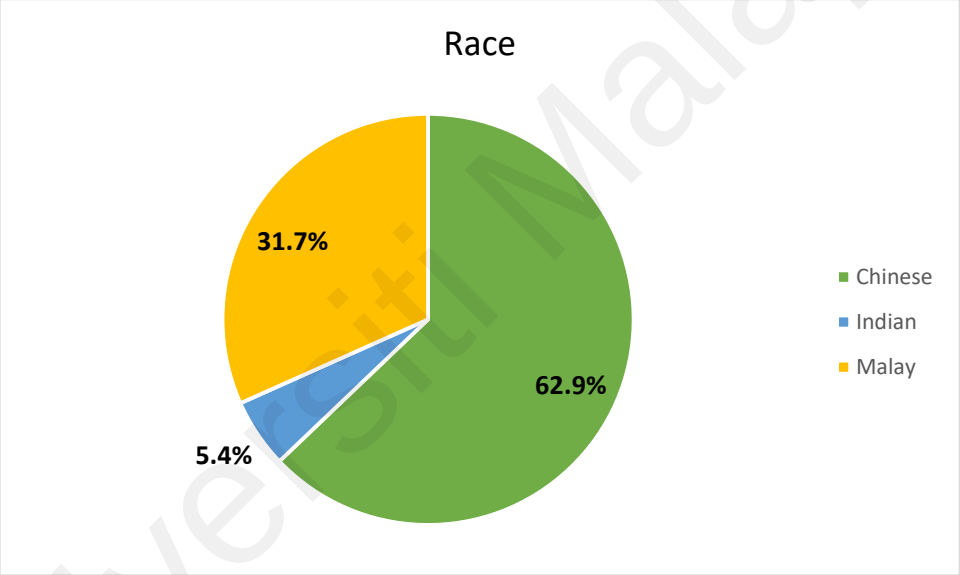


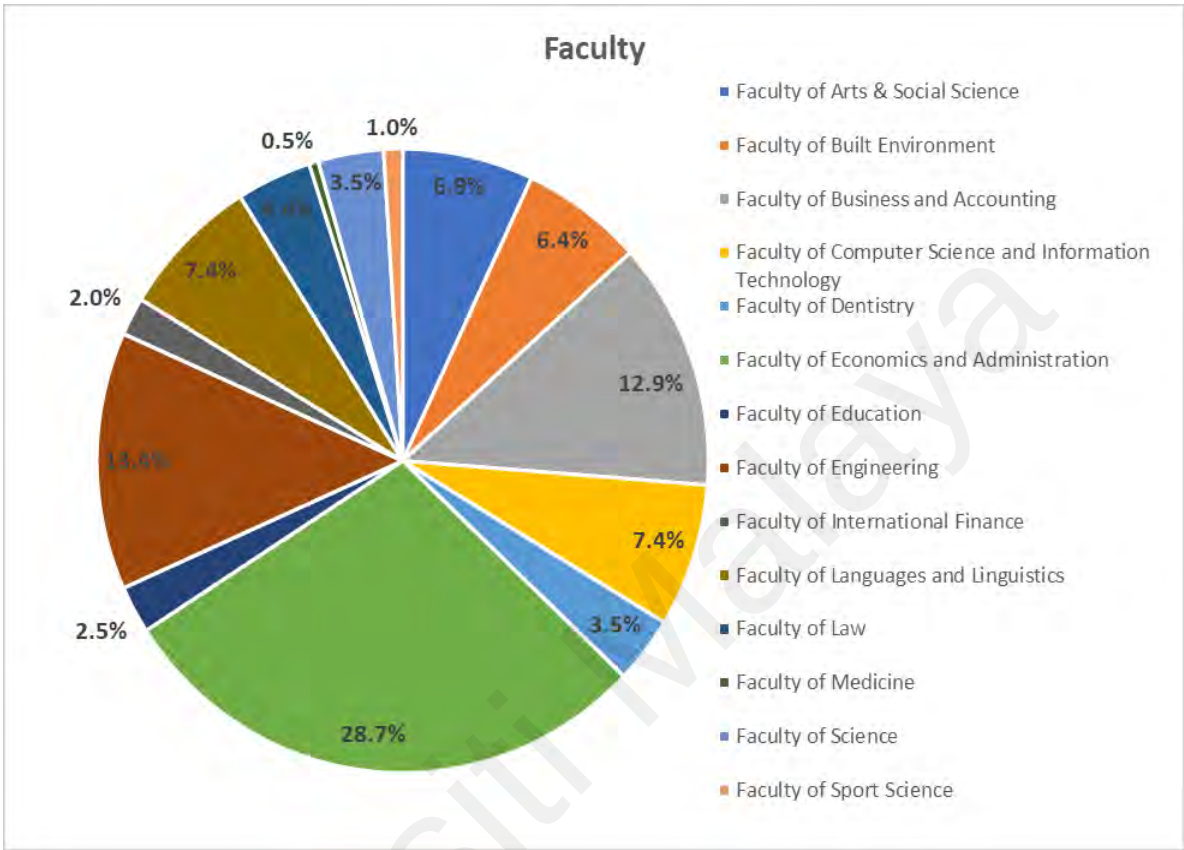
Table and figure above reveal the amount and proportion of respondents by race. As indicated by the outcome, majority of the respondents are made up of Chinese which is 62.9% (127 respondents) followed by Malay which is 31.7% (64 respondents) represent the second large portion in this survey. Next, Indian students who participated in this survey reveal the least portion which only consists of 5.4% (11 respondents).

4.1.5 Faculty

Table 4.5: Data of Faculty

Faculty	Frequency	Percentage (%)
Faculty of Arts & Social Science	14	6.9
Faculty of Built Environment	13	6.4
Faculty of Business and Accounting	26	12.9
Faculty of Computer Science and Information Technology	15	7.4
Faculty of Dentistry	7	3.5
Faculty of Economics and Administration	58	28.7
Faculty of Education	5	2.5
Faculty of Engineering	27	13.4
Faculty of International Finance	4	2
Faculty of Languages and Linguistics	15	7.4
Faculty of Law	8	4
Faculty of Medicine	1	0.5
Faculty of Science	7	3.5
Faculty of Sport Science	2	1

Figure 4.5: Data of Faculty



The data of faculty of respondents is indicate in Table and Figure above. Most of the respondents in this survey are from Faculty of Economics and Administration which consists of 58 respondents (28.7%). The second and third top frequency which represent total of 27 and 26 respondents (13.4% and 12.9%) respectively are from Faculty of Engineering and Faculty of Business and Accounting. Followed by Faculty of Languages and Linguistics and Faculty of Computer Science and Information Technology, same number of respondents which is 15 respondents (7.4%) are from each of the faculty. Next, there are 14 respondents (6.9%) are from Faculty of Arts & Social Science and 13 respondents (6.4%) from Faculty of Built Environment. A total of 8 respondents are from Faculty of Law. Moreover, Faculty of Dentistry and Faculty of Science have the same number of respondents who take part in this survey which are 7 respondents (3.5%) followed by 5 respondents from Faculty of Education which only comprises of 2.5%. There are only 4 respondents (2%) are from Faculty of International Finance and 2

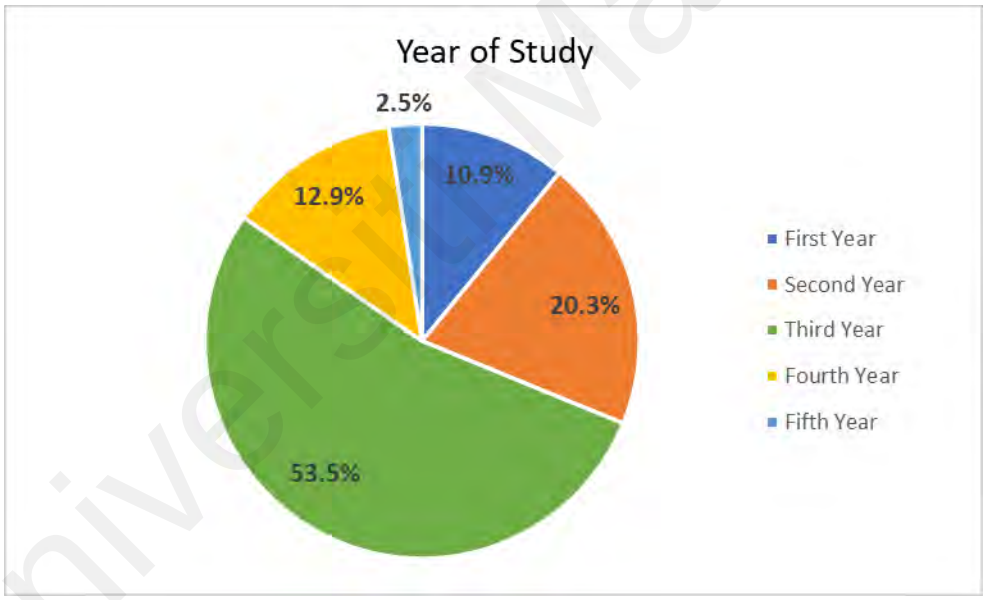
respondents (1%) from Faculty of Sport Science. Lastly, respondent from Faculty of Medicine is only comprises of a small portion in this survey which has only 1 student (0.5%) to participated in this survey.

4.1.6 Year of Study

Table 4.6: Data of Year of Study

Year of Study	Frequency	Percentage (%)
First Year	22	10.9
Second Year	41	20.3
Third Year	108	53.5
Fourth Year	26	12.9
Fifth Year	5	2.5

Figure 4.6: Data of Year of Study



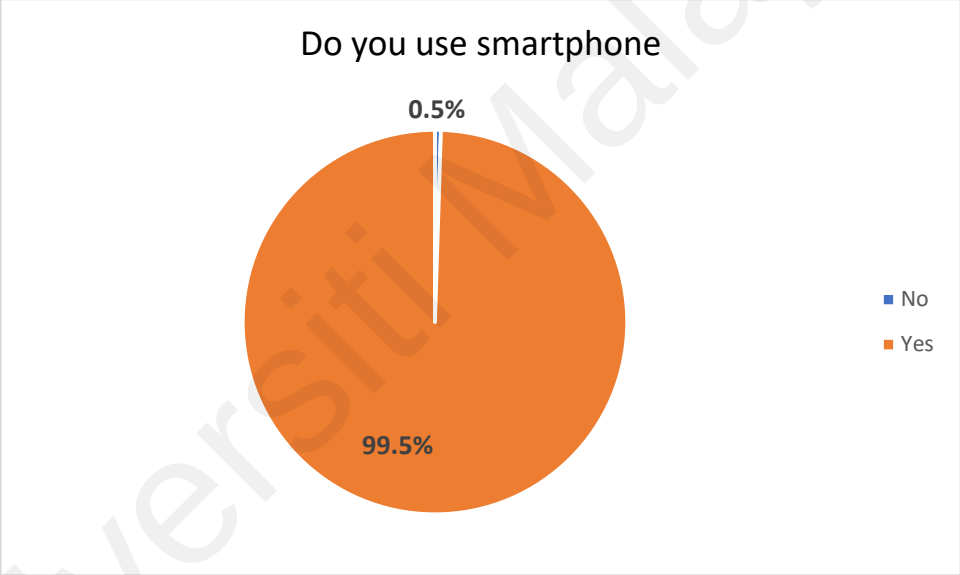
This survey has categorized the respondents into different year of study group. Table and Figure above illustrates than there is a large portion of respondent who are third year students which consist of of 53.5% (108 respondents). Followed by second year students with a total of 20.3% (41 respondents) and fourth year students with 12.9% (26 respondents) in this survey. Next, first year student is the second last group and followed by the last group (fifth year students) which are only comprises of 10.9% and 2.5% (22 and 5 respondents) respectively.

4.1.7 Usage of Smartphone

Table 4.7: Data of Usage of Smartphone

Do you use smartphone	Frequency	Percentage (%)
No	1	0.5
Yes	201	99.5

Figure 4.7: Data of Usage of Smartphone



Data of smartphone usage among respondents are presented in table and figure. According to table and figure above, a large proportion of the respondent are currently using a smartphone. There is only 0.5% (1 respondents) is not using a smartphone currently. Meanwhile, the data shown there is 99.5% that is 201 respondents out of the total of 202 respondents are using a smartphone.

4.1.8 Data of Making (Online) Payment by Using a Smartphone

Table 4.8 Data of Making (Online) Payment by Using a Smartphone

Have you used a smartphone for making (online) payment?	Frequency	Percentage (%)
No	2	1.0
Yes	200	99.0

Figure 4.8: Data of Making (Online) Payment by Using a Smartphone

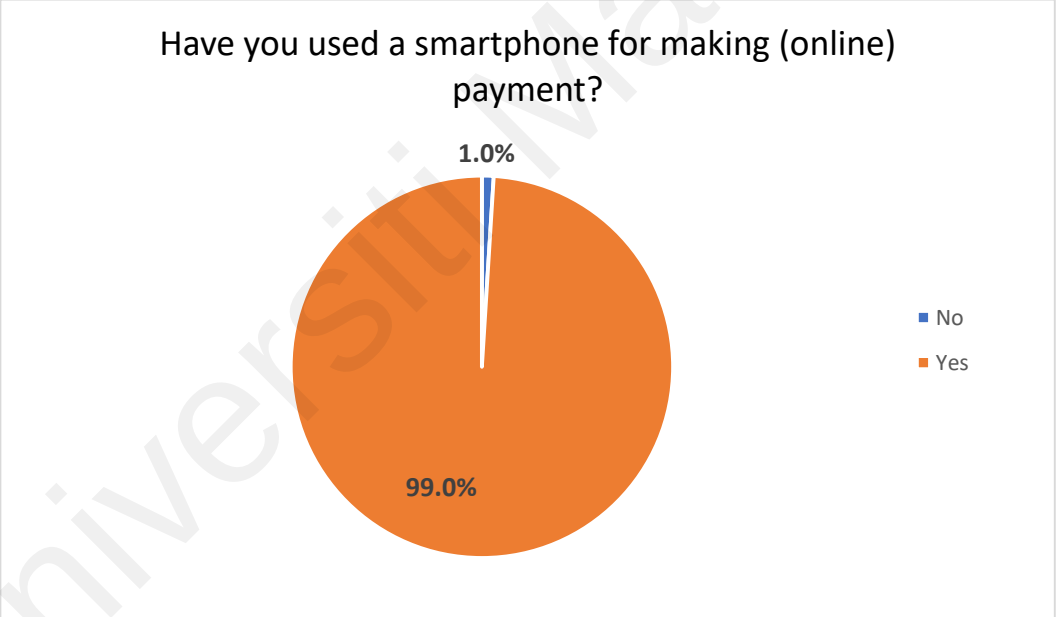


Table 4.8 and Figure 4.8 explain the data of making (online) payment by using a smartphone. Based on the table and figure above, it is only 2 respondents (1%) who did not make an online payment by a smartphone. Meanwhile, 99% of respondent (200 respondents) are adopting online payment by using their smartphone.

4.1.9 Data of Usage of Payment Application in Smartphone

Table 4.9: Data of Usage of Payment Application in Smartphone

Do you have any application for payment in your phone (e.g: application from the bank)	Frequency	Percentage (%)
No	6	3.0
Yes	196	97.0

Figure 4.9: Data of Usage of Payment Application in Smartphone

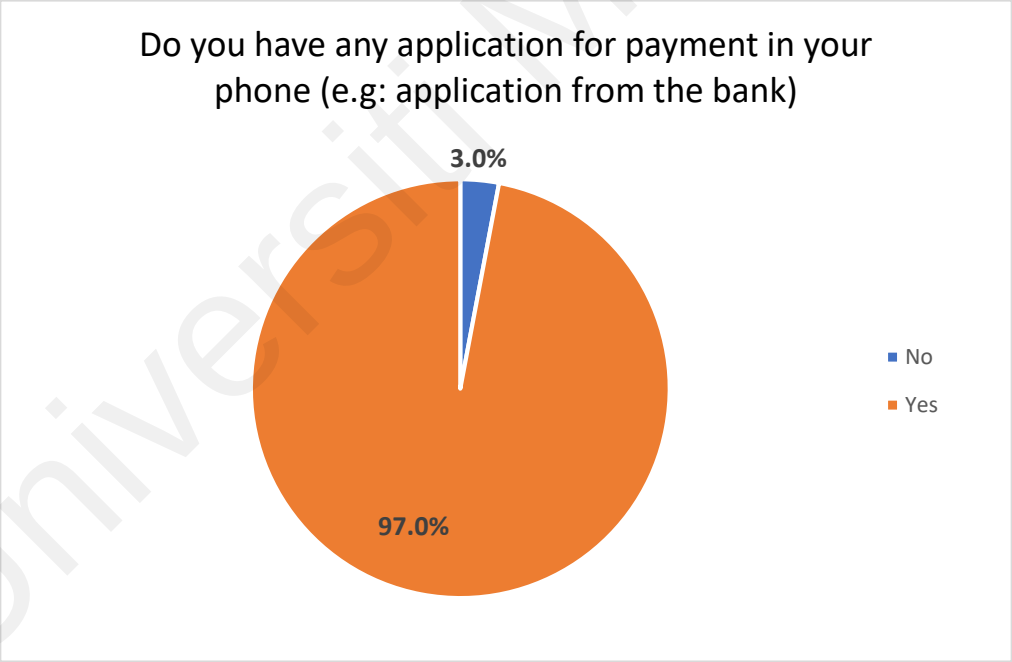


Table 4.9 and Figure 4.9 display the data of usage of payment application in smartphone. The data shown that there are 97% which is 196 of respondents are using a payment application in their smartphone. This means that there is a large portion of respondents are using an e-payment application. Meanwhile, there are only 6 respondents (3%) are not using payment application currently.

4.1.10 The Familiar Electronic Wallet (E-wallet)

Table 4.10: Data of The Familiar Electronic Wallet (E-wallet)

The Familiar E-wallet	Frequency	Percentage (%)
BigPay	5	2
Boost	36	18
GrabPay	82	41
PayPal	5	2
Touch 'n Go	69	34
WeChat Pay	5	2
Alipay	0	0
Razer Pay	0	0
Vcash	0	0

Figure 4.10: Data of The Familiar Electronic Wallet (E-wallet)

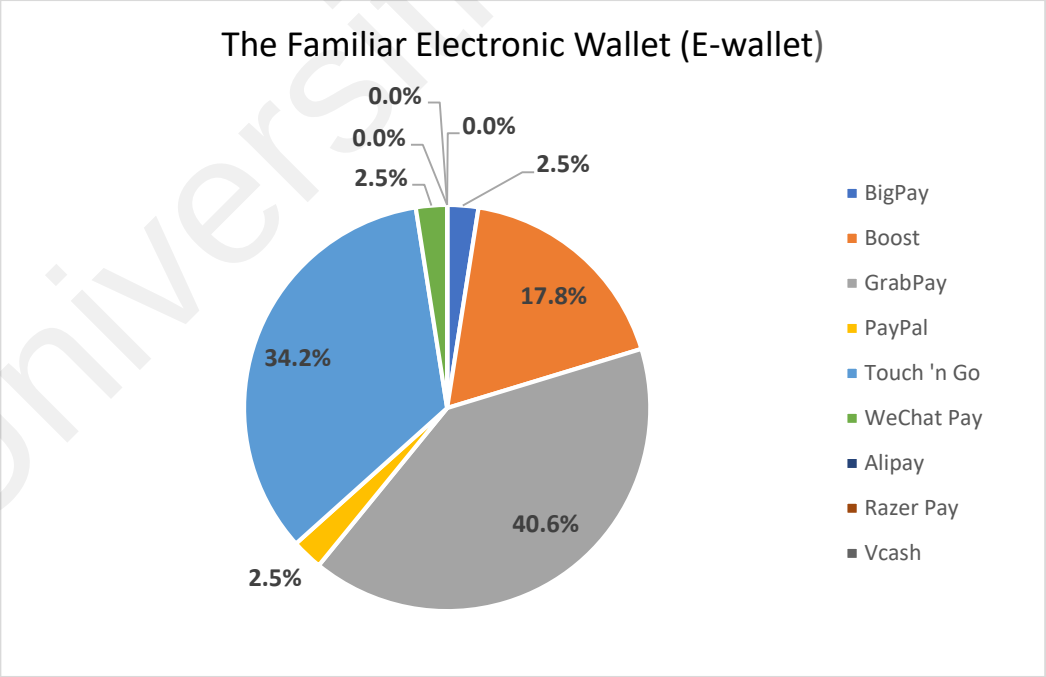


Table and figure aboveshow the data of the familiar electronic wallet (E-wallet) among respondents. GrabPay is the most popular e-wallet which comprises of 82 respondents out of total of 202 students (40.6%) are more familiar with. Next,

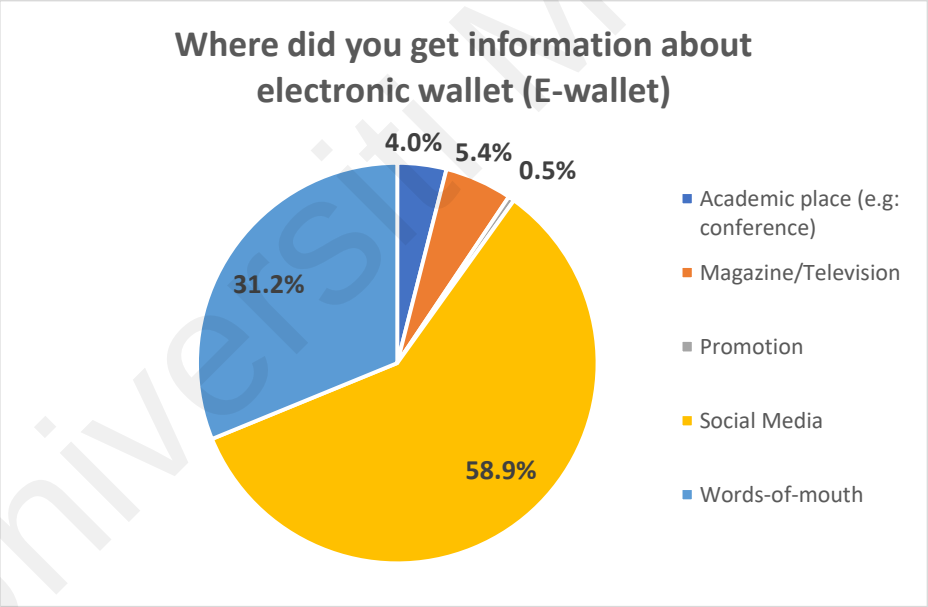
Touch 'n Go has the second highest popularity which comprises of 69 respondents (34.2%) followed by Boost which is 36 respondents (17.8%). Meanwhile, there are only 5 respondents (2.5%) are more familiar with BigPay, PayPal and WeChat Pay each. For Alipay, Razer Pay and Vcash, there is not any of respondent (0%) who familiar with it.

4.1.11 The Platform to Get Information About Electronic Wallet (E-Wallet)

Table 4.11: Platform to Get Information About Electronic Wallet (E-Wallet)

Platform to Get Information About Electronic Wallet (E-Wallet)	Frequency	Percentage (%)
Academic place (e.g. conference)	8	4.0
Magazine/Television	11	5.4
Promotion	1	0.5
Social Media	119	58.9
Words-of-mouth	63	31.2

Figure 4.11: Platform to Get Information About Electronic Wallet (E-Wallet)



As shown in Table 4.11 and Figure 4.11, the most popular platform to get information about e-wallet among University of Malaya (UM) students is social media which comprise of 119 respondents (58.9%). Moreover, there are 63 respondents are getting information about e-wallet from words-of-mouth which is 31.2% out of the total. This is followed by magazine/television with amount of 11 respondents (5.4%) to get information from this platform. Meanwhile, there is only a small portion of respondents who get information from Academic place (e.g.

conference) and promotion made by the e-wallet company which are 8 respondents (4.0%) and 1 respondent (0.5%) respectively.

4.2 Inferential Analysis

Inferential analysis is to define the specific variable and the association between dependent variable and independent variables in a study. In this analysis, Pearson's Correlation Coefficient and Multiple Linear Regression Analysis are applied in order to measure and resolve the research questions formed in previous chapter.

4.2.1 Pearson Correlation Coefficient

In Pearson Correlation Coefficient, correlation matrix is applied in order to measure the pattern of correlation between variables. This is also used to resolve the research questions in this study as this test determineqthe strength of linear relationship of all variables. Furthermore, when the value of correlation coefficient is higher, the relationship with correlated variables is stronger.

Table 4.12: Correlation Coefficient

Variables	Correlation Coefficients	P-value
Adoption of E-wallet vs Social Influence	0.322	p<0.05
Adoption of E-wallet vs Perceived Ease of Use	0.237	p<0.05
Adoption of E-wallet vs Perceived Usefulness	0.238	p<0.05
Adoption of E-wallet vs Perceived Security	0.247	p<0.05
Adoption of E-wallet vs Trust	0.224	p<0.05

Table above illustrates the correlation between all independent variables on this study and adoption of e-wallet. Based on Table 3.2, all independent variables are positively and significantly associated to the dependent variable which is adoption of e-wallet. All the independent variables are within the range of ±0.21 to ±0.40 which considered have

moderate impact on the implementation of e-wallet. As shown above, it is a strongest connection between social influence and adoption of e-wallet which has correlation coefficient of 0.322. Followed by perceived security (r=0.247), perceived usefulness (r=0.238), perceived ease of use (r=.0237) and trust (r=0.224). Therefore, social influence, perceived ease of use, perceived usefulness, perceived security, and trust are supported in this study as correlation coefficient results are positive which means that it has significant association to adoption of e-wallet.

4.2.2 Multiple Regression Analysis

Multiple regression analysis is run to discover whether adoption of e-wallet is correlated with independent variables which are social influence, perceived ease of use, perceived usefulness, perceived security, and trust as well as other variables. By conducting this analysis, the research questions will be resolved as this analysis significantly explain the adoption of e-wallet among University of Malaya (UM) students. Meanwhile, hypotheses created as below are tested through this analysis.

Hypotheses 1

H_0: There is no significant relationship between social influence and adoption of e-wallet.

H_1: There is positive relationship between social influence and adoption of wallet.

Hypotheses 2

H_0: There is no relationship between perceived ease of use and adoption of e-wallet.

H_1: There is positive relationship between perceived ease of use and adoption of e-wallet.

Hypotheses 3

H_0: There is no relationship between perceived usefulness and adoption of e-wallet.

H_1: There is positive relationship between perceived usefulness and adoption of e-wallet.

Hypotheses 4

H_0: There is no relationship between perceived security and adoption of e-wallet.

H_1: There is positive relationship between perceived security and adoption of e-wallet.

Hypotheses 5

H_0: There is no relationship between trust and adoption of e-wallet.

H_1: There is positive relationship between trust and adoption of e-wallet

Table 4.13 Multiple Regression Analysis

Independent Variables	Unstandardized Coefficients (B)	Standardised Coefficients (Beta)	t-stat	p-value	VIF	Tolerance
(Constant)	2.462		8.173	0.000		
SI	0.176	0.236	3.128	0.002	1.303	0.767
PEOU	0.001	0.002	0.022	0.983	1.826	0.548
PU	0.130	0.134	1.758	0.040	1.323	0.756
PS	0.053	0.062	0.768	0.443	1.511	0.662
T	0.066	0.094	1.208	0.229	1.402	0.713
R				0.380		
R^2				0.145		
Adjusted R^2				0.123		
F-test				6.633		
Sig				0.000		
Std. Error of the Estimate				0.512		

Durbin-Watson	1.571

a. Dependent Variable: Adoption of E-Wallet among University of Malaya (UM) students

Table 4.13 describes the outcome of multiple regression analysis for all variables in this study. The regression model comprises five independent variables are statistically significant since the value of F-test is 6.633 and with p-value less than 0.05. In addition, Table above also shows that the factors influence is explain the adoption of e-wallet among University of Malaya (UM) students significant based on the value of R^2. The R^2 of 0.145 indicated a slight and almost negligible relationship between five independent variables and dependent variables. Moreover, the adjusted R^2 with the value of 0.123 indicated that 12.3% of the variation in acceptance of e-wallet among University of Malaya (UM) students is explained by the indicators while the rest of 87.7% did not explain in this study.

Multicollinearity is also shown in table above as it is important whether there is correlation of regression among factors influence. As shown in above, the result proved there is no multicollinearity as the Variance Inflation Factor (VIF) are all within the range 0 to 10. It similarly proved by the value of tolerance which is greater than 0.2 for all variables.

Meanwhile, whether the data is normally distribution for a particular metric variable is based on the normality test. According to Appendix 1 and 2, the data is normally distributed as shown in the frequency distribution and normal Q-Q plots.

In Appendix 3, the scatter plot presents the residuals are falling in a generally random pattern due to show non-linear pattern to the residuals are not shown. The result indicates that homoscedasticity in multivariate independent variables that every value of the predictors is constant. Moreover, the error terms for any pair of the observation is unrelated to each other or not varying together.

Durbin Watson test is also involved in this regression analysis. Durbin Watson test is known as serial correlation in residuals that determine the autocorrelation. The Durbin Watson statistic value is 1.571 which considered normal as Field (2009) stated that it is consider normal within ranges 1.5 to 2.5.

Based on the regression equation, the statistical results as below:

AEW = 2.462 + 0.176 (SI) + 0.001(PEOU) + 0.130 (PU) + 0.053 (PS)+ 0.066 (T)

Whereby,

AEW = Adoption of E-wallet
SI = Social Influence
PEOU = Perceived Ease of Use
PU = Perceived Usefulness
PS = Perceived Security
T = Trust

Table 4.14 Summary of Hypotheses Testing

Hypotheses	**Results**	**Supported or not supported**
H1: There is a significant relationship between social influence and adoption of e-wallet.	P<0.05	Supported
H2: There is a significant relationship between perceived ease of use and adoption of e-wallet.	P>0.05	Not supported
H3: There is a significant relationship between perceived usefulness and adoption of e-wallet.	P<0.05	Supported
H4: There is a significant relationship between perceived security and adoption of e-wallet.	P>0.05	Not supported
H5: There is a significant relationship between trust and adoption of e-wallet.	P>0.05	Not supported

Based on the table, it presents that the increase of 0.176 (SI), 0.001 (PEOU), 0.130 (PU), 0.053 (PS) and 0.066 (T) to increase 1 unit of adoption of e-wallet. Additionally, social influence is considered as the main predictor among the independent variables as it has the strongest influence on adoption of e-wallet which the value standardised coefficients (Beta) is 0.236. This is followed by perceived usefulness (0.134), trust (0.094), perceived security (0.062) and the weakest predictor is perceived ease of use (0.002).

Hypotheses 1

H_1*: There is positive relationship between social influence and adoption of e-wallet.*

Table 4.15 demonstrate that the p-value is 0.002 ($p<0.05$). Thus, reject null hypothesis with at most 5% of error. Besides that, conclude that there is a significant relationship between social influence and adoption of e-wallet. In fact, the adoption of e-wallet is influenced by externally and internally which included the influence by family or relative, friend, social media and so on. Based on the result, it is significant that an individual might accept or adopt a certain system when felt being forced by social pressure (Nysveen et al., 2005). This outcome is proved by Shin (2009) and Oliveira, T. et al., (2016) which also stated that social influence has positive relationship with the use of e-wallet. Hence, social influence is an important indicator as the target population are students who mostly spend of their time with friends. Besides, they will affect each other spoken about positive comment and opinion on e-wallet. In short, conclude that social influence and adoption of e-wallet are significantly related to each other.

Hypotheses 2

H_1*: There is positive relationship between perceived ease of use and adoption of e-wallet.*

Table 4.15 indicated that the p-value is 0.983 ($p>0.05$). Thus, do not reject null hypothesis with 5% of error. As conclusion, there is no significant relationship between perceived ease of use and adoption of e-wallet. This result is proved by Dastan and Gurler (2016), they expressed that the ease of use of system and the adoption is not directly related. In the other word, the intention of consumer towards adoption of e-wallet will not influence by the ease of use of the system.

Hypotheses 3

H_1: There is positive relationship between perceived usefulness and adoption of e-wallet.

Table 4.15 indicated that the p-value is 0.04 (p<0.05). Thus, reject null hypothesis with 5% of error. As conclusion, there is a significant relationship between perceived usefulness and adoption of e-wallet. This result is proved by Davis et al. (1989) and Taufan, A., & Yuwono, R. T. (2019), which stated that perceived usefulness has certain impact before a person made decision on adoption of e-wallet. Past study of Sahut, J. M., (2009) expressed consumer would prefer to apply e-wallet if the perceived usefulness of e-wallet is high and not costly. E-wallet providers should provide guidance of applying the system to make the process more efficient and easier. The design should focus more on the usability of the system instead of appearance. In short, conclude that perceived usefulness is an main component towards adoption of e-wallet.

Hypotheses 4

H_1: Thereais positive relationship between perceived security and adoption of e-wallet.

Table 4.15 indicated that the p-value is 0.443 (p>0.05). Thus, do not reject null hypothesis with 5% of error. As conclusion, there is no significant relationship between perceived security and adoption of e-wallet. This result is same as the findings of Teoh et al. (2013) which indicated that use of the e-wallet will not be changed by security of system as they discovered that security of system is not significant towards intention of consumer. In the other words, security of the system is not the main concern of consumer.

Hypotheses 5

H_1: There is positive relationship between trust and adoption of e-wallet.

Table 4.15 indicated that the p-value is 0.229 (p>0.05). Thus, do not reject null hypothesis with 5% of error. As conclusion, there is no significant relationship between trust and adoption of e-wallet. This is supported by past findings conducted by Kim et al. (2009) and Pavlou (2001) which have the same result of

findings. They indicated that trust is not directly associated to the adoption of online payment services. Thus, trust only is insufficient to convince consumers to adopt e-wallet system (Hoffman et al., 1999).

4.3 Conclusion

In this section, descriptive analysis is applied to summarizes respondent's information. Reliability test and inferential analysis (Pearson's Correlation Coefficient and Multiple Linear Regression Analysis) are used by using SPSS software to determine the relationship between dependent variable and independent variables. Regarding to the findings of tests, there are two independent variables which are social influence and perceived usefulness have significant relationship with adoption of e-wallet. For other factors influence in this study, perceived ease of use, perceived security and trust are insignificant related with the adoption of e-wallet. A further discussions and conclusions are conducted in subsequent section.

Chapter 5: Discussion and Conclusion

5.0 Introduction

This chapter highlights a more detailed explanation regarding to the outcomes in chapter 4. Discussion of major findings, implication of the study, limitations of study and future research paper and conclusion are included in this chapter.

5.1 Summary of Statistical Analysis

5.1.1 Descriptive Analysis

For respondent demographic profile, the findings reveal that female students are more than male students among respondents. It consists of 56.9% of female respondents and 43.1% of male respondents. In addition, large proportion of respondents are within 22 to 24 years old which comprises of 68.8% while there are only 0.5% of respondent are falling in age group of above 24 years old. For nationality of respondent, large portion of respondents are Malaysian (98%) and the rest (2%) are non-Malaysian. Besides that, respondent who are Chinese comprises of 62.9% while for Malay and Indian comprises of 31.7% and 5.4% respectively. Most of the respondents are from faculty of economics and administration which comprises of 28.7%. All the respondent is currently pursuing their degree holder and there are around half amount out of 202 respondents (53.5%) are in their third year of study. According to Table 4.7 and Table 4.8, there are 99.5% of respondent are currently using a smartphone and 99% of respondents are making online payment by using their smartphone. Moreover, there are 97% of respondents have their payment application in their smartphone. The most popular e-wallet among respondent is GrabPay which comprises of 41% of respondent are most familiar with it. Also, most of the respondent (59%) get information about the e-wallet from social media. From the result above, I believe that the information collected from respondents by questionnaire are suitable to use in this study.

5.1.2 Reliability Test

In this test, Cronbach's Alpha is applied in the purpose of explain the reliability of all items constructed to weigh social influence, perceived ease of use, perceived usefulness, perceived security, and trust and dependent variables (adoption of e-wallet). The result in Table 4.12 showing that trust has the highest Cronbach's Alpha value of 0.821 while perceived ease of use has the second highest Cronbach's Alpha value of 0.803. This is followed by perceived security (0.744), social influence (0.732), perceived usefulness (0.708) and adoption of e-wallet (0.704). Alpha value of 0.704 is the lowest value in this test which means that each variable have a good internal consistency due to each alpha value are larger than 0.6. In short, all variables in this test are consistent.

5.1.3 Inferential Analysis

5.1.3.1 Pearson Correlation Coefficient

As stated by the findings in Table 4.13, p-value of all independent variables in this study is less than 0.05. This indicated that all independent variables are important for this study. Social influence has the highest value correlation coefficient (r=0.322) followed by perceived security (r=0.247), perceived usefulness (r=0.238), perceived ease of use (r=.0237) and trust (r=0.224). The value correlation coefficient for all independent variables are fall in range of ± 0.21 to ± 0.40 which implying a small but definite relationship between the independent and adoption of e-wallet in this study.

5.1.3.2 Multiple Regression Analysis

Regarding to the findings in Table 4.14, R^2 of 0.145 indicated that 14.5% of the response variable variation on adoption of e-wallet can be explained

by the factor influence. For the adjusted R2 of.123 indicated that 12.3% of the variation in adoption of e-wallet among University of Malaya (UM) students is explained by the factors. Furthermore, F-value in ANOVA test is 6.633 and significant level ($p<0.05$) which indicated that the strongest predictor would take advantage on measuring the adoption of e-wallet among University of Malaya students. In short, all the hypotheses can be accepted. The statistical results as below:

AEW = 2.462 + 0.176 (SI) + 0.001(PEOU) + 0.130 (PU) + 0.053 (PS)+ 0.066 (T)

Whereby,

AEW = Adoption of E-wallet
SI = Social Influence
PEOU = Perceived Ease of Use
PU = Perceived Usefulness
PS = Perceived Security
T = Trust

The equation presented that every units of increases in social influence, perceived ease of use, perceived usefulness, perceived security, and trust, will be an increase of 0.176, 0.001, 0.130, 0.053 and 0.066 respectively on acceptance of e-wallet.

5.2 Discussion of Major Findings

5.2.1 Test of Significant

Among five independent variables, there is only social influence and perceived usefulness have significant relationship between adoption of e-wallet among University of Malaya (UM) students. The rest such as perceived ease of use, perceived security and trust are insignificantly related to adoption of e-wallet among University of Malaya (UM) students.

5.3 Managerial Implication

According to the analysis results, it might provide numerous contributions to several groups in the society. Firstly, this study is useful for the e-wallet providers or entrepreneurs who planned to expand the e-wallet system in Malaysia. The detailed information and message provided in this study is able to be a guideline to providers and entrepreneurs an appropriate perception on the problem that should not be ignored when developing the system. As result shown, social influence and perceived usefulness are important factors in influencing the adoption of e-wallet service. Also, for those existing providers in the market are suggested to concern more on these important factors and improve on the existing services. Besides that, future providers might have a more accurate estimation on user's needs for the e-wallet services in Malaysia. Consumers' willingness to use e-wallet service is increased as the company performance is improved by doing more study which can be used as a guiding principle.

Secondly, this is contributing to financial organizations in the field. The cooperation between financial institution and e-wallet service provider is essential while offering the service to consumer. For example, a commercial bank is able to improve the instalment mode for their clients in a collaboration regarding to their needs based on the usefulness and convenience in making a transaction. Also, consumer is more interested on the e-wallet system and more confidence on the services as the service is collaborate with a trustworthy financial institution. Hence, the intention to apply e-wallet system among the public will increase. Financial institutions are also allowed to stabilize and enhance its position in the economical market by including new-found components that may influence the level of acceptance of financial technology into account in the business plan to develop the company.

Lastly, this study assists the future researchers who are keen to the level of acceptance or factors affecting the adoption of e-wallet system. All selected variables for this study can be a guidance or reference for future study which are related with this topic. Regarding to the findings, independent variables such as social influence and perceived usefulness are significantly related to the adoption of e-wallet system. Yet, there are variables such as perceived ease of use, perceived security and trust are not significant

in this study. Future researchers can either choose to remove the irrelevant variable or measure different variables when conducting their study for different target population. In Malaysia, e-wallet is a new normal and new concern among the financial technology, hence, there is a small portion of researchers have conducted a study with related topic. Thus, this study is able to help as benchmarks of future research study and provide guidance with the coordinated effort of researchers and providers.

5.4 Limitation of Study

There are some limitations revealed in this study. Firstly, the limitation is the target population in this study is only focus on University of Malaya (UM) students. All of the respondents are 90's generation and mostly fall on age 19 to 24 years old. The findings in this study only show the views for 90's generation but for all generation. In fact, the target user of e-wallet is not just the youth but also all individuals in several ages group. Consumer with different age group might have different level of acceptance towards new technology system as they have different needs. Adopting a new and advance technology is slightly simpler for young people but not for older people as they are born in different generation. Thus, these may influence the accuracy and reliability of results in this study.

Moreover, the questionnaire for in study are distributed randomly among University of Malaya (UM) students. Respondents are pursuing their degree and come from different faculties in University of Malaya (UM). Nevertheless, there are also diploma, postgraduate, master students in University of Malaya (UM). The intension or acceptance of e-wallet system might be different as different level of education background. Hence, the accuracy of result might be affected as this study is focus on undergraduate students.

Besides that, all the respondents are highly educated as the target population is University of Malaya (UM) students. Respondents in this study are undergraduate students such as degree holder and professional. Nonetheless, consumers with different education qualification might have different level of acceptance towards adoption of e-wallet. Therefore, these may lead to an inaccurate result of the study. The outcomes in this study will be more accurate if targeted on population in several range of education qualification in future study.

5.5 Future Research

In this study, there are numerous limitations being determined when conducting this study. Therefore, there are some recommendation and suggestion that can be referred by future researchers to overcome the limitation mentioned in this study. Firstly, age group and generation of target population need to be widening in future research. Future research is suggested to widen the age range among target population and involving not only young generation but also elderly generation. Therefore, to increase the accuracy of the findings as different generation of people grew up with different level of technology advancement which has the strong relationship with e-wallet system.

Moreover, it is suggested to include different education qualification of University of Malaya (UM) students in the sample size. For example, students who are currently pursuing diploma, degree, master and Doctor of Philosophy in University of Malaya as they might have different opinion and intention towards adoption of e-wallet system. Hence, future research should be conducted by including different education background to perform better in their study.

Lastly, the limitation regarding the education background of target population need to be overcame by including respondents with different education level into the study. Besides the tertiary education, respondents with secondary, foundation, diploma, master, and above could be involved in future study. People with different educational level would have different perception on utilization of e-wallet. Hence, it is suggested to include respondent with different educational level in future study to increase the accuracy of the findings.

5.6 Conclusion

In this study, there are five independent variables which included social influence, perceived ease of use, perceived usefulness, perceived security, and trust. All independent variables have significant relationship with adoption of e-wallet among University of Malaya students. According to the correlation coefficient value, all variables

are positively related. In conclusion, descriptive analysis, reliability test, inferential analysis, managerial implications, limitation, and future research are highlighted in this chapter.

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