FACTORS OF E-WALLET ADOPTION AMONG GENERATION Z

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DECLARATION

We hereby declare that:

(1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) Equal contribution has been made by each group member in completing the research project.

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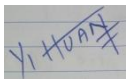
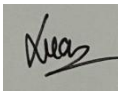
LI YI HUAN	17ABB06453	
LIM JIA XUAN	17ABB06304	
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LIST OF ABBREVIATION

TAM	Technology Acceptance Model
SPSS	Statistical Package for the Social Sciences
CV	Convenience
BG	Budgeting
SC	Security
RW	Reward
PU	Perceived usefulness
PEOU	Perceived ease of use

ABSTRACT

This research topic study on factors of E-wallet adoption among generation Z in UTAR, Kampar, there will be 6 independent variables, convenience, budgeting, security, rewards perceived usefulness and perceived ease of use. In this research, we will investigate the relationship between the variable and adoption of E-wallet among generation Z in UTAR, Kampar

Statistical Package for the Social Sciences (SPSS) has been applied to perform reliability tests, inferential analysis and scale measurement that explains the hypothesis developed.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

Chapter one will talk about the background of research, problem statement, research objectives, research questions and significance of study.

1.1 Research background

In this age of advanced technology, introducing newer technologies are helpful for customers. Introduction of E-wallet and other digital payment methods are hot issues that are mostly discussed as it is an useful innovation of technology which could bring contribution to society. It enables customers and businesses to conduct transactions in electronic payments easily. E-wallet payment method enables users to purchase things online and pay for utility bills. After the demonetization of India, other developers of E-wallet also snatched this chance as the rate of E-wallet users increased quickly (Adharsh et al., 2018).

E-wallet can be defined as a convenient way for people to build an account in order to store or top up their money inside an “electronic wallet” and use it either online or offline through their electronic devices (Pahwa, 2020). Nearly all E-wallets allow for the addition of funds through a wide range of methods, including online bank transfers, credit cards, and debit cards. While making purchases at a business that accepts mobile payments, consumers can pay in a variety of ways including QR code scanning, tap-and-pay on the phone with the NFC feature, and in some cases even by an accompanying physical card.

Malaysia has been a hotbed for e-wallets over the past few years, with new ones cropping up nearly every other month. There are over 40 digital wallet platforms that run in the country to date. The rapid growth witnessed by e-wallets is also consistent with goals of changing Malaysia to a cashless country by 2020 with cooperation of Bank Negara, with the central bank setting up a blueprint on mobile-based payments.

Based on the ("Expert: Increase SMEs contribution to Malaysia's economy via e-wallet adoption | Malay Mail", 2020), The Finance Ministry has allocated RM450 million to launch the E-tunai Rakyat program to enhance the country's E-wallet adoption. Touch'n Go E Wallet and others participated in a program that was launched by the government in order to encourage usage of E-wallet. This is because of their huge number of active users, comprehensive merchant networks, and technological experience. According to "E-Wallets in Malaysia: Landscape at the end of 2019", (2019), e-wallet used in Malaysia are set to grow higher than ever, as even the federal government has plans to actively promote the use of e-wallet use and minimize cash flow.

Developments in the e-commerce and tech industries have paved a way for E-wallets to emerge which are rapidly gaining popularity in Malaysia. Although convenience remains the major reason for e-wallet usage, the competence to secure transactions and the increasing prevalence of cash back or reward schemes have also contributed greatly to market growth and adoption. Consumers nowadays often demonstrate a growing ability to adopt new technologies, and are definitely more open to attempting non-traditional methods of payment.

Based on the Boost CEO, Chris Tiffin, the acceptance of technology among the youths and young adult segments is intensely high. Thus, it is a natural capability to be focusing to increase the adoption through the university initiatives and the areas around Boost (Nair, 2018).

Throughout this research, it proposed to examine the factors affecting adoption of E-wallet among generation Z. Research was carried out to investigate convenience, security, budgeting, reward, perceived usefulness and perceived ease of use of adopting E-wallet among generation Z.

1.2 Problem Statement

As a consequence of the rapid growth in terms of smartphone users and mobile data networks, therefore Electronic Wallet is attracting young people who have tried to adopt it to become a method when making transactions or paying for goods and services. Electronic Wallet also is known as E-wallet which is a transaction system. The internet service lets the consumers handle the message related to purchase, membership and banking information (Uddin & Akhi, 2014). Most of the e-wallet studies were focused on to increase efficiency improve security and enhance customer convenience. Although this system has entered the market, it has already made significant development for business-to-consumer (B2C) transactions. Besides that, online payment systems also become a significant concern to users (Kalakota & Whinston, 1997).

Although there are many studies about the mobile payment solutions, the research was often limited to only countries such as Australia (Teo et al., 2005), Germany (Pousttchi & Zenker, 2003) and Canada (Valcourt et al., 2005). In relation to mobile payment in Malaysia, research findings were limited; there has been little research that shows Malaysians how to think of the E-wallet and whether they will keep using it as a daily. In Malaysia, the consumer market is still slowly as an emerging market and under development, the United Nations Statistics Division stated that majority consumers are under the age of 15 with 26%, in between of 15-64 and above age 65 are 65.4% and 5% respectively. This causes the issue why Malaysian not adopted this payment system due to Malaysia not yet introduced E-wallet and businesses not encouraged to adopt the E-wallet, the elderly consumers not willing to learn, and not interested with advanced technology. Besides that, consumers are not accepting the new concept of transaction.

Davis (1989) studies stated that Technology Acceptance Model (TAM) is a revised suit to demand of people. Di Pietro et al., (2015) pioneered that the model predicts consumer acceptance and usage of mobile payment. As a result, in TAM by Davis (1989) individuals'

intention to adopt the new information technology is acceptance to determine perceived ease of use and perceived usefulness. Dahlberg et al., (2015) had reviewed past studies in the area of mobile payment by using the TAM model; these studies found perceived ease of use, perceived usefulness most influencing variables followed by security, convenience, and reward.

Many researchers mainly focus on the security (Dai & Zhang, 2003; Saxena et al., 2005; Dandash et al., 2005), game theory (Ou et al., 2009) software and infrastructures architectures (Zhang et al., 2008). Perceived security is the extension of the TAM model, this is because perceived security, safety of the E-wallet is a hassle-free mode of making payment are the most challenging issues (Adharsh et al., 2018). According to Amoroso & Magnier-Watanabe (2012) explained that most of the consumers are willing to adopt mobile payment but the risk will be considered as a primary when making online payments. Therefore, consumers are also afraid to adopt E-wallet because online transactions are being interrupted by fraudulent users and financial data may be lost.

In Malaysia, encroachment of information technology with the payment system is growing rapidly. Basir (2009) stated that the e-payment system used by Malaysians very highly in using credit card and internet banking. Consequently, Abdullah et al., (2012) explained that 90% of transactions are through payment by credit card. Hence, it can be said that Malaysian are familiar with using credit cards compared to other payment methods. Mallat et al., (2004) explained why U.S bank has closed their mobile bank due to user's shortage. Similarity, the adoption rate remains low due to Chinese not accepting m-commerce studies (Wei et al., 2009).

1.3 Research Objectives

1.3.1 General Objective

Objective of the research is to examine the factors that affect the E- wallet adoption among generation Z in UTAR, Kampar.

1.3.2 Specific Objectives

i. To investigate the relationship between convenience and adoption of E-wallet among generation Z in UTAR, Kampar.

ii. To investigate the relationship between security and adoption of E-wallet among generation Z in UTAR, Kampar.

iii. To investigate the relationship between budgeting and adoption of E-wallet among generation Z in UTAR, Kampar.

iv. To investigate the relationship between reward and adoption of E-wallet among generation Z in UTAR, Kampar.

v. To investigate the relationship between perceived ease of use and adoption of E-wallet among generation Z in UTAR, Kampar.

iv. To investigate the relationship between perceived usefulness and adoption of E-wallet among generation Z in UTAR, Kampar.

1.4 Research Questions

i. Is there any significant relationship between convenience and adoption of E-wallet among generation Z in UTAR Kampar?

ii. Is there any significant relationship between security and adoption of E-wallet among generation Z in UTAR, Kampar?

iii. Is there any significant relationship between budgeting and adoption of E-wallet among generation Z in UTAR, Kampar?

iv. Is there any significant relationship between reward and adoption of E-wallet among generation Z in UTAR, Kampar?

v. Is there any significant relationship between perceived ease of use and adoption of E-wallet among generation Z in UTAR, Kampar?

vi. Is there any significant relationship between perceived usefulness and adoption of E-wallet among generation Z in UTAR, Kampar?

1.5 Significance of Study

As the number of using E-wallet is growing, people also started adopting them in their daily life. E-Wallet is becoming a thing now in Malaysia where retailers and stalls are starting to adopt E-Wallet as one of their alternatives of payment methods. This is because using the E-wallet for payment or any transaction will have a reward system where the user will be awarded with points for each successful transaction. The point received can be exchanged into vouchers or discounts for the next transaction made. In consequence, we could know the reaction of the user towards the usage of E-wallet. This study can also help the e-wallet developer to gain more understanding on the user behaviour and help them in improving the E-Wallet system. On the other hand, this study could also help those entrepreneurs that are yet to adopt this system into their daily transaction method as it helps entrepreneurs to understand the current market trend of the usage and satisfaction of using E-wallet by consumer.

Moreover, it also helps the organizations that connect with financial and the government on the usage of E-wallet. As we can see that early this year, the government had distributed RM 30 to those who have a registered account of any three of the selected E-wallet where each person is entitled for one claim. This has shown that the government had the intention in encouraging the usage of E-wallet in Malaysia. Therefore it greatly assists the government to understand the behaviour of the people in adopting E-Wallet.

Besides, this study will also help future researchers and students who would like to do more research towards usage of E wallets. This will contribute further information and ideas to them which relate to E wallet among generation z within UTAR, Kampar. Based on this study, students can learn more about E-wallet and reasons which will affect usage of E wallet among generation z in UTAR, Kampar. As the E wallet has aroused interest among users, this will attract many researchers to do more research on this topic in future. Hence, future researchers can use the factors that we suggested as references in future studies.

1.6 Conclusion

This research explored the research context, problem statement, research goals and questions and the importance of the analysis. A summary of the research was given via a review of the first chapter. Further detail on dependent and independent variables was addressed in the following sections.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

In chapter 2, we are going to discuss underlying theories, literature review, conceptual framework and hypothesis development. This chapter includes the dependent variable (adoption of E-wallet) and independent variable (convenience, security, budgeting and reward). In addition, we will discuss conceptual framework and hypothesis development in this chapter. In proposing the conceptual framework, we provide the relationship between dependent variable and independent variable.

2.1 Underlying Theories

Technology Acceptance Model (TAM)

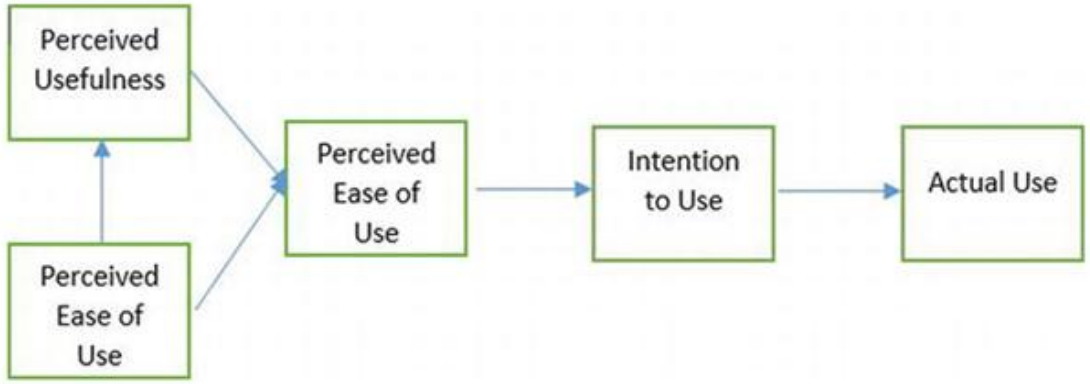


Figure 2.1: Technology acceptance model (David,1989)

Davis (1989) has developed a Technology Acceptance Model (TAM) which is one of the most widely studied methods for estimating the use and acceptance by individual users of information systems and technology.

The aim of TAM is to apply the primary use determinant to accept or disallow a new tool. The purpose to apply is controlled by the personality of the individual towards the use of a

particular tool. Two of the most important individual beliefs regarding the use of information technology (IT) are perceived usefulness (PU) and perceived ease of use (PEOU) which can explain the intention of the individual to use the technology.

Davis (1989) Indicated that PU was the strongest predictor of one's intent to use IT. Beside, the use of mobile commerce was found to be highly influenced by the usability of mobile devices including customization, ubiquity, location, timeliness and network stability (Wong & Hiew, 2005). Teoh et al., (2013) stated that PU is the most significant determinant for predicting the intention of customers to use mobile trade in Malaysia and suggested that perceived utility has played a vital role in influencing the behavioural intent of introducing new technology innovation.

Other than that, PEOU is defined by how often the user utilizes a particular device and is effortless. Past projects have shown that PEOU affects targets in 2 ways, which through tool utility is direct and indirect. (Davis, 1989). As indicated by Davis (1989), PEOU may not have any vital effect on the behavioural expectations to be used in view of the fact that PU has an influence. PEOU does not explicitly affect the behavioural purpose of the consumer because it affects behavioural perceptions by PU.

According to Davis (1989), however, a person may find the system difficult for using while its system may be useful to them. Because mobile apps have certain technological shortcomings, ease of use is seen as a vital building block in the adoption of mobile apps. (Venkatesh & Davis ,1996). PEOU refers to the extent to which the individual believes that the mental and physical effort required to use the program is free. Besides that, it needs to be easy to use or implement mobile payment service.

Besides, according to Surendran (2012), Researchers around the world have used TAM to understand the acceptance of the different forms of information systems. For example, Ervasti and Helaakoski (2010) formed a TAM and TPB model for understanding the

acceptance of mobile services, which states that the most powerful adoption factor is considered to be useful. Patil et al.,(2017) led a literature review on digital payment adoption. They found that most studies used TAM, UTAUT and its extensions to explain the adoption of mobile payment services by customers.

In addition, in the research of Janssen et al., (2017) built a model of factors linked to the views of the people on trustworthiness in the services given through government portals. The findings showed that the impact of the trust of people in the online services remains at the macro level. This suggests that there is a significant gap in the literature to examine and appreciate the intricacies of the relationships between main decision variables that influence the commitment of consumers for new and emerging technologies such as mobile wallet.

2.2 Review of Variables

2.2.1 Dependent Variable: Adopting E-wallet

In this research, adoption is referring to the generation Z using the e-wallet based on the factors as a consideration using the e-wallet. E-wallet is a very convenient, easy-to-use to secure the global payment system. In addition, it is also flexible with a "personal banking system" with a number and pay-in option. According to the Carr Jr (1999) technology adoption is the circumstances for an organizational or individual use to accept the technology. Nowadays the advanced and dynamic growth of technologies, the level of consumer acceptance of technologies is reliable under certain factors. For instance, consumer's need, availability of technology, and security (Lai, 2017).

By combining extended TAM theory, Wang & Gu (2017) states that people will accept more than one e-wallet which is WeChat Pay, boost and touch and go to utilize the social theory to affect the accepting by collecting data from users. Besides that, people become more dependable on these devices and services in their daily life throughout the world. This is because the e-wallet will bring consumers more advantages to the users and most people are likely to adopt the e-wallet frequency. According to Lella & Lipsman (2014) there are more consumers who select E-wallet as their primary method to make payment, especially 60% of consumers in the U.S.

In contrast, Manikandan & Jayakodi (2017) also come out with an investigation about the component that brings impact when adopting the e-wallet using a primary method. Using an e-wallet for buying the products or goods becomes more common every year. With the increasing adoption of e-wallet and e-commerce, it has brought the emergence towards m-commerce. Besides that, increasing the use of e-wallet in e-commerce added with the popularity of e-wallet users also will cause the emergence of many tools for payment methods. In short, generation Z and most people prefer E-wallet as a primary alternative method when making the payment.

2.2.2 Convenience

Convenience defined as simple to use and affordability of use and the achievement of unique advantages with the use of functionality and fast access. (Sharma & Gutiérrez, 2010). Contrasted to traditional payment systems, the convenience of mobile phone services is characterised as speed, ease of access, and efficiency in time and space. In addition, cell phone service often removes the annoyance of space and time payment products, such as desktops and laptops. It also helps customers to make mobile purchases. Other than that, mobile payment systems can support small transactions and reduce the hassle of small quantities of money transactions for customers. (Luarn & Lin, 2005).

From Zlatko Bezovski's research findings (2016) explained that the use of smart phones to conduct online transactions has become increasingly common with a broad mobile customer base. This method of payment is ideally suited to micropayments and, if implemented properly, provides more efficient and stable payments online. Given their ability to cater for limited and flexible payments, digital payment systems are in the process of achieving high market adoption. A key challenge for all this method of payment is the provision of an authentication mechanism to ensure the safety and ease of each payment generated.

Based on Bezovski's findings (2016), convenience in the online purchase of products, brand loyalty and the usefulness of digital wallets are the main factors that play a major role in consumer adoption. Other than that, a digital wallet has been found to be an additional method for online payments. Digital wallet users are pleased with the services they offer. Besides, the researcher found that the protection and safety of the investments was the most challenging problem for users.

According to Chauhan (2013), E-wallet has become a storage system that stores customer financial and credit credit card details which can be used to make electronic or online transactions without re-entrying the information stored at the time of purchase. The distinction of the E-wallet feature enables customers to have the trouble-free option to buy online products and services. Chin & Ahmad (2015) stated E-wallet offers quick and efficient methods to execute common online payments.

Nonetheless, According to the Nizam et al., (2018) study, numerous countries have applied the use of e-wallets as part of normal consumer purchasing options. E-wallet could save consumers time traveling since they only need to scan their card or e-wallet app instead of taking their time to purchase tickets in search of cash and queue. With regard to Malaysian consumers, E-wallet offers awesome relief to users who frequently

buy online, because E-wallet stores all financial data resulting in a fast trouble-free transaction. Besides, E-wallet helps to reduce the line-up of public transportation consumers with the tap'n'go feature as Malaysia's public transport network nowadays is growing fast.

2.2.3 Budgeting

Many E-wallets can help to track consumers' spending habits. Some E-wallet may generate reports that show the product categories of consumer spending. Consumers can also assign fixed budgets to avoid overspending on certain items. However, consumers can disable this feature if they want to buy a huge amount of items. This can ensure they have enough money available to make the payment. By managing and organizing all the transactions, it gives consumers an aspect to know how much and where they have spent (Gaille, 2018).

E-wallet recognized as prepaid payment instruments that facilitate purchase of goods and services, involving funds transfer. Users can keep an amount on such instruments by cash, debit to a bank account or credit card. The prepaid instruments can be recognized as smart cards, magnetic stripe cards, internet accounts, internet wallets, mobile accounts and mobile wallets (Pachare, 2016).

Consumers adopted E-wallets to be used in all e-commerce websites. Besides, E- wallet also provides quite the same function with internet banking services such as transferring money to other accounts, e-pay, e-cash, and issuing e-checks. Paper involves checks, invoices from suppliers and makes payments to beneficiaries which cause environmental issues. Moreover, paper is ineffective and high-priced. An organization can use e-payable to provide better transparency and avoid late-payment penalties. Users of E-wallet can

transfer money to their smartphones easily. For instance, users can avoid service charge and delay time during transfer money to other people staying in other countries. E-wallet enables consumers to transfer funds, pay bills, deposit checks and conduct other transactions. E-wallet can show the history of transactions and keep track of previous payments for customers to avoid overspending (Nizam et al., 2018).

Consumer budgeting requires financial planning and disciplined spending. Credit cards provide consumers easy to spend the financial source which may include high credit limits, interest charges and other fees. However, e-wallet can be used to set spending limits. Consumers require a top-up amount into their account. Users can be conscious of spending by planning how to spend the money efficiently. The balance amount of e-wallet also helps users to prevent overspending. This can encourage good spending habits of consumers in order to control their budgets.

E-wallet provides many promotions to encourage people to adopt e-wallet. E-wallet users are able to control their budgets due to cost saving in consumption. The promotion includes cash back, discount, coupon and so on. Petron Malaysia introduced cashless payments by expanding e-wallet services in a collaboration with Malaysia's leading e-wallet Boost. The collaboration is also available for payments via all other domestic Malaysian e-wallets such as Grabpay, Maybank QRPAY, Touch n Go and some cross-border e-wallets accepted in Malaysia. For example, Petron customers will get RM5 cashback when spending a minimum RM50 with Touch 'n Go E-wallet valid from 16 March 2020-15 April 2020. E-wallet users can get the additional benefit of RM5 cash back compared to those paying with cash. Besides, E-wallet also collaborates with other partnerships to offer some discounts for its users. For instance, Touch 'n Go E-wallet users can get a 50% for a pair of lifestyle sandals at Hush Puppies during 1-31 March 2020. E-wallet users are able to enjoy extra benefits of cost saving in their spending which is not available for cash spending consumers ("Promotions", n.d.).

2.2.4 Security

According to Huang & Cheng (2012), security refers to a set of programs and procedures for verifying the source of information and also ensuring the integrity and privacy to prevent the issue of the data and network. E-wallet can protect the consumer to make the transaction which is correlative with security (Harris et al., 2011).

Rathore (2016) investigated that security is the factor of consumer adoption towards E-wallet. When the consumers are conducting online transactions, the mobile payment system is dominated by various security levels perceived by the consumers, so considered as a key issue is the level of security of the transaction (Udo, 2001).Some of the consumers worry about their online activities being intercepted by fraudulent users. This will occur in situations like financial data losses or theft of sensitive personal details. Mobile payment systems guarantee secure payment methods and efficient data transmission to ensure the safety of online transactions (Francis et al., 2010). According to Fang et al., (2014), consumers want to protect their personal information because they fear their information being misused and authenticated access. Other than that, mobile payment systems also can protect our financial loss to reduce the risk. It also can prevent the risk of abuse usage and avoid others attacking our information when adopting the E-wallet.

On the other hand, security issues are the barrier to use due to many paid digital services and e-commerce activities **(**Linck et al., 2006). This is because the objective security of the mobile payment system can be considered as general payment methods such as online credit cards. Moreover, perceived security of mobile payment systems are not concerned as actual security. When the users adopt these systems it may create barriers. **(**Kim et al.,

2010**;** Linck et al., 2006). In addition, a number of parties involved in mobile payment such as banks, telecom companies and numerous merchants. These parties will lead to increased public attention to security and privacy.

Based on the Shaw (2014) study E-wallet can be easily abused and stolen because of anonymity and untraceable characteristics of it lead to losses to users. E-wallet research has been done by many studies and surveys.. There are many challenges such as hacking, transaction cost and the risk of abuse when using the E-wallet (Eslami & Talebi, 2011). However, researchers have made an effort and strive as much as possible to eliminate the risk. For instance, researchers develop passwords for offline e-money, introducing the E-Trading Laws to reduce the risk.

Varsha&Thulasiram (2016) investigated that adoption toward E-wallet services indicates that secured privacy and secured transactions are the reasons for e-wallet behavioural intention. This is because E-wallet is easy to use, speedy transactions, and more alternative payment options. It brings greater impact in the adoption of e-wallet and makes it become more secure when making the payment. The adoption will increase with the strengthening of E-wallet security. When consumers pay by using an e-wallet and with the offers they get in return. Thus, consumers feel secure and more comfortable when making purchases. In the study of Amoroso and Magnier-Watanabe (2012) examined that most of the consumers were willing to adopt the e-wallet but the risk exists inside are the consumers will take consideration when adopting the E-wallet.

2.2.5 Reward

Reward is a type of gain or prize that is obtained by people by doing or securing something and the reward could be divided into physical or non physical form. Where it is a kind of incentive (Davis et al., 1992) in encouraging consumers to participate in the

product and services provided or to achieve certain desired outcome. Through reward consumers will be more willing to purchase or use the product and services as they have something to gain from doing it (Ryan & Connell, 1989). According to Jeevananda (2011), they are a desired outcome where attraction and behaviour of the consumer can be affected by reward when it was included in the products or services of the seller. In the E-wallet context, by offering the reward as benefits for the consumer when downloading or using the E-wallet services can help in gaining interest of the consumer in using the E-wallet (Aydin & Burnaz, 2016).

Furthermore, the reward system such as Grab Pay and Boost where each complete transaction by the user may gain points which can be exchanged into E-cash, vouchers or discounts. This will also be foreseen by retailers where they will also adapt the E-wallet into their paying system to attract more customers to their shops. According to Tavilla (2017), by introducing the E-wallet into the shop paying system, it helps the shop to gain sales and customers which enhances the retail experience for consumers. With E-wallet, consumers can receive coupons or any discounts over the air directly to their phones instead of carrying reward cards for stores or clipped paper coupons.

2.2.6 Perceived Usefulness

Perceived Usefulness (PU) described as a person who believes that an improvement in the efficiency of his or her job can be achieved through the use of a particular application and also provides him or her with advanced features that allow effective flexibility. (Malik & Annuar, n.d). Agrebi & Jallais (2015) argued that PU is classified as an idea of individuals to improve the performance of the tasks assigned to them by the use of a particular program. The purpose to be used by consumers will emerge when they see the new technologies as very useful (Venkatesh & Davis, 2000).

Shaw (2014) determines that the PU significantly affects the motivation of using a digital payment. The results have clarified that the commitment to achieve the desired result drives individuals to make use of the programs. In the case of mobile payments, respondents stated that they could make a quick transaction because mobile phones are easily accessible on their hands. In addition, mobile phones also offer the advantage of receiving benefits and digital receipts to make them more effective to use. (Malik & Annuar, n.d).

Besides, PU is defined as the extent to which an individual believes that its performance will be enhanced by the use of a specific information system. (Logahan&Viliano, n.d.) Bearing in mind these definitions that perceived usefulness is an assertion about the process of decision making. If somebody feels confident the system will be useful then he will use it. In contrast, if a person feels confident that the information system is less useful then he won't use it (Davis, 1989). According to the research Lee& Wan (2010), PU is the degree of confidence that someone has in the use of a specific topic to provide rewards to those who use it. Researcher states that perceived usefulness as a predictor of usage behaviour will be influential in system development because users believe in a usage-performance relationship. This opinion is supported by the results of research conducted by Venkatesh et al., (2003), who found that usefulness was perceived as a predictor of behavioural intent to use.

Moreover, perceptions of the usefulness of a system can affect a person's sustainability in using the system within a short period of time or longer (Tiara& Usman, 2019). According to Oentario et al., (2017), one's perception of usefulness is how confident individuals are about using the technology that will improve the job. The perception of utility can be measured with the following indicators: useful, beneficial, efficient and productive.

More specifically, according to research conducted by Bailey et al., (2017), perceived use in digital wallet usage leads to users gaining advantages such as convenience and

payment simplification. Users will think that the practicality of payment makes a person no longer have to carry cash to make himself comfortable using the system at all times. Indicators of confidence that affect a person's perception of ease affect the consistency of digital wallet usage. If the system used still has a positive purpose for one's life then the system consistency is obtained. There is at least an indicator of perception uses proposed by Utami (2016), the indicator being the high risk, transaction security and security systems.

There are a number of studies that use PU as variable, and most of the research results show PU has a significant impact on technology acceptance. It indicates that PU plays an significant role in determining the acceptance of technology that will lead to better performance for future studies. Therefore, it is essential for these users to determine the PU of the E-wallet context.

2.2.7 Perceived Ease of Use

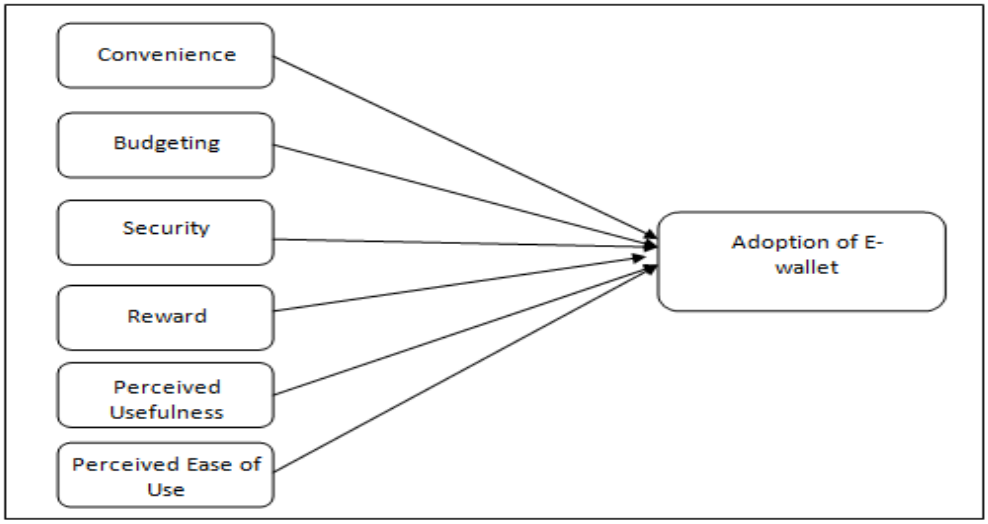
Perceived ease of use discussed users will not require physical and psychological effort in doing something by using a specific system (Davis, 1993). In the other word, it is using a particular system that can help and make something more convenient for an individual to carry out. It has become an important factor of adopting E-wallet services as the technical barriers of using mobile phones (Kim et al., 2010). This can be seen in the research of Ramos et al. (2016), where it states that the PEOU will affect usage of NFC technology. In consequence, the conveniences that bring by the e-Wallet contribute a great factor of people adoption on e-Wallet. For example, with the e-Wallet system individuals can reduce their frequency to the bank to withdraw money which brings great convenience to users.

Other than that, PEOU has an influence on consumer's behavioural intention to adopt E-wallet payment services positively (Chen, 2008; Chandra et al., 2010). When consumers get started to use mobile payment, they will realize the comparatively high ease of use of mobile wallet than a physical payment. They will know the convenience of using an E-wallet to make payment and willing to try different mobile payment services. Consumers will experience a higher level of usefulness if they go through the process of using mobile payment (Lu et al., 2003).

Moreover, features of applications on cell phones such as performing transactions of money might be hard to people who are still unfamiliar with it. However, people will be easier to accept and use the application if it is easy and convenient (Moore & Benbasat, 1991). Applications that can be used and connected effortlessly could affect usage of that system (Childers et al., 2001). Perceived ease of use could greatly affect the usage of mobile payment to online shopping (Lin, 2007). When consumers find out that making payment using a mobile phone is easy, they will consider using it frequently (Wen et al., 2011).

2.3Proposed Conceptual Framework

FIGURE 2. 2: MODEL OF PROPOSED FRAMEWORK



Source: Developed for the research

Above proposed conceptual framework illustrates the relationship between independent variables such as convenience and dependent variables. The objective of this research is to identify the factors of e-wallet adoption among generation Z. According to the relevant theoretical framework, it consists of six IV which are security, budgeting, convenience, reward, perceived usefulness and perceived ease of use and affect the E-wallet adoption among generation Z.

2.4 Hypotheses Development

2.4.1The Relationship between Convenience and Intention to adopt E-wallet

H_0: There is no significant relationship between convenience and adoption of E-wallet.

H_1: There is a significant relationship between convenience and adoption of E-wallet.

According to research conducted by Nizam et al (2018), the independent variables (convenience, safety, and cost savings) have been shown to be strongly associated with the dependent variable, consumers' purchase option by using the E-wallet. Convenience has a coefficient value of 0.624 for highest correlation. This support by Check et al (2014) study, convenience also tends to be the most significant element with the use of the E-wallet, and it really affects the purchasing decision of consumers. Convenience was one of the most significant issues that consumers face in modern society. It was reported that consumers continue to buy products and services online because they offer convenience and internet banking is often used as a method of payment. (Wadhera et al., 2017).

Based on the research of Vasantha & Sarika (2019), they found that there is a significant difference with other groups as $p < 0.05$, the null hypothesis for age groups 60 and above is not accepted at 5 percent level. Howcroft et al. (2002) mentioned that young people place greater emphasis on convenience and time savings than older consumers when embracing Internet banking. Contrasting with older consumers, the current consumer generation does not attach any importance to face-to-face touch. The observational findings of this study show that end-users feel economical about internet banking due to excessive expenses and do not burn their pockets. (Karjaluoto et al., 2002)

In addition, based on the research of Sharma et al., (2019), the convenience and intention to use are positively and strongly correlated as r is 0.807. Therefore, it is verified that a positive perception in terms of convenience is related to intention to use.

H_1: There is a significant relationship between convenience and adoption of E-wallet.

2.4.2The Relationship between Budgeting and Intention to adopt E-wallet

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

H_1: There is a significant relationship between budgeting and adoption of e-wallet.

It is investigated that many people are favourably adopting e-wallet because it brings benefits to an organization and government in various ways. One of the major benefits of E-wallet is saving cost for government and organization by shifting from paper to electronic. Due to electronic payments being cheaper than paper-based and the transaction speed is faster, more people prefer to use electronic payments. Vohra (2015) has indicated the cost of issuing a paper check is more than 90% of direct deposit check. Electronic payments can provide benefits to the government by cutting unessential expenses. People are starting to adopt electronic payments because of the expensive cost in processing paper checks.

According to the study from David et al., (2003), the report shows if a country moves from paper-based to electronic-based payment system, it may get savings of 1% of its GDP annually. The developed and developing countries have greatly promoted and shifted to e-payment. There is an escalation migration towards e-payments in the world. Many countries reduce paper-based cheque usage and highly expand in card usage to displace cash and cheques.

Furthermore, many studies have found the huge advantages of e-wallet to society, banking institutions, central banks, merchants, and consumers. As a comparison to traditional payment methods, these studies disclose that e-wallet has many advantages such as cost savings, efficiency and accuracy. (Humphrey et al., 2001).

H2: There is a significant relationship between budgeting and adoption of e-wallet.

2.4.3 The Relationship between Security and Intention to Adopt E-wallet

H_0: There is no significant relationship between security and adoption of E-wallet.

H_1: There is a significant relationship between security and adoption of E-wallet.

According to the Shin, (2010).perceived security can be defined as perception as a provider will take the suitable action to ensure that using technology is risk-free. Researcher shows that there is a significant difference between security and adoption of E-wallet. (Schierz et al., 2010; Zhou, 2011). Thus, it means the more secure the consumer believes mobile payment system, the more likely to adopt the technology. According to Batra & Kalra (2016) security has significantly influenced the adoption of the E-wallet. This is because when strengthened in security, the adoption will increase. The researcher also mentioned that most of the consumers are concerned about safety of money transactions when using the E-wallet.

Based on the Shah et al (2014) study, adoption towards E-wallet will be associated with the risk of mobile payment services due to concern regarding privacy, transaction itself and personnel data. According to the Ashrafi & Ng (2008) mentioned that security and risk perception is the major consideration in the field of electronic payment system and current generation also will prefer using the mobile payment tool. In order to successfully use this technology, one must control the perception of security of the mobile payment system. (Meharia, 2012).

Besides, it showed that when consumer using E-wallet, security may be one of the factors which will affect consumers' buying decision. It shows that security is a factor towards adoption of E-wallet. It will increase consumer buying decisions when making the payment. Security is more consumers concerned about it when adopting this technology. Adopting towards E-wallet because speedy, purchase goods faster and save time. Therefore, consumers are concerned about the risk when adopting an E-wallet.

H3: There is a significant relationship between security and adoption of E-wallet.

2.4.4The Relationship between Reward and Intention to adopt E-wallet

H_0: There is no significant relationship between reward and adoption of E-wallet.

H_1: There is a significant relationship between reward and adoption of E-wallet.

Consumers attach importance to rewards points, loyalty programs, daily sales, and coupon codes for their purchases. Cash back offered, discounts or other incentives may be one of the reasons that affected them in using an E-wallet to purchase goods or services. According to "Benefits of Accepting Contactless Payments", (2011), 40 percent of consumers will tend to use an E-wallet if they received any reward related to E-wallet use. This has proved that rewards are one of the reasons that consumers consider when adopting E-wallet.

Other than that, it shows a strong relationship between rewards and the adoptions of E-wallet. This is because E-wallets companies or applications are trying to come out with attractive rewards and offers in order to maintain and increase the number of their users (Prasad Yadav & Arora, 2019). Consumers are willing to make an effort by using E-wallet to purchase goods and services to obtain these rewards or any other tangible incentives (Kim & Han, 2014; Varnali et al., 2012).

In the study of Ryan & Connell (1989) stated that the visible benefits offered for downloading and using E-wallets such as free-value added services and discounts may develop positive attitudes and improve their use intentions. Adopting these perspectives, the reward construct was incorporated into the model to reflect the factors of E-wallet adoption among consumers.

H4: There is a significant relationship between rewards and adoption of E-wallet.

2.4.5The Relationship between Perceived Usefulness and Intention to adopt E-wallet

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

H_1: There is a significant relationship between perceived usefulness and adoption of E-wallet.

Perceived Usefulness (PU) can be clarified as people believing that an enhancement in the productivity of their job can be accomplished by the use of a certain system and also provide them with innovative attributes that ensure sufficient flexibility (Malik & Annuar,

n.d). Agrebi & Jallais (2015) argued that PU is classified as an idea of individuals to improve the performance of the tasks assigned to them by the use of a particular program. The purpose to be used by consumers will emerge when they see the new technologies as very useful. (Venkatesh & Davis, 2000).

Shaw (2014) determines that the PU significantly affects the intention to use a mobile wallet. The results have clarified that the commitment to achieve the desired result drives individuals to make use of the programs. Respondents stated that they could make a quick transaction because mobile phones are easily accessible on their hands. In addition, mobile phones also provide the advantage of gaining rewards, digital receipts and make it more efficient for them (Malik & Annuar, n.d).

Besides, perceived usefulness is defined as the extent to which a person trusts that its performance will be enhanced by using a certain information system. (Logahan & Viliano, n.d.) Bearing in mind these definitions that perceived usefulness is an assertion about the process of decision making. If somebody feels confident the system will be useful then he will use it. In contrast, if a person feels confident that the information system is less useful then he won't use it (Davis, 1989). According to the research Lee and Wan (2010), perceived usefulness is the confidence level of someone during the usage of a particular subject that provides benefits. Researcher states that perceived usefulness as a predictor of usage behaviour will be influential in system development because users believe in a usage-performance relationship. This opinion is supported by the results of research conducted by Venkatesh et al., (2003), who found that usefulness was perceived as a predictor of behavioural intent to use.

Moreover, perceptions of the usefulness of a system can affect a person's sustainability in using the system within a short period of time or longer (Tiara&Usman,2019). According to Oentario et al., (2017), one's perception of usefulness is how confident individuals are about using the technology that will improve the job. The perception of utility can be measured with the following indicators: useful, beneficial, efficient and productive.

More specifically, according to research conducted by Bailey et al., (2017), perceived use in digital wallet usage leads to users gaining advantages such as convenience and payment simplification. Users will think that the practicality of payment makes a person no longer have to carry cash to make himself comfortable using the system at all times. Indicators of confidence that affect a person's perception of ease affect the consistency of digital wallet usage. If the system used still has a positive purpose for one's life then the system consistency is obtained. There is at least an indicator of perception uses proposed by Utami (2016), the indicator being the high risk, transaction security and security systems.

There are a number of studies that use PU as variable, and most of the research results show PU has a significant impact on technology acceptance. It indicates that PU plays a major role in determining the acceptance of technology that will lead to better performance for future studies. Thus, it is essential for the users to determine the PU of the E-wallet context.

H5: There is a significant relationship between perceived usefulness and adoption of E-wallet.

2.4.6 The Relationship between Perceived Ease of Use and Intention to adopt E-wallet

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

H_1: There is a significant relationship between perceived ease of use and adoption of E-wallet.

Davis (1989) defined that perceived ease of use is the degree in which a person believes using new service is simple, easy and effortless. Most of the researcher studies that perceived ease of use is an element of adoption of E-wallet. (Davis et al., 1992; Gefen & Straub, 2000; Venkatesh, 2000). Consequently, consumers will be concerned about how easy, simple, and convenient to adopt the E-wallet. It will be a larger influence on the acceptance of the new technologies. (Davis et al., 1992). Moore & Benbasat, (1991). Therefore, this motives us to determine the relationship between perceived ease of use and consumers to adopt the E-wallet.

In addition, perceived ease of use is giving for users to experience how comfortable, and easy with the new system. When the users use the E-wallet, they know what they want and how comfortable they feel. (Ndubisi, & Jantan, 2003). According to the Rogers (1962), it stated that if a customer feels the new invention is not difficult to use, understand and learn, they will feel easy to use. Besides that, consumers feel that application of new services in their daily life activities will generate high-performed results and be very efficient. They feel very satisfied and also will adopt the E-wallet for their future. According to Childers et al., (2001);Szymanski & Hise (2000) many individuals are willing to learn and easily satisfied which leads to an increased rate of adoption E-wallet. (Davis et.al., 1992; Gefen & Straub, 2000; Deveraj et al., 2002) also explained that perceived ease of use has a strong effect on perceived usefulness. Hence, when the individual thinks of ease of use of E-wallet ease of use, the adoption will also increase.

As proposed in related theories and confirmed in empirical studies, perception on a technologies system's ease of use have an effect on user's intention(Gefen & Straub , 2000).Consequently, the users will find the payment method easily to use and not complex compared with other payment method, then they will adopt it. This shows that the high perceived ease of use, the users are likely to accept it by Davis (1989).

H6: There is a significant relationship between perceived ease of use and adoption of E-wallet.

2.5 Conclusion

Chapter 2 had discussed the model applied theoretical and connects past journal articles used to develop conceptual framework and hypotheses for the study. In chapter 3 will further discuss the research methodology for this study.

CHAPTER 3: RESEARCH METHODOLOGY

3.0 Introduction

In this discussion, researchers discussed methods adopted to study the research topic. It also stated clearly on the procedures of conducting research to collect accurate data so that it can achieve the purpose of conducting research.

3.1 Research Design

Research design is a broad plan that states objectives of a research and provides the guidelines on what is to be done to achieve research objectives. In other words, it is a master plan to execute a research. The research design is a broad framework that describes the way research is conducted. Generally, there are three categories of research designs like exploratory research design, descriptive research design, and experimental research design (S. Jaideep, n.d).

Quantitative method is used in this research to gather quantifiable data and perform statistical, mathematical, or computational techniques by investigating phenomena. Quantitative research templates are objective, elaborate, and even investigational (Adi Bhat, n.d). In order to study the relationship between variables, survey research is conducted through online surveys for respondents to fill in questionnaires.

There are five types of research design that consist of descriptive**,** experimental**,** correlational, diagnostic and explanatory. In this research, descriptive design is applied as it describes the elements of the population or phenomenon that is being studied. This methodology emphasizes more on the "what" of the research subject rather than the "why" of the research subject (Adi Bhat, n.d).

3.2 Data Collection Method

3.2.1 Primary Data

Primary data is a kind of data that is collected by researchers directly from main sources. Primary data is collected from the original source without any existing source. It can be collected through interviews, surveys, observation and experiments. The sources of

primary data are usually chosen and tailored specifically to meet the purposes of a particular research. Primary data are more reliable, authentic and objective because it is collected with the purpose of research problems. The researcher has full control over the data collected in deciding which design, method and data analysis techniques to be used. Researchers can ensure that primary data fulfil the standards of quality, availability, statistical power and sampling required for a particular research question ("What is Primary Data? + [Examples & Collection Methods]", 2020). In this research, primary data is collected from online surveys.

3.2.2 Secondary Data

Secondary data is collection of data from second hand information. This information of data is already collected from other persons for some purpose and issues of research. Secondary data are not relevant and original data. The data can be collected from newspapers, journals, textbooks, websites and research organizations like universities ("Methods of Data Collection-Primary and secondary sources", n.d.). In this research, researchers also collect secondary data from journals, internet articles and data from university to support the objective of the research topic.

3.3 Sampling Design

In this research project, there are several parts included to discuss such as target population, sampling frame and sampling location, sampling technique and sampling size.

3.3.1 Target Population

Target population can be called theoretically the population in which population is defined and can be counted. It is a group of elements by researchers to make inference. (Fricker, 2012). In this study, the target population is the generation Z, generation born between 1997 till 2012. It means all the generation Z in UTAR Kampar can be our target population. According to research conducted by Critical, (2016) shows that the generation Z strongly influenced by the highest readiness level for the internet. This is because they are exposed to a highly sophisticated and computer environment. Besides, generation Z emergence of technology which influences how they learn, play and interact. The reason that we choose generation Z as a target population is to determine the current level of acceptance when using electronic payment instruments.

3.3.2 Sampling Frame and Sampling Location

According to Lowe (2004) stated that the sampling frame is choosing the particular list in the survey. In this research**,** the sampling frame or target respondents are generation Z between 1997 and 2012 in UTAR Kampar. In contrast, for sampling location, we focused on UTAR Kampar due to the large population of the student and at this range age most young students gradually adopt E-wallet as their payment method.

3.3.3 Sampling Elements

In this research, 377 questionnaires are distributed to undergraduate students as our target respondent. This generation is between ages 8-24. Thus, these questionnaires are mainly to target undergraduate students who are using an E-wallet in their future and determine it

can bring more benefit in their daily lives. The reason is we want to examine the factors that affect adoption of E-wallet among generation Z in UTAR Kampar.

3.3.4 Sampling Technique

Sampling technique divided into two groups that are probability sampling and non-probability sampling. In probability sampling, the element from the population has the equal chance to be selected in the sample. (Taherdoost, 2016). There are few techniques that are simple random sampling, stratified sampling, systematic sampling and cluster sampling. In contrast, non-probability sampling, the probability of an element in the sample is there is no way to estimate. There are also four types which are convenience sampling, judgement sampling, snowball sampling and quota sampling. (Saunders et al., 2012). In this research, judgement sampling is most suitable for targeting undergraduate students in UTAR Kampar because our study only limited the number of respondents possessing the trait that a researcher is interested in. Our study is interesting for respondents of generation Z between 1997 and 2012 in UTAR Kampar. So, judgement sampling is only an option to obtain the information for the specific group of respondents.

3.3.5 Sampling Size

Sampling size is the technique to select the number of observations in the sample. Basically, sampling size is a significant feature in this study to make inferences about population from a sample. From the table 1 is determining Sample Size from a Given Population. There are approximately 24000 students in UTAR Kampar. Based on the table below, 377 questionnaires were distributed is enough, but avoid data incomplete or data blur. In this study, 400 were distributed to the undergraduate students in UTAR Kampar.

Table 3.1: Determining Sample Size from a Given Population

TABLE 1
Table for Determining Sample Size from a Given Population

N	*S*	*N*	*S*	*N*	*S*
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size.
S is sample size.

Source: Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 30, 607-610.

3.4 Research Instrument

3.4.1 Questionnaire Survey

We used questionnaire method as research instrument to conduct this study. Questionnaire method help us get information and sample more quickly, clearly and efficiency from large population of respondent. Questionnaire is distributed to generation Z of UTAR, Kampar.

3.4.2 Questionnaire design

Closed ended question had been used in questionnaire. In this research, questionnaire has three sections and consists of 31 questions. Part A is about personal details of respondent like gender, age and others. Part B consist 20 questions relating to IV of research (Convenience, Budgeting, Security and Reward). Section C consist 5 DV questions (intention to adopt E-wallet payment). Respondent demographic background was collected in Section A with multiple-choice questions choosing one out of four or five options. For the other sections, Five Point Likert Scale is ranging from 1 to 5 where 1= strongly disagree and 5= strongly agree.

3.4.3 Pilot Test

Pilot testing is preliminary test for small group respondents and collects the feedback from target respondents to determine reliability and normality of each variable before actual test by Statistical Package for Social Sciences (SPSS) software. In this research, 30 target respondents in pilot test and our respondents are generation Z in UTAR,Kampar.

Table 3.2: Reliability analysis for Pilot Test

Variables	Dimension	Number of Item	Cronbach's Alpha
Dependent Variable	Adoption of E-wallet	5	0.805
Independent Variable	Convenience	5	0.886
	Budgeting	5	0.919
	Security	5	0.905
	Reward	5	0.636
	Perceived Usefulness	5	0.901
	Perceived Ease of Use	5	0.898

Source: Developed for research

Based on table 3.2, adoption of E-wallet has coefficient alpha value of 0.805. Meanwhile, independent variables such as convenience, budgeting, security, perceived usefulness and perceived ease of use have excellent reliability which is 0.886, 0.919, 0.905, 0.901, and 0.898. However, reward has a fair reliability which is 0.636.

3.5 Construct Measurement

3.5.1 Operational Definitions

	Variables	Questions	Sources
CV1	Convenience (CV)	E-wallet is convenient because I always carry a mobile phone.	(Kim et al., 2010)
CV2		E-wallet is convenient because I can use it anytime.	
CV3		E-wallet is convenient because the interaction with E-wallet services is clear and understandable.	(Schierz, Schilke & Wirtz 2010)
CV4		E-wallet is convenient because it is easier to use e-wallet than card payment.	(Chen 2008)
CV5		E-wallet is convenient because it save time	
BG1	Budgeting	E-wallet helps me in budgeting.	Jayanthi, G., & Baranipriya, A. (2020)
BG2		Using e-wallet would save me money.	Zarrin Kafsh, S. (2015)
BG3		E-wallet helps me to control my spending habits.	Taheam, K., Sharma, R., & Goswami, S. (2016)
BG4		E-wallet gives me greater control over my day to day transactions.	
BG5		E-wallet helps me to keep track of my transaction history.	

SC1	Security	The risk of abuse of usage information (e.g., names of business partners, payment amount) is low when using mobile wallet.	Luarn, P., & Lin, H. H. (2005).
SC2		The risk of abuse of billing information (e.g., credit card number, bank account data) is low when using mobile wallet	
SC3		I find mobile payment services secure for conducting my payment transactions.	
SC4		I am comfortable with having my credit card integrated into my mobile phone.	
SC5		E-Wallets ensure protection against risk of fraud and financial loss.	VETRIVEL, M., & RAZACK, M. A. B. I. (2020).

RW1	Rewards	E-wallet allows to offer several benefits to consumer (rewards/cashback/discounts etc).	Hayashi and Bradford (2014)
RW2		I would like to use/continue to use E-wallet as long as promotions are offered.	Aydin, G., Burnaz, S . (2016).
RW3		I wouldn't download E-wallet if no promotions were offered.	
RW4		I use E-wallet because I want to take the advantage of loyalty/reward points and discounts.	Akhila Pai H. (2018).
RW5		I can avail cash back while using E-wallet.	Taheam, K., Sharma, R., & Goswami, S. (2016)

PU1	Perceived Usefulness	E-wallet services are a useful mode of payment	(Teng, P. K., Ling, T. J., & Seng, K.W. K., 2018)
PU2		E-wallet services allow for a faster usage of mobile applications (e.g. ticket purchase, bill payment)	
PU3		Mobile payment services bring one more choice for customers in a payment process	
PU4		Using E-wallet would enhance my payment effectiveness	(Davis, 1989; Lee et al., 2011; Moon and Kim, 2001; Venkatesh and Davis, 2000)
PU5		Using E-wallet would make it easier for me to manage and make payments.	Dastan, İ., & Gürler, C. (2016)

PEOU1	Perceived Ease of Use	It is easy for me to learn how to utilize the E-wallet	(Davis, 1989; Lee et al., 2011; Moon and Kim, 2001; Venkatesh and Davis, 2000)
PEOU2		It is easy to remember how to use digital wallet	
PEOU3		I find digital wallet useful for my payment activities	
PEOU4		Getting the information I want from mobile payment would be easy	(Pham & Ho, 2015)
PEOU5		Overall, I would find E-wallet systems to be easy to use	Dastan, İ., & Gürler, C. (2016)

	Variables	Question	Sources
AE 1	Adoption of E-wallet	E-wallet can substitute the cash based payment method	Manikandan & Jayakodi (2017)
AE2		I am willing to continue using e-payment services in near future rather than not use it	Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003).
AE3		I intend to continue using e- payment services at least as often within the next month as I have previously used	
AE4		I intend to use e- payment services when the opportunity arises	
AE5		Using E-wallet is beneficial	Ajzen (1991)

Table 3.2 Operational Definition

3.5.2 Scale Measurement

Nominal and ordinal scale is used for Section A whereas the remaining section uses interval scale.

According to swink et al., (2014), nominal data involves the collection of information on a variable that can be grouped into two or more categories that are mutually exclusive and collectively exhaustive. Nominal scale questions consist of answers of gender and yes-no question. Ordinal scale questions consist of sequential selection answers from smaller to larger in terms of age, ringgit and education level (Sekaran & Bougie, 2010). Five Point Likert scale is interval scale indicating range from Strongly Disagree to Strongly Agree (Sekaran & Bougie, 2010).

3.6 Data processing

Data processing refers to the method of transferring raw data from field collection to a clean, corrected state for analysis. (Kveder & Galico, 2008) Checking, editing , coding and transcribing are 4 stages in use in data processing. (Kveder & Galico, 2008). It's a process of converting the data into valuable or useful information.

3.6.1 Data Checking

Data checking is the first step in data processing to ensure that the questionnaires collected are fully and correctly answered and filled out in the long term. According toSulaiman (2009), it is important to screen and check the data to ensure that the data is

free from any errors. During data entry, inaccuracies could occur which spoils the analysis. Therefore, researchers must ensure that the incomplete, unacceptable and irrelevant questionnaires are removed to produce a reliable and accurate result.

3.6.2 Data Editing

The process by which the data is reviewed to check for consistency, adequacy, detect errors and outliers (values which are either too large or too small from the rest of the data) and the correction of errors within the data to maximize their usefulness for the purpose for which it was collected is called data editing. (Naeem, 2019). The fundamental purpose of data editing is to improve the quality, accuracy and adequacy of the data collected thereby making it more suitable for the purpose for which the data was collected.

3.6.3 Data Coding

According to Bhatia (2018), one of the most important steps in data preparation is data coding. It refers to the grouping and assigning of values to survey responses. Data coding refers to a process by which computer systems transform data into an understandable form (Sekaran & Bougie, 2016). In other words, researchers will assign a numerical code to each of the respondent's responses, and thus the coded data can easily be entered into the database and the error rate reduced. For example, ‘Male’ is coded as 1, ‘Female’ is coded as 2, and ‘Missing data’ is coded as 99 under the question 'Gender'.

3.6.4 Data Transcribing

Lastly, transcribing data is the final step in data processing but also the first step in the analysis of data. All the coded data will be entered into SPSS Software in this step for further data analysis purposes.

3.7 Proposed Data Analysis Tool

3.7.1 Data Analysis

After data collected from respondents has been processed and cleaned, it will analyse by using software called Statistical Package for the Social Sciences (SPSS).

According to Foley (2018), the SPSS was used for complex statistical data analysis by various kinds of researchers. Since IBM acquired SPSS in 2009, it is officially known as IBM SPSS Statistics but most users still refer to it simply as "SPSS." SPSS is used for the processing and analysis of survey data by market researchers, health researchers, survey companies, government entities, educational researchers, marketing organisations, data miners, and much more.

Most leading research agencies use SPSS to analyze survey data and mine text data to make the most of their research projects. Hence, primary data were collected in this research using the questionnaire method, and analyzed using the Social Science Statistical Package (SPSS).

3.7.2 Descriptive Analysis

Descriptive analysis is used to describe the underlying features of the study data. They give simple summaries of the sample and of the measures. They form the basic virtual of any quantitative data analysis together with simple graphical analysis. In descriptive analysis, one simply describes what the data shows or what it is. Data description is necessary to determine the normality of the distribution, data description is necessary because the nature of the techniques to be used for inferential analysis of the data depends on the characteristics of the data (Chapter 7: Descriptive analysis, n.d.).

Once the data is grouped, various statistical measures will be used to analyze data and draw conclusions. Two forms of measurement use are used to calculate additional statistical testing: central tendencies (mean, median & mode) and dispersions (range, variance & standard deviation (y. The data can be computed into a form of frequency distribution (bar chart), percentage distribution (pie chart) and table describing population and sample characteristics.

Various graphical presentations are used for displaying the data in this research. Pie chart and frequency bar chart are used in this study to present the demographic profiles gathered from the respondents.

3.7.3 Reliability Analysis

The reliability analysis method calculates a variety of widely used scale reliability measures and also contains information on the relationship within the scale between the particular items. Cronbach's Alpha will be used to measure the reliability.

Data quality relies on how reliable and accurate the survey instrument is when conducting research surveys. (Sekaran & Bougie, 2016). It is recognized as an internal reliability measure to ensure that the questionnaire implemented is error-free. The coefficient alpha range indicates the degree of reliability, as shown in the table. Poor reliability is deemed when the alpha coefficient value is less than 0.60. The value from 0.60 to 0.70 is considered to be fair reliability and the value from 0.70 to 0.80 is considered to be good reliability. The range of 0.80 to 0.95 was reached at a greater degree of reliability relative to previous levels.

Coefficient alpha (α) value	**Reliability**
Below 0.60	Poor reliability
0.60 to 0.70	Fair reliability
0.70 to 0.80	Good reliability
0.80 to 0.95	Excellent reliability

Table 3.3 The Rule of Thumb of Cronbach

Note: Note. From Sekaran & Bougie(2016). *Research methods for business: A skill for business: A skill building approach* (7th ed.). West Sussex, United Kingdom: John Wiley & Sons Ltd.

3.7.4 Inferential Analysis

3.7.4.1 Pearson Correlation Coefficient Analysis

For this research, Pearson coefficient correlation analysis was applied to determine the direction and strength of the linear relationship between dependent variable and each

independent variable. The Pearson Correlation Matrix is a method used to show the intensity, path and significance of the relationship among all variables that are dependent and independent at interval rates. (Sekaran & Bougie, 2016).

The correlation between the two variables is calculated by using Pearson correlation coefficient. As shown on the table below, the correlation range is between -1.00 and +1.00. The variables with a positive correlation range from 0 to +1.0, while the variables with a negative correlation range from-0.1 to 0. When the value of the correlation is equal to 0, it means that the variables do not have a correlation.

Figure below shows the rules of thumb on Pearson Correlation Coefficient.

Coefficient range	Strength
±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

Note:
Rules of thumb on Pearson correlation coefficient. Adapted from Hair, J. F., Money, A. H., Samouel, P., & Page, M. (2007). Research Methods for Business. Chichester, West Sussex: John Wiley & Sons, Inc.

3.7.4.2 Multiple Regression Analysis

Regression analysis is a statistical method used to estimate the relationship between variables that have a relationship between cause and outcome. The primary goal of the unremarkable regression is to evaluate the relationship between the dependent variable and the independent variable and to develop the linear equation of the dependent and independent variable. Regression models are called multilinear regression, with one dependent variable and more than one independent variable. (Uyanık&Güler, 2013).

An attempt is made in multivariate regression analysis to synchronize the variation of the independent variable in the dependent variable. The multivariate model of regression analysis is formulated as follows:

$$ = \beta_0 + \beta_1 x_1 + \cdots + \beta_n x_n + \varepsilon$$

$= dependent\ variable$ (intention to adopt E-wallet payment)

$X_1 = independent\ variable$ (CV)

$X_2 = independent\ variable$ (BT)

$X_3 = independent\ variable$ (SC)

$X_4 = independent\ variable$ (RW)

$$_i = parameter$$

$$ = error$$

3.8 Conclusion

In conclusion, this chapter had clearly explained about designing of research , ways that collect resources, target population, sampling design, research instrument, way to process data and analyzing data. Researchers will carry out a full study to get the accurate result. The result of study is going to be analyzed with a further discussion in chapter 4.

CHAPTER 4: RESEARCH RESULT

4.0Introduction

In this part, we are going to discuss the research result. There were 377 questionnaires given to generation Z in UTAR,Kampar. Result analysis was done by using SPSS software. The further discussion about the result will include part of analysis description, analysis on reliability, Pearson correlation analysis and multiple regression analysis.

4.1 Descriptive Analysis

Total of 377 questionnaires given to generation Z at UTAR,Kampar. A total of 3 respondents' demographic profile questions consist in this analysis. The questions included in this part are respondents' gender, age and ethnic group.

4.1.1 Demographic Profile

4.1.1.1 Gender

Table 4.1 Statistics of Respondents' Gender

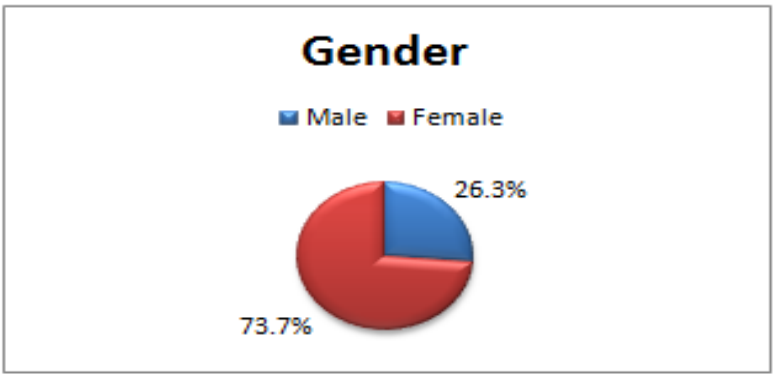
Frequency Table

Respondent's Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	99	26.3	26.3	26.3
	Female	278	73.7	73.7	100.0
	Total	377	100.0	100.0	

Source: Developed for the research

Figure 4.1:Statistics of Respondents' Gender



Source: Developed for the research

Based on Table 4.1 and Figures 4.1, there are 377 respondents in total and consists of two groups of gender which are male and female. In the results, it showed that there are 99 male respondents with 26.3% and 278 female respondents with 73.7%. This resulted in most of the respondents are female from generation Z.

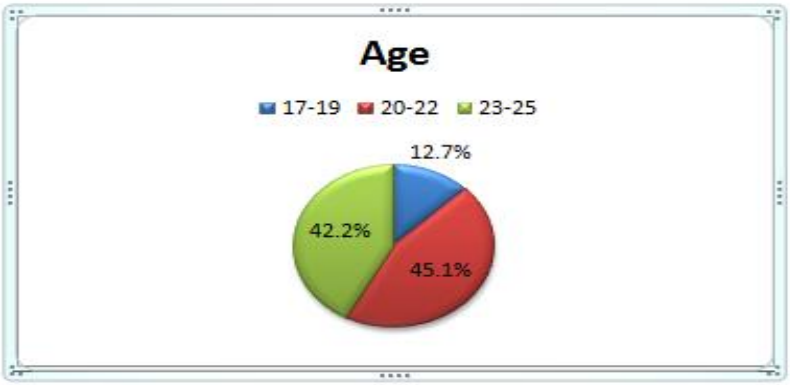
4.1.1.2 Age

Table 4.2 Statistics of Respondents' Age

Respondent's Age		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17-19	48	12.7	12.7	12.7
	20-22	170	45.1	45.1	57.8
	23-25	159	42.2	42.2	100.0
	Total	377	100.0	100.0	

Source: Developed for the research

Figure 4.2: Statistics of Respondents' Age



Source: Developed for the research

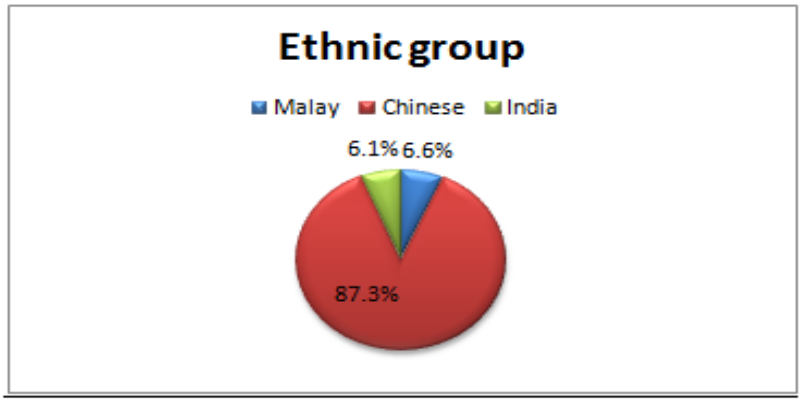
Based on Table 4.2 and Figure 4.2, there are consist of 3 categories of age components which are 17-19, 20-22 and 23-25. It showed that most of the respondents are between ages of 20-22 which consists of 170 respondents with 45.1%. Then, age of 23-25 consists of second higher frequency which are 159 respondents with 42.2%. Last but not least, least of the respondents are from age of 17-19. There only consists of 48 respondents with a 12.7%.

4.1.1.3 Ethnic group

Table 4.3 Statistics of Respondents' ethnic group

Respondent's Race					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	25	6.6	6.6	6.6
	Chinese	329	87.3	87.3	93.9
	India	23	6.1	6.1	100.0
	Total	377	100.0	100.0	

Source: Developed for the research



Source: Developed for the research

According to Table 4.3 and figure 4.3, there are 3 ethic groups included of Malay, Chinese and India. We found out that most of the respondents are Chinese which have a frequency of 329 with 87.3%. Other than that, Malay and India have almost the same frequency which is 25 and 23 respondents with 6.6% and 6.1%.

4.1.2 Central Tendencies Measurement of Constructs

We are going to discuss the mean and standard deviation measurement for dependent variable and independent variable. In section B and C consists of 35 questions and it will be using SPSS Statistical Software to conduct result.

4.1.2.1 Adoption of E-wallet

Table 4.4 Central Tendencies Measurement of Adoption of E-wallet

Statistics						
		E-wallet can substitute the cash based payment method	I am willing to continue using e-payment services in near future rather than not use it	I intend to continue using e-payment services at least as often within the next month as I have previously used	I intend to continue using e-payment services when the opportunity arises	Using E-wallet is beneficial
N	Valid	377	377	377	377	377
	Missing	0	0	0	0	0
	Mean	4.59	4.48	4.33	4.40	4.63
	Median	5.00	5.00	5.00	4.00	5.00
	Mode	5	5	5	4	5
	Std. Deviation	.549	.707	.766	.576	.560
	Variance	.301	.500	.587	.332	.313

N=377

Source: Developed for the research

Based on the Table 4.4, statements“using E-wallet is beneficial” shows highest mean 4.63.However, its standard deviation shows second lowest result of 0.560. Next, the statement of “E-wallet can substitute the cash based payment method” contain second highest mean of 4.59. However, its standard deviation is the lowest among 5 statements. Other than that, the statement of “I am willing to continue using e-payment services in near future rather than not use it” has a mean of 4.48 and standard deviation of 0.707. Furthermore, the statement of “I intend to continue using e- payment services at least as often within the next month as I have previously used” has its mean of 4.33 and standard deviation of 0.766. Lastly, “I intend to continue using e- payment services when the opportunity arises” shows a mean of 4.40 and a standard deviation of 0.576.

4.1.2.2 Convenience

Table 4.5 Central Tendencies Measurement of Convenience

Statistics						
		E-wallet is convenient because I always carry a mobile phone.	E-wallet is convenient because I can use it anytime.	E-wallet is convenient because the interaction with E-wallet services is clear and understandable	E-wallet is convenient because it is easier to use e-wallet than card payment.	E-wallet is convenient because it save time
N	Valid	377	377	377	377	377
	Missing	0	0	0	0	0
	Mean	4.59	4.58	4.35	4.41	4.33
	Median	5.00	5.00	5.00	5.00	5.00
	Mode	5	5	5	5	5
	Std. Deviation	.675	.684	.832	.778	.844
	Variance	.455	.468	.692	.605	.712

N=377

Source: Developed for the research

Based on table 4.5, the statement "E-wallet is convenient because it save time" has the highest standard deviation of 0.844 but also has the lowest mean of 4.33 compared to others. The one with the highest mean is the statement 'E-wallet is convenient because I always carry a mobile phone' which is 4.59; however it showed lowest standard deviation of 0.675. For 'E-wallet is convenient because I can use it anytime' has standard deviation of 0.684 and mean of 4.58 which is the second highest in this independent variable. Next, 'E-wallet is convenient because the interaction with E-wallet services is clear and understandable' showed standard deviation of 0.832 and a mean of 4.35. Lastly, 'E-wallet is convenient because it is easier to use E-wallet than card payment' has a standard deviation of 0.778 and a mean of 4.41.

4.1.2.3 Budgeting

Table 4.6 Central Tendencies Measurement of budgeting

Statistics						
		E-wallet helps me in budgeting.	Using e-wallet would save me money.	E-wallet helps me to control my spending habits.	E-wallet gives me greater control over my day to day transactions.	E-wallet helps me to keep track of my transaction history.
N	Valid	377	377	377	377	377
	Missing	0	0	0	0	0
	Mean	3.94	3.90	3.85	3.90	4.16
	Median	4.00	4.00	4.00	4.00	4.00
	Mode	5	3[a]	3[a]	3	5
	Std. Deviation	.950	.933	1.018	.913	.852
	Variance	.903	.870	1.036	.833	.726

N=377

Source: Developed for the research

Based on table 4.6, the statement "E-helps me to control my spending habits" showed the highest standard deviation 1.018 and lowest mean of 3.85 compared to others. The one with the highest mean is the statement 'E-wallet helps me to keep track of my transaction history' which is 4.16; however it showed lowest standard deviation of 0.852. For 'using E-wallet helps me in budgeting' has a standard deviation of 0.950 and mean of 3.94 which is the second highest in this independent variable. Next, 'using E-wallet would save me money' has the standard deviation of 0.933 and a mean of 3.90. Lastly, 'E-wallet give me greater control over my day to day transaction has a standard deviation of 0.913 and a mean of 3.90.

4.1.2.4 Security

Table 4.7 Central Tendencies Measurement of Security

Statistics						
		The risk of abuse of usage information (e.g., names of business partners, payment amount) is low when using mobile wallet.	The risk of abuse of billing information (e.g., credit card number, bank account data) is low when using mobile wallet.	I find mobile payment services secure for conducting my payment transactions.	I am comfortable with having my credit card integrated into my mobile phone.	E-Wallets ensure protection against risk of fraud and financial loss.
N	Valid	377	377	377	377	377
	Missing	0	0	0	0	0
	Mean	3.99	4.28	4.15	3.90	4.11
	Median	4.00	4.00	4.00	4.00	4.00
	Mode	5	5	4	3	5
	Std. Deviation	.920	.727	.747	.903	.916
	Variance	.846	.528	.558	.815	.839

N=377

Source: Developed for the research

Based on table 4.7, the statement "The risk of abuse of usage information is low when using mobile wallet" has the highest standard deviation of 0.920 and the mean of 3.99. The one with the highest mean is the statement 'The risk of abuse billing information is low when using mobile wallet' which is 4.28; however it also has the lowest standard deviation of 0.727. For'I find mobile payment services secure for conduction my payment transactions' has a standard deviation of 0.747 and mean of 4.28 which is the second highest in this independent variable. Next, 'I am comfortable with having my credit card integrated into my mobile phone' has the standard deviation of 0.903 and a mean of 3.90. Lastly, 'E-wallet ensures protection against risk of fraud of financial loss' has a standard deviation of 0.916 and a mean of 4.11.

4.1.2.5 Reward

Table 4.8 Central Tendencies Measurement of Reward

Statistics						
		E-wallet allows to offer several benefits to consumer (rewards/cashback/discounts etc).	I would like to use/continue to use E-wallet as long as promotions are offered.	I wouldn't download E-wallet if no promotions were offered.	I use E-wallet because I want to take the advantage of loyalty / reward points and discounts.	I can avail cash back while using E-wallet.
N	Valid	377	377	377	377	377
	Missing	0	0	0	0	0
	Mean	4.31	4.58	3.25	4.37	4.14
	Median	4.00	5.00	3.00	5.00	4.00
	Mode	5	5	4	5	5
	Std. Deviation	.768	.628	1.366	.881	.854
	Variance	.590	.394	1.866	.776	.729

N=377

Source: Developed for the research

Based on table 4.8, the statement "I wouldn't download E-wallet if no promotion were offered" has the highest standard deviation of 1.366 and the mean of 3.25 which the lowest compared to others. The one with the highest mean is the statement 'I would like to use/continue to use E-wallet as long as promotion are offered' which is 4.58; however it also has the lowest standard deviation of 0.628. For the statement 'I use E-wallet because I want to take advantage of loyalty/reward points and discount' has a standard deviation of 0.881 and mean of 4.37 which is the second highest in this independent variable. Next, 'E-wallet allows to offer several benefits to consumer' has the standard deviation of 0.768 and a mean of 4.31. Lastly, 'I can avail cash back while using E-wallet' has a standard deviation of 0.854 and a mean of 4.14.

4.1.2.6 Perceived ease of use

Table 4.9 Central Tendencies Measurement of Perceive ease of use

Statistics						
		It is easy for me to learn how to utilize the E-wallet.	It is easy to remember how to use digital wallet.	I find digital wallet useful for my payment activities.	Using E-wallet would enhance my payment effectiveness	Overall, I would find E-wallet systems to be easy to use.
N	Valid	377	377	377	377	377
	Missing	0	0	0	0	0
	Mean	4.38	4.30	4.44	4.30	4.52
	Median	5.00	5.00	4.00	4.00	5.00
	Mode	5	5	5	5	5
	Std. Deviation	.830	.817	.608	.727	.648
	Variance	.689	.668	.369	.529	.420

N=377

Source: Developed for the research

Based on table 4.9, the statement "It is easy for me to learn how to utilize the E-wallet' which has the highest standard deviation of 0.830 and the mean of 4.38. The one with the highest mean is the statement 'Overall, I would find the E-wallet system to be easy to use' which is 4.52 it also has a standard deviation of 0.648. For the statement 'I find digital wallet useful for my payment activities' has a standard deviation of 0.608 and mean of 4.44 which is the second highest in this independent variable. Next, 'It is easy to remember how to use a digital wallet' has the standard deviation of 0.817 and a mean of 4.30. Lastly, 'Using E-wallet would enhance my payment effectiveness' has a standard deviation of 0.727 and a mean of 4.30.

4.1.2.7 Perceived usefulness

Table 4.10 Central Tendencies Measurement of Perceive usefulness

Statistics						
		E-wallet services are a useful mode of payment.	E-wallet services allow for a faster usage of mobile applications (e.g. ticket purchase, bill payment).	Mobile payment services bring one more choice for customers in a payment process.	Using E-wallet would enhance my payment effectiveness.	Using E-wallet would make it easier for me to manage and make payments.
N	Valid	377	377	377	377	377
	Missing	0	0	0	0	0
	Mean	4.36	4.38	4.45	4.16	4.38
	Median	4.00	4.00	5.00	4.00	5.00
	Mode	4	4	5	4	5
	Std. Deviation	.642	.620	.671	.763	.739
	Variance	.413	.384	.450	.583	.546

N=377

Source: Developed for the research

Based on table 4.10, the statement “mobile payment services bring one more choice for customers in a payment process” has the highest mean among these 5 components which is 4.45. Its standard deviation is 0.671. Other than that, the statement of “using E-wallet would enhance my payment effectiveness” has the highest standard deviation which is 0.763. However, it has the lowest mean which is 4.16. Furthermore, the statement of “E-wallet services allow for a faster usage of mobile application(e.g. ticket purchase, bill payment” and “using E-wallet would make it easier for me to manage and make payments” have same mean values which is 4.38. However, their standard deviation is different with value of 0.62 and 0.739. Last but not least, statement of “E-wallet services are a useful mode of payment” has mean value of 4.36 and its standard deviation is 0.642.

4.2 Scale Measurement

In this research, the SPSS software has been used for reliability analysis in order to evaluate the dependent variable and independent variable. There are total 377 respondents included in the reliability analysis of this research.

4.2.1 Reliability test

Table 4.11

Cronbach's alpha coefficient: reliability test

Variables	Reliability Statistics		
	Cronbach's Alpha	N of Items	Result of reliability
Adoption of e-wallet (AE)	0.823	5	Excellent
Convenience (CV)	0.896	5	Excellent
Budgeting (BG)	0.930	5	Excellent
Security (SC)	0.910	5	Excellent
Rewards (RW)	0.612	5	Fair
Perceived Usefulness (PU)	0.908	5	Excellent
Perceived Ease Of Use (PEOU)	0.890	5	Excellent

Note. Developed for Research.

Table above shows Cronbach's alpha value for all the variables. Among the variables, BG has the highest value (0.930) which is considered as excellent reliability, followed by SC and OU with the value of 0.910 and 0.908 respectively. Besides, the Cronbach's alpha value of CV is 0.896 while PEOU and AE is 0.890 and 0.823 respectively. RW has the lowest Cronbach's alpha value of 0.612 which is considered as fair reliability. Overall, all variables are considered highly reliable and consistent as the Cronbach's alpha value of each variable falls within range of 0.80-0.95.

4.3 Inferential Analysis

The inferential analysis involves Pearson Correlation Coefficient and also Multiple Regression Analysis in this research.

4.3.1 Pearson Correlation Analysis

Table 4.12

Correlation between dependent variable and independent variables.

Variables		Adoption of E-wallet (AE)
Convenience (CV)	Pearson Correlation	.777**
	Sig. (2-tailed)	0
	N	377
Budgeting (BG)	Pearson Correlation	.642**
	Sig. (2-tailed)	0
	N	377
Security (SC)	Pearson Correlation	.693**
	Sig. (2-tailed)	0
	N	377
Rewards (RW)	Pearson Correlation	.631**
	Sig. (2-tailed)	0
	N	377
Perceived Usefulness (PU)	Pearson Correlation	.757**
	Sig. (2-tailed)	0
	N	377
Perceived ease of use (PEOU)	Pearson Correlation	.799**
	Sig. (2-tailed)	0
	N	377

**. Correlation is significant at the 0.01 level (2-tailed).

Note. Developed for the research.

As referred to Table above, the result shows that PEOU has the highest strength and positive relationship with AE among all the independent variables, in which the correlation coefficient value is 0.799, classified under range of ±0.71 to ±0.90. Besides,

CV and PU have high strength and positive correlation with AE, in which the correlation value is 0.777 and 0.757 respectively.

Moreover, the correlation coefficient value between SC and AE stands at 0.693, while the correlation coefficient value between BG and AE stands at 0.642. This value indicated a moderate strength and positive correlation with AE, classified under range of ±0.41 to ±0.70.

On the other hand, RW has the lowest correlation coefficient value among the independent variables of 0.631 with AE. However, this value shows that RW has the positive relationship between AE and moderate strength with AE among all the variables, classified under range of ±0.41 to ±0.70.

The significant value is reported to be 0. This indicates that it is less than 0.001 which means that it is less than a significant level of 0.01. Overall, all the independent variables are proved to have significant relationship with dependent variable (AE) as the p-value of each of the independent variables is <0.01, which is less than alpha value of <0.05.

Besides, the correlation coefficient value between three independent variables (PEOU, CV and PU) and dependent variable is under the range of ±0.71 to ±0.90 indicates the strength of the relationships are high between each independent variables and dependent variable. Other than that, the correlation coefficient value between three independent variables (SC, BG and RW) is under the range of ±0.41 to ±0.70 indicated the strength of the relationships are moderate between each independent variables and dependent variable. Hence, the null hypothesis (H0) for each variable are rejected and the alternate hypothesis (H1) are accepted.

4.3.2 Multiple Linear Regressions Analysis

The main function of multiple regression analysis is to examine how multiple independent variables and dependent variable are interrelated to each other.

Table 4.13

Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	P-value
1	Regression	47.346	6	7.891	196.173	.000[a]
	Residual	14.883	370	0.04		
	Total	62.229	376			

a. Predictors: (Constant), Perceived ease of use, Rewards, Convenience, Budgeting, Perceived Usefulness, Security

Note. Developed for the research.

Based on Table, the P-value of 0.000 indicates that it is less than 0.001, which, in turn, means that it is less than the significance level of 0.01. Hence, the association between the dependent (AE) and independent variables (CV, BG, SC, RW, PU and PEOU) is statistically significant.

The result stated the P-value at 0.000 and the F-statistic value of 196.173. Therefore, it indicates that the independent variables (CV, BG, SC, RW, PU and PEOU) can be used to reliably predict the dependent variable (AE). In addition, there is a significant relationship between variables and the hypothesis is supported by the data.

Table 4.14

Summary of R-square

R	R Square	Adjusted R Square	Std. Error of the Estimate
.872[a]	0.761	0.757	0.20056

Note. Developed for the research.

a. Predictors: (Constant), Perceived ease of use, Rewards, Convenience, Budgeting, Perceived Usefulness, Security

As shown in Table, the value of correlation coefficient of this study is 0.872. This indicates there is a positive and high correlation between dependent variable (AE) and independent variables (CV, BG, SC, RW, PU and PEOU). Besides, the R-square value of 0.761 interprets that about 76.1% of the variation in dependent variable (AE) can be explained by the variation in the independent variables (CV, BG, SC, RW, PU and PEOU) and the remaining 23.9% left can not be explained in this study. Thus, there might be other significant variables which can exist in explaining adoption of E-wallet.

Table 4.15

Coefficients

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	P-value
	Beta	Std. Error	Beta		
(Constant)	0.867	0.091		9.563	0
Convenience (CV)	0.269	0.03	0.354	9.067	0
Budgeting (BG)	0.036	0.027	0.06	1.324	0.186
Security (SC)	-0.017	0.035	-0.025	-0.468	0.64
Rewards (RW)	0.116	0.031	0.136	3.759	0
Perceived Usefulness (PU)	0.101	0.038	0.122	2.64	0.009
Perceived ease of use (PEOU)	0.286	0.037	0.357	7.634	0

Note. Developed for the research.

Based on the Table, CV, RW and PEOU is appeared to be the most significant variable to predict the adoption of E-wallet as the P-value of CV, RW and PEOU are 0.000, which is

the lowest among other variables. Besides, PU also proved to be important in defining adoption of E-wallet as its significance value is less than 5% alpha value, which the values stand at 0.009.

However, BG and SC proved to be not significant in defining adoption of E-wallet as their P-value is more than 5% alpha value, which the values stand at 0.186 and 0.64 respectively.

Overall, there are four independent variables (CV, RW, PEOU and PU) are critical in defining the variance of adoption of E-wallet while there have two independent variables (BG and SC) are not critical in defining the variance of adoption of E-wallet.

Multiple Regression Analysis:

$$\gamma = \beta_0 + \beta_1 x_1 + \cdots + \beta_n x_n + \varepsilon$$

where,

$\boldsymbol{\gamma}$ = dependent variable(Adoption of E − wallet)

$\boldsymbol{X_1}$ = independent variable (The value of Convenience)

$\boldsymbol{X_2}$ = independent variable (The value of Budgeting)

$\boldsymbol{X_3}$ = independent variable (The value of Security)

$\boldsymbol{X_4}$ = independent variable (The value of Reward)

$\boldsymbol{X_5}$ = independent variable (The value of Perceived Usefulness)

$\boldsymbol{X_6}$ = independent variable (The value of Perceived Ease of Use)

$\boldsymbol{\beta_i}$ = value of parameter estimated, where $i = 1, 2, 3, \ldots$

$\boldsymbol{\varepsilon}$ = error

Adoption of E-wallet	=	0.867+0.269(CV)+0.036(BG)-0.017(SC)+0.116(RW)+ 0.101(PU)+ 0.286 (PEOU)

In this research, perceived ease of use is the highest contributor toward the variance of adoption of E-wallet with parameter estimate value of 0.286 as compared to other variables. Followed by convenience, it is the second highest contribution variable with the parameter value of 0.269. Besides, rewards and perceived usefulness had contributed in explaining the variance in adoption of E-wallet as its parameter estimate value stands at 0.116 and 0.101 respectively, while the parameter estimate value of budgeting stands at 0.036.

Security has the lowest contribution in explaining the variance in adoption of E-wallet as its parameter estimate value stands at 0.017. From the figure, it implies that perceived ease of use has contributed the most while security has contributed the least in predicting the adoption of E-wallet with holding all other variable constants.

4.4 Conclusion

In short, we have listed out the results that are analyzed by using the SPSS system for each variable by using table and pie chart form. After that, a clear explanation was summarized for understanding of the reviewer. The test result could assist future researchers who are interested in E-wallet. The result will be brought forward to the next chapter for further discussion and conclude entire research.

CHAPTER 5: DISCUSSION AND CONCLUSION

5.0 Introduction

In this chapter, we will make discussion and conclusion for the entire research. A summary of statistical analysis on demographic profile, central tendencies and inferential analysis will be discussed. Other than that, the discussion on major finding will be included in this chapter in order to show the impacts of variables. Lastly, implication, limitation and recommendation of study will be carried out for the entire research.

5.1 Summary of Statistic Analysis

5.1.1 Summary of Descriptive Analysis

Table 5.1: Summary of Demographic Information

Demographic factors	Categories	Frequency	Percentage (%)
Gender	Male	99	26.3
	Female	278	73.7
Ethnic	Malay	25	6.6
	Chinese	329	87.3
	Indian	23	6.1
Age	17-19	48	12.7
	20-22	170	45.1
	23-25	159	42.2

Source: Developed for the research

Table shows the demographic summary information of 377 respondents from UTAR Kampar through the Google form. The majority of gender is female indicate that (73.7%)

in which represent 278 respondent whereas the male is (26.3%) represent 99 respondent. The largest group of ethnic in these questionnaires is Chinese which represent 329 respondents (87.3%). The second largest group of ethnic is Malay, there are represent 25 respondents (6.6%) and the Indian is the least of respondent which is 23 respondents (6.1%).Besides that, the age between 20-22 shows that there have 170 respondents (45.1%) is the highest group from our data collected while the age between 23-25 shows consists of 159 respondent (45.1%) in this questionnaires and followed by the age 23-25 consist of 159 respondent (42.2%).

5.1.2 Central Tendencies Measurement of Constructs

Table 5.2: Central Tendencies Measurement of Constructs

Variables	Dimension	Mean		Standard Deviation	
		Highest	Lowest	Highest	Lowest
Dependent Variable	Adoption of e-wallet	4.59	4.33	0.766	0.549
Independent Variable	Convenience	4.59	4.33	0.844	0.675
	Budgeting	4.16	3.85	1.018	0.852
	Security	4.28	3.90	0.920	0.727
	Rewards	4.58	3.25	1.366	0.628
	Perceived Usefulness	4.45	4.16	0.763	0.620
	Perceived ease of use	4.52	4.30	0.830	0.608

Source: Developed for the research

5.1.3 Summary of the Inferential Analysis

5.1.3.1 Reliability Test

Table 5.3: Summary of Reliability Test Result

Variables	Dimension	Cronbach's Alpha	Reliability
Dependent Variable	Adoption of e-wallet	0.823	Excellent
Independent Variable	Convenience	0.896	Excellent
	Budgeting	0.930	Excellent
	Security	0.910	Excellent
	Rewards	0.612	Fair
	Perceived Usefulness	0.908	Excellent
	Perceived ease of use	0.890	Excellent

Source: Developed for the research

5.1.3.2 Pearson Correlation Analysis

Table 5.4: Summary of Pearson Correlation Result

N=377

Adoption of e-wallet			
Variables	Person Correlation	P-value	Strength of Association
Convenience	0.777	0.000	High
Budgeting	0.642	0.186	Moderate
Security	0.693	0.64	Moderate
Rewards	0.631	0.000	Moderate
Perceived Usefulness	0.757	0.009	High
Perceived ease of use	0.799	0.000	High

Source: Developed for the research

5.1.3.3 Multiple Linear Regression Analysis

Table 5.5: Summary of Multiple Linear Regression Analysis Result

Variables	Parameter Estimate	Pr> |t|	R-Square
Convenience	0.269	0.00	0.761
Budgeting	0.036	0.186	
Security	-0.017	0.64	
Rewards	0.116	0.00	
Perceived Usefulness	0.101	0.009	
Perceived ease of use	0.286	0.00	

Source: Developed for the research

5.2 Discussions of Major Findings

Table: Summary of Multiple Linear Regression Result

Hypothesis	Result	Supported
H1: There is a significant relationship between convenience and adoption of E-wallet.	P-value <0.001	Yes
H2: There is a significant relationship between budgeting and adoption of e-wallet.	P-value >0.001	No
H3: There is a significant relationship between security and adoption of E-wallet.	P-value >0.001	No
H4: There is a significant relationship between rewards and adoption of E-wallet.	P-value <0.001	Yes
H5: There is a significant relationship between perceived usefulness and adoption of E-wallet.	P-value <0.001	Yes
H6: There is a significant relationship between perceived ease of use and adoption of E-wallet.	P-value= <0.001	Yes

Source: Developed for the research

5.2.1 Relationship between convenience and adoption of E-wallet.

Based on the result, H1 is supported since the p-value (<0.001) is less than alpha value 0.05. There is a significant relationship between convenience and adoption of E-wallet. In addition, the result of correlation coefficient of Convenience has value 0.777 which falls under correlation range from ±0.71 to ±0.90. Therefore, the relationship between convenience and adoption of E-wallet is high strength.

According to the Sarika & Vasantha (2019), the result is proven that there are significant differences between convenience and adoption of E-wallet. The result is supported by Check et al., (2014) study, when the users adopt the E-wallet, convenience is the most important factor and it really affects the consumer's buying decision. Nowadays, many consumers will purchase goods online due to convenience when making payment online. Howcroft et al., (2002) noted that younger consumers put greater emphasis on convenience and time savings when embracing internet banking than older consumers do. The research found that when the customer makes the payment online, they do not burn their pockets because of excessive expenses (Karjaluoto et al., 2002). For instance, consumers who spend the money to purchase the things online will control their expenses to excess the limit. So, adopting an E-wallet to make payment online is very convenient, faster, and faster for customers to get the product and service.

5.2.2 Relationship between budgeting and adoption of e-wallet.

Based on the result, H2 is not supported since the p-value (>0.001) is more than alpha value 0.05. The relationship between budgeting and adoption of e-wallet is not significant. In addition, the result of correlation coefficient of budgeting has value of 0.642 is fall under coefficient range from ±0.41 to ±0.70. Therefore, the relationship between budgeting and adoption of e-wallet is moderate strength.

In this study the budgeting does not significantly explain the variance of the adoption of E-wallet which means that the government and organization think that technologies are advanced, it can move from paper to electronic in order to save cost. The high cost of processing paper is encouraging the people to adopt the E-wallet. As David et al., (2003) said that E-wallet has provided many advantages such as cost saving, efficiency and accuracy compared with the traditional method.

However, many aged people felt that the E-wallet is difficult to learn and very complex with traditional methods. So, it makes them not willing to adopt an E-wallet. It is also very inconvenient to purchase goods in the shop. They are likely to pay with cash rather than using the E-wallet.

5.2.3 Relationship between security and adoption of E-wallet.

Based on the result, H3 is not supported since the p-value (>0.001) is more than alpha value 0.05. The relationship between security and adoption of e-wallet is not significant. In addition, on the result of correlation coefficient of security has value of 0.693 is fall under coefficient range from ±0.41 to ±0.70. Therefore, the relationship between security and adoption of e-wallet is moderate strength.

The independent variable is security proved to be not significant in defining adoption of E-wallet. Based on the Shah et al., (2014) study, adoption towards E-wallet will be associated with the risk of mobile payment services due to concerns regarding privacy, transaction itself and personnel data. In other words, most of the consumers are concerned about the safety of money transactions when adopting the E-wallet. The consumer will consider the safety in advance whether it is safe and strong security when adopting the E-wallet.

Besides that, there are many consumer concern securities when making the purchase decision using the E-wallet. When the consumer does not strengthen the security, it may cause the hacker to easily hack the account. So, it will make the consumer lose the money and other relevant information. Therefore, consumers must be concerned about security when adopting the E-wallet.

5.2.4 Relationship between rewards and adoption of E-wallet.

Based on the result, H4 is supported since the p-value (<0.001) is less than alpha value 0.05. There is a significant relationship between rewards and adoption of E-wallet. In addition, the correlation coefficient of Convenience has value 0.631 which falls under correlation range from ±0.41 to ±0.70.Therefore, the relationship between rewards and adoption of E-wallet is moderate strength.

According to "Benefits of Accepting Contactless Payments",(2011), 40 percent of consumers will tend to use an E-wallet if they received any reward related to E-wallet use. This has proved that rewards are one of the reasons that consumers consider when adopting E-wallet. Most consumers are likely to use the E-wallet because of the rewards points, loyalty program, daily sales, and coupon codes for their purchases. Besides that, the organization of E-wallet will promote the activities such as RM5 cashback in Shop Malaysia Online Wallet, and RM60 Postpaid Rebate Voucher to customers to get the rewards. So, the result is supported by the study done by Prasad Yadav & Arora, (2019) indicates that the E-wallet companies come out with new programs or activities in order to attract more number of users willing to adopt the E-wallet. When the E-wallet offers many benefits such as discounts and promotion may develop the customer to use. Customer’s attitude will affect their use intention.

5.2.5 Relationship between perceived usefulness and adoption of E-wallet.

Based on the result, H5 is supported since the p-value (<0.001) is less than alpha value 0.05. There is a significant relationship between perceived usefulness and adoption of E-wallet. In addition, the result of correlation coefficient of Convenience has value 0.757 which falls within the correlation range from ±0.71 to ±0.90.Therefore, the relationship between perceived usefulness and adoption of E-wallet is high strength.

Perceived usefulness shows that it will directly affect a consumer's attitude towards e-wallet. The usefulness of the mobile devices such as personalization, ubiquity, localization, timeliness and network stability will bring impact to the adoption of E-wallet. With the usefulness of the mobile devices, the users are easy to accept if these functions bring them advantage. The perceived usefulness is increased, and then consumer behavior also will increase. The result is supported by study done by Mun et al.,(2017) indicate that the E-wallet service will increase the users' efficiency and effectiveness in their daily lives and improve their lives .One of the theories supporting the relationship between perceived usefulness and adoption of E-wallet is Technology Acceptance Model (TAM). Davis (1989) mentioned that the strongest predictor is the perceived usefulness which is that one’s intention to use an information technology. Based on this theory, perceived usefulness is the most significant determinant for predicting the intention of customers to use mobile trade in Malaysia. Although the user found that the device is difficult to use, they also will use it due to the device’s usefulness and it can enhance their efficiency. So, the perceived usefulness is the most powerful factor in adoption of E-wallet.

5.2.6 Relationship between perceived ease of use and adoption of E-wallet.

Based on the result, H6 is supported since the p-value (<0.001) is less than alpha value 0.05. There is a significant relationship between perceived ease of use and adoption of E-wallet. In addition, the result of the correlation coefficient of Convenience has value 0.799 which falls within the correlation range from ±0.71 to ±0.90. Therefore, the relationship between perceived ease of use and adoption of E-wallet is high strength.

Davis, et.al,(1992); Gefen & Straub, (2000);Venkatesh, (2000) studies that perceived ease of use is an element of adoption of E-wallet. Perceived ease of use is giving a clear and understandable interaction to users to experience with the new system. It determines how the consumer accepts the new system and how easy to adopt the system. Therefore, many users are willing to learn and accept the new system, so it will increase the rate of the users to adopt the E-wallet. When the new system is easy and comfortable, the users are likely to adopt the E-wallet for making the payment and use it to purchase the goods or service. For instance, the users frequently adopt the E-wallet because it is easy, simple and faster when purchasing goods at the shop. This is showing that the high perceived ease of use will affect the users to uset it.

In this study, the relationship between the perceived ease of use and adoption of E-wallet is the highest strength compared with other independent variables. In other words, perceived ease of use is an important factor of adopting E-wallet services for the users. This is because this system can help the users become more convenient and also can decrease the risk for users frequently going to the bank to withdraw the money.

5.3 Implication of the study

5.3.1 Theoretical Implication

In theoretical implications, researcher's findings are either proving a theory or debunking it. If the findings are corresponded with the theory of the research, it is verified. Future researchers carry out related factors that affect E-wallet adoption gain from this research. In our research, independent variables like CV, RW, PU and PEOU showed positive significance through towards E-wallet adoption. Relevant variables should continue for further study for target respondents in different regions and time periods. E-wallet is extremely discussion issue within Malaysia in recent years. The future study about E-wallet would be helpful for making improvement and boost more adoption of E-wallet among consumers.

5.3.2 Managerial Implication

Based on our study results, this research may be able to provide some contributions to different parties. The first party would be the facility providers of E-wallet services and also entrepreneurs who are interested in developing E-wallet service in the future. The information in this study can provide a guideline to those entrepreneurs for better comprehension on E-wallet issues. Factors such as convenience and rewards are important elements in adoption of E-wallet as the study showed. Therefore, this allows facility providers to have more emphasis on these important elements to make improvement on the existing E-wallet services. Furthermore, future entrepreneurs will have a better concept of consumers' needs towards adoption of E-wallet. It can increase the amount of E-wallet adoption among consumers.

Moreover, future researchers that are interested in the E-wallet adoption topic can take some advantages from this study. It could take this research's variables that applied as a reference for the future study. According to the results of our study, variables such as convenience, rewards, perceived usefulness and perceived ease of use are significant. However, the variables of budgeting and security show insignificant results towards the adoption of E-wallet. The future researchers can either eliminate irrelevant variables or take different factors into account when conducting their future research. As E-wallet is a growing tendency in Malaysia, future researchers can conduct research related to this issue. Our study may provide assistance to future researchers for future investigation.

Lastly, governance would be the party who gets advantages from this study. Governance can know the significant variables that affect consumers to adopt E-wallet. Governance can implement some strategy to promote E-wallet among consumers. For example, governance had implemented e-Tunai Rakyat of RM30 and e-PENJANA of RM50 to motivate consumers using E-wallet. Consumers will download an E-wallet app to claim the money. From this study, governance can get more ideas to make consumers continue using E-wallet instead of stop using E-wallet after spending the given money.

5.4 Limitation of study

5.4.1 Inability to control the situation

We are unable to control the situation of the respondents filling in the questionnaire. The respondents may casually answer the questionnaire that is affected by the time frame. They may simply choose the answer without reading the questions properly. It will provide inaccurate information and affect the result of study. Besides, some questions in the questionnaire may be considered sensitive for respondents. It may cause respondents

to feel uncomfortable to answer. They might not answer based on their own view which will affect the result of study.

5.4.2 Lack of merchandiser view

In our research, we only focus on the consumer perspective view on adoption of E-wallet. Consumers are our targeted respondents to conduct the research and those result was only collected based on consumer' perspective. So, it is not providing accuracy for adoption of E-wallet. We neglect the merchandiser perspective view. Nowadays, there are only a few merchandisers willing to adopt E-wallet in their payment system. This is a doubt to know the reason why this situation happens. In fact, the merchandiser perspective view will also affect adoption of E-wallet.

5.4.3 Narrow in demographic

Besides, our demographic option in this research is narrow. We only target generation Z in UTAR Kampar. The result of the study is only based on UTAR Kampar students, but not for the public. Actually, the users of E-wallet are not only generation Z, but also generation X, Y, and Baby Boomers. Different ages of consumers will have different opinions towards E-wallet. For instance, many of generation X and Y are willing to accept adoption of E-wallet. Even for Baby Boomers, few of them who are able to use technological devices will accept E-wallet. Thus, it may affect the result's accuracy of study.

5.4.4 Limited outcomes in quantitative research

We used a quantitative method which is questionnaire survey through online. This is because questionnaire collection is less time consuming and more convenient. The questionnaire survey is structured with close-ended questions. The answer of respondents is among alternative choices. They only can select answers among “strongly agree’’ to “strongly disagree”. The lack of a qualitative method implemented is unable for respondents to provide their opinions and suggestions. This will lead limited outcomes in our research.

5.5 Recommendation of study

5.5.1 Provides more time

The researcher may allocate questionnaires to respondents in proper time to avoid respondents affected by time frame. The researcher should provide a few days for respondents to answer questionnaires. This can avoid them rushing to answer without reading the question properly when they are not free. Besides, the researcher can arrange the questions in a sequence from general to sensitive. This helps to remove the respondent's sensitive feeling during answering the questionnaire.

5.5.2 Conduct research on merchandiser view

In order to solve the lack of merchandiser view, we recommend future researchers to conduct research on merchandiser views. This is because merchandiser is also an

important factor for E-wallet adoption. The further research should carry out to find the reason why only few merchandisers adopt E-wallet in their payment system. It will provide more information and accuracy results of E-wallet adoption among different categories of people's perspectives.

5.5.3 Broaden in demographic

The recommendation for future researchers to solve the narrow demographic is expanding the generations of target respondents in future study. Future researchers are encouraged to target respondents with broadened age ranges including not only generation Z, but also different generations like generation X, Y and baby boomers. Different generations of consumers have different opinions through E-wallet adoption. Besides, the future researcher should conduct research over each state of Malaysia, but not a specified small area. This is because a large population of the area will get more accurate statistics.

5.5.4 Implement quantitative and qualitative research

To solve the problem of limited outcomes in quantitative research, researchers should not only use quantitative methods, but also use qualitative methods and interviews. There will be direct interaction among researchers and respondents in interview method. This provides respondents to give their opinion and suggestions towards E-wallet. It has more information from respondents besides the alternative choices in the questionnaire. This is more reliable to understand the consumer's opinion towards E-wallet.

5.6 Conclusion

Throughout this chapter, we had made a summary on descriptive analysis and inferential analysis. We are also making a discussion of major findings which interpret relationship between dependent and independent variables. Result shows that there is a significant relationship between adoptions of E-wallet with convenience, budgeting, security, reward, perceived usefulness and perceived ease of use. Furthermore, limitations and recommendations are distributed for future research to review. We hope that recommendations we suggested will help future researcher to have a better review before they start to conduct a new business or research that related with E-wallet.

REFERENCES

Abdullah, H. H., Bohari, A. M., Warokka, A., & Abdussalam, A. (2012). Strategic role of mobile commerce (M-Commerce) payment system: Establishing new competitive advantage. *Journal of Electronic Banking Systems, 2012*(2012), 1-14.

Adharsh, R., Harikrishnan, J., Prasad, A., & Venugopal, J. S. (2018). Transformationtowards E-Wallet Payment Systems Pertaining to Indian Youth. *International Journal of Pure and Applied Mathematics, 119*(12),2583-2594.

Adi Bhat (n.d). Descriptive research: Definition Retrieved from https://www.questionpro.com/blog/descriptive-research/

Adi Bhat (n.d). Quantitative research: Definition, methods, types and examples.Retrieved from https://www.questionpro.com/blog/quantitative-research/

Agrebi, S., & Jallais, J. (2015). Explain the intention to use smartphones for mobile shopping.Journal of Retailing and Consumer Services, 22, 16-23.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes, 50*(2), 179-211.

Amoroso, D. L., & Magnier-Watanabe, R. (2012). Building a research model for mobile wallet consumer adoption: the case of mobile Suica in Japan. *Journal of theoretical and applied electronic commerce research, 7*(1), 94-110.

Ashrafi, M. Z., & Ng, S. K. (2008, March). Enabling privacy-preserving e-paymentprocessing. In *International Conference on Database Systems for Advanced Applications* (pp. 596-603). Springer, Berlin, Heidelberg

Aydin, G., & Burnaz, S. (2016). Adoption of mobile payment systems: A study on mobile wallets. *Journal of Business Economics and Finance*, *5*(1), 73-92.

Bailey, A. A., Pentina, I., Mishra, A. S., & Mimoun, M. S. B. (2017). Mobile payments adoption by US consumers: an extended TAM. *International Journal of Retail & Distribution Management*.

Basir, A. A. (2009). Payment systems in malaysia: recent developments and issues.

Batra, R., & Kalra, N. (2016). Are Digital Wallets The New Currency?. *Apeejay Journal of Management and Technology*, *11*(1), 1-12.

Benefits of Accepting Contactless Payments. Firstdata.com. (2011). Retrieved from https://www.firstdata.com/downloads/thought-leadership/contactless-payments-benefits.pdf.

Bezovski, Z. (2016). The future of the mobile payment as electronic payment system. *European Journal of Business and Management*, *8*(8), 127-132.

Bhatia, M. (2018). Your guide to qualitative and quantitative data analysis methods.

BrandonGaille. Retrieved from https://brandongaille.com/13-electronic-wallets-advantages-and-disadvantages/.

Carr Jr, V. H. (1999). Technology adoption and diffusion. *The Learning Center for Interactive Technology*.

Chang, S. C., & Tung, F. C. (2008). An empirical investigation of students'behavioural intentions to use the online learning course websites. *British Journal of Educational Technology*, *39*(1), 71-83.

Chapter 7: Descriptive Analysis (n.d.). Retrieved from https://shodhganga.inflibnet.ac.in/bitstream/10603/31029/14/14_chapter%207.pdf

Chauhan, P. (2013). E-wallet: The trusted partner in our pocket. *International Journal for Research in Management and Pharmacy*, *2*(4), 12-19.

Check, L., Huiskamp, W., & Malinowski, A. (2014). E-commerce trends and payment challenges for online merchants: Beyond payment. *Moduslink Whitepaper*, 1-25.

Chen, L. D. (2008). A model of consumer acceptance of mobile payment.*International Journal of Mobile Communications*, *6*(1), 32-52.

Childers, T. L., Carr, C. L., Peck, J., & Carson, S. (2001). Hedonic and utilitarian motivations for online retail shopping behavior. *Journal of retailing*, *77*(4), 511-535.

Chin, L. P., & Ahmad, Z. A. (2015). Consumers Intention to Use a Single Platform E -Payment System: A Study Among Malaysian Internet and Mobile Banking Users.*The Journal of Internet Banking and Commerce*, *20*(1), 1-13.

Critical, V. (2016).The everything guide to Generation Z.

Dahlberg, T., Guo, J., & Ondrus, J. (2015). A critical review of mobile payment research. *Electronic Commerce Research and Applications*, *14*(5), 265-284.

Dandash, O., Wu, X., & Le, P. D. (2005, April). Wireless internet payment system using smart cards. In *International Conference on Information Technology: Coding and Computing (ITCC'05)-Volume II* (Vol. 2, pp. 16-21). IEEE.

Daştan, İ., & Gürler, C. (2016). Factors affecting the adoption of mobile payment systems:An empirical analysis. *EMAJ: Emerging Markets Journal*, *6*(1),17-24.

David, H., Magnus, W., Ted, L., & Göran, B. (2003). What does it Cost to Make a Payment?. *Review of Network Economics*, *2*(2), 1-16.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and intrinsic motivation to use computers in the workplace 1. *Journal of applied social psychology*, *22*(14), 1111-1132.

Devaraj, S., Fan, M., & Kohli, R. (2002). Antecedents of B2C channel satisfaction and preference: validating e-commerce metrics. *Information systems research*, *13*(3), 316-333.

Di Pietro, L., Mugion, R. G., Mattia, G., Renzi, M. F., & Toni, M. (2015). The integrated model on mobile payment acceptance (IMMPA): An empirical application to public transport. *Transportation Research Part C: Emerging Technologies*, *56*, 463-479.

Ervasti, M. and Helaakoski, H. (2010). "Case study of application-based mobile service acceptance and development in Finland". Int. J. Information Technology and Management, 9 (3), 243-259

Eslami, Z., & Talebi, M. (2011). A new untraceable off-line electronic cash system. *Electronic Commerce Research and Applications*, *10*(1), 59-66.

E-Wallets in Malaysia: Landscape at the end of 2019. Oppotus.com. (2019).Retrieved fromhttps://www.oppotus.com/e-wallets-malaysia-landscape-end-2019/.

Fang, Y., Qureshi, I., Sun, H., McCole, P., Ramsey, E., & Lim, K. H. (2014). Trust, satisfaction, and online repurchase intention. *Mis Quarterly*, *38*(2), 407-A9.

Foley, B. (2018). What is SPSS and How Does it Benefit Survey Data Analysis? Retrieved from https://www.surveygizmo.com/resources/blog/what-is-spss/

Francis, L., Hancke, G., Mayes, K., & Markantonakis, K. (2010, June). Practical NFC peer-to-peer relay attack using mobile phones. In *International Workshop on Radio Frequency Identification: Security and Privacy Issues* (pp. 35-49).Springer, Berlin, Heidelberg

Fricker, R. (2012). Target populations, sampling, frames, and coverage error. *NavalPostgraduate School Monterey, California. Management Among Supermarkets in Nakuru Town, Kenya.*

Gaille, B. (2018). *13 Electronic Wallets Advantages and Disadvantages*.

Gefen, D., & Straub, D. W. (2000). The relative importance of perceived ease of use in IS adoption: A study of e-commerce adoption. *Journal of the association for Information Systems*, *1*(1), 8.

Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model. *MIS quarterly*, *27*(1), 51-90.

Hair, J. F., Money, A. H., Samouel, P., & Page, M. (2007). Research Methods for Business Chichester, West Sussex: John Wiley & Sons, Inc.

Harris, H., Guru, B. K., & Avvari, M. V. (2011). Evidence of firms' perceptions toward Electronic payment systems (EPS) in Malaysia. *International Journal of Business and Information*, *6*(2).

Hayashi, F., & Bradford, T. (2014). Mobile payments: Merchants' perspectives. *Economic Review*, *99*, 5-30.

Howcroft, B., Hamilton, R., & Hewer, P. (2002). Consumer attitude and the usage and adoption of home- based banking in the United Kingdom. *International journal of bank marketing*.

Huang, E., & Cheng, F. C. (2012). Online security cues and e-payment continuance Intention. *International Journal of E-Entrepreneurship and Innovation(IJEEI)*, *3*(1), 42-58.

Humphrey, D. B., Kim, M., & Vale, B. (2001). Realizing the gains from electronic payments: Costs, pricing, and payment choice. *Journal of Money, credit and Banking*, 216-234.

Janssen, M., Rana, N. P., Slade, E. L., & Dwivedi, Y. K. (2018). Trustworthiness of digital government services: deriving a comprehensive theory through interpretive structural modelling. *Public Management Review*, *20*(5), 647-671.

Jayanthi, G., & Baranipriya, A. (2020). A study on consumer adoption of mobile wallet with special reference to employees of it sector in coimbatore. *Paripex-IndianJournalOf Research*, *9*(2).

Jeevananda, D. S. (2011). A study on customer satisfaction level at hypermarkets in Indian retail industry. *Research Journal of Social Science & Management*, *1*(3), 1-14.

Kalakota, R., & Whinston, A. B. (1997). *Electronic commerce: a manager's guide*. Addison-Wesley Professional.

Karjaluoto, H., Koenig- Lewis, N., Palmer, A., & Moll, A. (2010). Predicting young consumers' take up of mobile banking services. *International journal of bank marketing*.

Karjaluoto, H., Mattila, M. and Pento, T. (2002), "Electronic banking in Finland:consumer beliefs and reactions to a new delivery channel", Journal of Financial Service Marketing, Vol. 6, No. 4, pp. 346-361.

Kim, C., Mirusmonov, M., & Lee, I. (2010). An empirical examination of factors influencing the intention to use mobile payment. *Computers in Human Behavior*, *26*(3), 310-322.

Kim, Y. J., & Han, J. (2014). Why smartphone advertising attracts customers: A model of Web advertising, flow, and personalization. *Computers in Human Behavior*, *33*, 256-269.

Kveder, A., & Galico, A. (2008). Guidelines for cleaning and harmonization of Generation and Gender Survey data.

Lai, P. C. (2017). The literature review of technology adoption models and theories for the Novelty technology. *JISTEM-Journal of Information Systems and Technology Management*, *14*(1), 21-38.

Lee, C., & Wan, G. (2010). Including subjective norm and technology trust in the technology acceptance model: a case of e-ticketing in China. *ACM SIGMIS Database: the DATABASE for Advances in Information Systems*, *41*(4), 40-51.

Lee, K. W., Tsai, M. T., & Lanting, M. C. L. (2011). From marketplace to marketspace: Investigating the consumer switch to online banking. *Electronic Commerce Research and Applications*, *10*(1), 115-125.

Lin, H. F. (2007). Predicting consumer intentions to shop online: An empirical test of competing theories. *Electronic Commerce Research and Applications*, *6*(4), 433-442.

Linck, K., Pousttchi, K., & Wiedemann, D. G. (2006). Security issues in mobile payment from the customer viewpoint.

Logahan, J. M., & Viliano, M. Factors affecting intention to use "SAKUKU" E-wallet of generation y in Indonesia.

Lowe, S. C. (2004). *A systematic analysis of the impact, causes, and potential solutions for employee turnover in a manufacturing organization.* The University of Southern Mississippi.

Lu, J., Yu, C. S., Liu, C., & Yao, J. E. (2003). Technology acceptance model for wireless Internet. *Internet research*.

Luarn, P., & Lin, H. H. (2005). Toward an understanding of the behavioral intention to use mobile banking. *Computers in human behavior*, *21*(6), 873-891.

Malik, A. N. A., & Annuar, S. N. S. The effect of perceived usefulness, perceived ease of use, trust and perceived risk toward E-wallet usage. *INSIGHT JOURNAL (IJ)*, 183.

Mallat, N., Rossi, M., & Tuunainen, V. K. (2004). Mobile banking services.*Communications of the ACM*, *47*(5), 42-46.

Manikandan, S., & Jayakodi, J. M. (2017). An empirical study on consumer adoption of mobile wallet with special reference to Chennai city. *International Journal of Research-Granthalaya*, *5*(5), 107-115.

Meharia, P. (2012). Assurance on the Reliability of mobile payment system and its effects on its'use:An empirical examination.*Accounting and Management Information Systems*, *11*(1), 97.

Methods of Data Collection-Primary and secondary sources. theintactone.com. Retrieved from https://theintactone.com/2018/02/27/br-u2-topic-6-methods-of-data-collection-primary-and-secondary-sources/.

Moon, J. W., & Kim, Y. G. (2001). Extending the TAM for a World-Wide-Web context. *Information & management*, *38*(4), 217-230.

Moore, G. C., & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information systems research*, *2*(3), 192-222.

Mun, Y. P., Khalid, H., & Nadarajah, D. (2017). Millennials' perception on mobile payment services in Malaysia. *Procedia Computer Science*, *124*, 397-404.

Naeem, S. (2019). *Data Editing in Research - Helping Research writing for student &professional researchers*. Helping Research writing for student & professionalresearchers. Retrieved from http://researcharticles.com/index.php/data-editing-in-research/.

Nair, S. (2018, November 19). Boosting e-wallet adoption. Retrieved from https://www.thestar.com.my/tech/tech-news/2018/11/19/boosting-ewallet-adoption.

Ndubisi, N. O., & Jantan, M. (2003). Evaluating IS usage in Malaysian small and medium- sized firms using the technology acceptance model. *Logistics information management*.

Nizam, F., Hwang, H. J., & Valaei, N. (2018, July). Measuring the effectiveness of e-wallet in Malaysia. In *3rd IEEE/ACIS International Conference on BigData, Cloud Computing, and Data Science Engineering* (pp. 59-69). Springer,Cham.

Oentario, Y., Harianto, A., & Irawati, J. (2017). Pengaruh Usefulness, Ease of Use, Risk Terhadap Intentionto Buy Onlinepatisserie Melalui Consumer Attitude Berbasis Media Sosial Di Surabaya. *Jurnal Manajemen Pemasaran*, *11*(1),26-31.

Ou, H., Lv, T., & Chen, X. (2009, July). A Game Analysis of the Relationship amongGovernment, Mobile Operator and Finance Organization in China Mobile Payment Industry Chain. In *2009 International Conference on Business Intelligence and Financial Engineering* (pp. 604-607).

Pachare, S. M. (2016). Demonetization: unpacking the digital wallets. *We'Ken-International Journal of Basic and Applied Sciences*, *1*(4), 180-183.

Pahwa, A. (2020) EWallet | Everything you should know about Prepaid Wallets, Feedough. Available at: https://www.feedough.com/e-wallet/

Patil, P. P., Dwivedi, Y. K., & Rana, N. P. (2017, November). Digital payments adoption: an analysis of literature. In *Conference on e-Business, e-Servicesand e-Society* (pp. 61-70). Springer, Cham.

Phuah, K. T., TingJL, J. L., & Wong, K. K. S. (2018). Understanding customer intention to use mobile payment services in Nanjing, China. *InternationalJournal of Community Development and Management Studies*, *2*, 049-060.

Pousttchi, K., & Zenker, M. (2003, September). Current mobile payment procedures on the german market from the view of customer requirements. In *14th International Workshop on Database and Expert Systems Applications, 2003.Proceedings.* (pp. 870-874).

Prasad Yadav, M., & Arora, M. (2019). Study on Impact on Customer Satisfaction for E-Wallet Using Path Analysis Model. *International Journal of Information Systems & Management Science*, *2*(1).

Promotions.TNG Digital - Touch 'n Go eWallet. Retrieved from https://www.tngdigital.com.my/promotions.

Rathore, H. S. (2016). Adoption of digital wallet by consumers. *BVIMSR's journal of management research*, *8*(1), 69.

Rogers, E. M. (1962). The Diffusion of Innovations 1 st eds.

Ryan, R. M., & Connell, J. P. (1989). Perceived locus of causality and internalization: examining reasons for acting in two domains. *Journal of personality and social psychology*, *57*(5), 749.

S. Jaideep (n.d). Research design: Introduction, content and types. Retrieved from http://www.yourarticlelibrary.com/marketing/research-design-introduction-contents-and-types/48714

Sarika, P., & Vasantha, S. (2019). Impact of Mobile Wallets on Cashless Transaction. *International Journal of Recent Technology and Engineering (IJRTE)*, *7*(6S5).

Saxena, A., Das, M. L., & Gupta, A. (2005, July). MMPS: a versatile mobile-to-mobile payment system. In *International Conference on Mobile Business (ICMB'05)* (pp. 400-405).

Saunders, M., Lewis, P., & Thornhill, A. (2012). Research Methods for Business Students, 6th edn, sn.

Schierz, P. G., Schilke, O., & Wirtz, B. W. (2010). Understanding consumer acceptance of mobile payment services: An empirical analysis. *Electronic commerceresearch and applications, 9*(3), 209-216.

Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill buildingapproach*. John Wiley & Sons.

Shah, M. H., Peikari, H. R., & Yasin, N. M. (2014). The determinants of individuals'perceived e-security: Evidence from Malaysia. *International Journal of Information Management*, *34*(1), 48-57.

Sharma, D., Aggarwal, D., & Gupta, A. A.(2019). Study Of Consumer Perception TowardsMwallets. *International Journal of Scientific & Technology Research 8*(11).

Sharma, S., & Gutiérrez, J. A. (2010). An evaluation framework for viable business models for m-commerce in the information technology sector. *ElectronicMarkets*, *20*(1), 33-52.

Shaw, N. (2014). The mediating influence of trust in the adoption of the mobile wallet. *Journal of Retailing and Consumer Services*, *21*(4), 449-459.

Shin, D. H. (2010). The effects of trust, security and privacy in social networking: A security-based approach to understand the pattern of adoption. *Interacting withcomputers*, *22*(5), 428-438.

Sidek, N. (2015). Determinants of electronic payment adoption in Malaysia: the stakeholders' perspectives.

Singh, S., & Rana, R. (2017). Study of consumer perception of digital payment mode. *Journal of Internet Banking and Commerce*, *22*(3), 1-14.

Sulaiman, J. (2009). Chapter 3: Research Methodology. Retrieved from http://studentsrepo.um.edu.my/2691/4/Chap_3.pdf

Surendran, P. (2012). Technology acceptance model: A survey of literature. *International Journal of Business and Social Research*, *2*(4), 175-178.

Swink, M., Melnyk, S. A., Cooper, M. B., & Hartley, J. L. (2014). *Managing operations*. McGraw-Hill/Irwin, New York.

Szymanski, D. M., & Hise, R. T. (2000). E-satisfaction: an initial examination. *Journal of retailing*, *76*(3), 309-322.

Taheam, K., Sharma, R., & Goswami, S. (2016). Drivers of Digital Wallet Usage: Implications For Leveraging Digital Marketing (Only Abstract).

Taherdoost, H. (2016). Sampling methods in research methodology; how to choose a sampling technique for research. *How to Choose a Sampling Technique for Research (April 10, 2016)*.

Tavilla, E. (2017). Rewarding Loyal Customers to Increase Mobile Payments Adoption. *Federal Reserve Bank of Boston, Boston*.

Teo, E., Fraunholz, B., & Unnithan, C. (2005, July). Inhibitors and facilitators for mobile payment adoption in Australia: A preliminary study. In *International Conference on Mobile Business (ICMB'05)* (pp. 663-666).

Teoh, W. M. Y., Chong, S. C., Lin, B., & Chua, J. W. (2013). Factors affecting consumers' perception of electronic payment: an empirical analysis. *InternetResearch*.

Tiara, O. R., & Usman, O. (2019). Effect of Trust, Perceived of Use, Consumer Perception, and Behavior Intention on the Use of Digital Wallet Among College Students. *Perceived of Use, Consumer Perception, and Behavior Intention on the Use of Digital Wallet Among College Students (December 25, 2019)*.

Uddin, M. S., & Akhi, A. Y. (2014). E-wallet system for Bangladesh an electronic payment system. *International Journal of Modeling and Optimization*, *4*(3), 216.

Udo, G. J. (2001). Privacy and security concerns as major barriers for e- commerce: a survey study. *Information Management & Computer Security*.

Utami, R. A. (2016). Pengaruh Kualitas Sistem dan Layanan, Kepercayaan, Persepsi Manfaat, Persepsi Kemudahan dan Persepsi Risiko terhadap Sikap PenggunaanE-money.*Universitas Islam Indonesia*.

Uyanık, G. K., & Güler, N. (2013). A study on multiple linear regression analysis. *Procedia-Social and Behavioral Sciences*, *106*, 234-240.

Valcourt, E., Robert, J. M., & Beaulieu, F. (2005, August). Investigating mobile payment: supporting technologies, methods, and use. In *WiMob'2005), IEEE International Conference on Wireless And Mobile Computing, Networking And Communications, 2005.* (Vol. 4, pp. 29-36). IEEE.

Varnali, K., Yilmaz, C., & Toker, A. (2012). Predictors of attitudinal and behavioral outcomes in mobile advertising: A field experiment. *Electronic Commerce Research and Applications*, *11*(6), 570-581.

Varsha, R., & Thulasiram, M. (2016). Acceptance of e-wallet services: a study of consumer behavior. *International Journal of Innovative Research inManagement Studies*, *1*(4), 133-141.

Venkatesh, V. (2000). Determinants of perceived ease of use: Integrating control, intrinsic motivation, and emotion into the technology acceptance model. *Information systems research*, *11*(4), 342-365.

Venkatesh, V., & Davis, F. D. (1996). A model of the antecedents of perceived ease of use: Development and test. *Decision sciences*, *27*(3), 451-481.

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management science,46*(2), 186-204.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS quarterly*, 425-478.

Vetrivel, M., & Razack, M. A. B. I. (2020). Whether E-wallets are really a catalyst towards expedition of a cashless economy?: An empirical investigation in the aftermath of demonetization . *Studies in Indian Place Names*, *40*(34), 6-16.

Wadhera, T., Dabas, R., & Malhotra, P. (2017). Adoption of M-wallet: A way ahead.*International Journal of Engineering and Management Research (IJEMR)*, *7*(4), 1-7.

Wang, J., & Gu, L. (2017). Why is wechat pay so popular?. Issues in Information Systems, 18(4), 1-8.

Wei, T. T., Marthandan, G., Chong, A. Y. L., Ooi, K. B., & Arumugam, S. (2009).What drives Malaysian m- commerce adoption? An empirical analysis.*Industrial management & data systems*.

Wen, C., Prybutok, V. R., & Xu, C. (2011). An integrated model for customer online repurchase intention. *Journal of Computer Information Systems*, *52*(1), 14-23.

What is Primary Data? + [Examples & Collection Methods]. Formpl.us. (2020). Retrieved from https://www.formpl.us/blog/primary-data.

Wong, C. C., & Hiew, P. L. (2005, April). Diffusion of mobile entertainment in Malaysia: Drivers and barriers. In *WEC (5)* (pp. 263-266).

Zarrin Kafsh, S. (2015). *Developing Consumer Adoption Model on Mobile Wallet in Canada* (Doctoral dissertation, Université d'Ottawa/University of Ottawa).

Zhang, G., Cheng, F., & Meinel, C. (2008, March). Towards secure mobile payment based on SIP. In *15th Annual IEEE International Conference and Workshop on the Engineering of Computer Based Systems (ecbs 2008)* (pp. 96-104). IEEE.

Zhou, T. (2011). The effect of initial trust on user adoption of mobile payment. Information Development, 27(4), 290-300.

Zhou, T. (2011). The impact of privacy concern on user adoption of location- based services. *Industrial Management & Data Systems*.

APPENDIX 1. 1: SURVEY QUESTIONNAIRES

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
BACHELOR OF BUSINESS ADMINISTRATION (HONS)
FINAL YEAR PROJECT

Title of topic: Factors of E-wallet Adoption among Generation Z

Survey Questionnaire

Dear respondent,

Welcome to our survey for our final year project (FYP). We are the Bachelor of Business Administration (Hons) student from University Tunku Abdul Rahman (UTAR). Currently, we are conducting our questionnaire is about factors of e-wallet adoption among generation Z. Your responses are much appreciated to help us complete the study. We appreciate your time in completing the survey. All the information provided will be treated as confidential and private.

Thank you very much for your time and participation.
Best Regard,
Choo Jia Yi
Li Yi Huan
Lim Jia Xuan
Wong Chin Yee

Personal Data Protection Statement:

Notice:

1. The purposes for which your personal data may be used are inclusive but not limited to:-

   • For assessment of any application to UTAR
   • For processing any benefits and services
   • For communication purposes
   • For advertorial and news
   • For general administration and record purposes
   • For enhancing the value of education
   • For educational and related purposes consequential to UTAR
   • For the purpose of our corporate governance
   • For consideration as a guarantor for UTAR staff/ student applying for his/her scholarship/study loan

2. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.

3. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

4. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete,not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

Consent:

1. By submitting this form you hereby authorise and consent to us processing (including disclosing) your personal data and any updates of your information, for the purposes and/or for any other purposes related to the purpose.

2. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.

3. You may access and update your personal data by writing to us at jiayi527@1utar.my .

Acknowledgment of Notice

[ ] I have been notified by you and that I hereby understood, consented and agreed per UTAR notice (refer to Appendix I).

[ ] I disagree, my personal data will not be processed.

Questionnaires

Section A: Demographics

Please place a tick (√) or fill in the blank for each of the following:

1. What is your gender?
   - Male
   - Female

2. What is your age range?
   - 17-19 years old
   - 20-22 years old
   - 23-25 years old

3. What is your ethnic group?
   - Malay
   - Chinese
   - India

Section B: Factors affecting adoption of E-wallet payment

Please indicate your degree of agreement on the following statements by circling the numbers given ranging from:

Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, Strongly Agree = 5

Independent Variable

(I) Convenience

No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	E-wallet is convenient because I always carry a mobile phone	1	2	3	4	5
2	E-wallet is convenient because I can use it anytime	1	2	3	4	5
3	E-wallet is convenient because the interaction with E-wallet services is clear and understandable	1	2	3	4	5
4	E-wallet is convenient because it save time	1	2	3	4	5
5	E-wallet is convenient because it is easier to use e-wallet than card payment.	1	2	3	4	5

(II) Budgeting

No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	E-wallet helps me in budgeting.	1	2	3	4	5
2.	Using e-wallet would help me to save my money.	1	2	3	4	5
3	E-wallet helps me to control my spending habits.	1	2	3	4	5
4	E-wallet gives me greater control over my day to day transactions.	1	2	3	4	5
5	E-wallet helps me to keep track of my transaction history.	1	2	3	4	5

(III) Security

No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	The risk of abuse of usage information (e.g., names of business partners, payment amount) is low when using mobile wallet.	1	2	3	4	5
2	The risk of abuse of billing information (e.g., credit card number, bank account data) is low when using mobile wallet.	1	2	3	4	5
3	I find mobile payment services secure for conducting my payment transactions.	1	2	3	4	5
4	I am comfortable with having my credit card integrated into my mobile phone.	1	2	3	4	5
5	E-Wallets ensure protection against risk of fraud and financial loss.	1	2	3	4	5

(IV) Reward

No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	E-wallet allows to offer several benefits to consumer (rewards/cashback/discounts etc)	1	2	3	4	5
2	I use E-wallet because I want to take the advantage of loyalty/reward points and discounts.	1	2	3	4	5
3	I would like to continue to use E-wallet as long as promotions are offered.	1	2	3	4	5
4	I wouldn't download E-wallet if no promotions were offered.	1	2	3	4	5
5	I can avail cash back while using E-wallet.	1	2	3	4	5

(V) Perceived Usefulness

No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	E-wallet services are a useful mode of payment	1	2	3	4	5
2	E-wallet services allow for a faster usage of mobile applications (e.g. ticket purchase, bill payment)	1	2	3	4	5
3	Mobile payment services bring one more choice for customers in a payment process	1	2	3	4	5
4	Using E-wallet would enhance my payment effectiveness	1	2	3	4	5
5	Using E-wallet would make it easier for me to manage and make payments.	1	2	3	4	5

(VI) Perceived Ease of Use

No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	It is easy for me to learn how to utilize the E-wallet	1	2	3	4	5
2	It is easy to remember how to use digital wallet	1	2	3	4	5
3	I find digital wallet useful for my payment activities	1	2	3	4	5
4	Using E-wallet would enhance my payment effectiveness	1	2	3	4	5
5	Overall, I would find E-wallet systems to be easy to use	1	2	3	4	5

Section C: Intention to adopt E-wallet payment

Please circle according to the Likert scale which range from strongly disagree to strongly agree with each statement number from 1 to 5, where it indicates as follows:

Dependent Variable- ***Adoption of E-wallet***

No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	E-wallet can substitute the cash based payment method.	1	2	3	4	5
2	I am willing to continue using e-payment services in near future rather than not use it	1	2	3	4	5
3	I intend to continue using e-payment services at least as often within the next month as I have previously used	1	2	3	4	5
4	I intend to use e- payment services when the opportunity arises	1	2	3	4	5
5	Using E-wallet is beneficial	1	2	3	4	5

Appendix 1.2 Pilot test result

```
RELIABILITY
  /VARIABLES=Adoption_of_Ewallet_1 Adoption_of_Ewallet_2 Adoption_of_Ewallet_3
Adoption_of_Ewallet_4 Adoption_of_Ewallet_5
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=SCALE CORR
  /SUMMARY=TOTAL.
```

Reliability

```
[DataSet1] C:\Users\TEMP\Downloads\FYP (1).sav
```

Scale: Adoption of E-wallet

Case Processing Summary

		N	%
Cases	Valid	30	65.2
	Excluded[a]	16	34.8
	Total	46	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.805	.803	5

Inter-Item Correlation Matrix

	E-wallet can substitute the cash based payment method	I am willing to continue using e-payment services in near future rather than not use it	I intend to continue using e-payment services at least as often within the next month as I have previously used	I intend to continue using e-payment services at least as often within the next month as I have previously used	Using E-wallet is beneficial
E-wallet can substitute the cash based payment method	1.000	.219	.235	.076	.302
I am willing to continue using e-payment services in near future rather than not use it	.219	1.000	.575	.480	.690
I intend to continue using e- payment services at least as often within the next month as I have previously used	.235	.575	1.000	.651	.621
I intend to continue using e- payment services at least as often within the next month as I have previously used	.076	.480	.651	1.000	.637
Using E-wallet is beneficial	.302	.690	.621	.637	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
E-wallet can substitute the cash based payment method	17.7000	4.976	.248	.133	.854
I am willing to continue using e-payment services in near future rather than not use it	17.8333	3.592	.654	.512	.747
I intend to continue using e- payment services at least as often within the next month as I have previously used	17.9667	3.413	.705	.537	.728
I intend to continue using e- payment services at least as often within the next month as I have previously used	17.9000	4.024	.618	.533	.759
Using E-wallet is beneficial	17.6667	3.885	.777	.631	.718

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
22.2667	5.926	2.43443	5

```
RELIABILITY
  /VARIABLES=Convenience_1 Convenience_2 Convenience_3 Convenience_4 Convenience_5
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=SCALE CORR
  /SUMMARY=TOTAL.
```

Reliability

[DataSet1] C:\Users\TEMP\Downloads\FYP (1).sav

Scale: Convenience

Case Processing Summary

		N	%
Cases	Valid	30	65.2
	Excluded[a]	16	34.8
	Total	46	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.886	.883	5

Inter-Item Correlation Matrix

	E-wallet is convenient because I always carry a mobile phone.	E-wallet is convenient because I can use it anytime.	E-wallet is convenient because the interaction with E-wallet services is clear and understandable	E-wallet is convenient because it is easier to use e-wallet than card payment.	E-wallet is convenient because it save time
E-wallet is convenient because I always carry a mobile phone.	1.000	.369	.586	.385	.481
E-wallet is convenient because I can use it anytime.	.369	1.000	.533	.531	.686
E-wallet is convenient because the interaction with E-wallet services is clear and understandable	.586	.533	1.000	.858	.745
E-wallet is convenient because it is easier to use e-wallet than card payment.	.385	.531	.858	1.000	.843
E-wallet is convenient because it save time	.481	.686	.745	.843	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
E-wallet is convenient because I always carry a mobile phone.	17.3333	9.402	.517	.462	.903
E-wallet is convenient because I can use it anytime.	17.5000	8.190	.625	.492	.885
E-wallet is convenient because the interaction with E-wallet services is clear and understandable	17.6333	7.482	.833	.820	.836
E-wallet is convenient because it is easier to use e-wallet than card payment.	17.5667	7.495	.811	.864	.841
E-wallet is convenient because it save time	17.7000	6.907	.857	.808	.829

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.9333	11.995	3.46344	5

```
RELIABILITY
  /VARIABLES=Budgeting_1 Budgeting_2 Budgeting_3 Budgeting_4 Budgeting_5
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=SCALE CORR
  /SUMMARY=TOTAL.
```

Reliability

```
[DataSet1] C:\Users\TEMP\Downloads\FYP (1).sav
```

Scale: Budgeting

Case Processing Summary

		N	%
Cases	Valid	30	65.2
	Excluded[a]	16	34.8
	Total	46	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.919	.919	5

Inter-Item Correlation Matrix

	E-wallet helps me in budgeting.	Using e-wallet would save me money.	E-wallet helps me to control my spending habits.	E-wallet gives me greater control over my day to day transactions.	E-wallet helps me to keep track of my transaction history.
E-wallet helps me in budgeting.	1.000	.679	.764	.843	.642
Using e-wallet would save me money.	.679	1.000	.731	.711	.498
E-wallet helps me to control my spending habits.	.764	.731	1.000	.836	.634
E-wallet gives me greater control over my day to day transactions.	.843	.711	.836	1.000	.601
E-wallet helps me to keep track of my transaction history.	.642	.498	.634	.601	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
E-wallet helps me in budgeting.	15.6667	11.540	.844	.749	.891
Using e-wallet would save me money.	15.8000	12.028	.741	.578	.912
E-wallet helps me to control my spending habits.	15.7667	11.220	.859	.757	.887
E-wallet gives me greater control over my day to day transactions.	15.7000	11.734	.872	.803	.885
E-wallet helps me to keep track of my transaction history.	15.4667	13.499	.656	.463	.926

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
19.6000	18.386	4.28791	5

```
RELIABILITY
  /VARIABLES=Security_1 Security_2 Security_3 Security_4 Security_5
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=SCALE CORR
  /SUMMARY=TOTAL.
```

Reliability

```
[DataSet1] C:\Users\TEMP\Downloads\FYP (1).sav
```

Scale: Security

Case Processing Summary

		N	%
Cases	Valid	30	65.2
	Excluded[a]	16	34.8
	Total	46	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.905	.912	5

Inter-Item Correlation Matrix

	The risk of abuse of usage information (e.g., names of business partners, payment amount) is low when using mobile wallet.	The risk of abuse of billing information (e.g., credit card number, bank account data) is low when using mobile wallet.	I find mobile payment services secure for conducting my payment transactions.	I am comfortable with having my credit card integrated into my mobile phone.	E-Wallets ensure protection against risk of fraud and financial loss.
The risk of abuse of usage information (e.g., names of business partners, payment amount) is low when using mobile wallet.	1.000	.835	.806	.667	.595
The risk of abuse of billing information (e.g., credit card number, bank account data) is low when using mobile wallet.	.835	1.000	.811	.644	.567
I find mobile payment services secure for conducting my payment transactions.	.806	.811	1.000	.661	.561
I am comfortable with having my credit card integrated into my mobile phone.	.667	.644	.661	1.000	.594
E-Wallets ensure protection against risk of fraud and financial loss.	.595	.567	.561	.594	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
The risk of abuse of usage information (e.g., names of business partners, payment amount) is low when using mobile wallet.	16.3333	8.230	.839	.762	.867
The risk of abuse of billing information (e.g., credit card number, bank account data) is low when using mobile wallet.	16.0333	9.482	.829	.755	.875
I find mobile payment services secure for conducting my payment transactions.	16.2000	9.407	.821	.726	.876
I am comfortable with having my credit card integrated into my mobile phone.	16.3667	8.999	.732	.537	.891
E-Wallets ensure protection against risk of fraud and financial loss.	16.2667	9.099	.649	.431	.912

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.3000	13.803	3.71530	5

```
RELIABILITY
  /VARIABLES=Rewards_1 Rewards_2 Reward3R Rewards_4 Rewards_5
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=SCALE CORR
  /SUMMARY=TOTAL.
```

Reliability

[DataSet1] C:\Users\TEMP\Downloads\FYP (1).sav

Scale: Rewards

Case Processing Summary

		N	%
Cases	Valid	30	65.2
	Excluded[a]	16	34.8
	Total	46	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.636	.726	5

Inter-Item Correlation Matrix

	E-wallet allows to offer several benefits to consumer (rewards/cashback/discounts etc).	I would like to use/continue to use E-wallet as long as promotions are offered.	I wouldn't download E-wallet if no promotions were offered	I use E-wallet because I want to take the advantage of loyalty / reward points and discounts.	I can avail cash back while using E-wallet.
E-wallet allows to offer several benefits to consumer (rewards/cashback/discounts etc).	1.000	.692	.176	.563	.555
I would like to use/continue to use E-wallet as long as promotions are offered.	.692	1.000	.260	.267	.387
I wouldn't download E-wallet if no promotions were offered	.176	.260	1.000	-.084	-.016
I use E-wallet because I want to take the advantage of loyalty / reward points and discounts.	.563	.267	-.084	1.000	.659
I can avail cash back while using E-wallet.	.555	.387	-.016	.659	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
E-wallet allows to offer several benefits to consumer (rewards/cashback/discounts etc).	15.7333	6.133	.694	.644	.458
I would like to use/continue to use E-wallet as long as promotions are offered.	15.4667	6.947	.567	.522	.531
I wouldn't download E-wallet if no promotions were offered	17.2000	6.855	.087	.105	.811
I use E-wallet because I want to take the advantage of loyalty / reward points and discounts.	15.6667	6.713	.427	.530	.566
I can avail cash back while using E-wallet.	15.9333	6.340	.500	.494	.530

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.0000	9.448	3.07380	5

```
RELIABILITY
  /VARIABLES=Perceived_Usefulness_1 Perceived_Usefulness_2 Perceived_Usefulness_3
Perceived_Usefulness_4 Perceived_Usefulness_5
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=SCALE CORR
  /SUMMARY=TOTAL.
```

Reliability

```
[DataSet1] C:\Users\TEMP\Downloads\FYP (1).sav
```

Scale: Perceived Usefulness

Case Processing Summary

		N	%
Cases	Valid	30	65.2
	Excluded[a]	16	34.8
	Total	46	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.901	.903	5

Inter-Item Correlation Matrix

	E-wallet services are a useful mode of payment.	E-wallet services allow for a faster usage of mobile applications (e.g. ticket purchase, bill payment).	Mobile payment services bring one more choice for customers in a payment process.	Using E-wallet would enhance my payment effectiveness.	Using E-wallet would make it easier for me to manage and make payments.
E-wallet services are a useful mode of payment.	1.000	.743	.638	.587	.656
E-wallet services allow for a faster usage of mobile applications (e.g. ticket purchase, bill payment).	.743	1.000	.649	.679	.561
Mobile payment services bring one more choice for customers in a payment process.	.638	.649	1.000	.552	.592
Using E-wallet would enhance my payment effectiveness.	.587	.679	.552	1.000	.855
Using E-wallet would make it easier for me to manage and make payments.	.656	.561	.592	.855	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
E-wallet services are a useful mode of payment.	17.1000	7.128	.756	.675	.879
E-wallet services allow for a faster usage of mobile applications (e.g. ticket purchase, bill payment).	17.0667	7.306	.759	.717	.880
Mobile payment services bring one more choice for customers in a payment process.	17.0000	7.241	.690	.517	.892
Using E-wallet would enhance my payment effectiveness.	17.3000	6.355	.795	.811	.870
Using E-wallet would make it easier for me to manage and make payments.	17.1333	6.257	.793	.808	.871

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.4000	10.455	3.23345	5

```
RELIABILITY
  /VARIABLES=Perceived_Ease_of_Use_1 Perceived_Ease_of_Use_2 Perceived_Ease_of_Use_3
Perceived_Ease_of_Use_4 Perceived_Ease_of_Use_5
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=SCALE CORR
  /SUMMARY=TOTAL.
```

Reliability

```
[DataSet1] C:\Users\TEMP\Downloads\FYP (1).sav
```

Scale: Perceived Ease of Use

Case Processing Summary

		N	%
Cases	Valid	30	65.2
	Excluded[a]	16	34.8
	Total	46	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.898	.901	5

Inter-Item Correlation Matrix

	It is easy for me to learn how to utilize the E-wallet.	It is easy to remember how to use digital wallet.	I find digital wallet useful for my payment activities.	Using E-wallet would enhance my payment effectiveness	Overall, I would find E-wallet systems to be easy to use.
It is easy for me to learn how to utilize the E-wallet.	1.000	.710	.696	.482	.542
It is easy to remember how to use digital wallet.	.710	1.000	.678	.707	.628
I find digital wallet useful for my payment activities.	.696	.678	1.000	.745	.623
Using E-wallet would enhance my payment effectiveness	.482	.707	.745	1.000	.636
Overall, I would find E-wallet systems to be easy to use.	.542	.628	.623	.636	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
It is easy for me to learn how to utilize the E-wallet.	17.3000	6.976	.703	.637	.889
It is easy to remember how to use digital wallet.	17.3333	6.989	.809	.686	.861
I find digital wallet useful for my payment activities.	17.2667	7.306	.813	.707	.861
Using E-wallet would enhance my payment effectiveness	17.3667	7.482	.740	.688	.877
Overall, I would find E-wallet systems to be easy to use.	17.1333	8.051	.698	.498	.887

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.6000	11.214	3.34870	5

Appendix 1.3 SPSS Result for 377 respondents

```
RECODE Rewards_3 (1=5) (2=4) (3=3) (4=2) (5=1) INTO Reward3R.
VARIABLE LABELS  Reward3R "I wouldn't download E-wallet if no promotions were offered".
EXECUTE.
DATASET ACTIVATE DataSet1.
SAVE OUTFILE='C:\Users\TEMP\Downloads\FYP.sav' /COMPRESSED.
DATASET ACTIVATE DataSet1.
SAVE OUTFILE='C:\Users\TEMP\Documents\FYP 377.sav'
  /COMPRESSED.
RELIABILITY
  /VARIABLES=Adoption_of_Ewallet_1 Adoption_of_Ewallet_2 Adoption_of_Ewallet_3 Adoption_of_Ewallet_4
Adoption_of_Ewallet_5
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=SCALE CORR
  /SUMMARY=TOTAL.
```

Reliability

[DataSet1] C:\Users\TEMP\Documents\FYP 377.sav

Scale: Adoption of E-wallet

Case Processing Summary

		N	%
Cases	Valid	377	100.0
	Excluded[a]	0	.0
	Total	377	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.823	.823	5

Inter-Item Correlation Matrix

	E-wallet can substitute the cash based payment method	I am willing to continue using e-payment services in near future rather than not use it	I intend to continue using e-payment services at least as often within the next month as I have previously used	I intend to continue using e-payment services at least as often within the next month as I have previously used	Using E-wallet is beneficial
E-wallet can substitute the cash based payment method	1.000	.226	.269	.189	.310
I am willing to continue using e-payment services in near future rather than not use it	.226	1.000	.585	.551	.695
I intend to continue using e- payment services at least as often within the next month as I have previously used	.269	.585	1.000	.689	.622
I intend to continue using e- payment services at least as often within the next month as I have previously used	.189	.551	.689	1.000	.677
Using E-wallet is beneficial	.310	.695	.622	.677	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
E-wallet can substitute the cash based payment method	17.84	4.944	.292	.113	.866
I am willing to continue using e-payment services in near future rather than not use it	17.95	3.649	.669	.521	.773
I intend to continue using e- payment services at least as often within the next month as I have previously used	18.10	3.367	.712	.553	.761
I intend to continue using e- payment services at least as often within the next month as I have previously used	18.02	4.013	.699	.579	.768
Using E-wallet is beneficial	17.80	3.934	.771	.628	.750

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
22.43	5.958	2.441	5

```
RELIABILITY
 /VARIABLES=Convenience_1 Convenience_2 Convenience_3 Convenience_4 Convenience_5
 /SCALE('ALL VARIABLES') ALL
 /MODEL=ALPHA
 /STATISTICS=SCALE CORR
 /SUMMARY=TOTAL.
```

Reliability

[DataSet1] C:\Users\TEMP\Documents\FYP 377.sav

Scale: Convenience

Case Processing Summary

		N	%
Cases	Valid	377	100.0
	Excluded[a]	0	.0
	Total	377	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.896	.894	5

Inter-Item Correlation Matrix

	E-wallet is convenient because I always carry a mobile phone.	E-wallet is convenient because I can use it anytime.	E-wallet is convenient because the interaction with E-wallet services is clear and understandable	E-wallet is convenient because it is easier to use e-wallet than card payment.	E-wallet is convenient because it save time
E-wallet is convenient because I always carry a mobile phone.	1.000	.516	.660	.526	.609
E-wallet is convenient because I can use it anytime.	.516	1.000	.495	.437	.571
E-wallet is convenient because the interaction with E-wallet services is clear and understandable	.660	.495	1.000	.888	.737
E-wallet is convenient because it is easier to use e-wallet than card payment.	.526	.437	.888	1.000	.830
E-wallet is convenient because it save time	.609	.571	.737	.830	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
E-wallet is convenient because I always carry a mobile phone.	17.68	7.436	.669	.558	.889
E-wallet is convenient because I can use it anytime.	17.69	7.724	.569	.395	.908
E-wallet is convenient because the interaction with E-wallet services is clear and understandable	17.92	6.175	.844	.853	.850
E-wallet is convenient because it is easier to use e-wallet than card payment.	17.86	6.493	.821	.882	.856
E-wallet is convenient because it save time	17.94	6.164	.830	.775	.853

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
22.27	10.353	3.218	5

```
RELIABILITY
 /VARIABLES=Budgeting_1 Budgeting_2 Budgeting_3 Budgeting_4 Budgeting_5
 /SCALE('ALL VARIABLES') ALL
 /MODEL=ALPHA
 /STATISTICS=SCALE CORR
 /SUMMARY=TOTAL.
```

Reliability

[DataSet1] C:\Users\TEMP\Documents\FYP 377.sav

Scale: Budgeting

Case Processing Summary

		N	%
Cases	Valid	377	100.0
	Excluded[a]	0	.0
	Total	377	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.930	.930	5

Inter-Item Correlation Matrix

	E-wallet helps me in budgeting.	Using e-wallet would save me money.	E-wallet helps me to control my spending habits.	E-wallet gives me greater control over my day to day transactions.	E-wallet helps me to keep track of my transaction history.
E-wallet helps me in budgeting.	1.000	.710	.752	.824	.731
Using e-wallet would save me money.	.710	1.000	.737	.735	.540
E-wallet helps me to control my spending habits.	.752	.737	1.000	.851	.671
E-wallet gives me greater control over my day to day transactions.	.824	.735	.851	1.000	.714
E-wallet helps me to keep track of my transaction history.	.731	.540	.671	.714	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
E-wallet helps me in budgeting.	15.81	10.834	.852	.743	.907
Using e-wallet would save me money.	15.85	11.428	.756	.613	.925
E-wallet helps me to control my spending habits.	15.90	10.426	.852	.760	.907
E-wallet gives me greater control over my day to day transactions.	15.85	10.857	.893	.813	.899
E-wallet helps me to keep track of my transaction history.	15.59	12.019	.731	.585	.929

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
19.75	17.065	4.131	5

```
RELIABILITY
  /VARIABLES=Security_1 Security_2 Security_3 Security_4 Security_5
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=SCALE CORR
  /SUMMARY=TOTAL.
```

Reliability

[DataSet1] C:\Users\TEMP\Documents\FYP 377.sav

Scale: Security

Case Processing Summary

		N	%
Cases	Valid	377	100.0
	Excluded[a]	0	.0
	Total	377	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.910	.915	5

Inter-Item Correlation Matrix

	The risk of abuse of usage information (e.g., names of business partners, payment amount) is low when using mobile wallet.	The risk of abuse of billing information (e.g., credit card number, bank account data) is low when using mobile wallet.	I find mobile payment services secure for conducting my payment transactions.	I am comfortable with having my credit card integrated into my mobile phone.	E-Wallets ensure protection against risk of fraud and financial loss.
The risk of abuse of usage information (e.g., names of business partners, payment amount) is low when using mobile wallet.	1.000	.816	.823	.723	.554
The risk of abuse of billing information (e.g., credit card number, bank account data) is low when using mobile wallet.	.816	1.000	.819	.670	.532
I find mobile payment services secure for conducting my payment transactions.	.823	.819	1.000	.715	.536
I am comfortable with having my credit card integrated into my mobile phone.	.723	.670	.715	1.000	.647
E-Wallets ensure protection against risk of fraud and financial loss.	.554	.532	.536	.647	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
The risk of abuse of usage information (e.g., names of business partners, payment amount) is low when using mobile wallet.	16.45	7.982	.838	.760	.876
The risk of abuse of billing information (e.g., credit card number, bank account data) is low when using mobile wallet.	16.15	9.088	.814	.736	.885
I find mobile payment services secure for conducting my payment transactions.	16.29	8.908	.834	.758	.880
I am comfortable with having my credit card integrated into my mobile phone.	16.53	8.255	.793	.637	.886
E-Wallets ensure protection against risk of fraud and financial loss.	16.33	8.901	.630	.438	.922

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.44	13.183	3.631	5

```
RELIABILITY
 /VARIABLES=Rewards_1 Rewards_2 Reward3R Rewards_4 Rewards_5
 /SCALE('ALL VARIABLES') ALL
 /MODEL=ALPHA
 /STATISTICS=SCALE CORR
 /SUMMARY=TOTAL.
```

Reliability

[DataSet1] C:\Users\TEMP\Documents\FYP 377.sav

Scale: Rewards

Case Processing Summary

		N	%
Cases	Valid	377	100.0
	Excluded[a]	0	.0
	Total	377	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.612	.719	5

Inter-Item Correlation Matrix

	E-wallet allows to offer several benefits to consumer (rewards/cashback/discounts etc).	I would like to use/continue to use E-wallet as long as promotions are offered.	I wouldn't download E-wallet if no promotions were offered	I use E-wallet because I want to take the advantage of loyalty / reward points and discounts.	I can avail cash back while using E-wallet.
E-wallet allows to offer several benefits to consumer (rewards/cashback/discounts etc).	1.000	.672	.087	.556	.598
I would like to use/continue to use E-wallet as long as promotions are offered.	.672	1.000	.165	.255	.500
I wouldn't download E-wallet if no promotions were offered	.087	.165	1.000	-.138	.009
I use E-wallet because I want to take the advantage of loyalty / reward points and discounts.	.556	.255	-.138	1.000	.676
I can avail cash back while using E-wallet.	.598	.500	.009	.676	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
E-wallet allows to offer several benefits to consumer (rewards/cashback/discounts etc).	15.82	5.570	.653	.616	.432
I would like to use/continue to use E-wallet as long as promotions are offered.	15.55	6.386	.551	.528	.506
I wouldn't download E-wallet if no promotions were offered	17.38	6.509	.022	.070	.823
I use E-wallet because I want to take the advantage of loyalty / reward points and discounts.	15.76	6.033	.397	.565	.542
I can avail cash back while using E-wallet.	15.99	5.441	.592	.576	.445

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.13	8.528	2.920	5

```
RELIABILITY
  /VARIABLES=Perceived_Usefulness_1 Perceived_Usefulness_2 Perceived_Usefulness_3 Perceived_Usefulness_4
Perceived_Usefulness_5
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=SCALE CORR
  /SUMMARY=TOTAL.
```

Reliability

[DataSet1] C:\Users\TEMP\Documents\FYP 377.sav

Scale: Perceived Usefulness

Case Processing Summary

		N	%
Cases	Valid	377	100.0
	Excluded[a]	0	.0
	Total	377	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.908	.909	5

Inter-Item Correlation Matrix

	E-wallet services are a useful mode of payment.	E-wallet services allow for a faster usage of mobile applications (e.g. ticket purchase, bill payment).	Mobile payment services bring one more choice for customers in a payment process.	Using E-wallet would enhance my payment effectiveness.	Using E-wallet would make it easier for me to manage and make payments.
E-wallet services are a useful mode of payment.	1.000	.717	.584	.612	.635
E-wallet services allow for a faster usage of mobile applications (e.g. ticket purchase, bill payment).	.717	1.000	.661	.686	.525
Mobile payment services bring one more choice for customers in a payment process.	.584	.661	1.000	.704	.692
Using E-wallet would enhance my payment effectiveness.	.612	.686	.704	1.000	.837
Using E-wallet would make it easier for me to manage and make payments.	.635	.525	.692	.837	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
E-wallet services are a useful mode of payment.	17.37	5.995	.724	.618	.897
E-wallet services allow for a faster usage of mobile applications (e.g. ticket purchase, bill payment).	17.36	6.050	.738	.694	.894
Mobile payment services bring one more choice for customers in a payment process.	17.29	5.774	.763	.604	.889
Using E-wallet would enhance my payment effectiveness.	17.57	5.187	.838	.792	.872
Using E-wallet would make it easier for me to manage and make payments.	17.35	5.425	.789	.778	.884

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.73	8.685	2.947	5

```
RELIABILITY
  /VARIABLES=Perceived_Ease_of_Use_1 Perceived_Ease_of_Use_2 Perceived_Ease_of_Use_3 Perceived_Ease_of_Use_4
Perceived_Ease_of_Use_5
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=SCALE CORR
  /SUMMARY=TOTAL.
```

Reliability

[DataSet1] C:\Users\TEMP\Documents\FYP 377.sav

Scale: Perceived Ease Of Use

Case Processing Summary

		N	%
Cases	Valid	377	100.0
	Excluded[a]	0	.0
	Total	377	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.890	.895	5

Inter-Item Correlation Matrix

	It is easy for me to learn how to utilize the E-wallet.	It is easy to remember how to use digital wallet.	I find digital wallet useful for my payment activities.	Using E-wallet would enhance my payment effectiveness	Overall, I would find E-wallet systems to be easy to use.
It is easy for me to learn how to utilize the E-wallet.	1.000	.751	.562	.467	.500
It is easy to remember how to use digital wallet.	.751	1.000	.742	.682	.572
I find digital wallet useful for my payment activities.	.562	.742	1.000	.843	.613
Using E-wallet would enhance my payment effectiveness	.467	.682	.843	1.000	.573
Overall, I would find E-wallet systems to be easy to use.	.500	.572	.613	.573	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
It is easy for me to learn how to utilize the E-wallet.	17.56	5.907	.666	.582	.885
It is easy to remember how to use digital wallet.	17.64	5.443	.832	.728	.842
I find digital wallet useful for my payment activities.	17.50	6.384	.824	.773	.852
Using E-wallet would enhance my payment effectiveness	17.64	6.097	.741	.727	.864
Overall, I would find E-wallet systems to be easy to use.	17.42	6.696	.646	.426	.884

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.94	9.284	3.047	5

Appendix 1.4

Central Tendencies Measurement Result

```
FREQUENCIES VARIABLES=Adoption_of_Ewallet_1 Adoption_of_Ewallet_2 Adoption_of_Ewallet_3 Adoption_of_Ewallet_4
Adoption_of_Ewallet_5
  /FORMAT=NOTABLE
  /STATISTICS=STDDEV VARIANCE MEAN MEDIAN MODE
  /ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		2020-08-10T12:10:41.888
Comments		
Input	Data	C:\Users\TEMP.KHPP22.000\Downloads\FYP 377.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	377
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.

Syntax		FREQUENCIES VARIABLES=Adoption_of_Ewallet_1 Adoption_of_Ewallet_2 Adoption_of_Ewallet_3 Adoption_of_Ewallet_4 Adoption_of_Ewallet_5 /FORMAT=NOTABLE /STATISTICS=STDDEV VARIANCE MEAN MEDIAN MODE /ORDER=ANALYSIS.
Resources	Processor Time	0:00:00.000
	Elapsed Time	0:00:00.004

[DataSet1] C:\Users\TEMP.KHPP22.000\Downloads\FYP 377.sav

Statistics

		E-wallet can substitute the cash based payment method	I am willing to continue using e-payment services in near future rather than not use it	I intend to continue using e-payment services at least as often within the next month as I have previously used	I intend to continue using e-payment services at least as often within the next month as I have previously used	Using E-wallet is beneficial
N	Valid	377	377	377	377	377
	Missing	0	0	0	0	0
	Mean	4.59	4.48	4.33	4.40	4.63
	Median	5.00	5.00	5.00	4.00	5.00
	Mode	5	5	5	4	5
	Std. Deviation	.549	.707	.766	.576	.560
	Variance	.301	.500	.587	.332	.313

```
FREQUENCIES VARIABLES=Convenience_1 Convenience_2 Convenience_3 Convenience_4 Convenience_5
  /FORMAT=NOTABLE
  /STATISTICS=STDDEV VARIANCE MEAN MEDIAN MODE
  /ORDER=ANALYSIS.
```

Convenience

Notes

Output Created		2020-08-10T12:11:51.873
Comments		
Input	Data	C:\Users\TEMP.KHPP22.000\Downloads\FYP 377.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	377
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=Convenience_1 Convenience_2 Convenience_3 Convenience_4 Convenience_5 /FORMAT=NOTABLE /STATISTICS=STDDEV VARIANCE MEAN MEDIAN MODE /ORDER=ANALYSIS.

Resources	Processor Time	0:00:00.000
	Elapsed Time	0:00:00.003

[DataSet1] C:\Users\TEMP.KHPP22.000\Downloads\FYP 377.sav

Statistics

		E-wallet is convenient because I always carry a mobile phone.	E-wallet is convenient because I can use it anytime.	E-wallet is convenient because the interaction with E-wallet services is clear and understandable	E-wallet is convenient because it is easier to use e-wallet than card payment.	E-wallet is convenient because it save time
N	Valid	377	377	377	377	377
	Missing	0	0	0	0	0
	Mean	4.59	4.58	4.35	4.41	4.33
	Median	5.00	5.00	5.00	5.00	5.00
	Mode	5	5	5	5	5
	Std. Deviation	.675	.684	.832	.778	.844
	Variance	.455	.468	.692	.605	.712

```
FREQUENCIES VARIABLES=Budgeting_1 Budgeting_2 Budgeting_3 Budgeting_4 Budgeting_5
  /STATISTICS=STDDEV VARIANCE MEAN MEDIAN MODE
  /ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		2020-08-10T12:12:45.460
Comments		
Input	Data	C:\Users\TEMP.KHPP22.000\Downloads\FYP 377.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	377
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=Budgeting_1 Budgeting_2 Budgeting_3 Budgeting_4 Budgeting_5 /STATISTICS=STDDEV VARIANCE MEAN MEDIAN MODE /ORDER=ANALYSIS.
Resources	Processor Time	0:00:00.000
	Elapsed Time	0:00:00.015

[DataSet1] C:\Users\TEMP.KHPP22.000\Downloads\FYP 377.sav

Statistics

		E-wallet helps me in budgeting.	Using e-wallet would save me money.	E-wallet helps me to control my spending habits.	E-wallet gives me greater control over my day to day transactions.	E-wallet helps me to keep track of my transaction history.
N	Valid	377	377	377	377	377
	Missing	0	0	0	0	0
	Mean	3.94	3.90	3.85	3.90	4.16
	Median	4.00	4.00	4.00	4.00	4.00
	Mode	5	3[a]	3[a]	3	5
	Std. Deviation	.950	.933	1.018	.913	.852
	Variance	.903	.870	1.036	.833	.726

a. Multiple modes exist. The smallest value is shown

Frequency Table

E-wallet helps me in budgeting.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	14	3.7	3.7	3.7
	Neutral	140	37.1	37.1	40.8
	Agree	78	20.7	20.7	61.5
	Strongly Agree	145	38.5	38.5	100.0
	Total	377	100.0	100.0	

Using e-wallet would save me money.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	.8	.8	.8
	Disagree	15	4.0	4.0	4.8
	Neutral	122	32.4	32.4	37.1
	Agree	115	30.5	30.5	67.6
	Strongly Agree	122	32.4	32.4	100.0
	Total	377	100.0	100.0	

E-wallet helps me to control my spending habits.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	28	7.4	7.4	7.4
	Neutral	143	37.9	37.9	45.4
	Agree	63	16.7	16.7	62.1
	Strongly Agree	143	37.9	37.9	100.0
	Total	377	100.0	100.0	

E-wallet gives me greater control over my day to day transactions.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	3	.8	.8	.8
	Neutral	168	44.6	44.6	45.4
	Agree	69	18.3	18.3	63.7
	Strongly Agree	137	36.3	36.3	100.0
	Total	377	100.0	100.0	

E-wallet helps me to keep track of my transaction history.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	111	29.4	29.4	29.4
	Agree	94	24.9	24.9	54.4
	Strongly Agree	172	45.6	45.6	100.0
	Total	377	100.0	100.0	

```
FREQUENCIES VARIABLES=Security_1 Security_2 Security_3 Security_4 Security_5
  /FORMAT=NOTABLE
  /STATISTICS=STDDEV VARIANCE MEAN MEDIAN MODE
  /ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		2020-08-10T12:13:57.334
Comments		
Input	Data	C:\Users\TEMP.KHPP22.000\Downloads\FYP 377.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	377
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=Security_1 Security_2 Security_3 Security_4 Security_5 /FORMAT=NOTABLE /STATISTICS=STDDEV VARIANCE MEAN MEDIAN MODE /ORDER=ANALYSIS.
Resources	Processor Time	0:00:00.031
	Elapsed Time	0:00:00.004

[DataSet1] C:\Users\TEMP.KHPP22.000\Downloads\FYP 377.sav

Statistics

		The risk of abuse of usage information (e.g., names of business partners, payment amount) is low when using mobile wallet.	The risk of abuse of billing information (e.g., credit card number, bank account data) is low when using mobile wallet.	I find mobile payment services secure for conducting my payment transactions.	I am comfortable with having my credit card integrated into my mobile phone.	E-Wallets ensure protection against risk of fraud and financial loss.
N	Valid	377	377	377	377	377
	Missing	0	0	0	0	0
	Mean	3.99	4.28	4.15	3.90	4.11
	Median	4.00	4.00	4.00	4.00	4.00
	Mode	5	5	4	3	5
	Std. Deviation	.920	.727	.747	.903	.916
	Variance	.846	.528	.558	.815	.839

```
FREQUENCIES VARIABLES=Rewards_1 Rewards_2 Rewards_3 Rewards_4 Rewards_5
  /FORMAT=NOTABLE
  /STATISTICS=STDDEV VARIANCE MEAN MEDIAN MODE
  /ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		2020-08-10T12:15:26.114
Comments		
Input	Data	C:\Users\TEMP.KHPP22.000\Downloads\FYP 377.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	377
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=Rewards_1 Rewards_2 Rewards_3 Rewards_4 Rewards_5 /FORMAT=NOTABLE /STATISTICS=STDDEV VARIANCE MEAN MEDIAN MODE /ORDER=ANALYSIS.
Resources	Processor Time	0:00:00.031
	Elapsed Time	0:00:00.004

[DataSet1] C:\Users\TEMP.KHPP22.000\Downloads\FYP 377.sav

Statistics

		E-wallet allows to offer several benefits to consumer (rewards/cashback/discounts etc).	I would like to use/continue to use E-wallet as long as promotions are offered.	I wouldn't download E-wallet if no promotions were offered.	I use E-wallet because I want to take the advantage of loyalty / reward points and discounts.	I can avail cash back while using E-wallet.
N	Valid	377	377	377	377	377
	Missing	0	0	0	0	0
	Mean	4.31	4.58	3.25	4.37	4.14
	Median	4.00	5.00	3.00	5.00	4.00
	Mode	5	5	4	5	5
	Std. Deviation	.768	.628	1.366	.881	.854
	Variance	.590	.394	1.866	.776	.729

```
FREQUENCIES VARIABLES=Perceived_Usefulness_1 Perceived_Usefulness_2 Perceived_Usefulness_3 Perceived_Usefulness_4
Perceived_Usefulne
  ss_5
 /FORMAT=NOTABLE
 /STATISTICS=STDDEV VARIANCE MEAN MEDIAN MODE
 /ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		2020-08-10T12:16:18.263
Comments		
Input	Data	C:\Users\TEMP.KHPP22.000\Downloads\FYP 377.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	377
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=Perceived_Usefulness_1 Perceived_Usefulness_2 Perceived_Usefulness_3 Perceived_Usefulness_4 Perceived_Usefulness_5 /FORMAT=NOTABLE /STATISTICS=STDDEV VARIANCE MEAN MEDIAN MODE /ORDER=ANALYSIS.
Resources	Processor Time	0:00:00.031
	Elapsed Time	0:00:00.011

[DataSet1] C:\Users\TEMP.KHPP22.000\Downloads\FYP 377.sav

Statistics

		E-wallet services are a useful mode of payment.	E-wallet services allow for a faster usage of mobile applications (e.g. ticket purchase, bill payment).	Mobile payment services bring one more choice for customers in a payment process.	Using E-wallet would enhance my payment effectiveness.	Using E-wallet would make it easier for me to manage and make payments.
N	Valid	377	377	377	377	377
	Missing	0	0	0	0	0
	Mean	4.36	4.38	4.45	4.16	4.38
	Median	4.00	4.00	5.00	4.00	5.00
	Mode	4	4	5	4	5
	Std. Deviation	.642	.620	.671	.763	.739
	Variance	.413	.384	.450	.583	.546

```
FREQUENCIES VARIABLES=Perceived_Ease_of_Use_1 Perceived_Ease_of_Use_2 Perceived_Ease_of_Use_3
Perceived_Ease_of_Use_4 Perceived_Ease
  _of_Use_5
 /FORMAT=NOTABLE
 /STATISTICS=STDDEV VARIANCE MEAN MEDIAN MODE
 /ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		2020-08-10T12:17:03.511
Comments		
Input	Data	C:\Users\TEMP.KHPP22.000\Downloads\FYP 377.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	377
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=Perceived_Ease_of_Use_1 Perceived_Ease_of_Use_2 Perceived_Ease_of_Use_3 Perceived_Ease_of_Use_4 Perceived_Ease_of_Use_5 /FORMAT=NOTABLE /STATISTICS=STDDEV VARIANCE MEAN MEDIAN MODE /ORDER=ANALYSIS.
Resources	Processor Time	0:00:00.000
	Elapsed Time	0:00:00.004

[DataSet1] C:\Users\TEMP.KHPP22.000\Downloads\FYP 377.sav

Statistics

		It is easy for me to learn how to utilize the E-wallet.	It is easy to remember how to use digital wallet.	I find digital wallet useful for my payment activities.	Using E-wallet would enhance my payment effectiveness	Overall, I would find E-wallet systems to be easy to use.
N	Valid	377	377	377	377	377
	Missing	0	0	0	0	0
	Mean	4.38	4.30	4.44	4.30	4.52
	Median	5.00	5.00	4.00	4.00	5.00
	Mode	5	5	5	5	5
	Std. Deviation	.830	.817	.608	.727	.648
	Variance	.689	.668	.369	.529	.420

Appendix 1.5 Multiple Regression

Regression

Notes

Output Created		2020-08-10T11:08:48.196
Comments		
Input	Data	C:\Users\TEMP.KHPP22.000\Downloads\FYP 377.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	377
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /DESCRIPTIVES MEAN STDDEV CORR SIG N /MISSING LISTWISE /STATISTICS COEFF OUTS CI BCOV R ANOVA COLLIN TOL CHANGE ZPP /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT Adoptionofewallet /METHOD=ENTER Convenience Budgeting Security Rewards PreceivedUsefulness Preceivedeaseofuse.

Resources	Processor Time	0:00:00.016
	Elapsed Time	0:00:00.019
	Memory Required	3844 bytes
	Additional Memory Required for Residual Plots	0 bytes

[DataSet1] C:\Users\TEMP.KHPP22.000\Downloads\FYP 377.sav

Descriptive Statistics

	Mean	Std. Deviation	N
Adoptionofewallet	3.7378	.40682	377
Convenience	3.7122	.53628	377
Budgeting	3.2918	.68850	377
Security	3.4063	.60514	377
Rewards	3.4399	.47786	377
PreceivedUsefulness	3.6225	.49117	377
Preceivedeaseofuse	3.6569	.50782	377

Correlations

		Adoptionofewallet	Convenience	Budgeting	Security	Rewards	PreceivedUsefulness	Preceivedeaseofuse
Pearson Correlation	Adoptionofewallet	1.000	.777	.642	.693	.631	.757	.799
	Convenience	.777	1.000	.575	.658	.546	.712	.680
	Budgeting	.642	.575	1.000	.816	.597	.654	.664
	Security	.693	.658	.816	1.000	.691	.679	.724
	Rewards	.631	.546	.597	.691	1.000	.558	.601
	PreceivedUsefulness	.757	.712	.654	.679	.558	1.000	.793
	Preceivedeaseofuse	.799	.680	.664	.724	.601	.793	1.000
Sig. (1-tailed)	Adoptionofewallet	.	.000	.000	.000	.000	.000	.000
	Convenience	.000	.	.000	.000	.000	.000	.000
	Budgeting	.000	.000	.	.000	.000	.000	.000
	Security	.000	.000	.000	.	.000	.000	.000
	Rewards	.000	.000	.000	.000	.	.000	.000
	PreceivedUsefulness	.000	.000	.000	.000	.000	.	.000

	Preceivedeaseofuse	.000	.000	.000	.000	.000	.000	.
N	Adoptionofewallet	377	377	377	377	377	377	377
	Convenience	377	377	377	377	377	377	377
	Budgeting	377	377	377	377	377	377	377
	Security	377	377	377	377	377	377	377
	Rewards	377	377	377	377	377	377	377
	PreceivedUsefulness	377	377	377	377	377	377	377
	Preceivedeaseofuse	377	377	377	377	377	377	377

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Preceivedeaseofuse, Rewards, Convenience, Budgeting, PreceivedUsefulness, Security[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Adoptionofewallet

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.872[a]	.761	.757	.20056	.761	196.173	6	370	.000

a. Predictors: (Constant), Preceivedeaseofuse, Rewards, Convenience, Budgeting, PreceivedUsefulness, Security

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.346	6	7.891	196.173	.000[a]
	Residual	14.883	370	.040		
	Total	62.229	376			

a. Predictors: (Constant), Preceivedeaseofuse, Rewards, Convenience, Budgeting, PreceivedUsefulness, Security

b. Dependent Variable: Adoptionofewallet

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	.867	.091		9.563	.000	.689	1.046					
	Convenience	.269	.030	.354	9.067	.000	.211	.327	.777	.426	.231	.423	2.365
	Budgeting	.036	.027	.060	1.324	.186	-.017	.088	.642	.069	.034	.314	3.186
	Security	-.017	.035	-.025	-.468	.640	-.086	.053	.693	-.024	-.012	.232	4.310
	Rewards	.116	.031	.136	3.759	.000	.055	.176	.631	.192	.096	.495	2.019
	Preceived Usefulness	.101	.038	.122	2.640	.009	.026	.177	.757	.136	.067	.301	3.327
	Preceived easeofuse	.286	.037	.357	7.634	.000	.213	.360	.799	.369	.194	.295	3.389

a. Dependent Variable: Adoptionofewallet

Coefficient Correlations[a]

Model		Preceivedeaseofuse	Rewards	Convenience	Budgeting	Preceived Usefulness	Security
1	Correlations	Preceivedeaseofuse	1.000	-.112	-.141	-.057	-.481	-.194
		Rewards	-.112	1.000	-.086	-.039	-.022	-.319
		Convenience	-.141	-.086	1.000	.040	-.333	-.185
		Budgeting	-.057	-.039	.040	1.000	-.160	-.571
		PreceivedUsefulness	-.481	-.022	-.333	-.160	1.000	-.003
		Security	-.194	-.319	-.185	-.571	-.003	1.000
	Covariances	Preceivedeaseofuse	.001	.000	.000	-5.687E-5	.000	.000
		Rewards	.000	.001	-7.874E-5	-3.192E-5	-2.593E-5	.000
		Convenience	.000	-7.874E-5	.001	3.195E-5	.000	.000
		Budgeting	-5.687E-5	-3.192E-5	3.195E-5	.001	.000	.000
		PreceivedUsefulness	.000	-2.593E-5	.000	.000	.001	-4.136E-6
		Security	.000	.000	.000	.000	-4.136E-6	.001

Coefficient Correlations[a]

Model			Convenience	Budgeting	Perceived Usefulness	Security		
1	Correlations	Preceivedeaseofuse	1.000	-.112	-.141	-.057	-.481	-.194
		Rewards	-.112	1.000	-.086	-.039	-.022	-.319
		Convenience	-.141	-.086	1.000	.040	-.333	-.185
		Budgeting	-.057	-.039	.040	1.000	-.160	-.571
		PreceivedUsefulness	-.481	-.022	-.333	-.160	1.000	-.003
		Security	-.194	-.319	-.185	-.571	-.003	1.000
	Covariances	Preceivedeaseofuse	.001	.000	.000	-5.687E-5	.000	.000
		Rewards	.000	.001	-7.874E-5	-3.192E-5	-2.593E-5	.000
		Convenience	.000	-7.874E-5	.001	3.195E-5	.000	.000
		Budgeting	-5.687E-5	-3.192E-5	3.195E-5	.001	.000	.000
		PreceivedUsefulness	.000	-2.593E-5	.000	.000	.001	-4.136E-6
		Security	.000	.000	.000	.000	-4.136E-6	.001

a. Dependent Variable: Adoptionofewallet

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions						
				(Constant)	Convenience	Budgeting	Security	Rewards	PerceivedUsefulness	Preceiveddeaseofuse
1	1	6.941	1.000	.00	.00	.00	.00	.00	.00	.00
	2	.025	16.719	.18	.01	.25	.04	.00	.00	.00
	3	.011	25.528	.17	.21	.02	.01	.29	.08	.04
	4	.008	28.782	.43	.08	.36	.07	.35	.01	.00
	5	.006	32.867	.08	.60	.05	.00	.02	.11	.29
	6	.005	36.615	.14	.04	.28	.79	.33	.04	.01
	7	.004	44.038	.00	.06	.05	.09	.00	.75	.65

a. Dependent Variable: Adoptionofewallet