

**ANALYZING CONSUMER PREFERENCES AND FINANCIAL BEHAVIOR: A  
COMPARATIVE STUDY OF E-WALLETS, DEBIT CARDS, AND CREDIT CARDS**

FKPP

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2024



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Analyzing Consumer Preferences and Financial Behavior: A Comparative Study of E-wallets,  
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by

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A thesis submitted in fulfillment of the requirement for the degree of Entrepreneurship  
(Commerce) with Honour

**Faculty of Entrepreneurship and Business**  
**UNIVERSITI MALAYSIA KELANTAN**

2024

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## ACKNOWLEDGEMENT

First and foremost, we would like to express our sincere gratitude to all those who have supported and guided us throughout the completion of this group project. Our deepest appreciation goes to our project supervisor, Dr Tan Wai Hong, for his invaluable guidance, insightful feedback, and constant encouragement that significantly contributed to the success of this endeavor.

Secondly, we extend our heartfelt thanks to the faculty members of SAK, FKP for their continuous support and valuable suggestions that helped shape the direction of our project.

Moreover, we would also like to thank our classmates and friends for their unwavering assistance and cooperation during the research and implementation phases. Their constructive criticism and moral support were instrumental in the completion of this project.

In addition, we are grateful to the staff of University Malaysia Kelantan for their assistance and cooperation throughout the project duration.

Last but not least, we would like to acknowledge and thank our families for their endless patience, understanding, and encouragement, which have been crucial in our academic journey.

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## LIST OF ABBREVIATIONS

1. SPSS – Statistical Package Social Science
2. DV – Dependent Variable
3. IV – Independent Variable
4. DVE: Dependent Variable for E-Wallet
5. DVE1: I use e-wallets for contactless payments, especially in situations where carrying cash may be inconvenient.
6. DVE2: I use e-wallets for making payments because of the additional benefits such as rewards and cashback offers they provide.
7. DVE3: I use e-wallets for online purchases as they offer additional protection against fraud and disputes.
8. DVE4: I use e-wallets for their simplicity and the fact that there are no interest charges or monthly bills to worry about.
9. DVE5: I use e-wallets for making payments due to their convenience.
10. DVD: Dependent Variable for Debit Card
11. DVD1: I use debit cards for contactless payments, especially in situations where carrying cash may be inconvenient.
12. DVD2: I use debit cards for making payments because of the additional benefits such as rewards and cashback offers they provide.
13. DVD3: I use debit cards for online purchases as they offer additional protection against fraud and disputes.
14. DVD4: I use debit cards for their simplicity and the fact that there are no interest charges or monthly bills to worry about.
15. DVD5: I use debit cards for making payments due to their convenience.
16. DVC: Dependent Variable for Credit card
17. DVC1: I use credit cards for contactless payments, especially in situations where carrying cash may be inconvenient.
18. DVC2: I use credit cards for making payments because of the additional benefits such as rewards and cashback offers they provide.

19. DVC3: I use credit cards for online purchases as they offer additional protection against fraud and disputes.
20. DVC4: I use credit cards for their simplicity and the fact that there are purchase limit that could avoid from overspending.
21. DVC5: I use credit cards for making payments due to their convenience.
22. IVES: Independent Variables for E-Wallet (Security)
23. IVES1: The e-wallet I use provides two-factor authentication (2FA) to secure my transactions.
24. IVES2: I am satisfied with the PIN or password protection offered by my e-wallet to prevent unauthorized access.
25. IVES3: I am satisfied with the overall security measures taken by e-wallets to protect my personal and financial information.
26. IVES4: I feel confident in the biometric authentication (fingerprint or face recognition) feature offered by my e-wallet.
27. IVES5: I am satisfied that only one unique device is applicable to link an account.
28. IVEC: Independent Variables for E-Wallet (Convenience)
29. IVEC1: I find it convenient to use my e-wallet for transactions with no place and time limitation.
30. IVEC2: I feel convenient with the process of adding funds or topping up money.
31. IVEC3: I find it convenient to view transaction history through the selected apps.
32. IVEC4: I feel satisfied on the availability of customizable spending limits and control features on my e-wallet adds to the convenience of managing my finances.
33. IVEC5: I find it convenient on setting up and registering my e-wallet was user-friendly and hassle-free.
34. IVESI: Independent Variables for E-Wallet (Social Influence)
35. IVESI1: I feel influenced by the growing popularity of contactless payments as it is fast and hygienic way to complete the transaction.
36. IVESI2: Societal norms and trends play a significant role in influencing my decision to adopt e-wallets payment method.

37. IVESI3: The behavior and preferences of social network have a notable impact on my perception and usage of e-wallets.
38. IVESI4: Social media and advertising have played a significant role in shaping my attitudes and preferences towards the use of e-wallets.
39. IVESI5: The recommendations and experiences of individuals within my social circles have influenced my trust and reliance on e-wallets.
40. IVDS: Independent Variables for Debit Card (Security)
41. IVDS1: I feel satisfied with the notifications and alerts for transactions made using debit cards.
42. IVDS2: I feel satisfied with the ability to temporarily freeze or block the accounts in case of debit card loss or theft.
43. IVDS3: I feel satisfied with the debit cards fraud detection systems in place to monitor and identify suspicious activities.
44. IVDS4: I feel satisfied to set spending limits towards debit cards adds an extra layer of security.
45. IVDS5: I feel satisfied with customer support services to assist users with any security-related concerns.
46. IVDC: Independent Variables for Debit Card (Convenience)
47. IVDC1: I find it convenient to use my debit card for transactions with no place and time limitation.
48. IVDC2: I find it convenient to carry debit cards instead of cash, as it allows for easy and secure transactions.
49. IVDC3: I find it convenient to view transaction history through the statements or reports.
50. IVDC4: I feel satisfied on the availability of customizable spending limits and control features on my debit card adds to the convenience of managing my finances.
51. IVDC5: I find it convenient on setting up and registering my debit card was user-friendly and hassle-free.
52. IVDSI: Independent Variables for Debit Card (Social Influence)

53. IVDSI1: I feel influenced by the growing popularity of contactless payments as it is fast and hygienic way to complete the transaction.
54. IVDSI2: Societal norms and trends play a significant role in influencing my decision to adopt debit cards payment method.
55. IVDSI3: The behavior and preferences of social network have a notable impact on my perception and usage of debit cards.
56. IVDSI4: Social media and advertising have played a significant role in shaping my attitudes and preferences towards the use of debit cards.
57. IVDSI5: The recommendations and experiences of individuals within my social circles have influenced my trust and reliance on debit cards.
58. IVES: Independent Variables for Credit card (Security)
59. IVCS1: I feel satisfied with the notifications and alerts for transactions made using the credit cards.
60. IVCS2: I feel satisfied with the ability to temporarily freeze or block the accounts in case of credit cards loss or theft.
61. IVCS3: I feel satisfied with the credit cards fraud detection systems in place to monitor and identify suspicious activities.
62. IVCS4: I feel satisfied to set spending limits towards credit cards adds an extra layer of security.
63. IVCS5: I feel satisfied with customer support services to assist users with any security-related concerns.
64. IVCC: Independent Variables for Credit Card (Convenience)
65. IVCC1: I find it convenient to use my credit card for transactions with no place and time limitation.
66. IVCC2: I find it convenient to carry credit cards instead of cash, as it allows for easy and secure transactions.
67. IVCC3: I find it convenient to view transaction history through the statements or reports provided by the issuer.

68. IVCC4: I feel satisfied on the availability of customizable spending limits and control features on my credit card adds to the convenience of managing my finances.
69. IVCC5: I find it convenient on setting up and registering my credit card was user-friendly and hassle-free.
70. IVCSI: Independent Variables for Credit card (Social Influence)
71. IVCSI1: I feel influenced by the growing popularity of contactless payments as it is fast and hygienic way to complete the transaction.
72. IVCSI2: Societal norms and trends play a significant role in influencing my decision to adopt credit cards payment method.
73. IVCSI3: The behavior and preferences of social network have a notable impact on my perception and usage of credit cards.
74. IVCSI4: Social media and advertising have played a significant role in shaping my attitudes and preferences towards the use of credit cards.
75. IVCSI5: The recommendations and experiences of individuals within my social circles have influenced my trust and reliance on credit cards.

## ABSTRACT

This comparative study delves into the intricate relationship between consumer preferences and financial behavior, focusing on three prominent payment methods: E-wallets, debit cards, and credit cards. In an era marked by technological advancements and evolving financial landscapes, understanding how consumers navigate and choose among these payment options is crucial for both industry stakeholders and policymakers. The research employs a multifaceted approach, combining quantitative and qualitative analyses to capture a comprehensive view of consumer choices. This study aims to evaluate the relationship between independent variables which are security, convenient, and social influence and dependent variable, consumer preferences for payment methods. This study uses a quantitative design by distributing questionnaires to users. Through a simple random sampling technique, the respondents involved were a total of 200 random respondents. Statistical Package for Social Science (SPSS) software is used in this study to evaluate the data using the descriptive analysis, reliability test, spearman's correlation analysis, chi squared tests, ordinal regression, and hypothesis testing. These tests are used to determine if there is any relationship between each of the three variables and the payment method preferences of the customers. The findings demonstrate the favorable association between all the parameters. Overall research results indicate that customer preferences for payment methods are positively correlated with security, convenience, and social impact. Practically speaking, this study has value not only because it can close a portion of the academic gap but also because it can benefit parents, students, commercial banks, and other relevant parties. Practically speaking, this study not only significantly closes the achievement gap but also benefits parents, students, commercial banks at universities, and other pertinent parties.

**Keywords:** E-Wallets, Debit Cards, Credit Cards, Consumer Preferences, Financial Behavior



# CHAPTER 1

## INTRODUCTION

### 1.1 Background of the study

Over the past few years, the rapid development and widespread use of digital payment systems such as e-wallets, debit cards, and credit cards have dramatically changed the financial landscape worldwide (Karjaluoto et al., 2021). Increasing growth in the use of different payment methods the changing demands and preferences of modern individuals. Simplicity has also contributed to the explosion of digital transactions Böhm et al. (2020), results indicate the emergence of a substantial body of research focusing on consumer preferences and financial behaviors in these digital payment channels and highlight the importance of comprehensive comparative analysis to understand consumers better understand the nuances of choice and investment practices.

In addition, according to Siau et al. (2020), researchers examine the nuances that influence the adoption and usage of various digital payment systems due to the constant preferences of consumers and the changing environment of financial transactions. Interestingly, this study demonstrates the importance of safety, convenience, and social influence in influencing consumer decisions regarding digital transactions. However, a comprehensive comparative study focusing on the specific characteristics of e-wallets, debit cards, and credit cards and how they affect consumer preferences and financial behavior remains a relatively unexplored study (Böhm et al., 2020).

Furthermore, Siau et al. (2020) state that consumer preference for contactless transactions and online purchases over personal transactions has increased with the pandemic, resulting in a trend towards digital payment methods. Accurate and timely analysis of the changing policies and developments of payment mechanisms is essential, as this unknown global financial crisis has highlighted the importance of understanding the impact of change and the magnitude of such effects on consumer preferences and economic behavior.

According to Karjaluoto et al. (2021), banks and innovative companies are actively seeking ideas on changes that drive consumer acceptance and use of e-wallets, debit cards, and credit cards amid intense online competition and difficulty of payment processing. To meet the increasing demands of digitally savvy customers, organizations need to understand the complex interplay between customer preferences, financial behavior, and the unique characteristics of these payment methods.

Finally, according to Böhm et al. (2020), the digital payments market is booming, and academics and industry stakeholders recognize the value of comprehensive and comparative research with useful information on consumer preferences and behavior. Research the aforementioned intends to provide stakeholders with practical guidance to shape focused strategies and service delivery. To improve, changing the offering makes it better meet the ever-evolving needs and aspirations of customers in the digital payments' ecosystem.

## **1.2 Problem Statement**

The widespread use of digital payment methods including e-wallets, debit cards, and credit cards leads to complex webs of consumer financial behavior and preferences. This has led to an in-depth comparative analysis of what is needed to understand the nuanced nature of consumer decision-making processes in a digital financial system (Karjaluoto et al., 2021). According to Böhm et al. (2020), several variables affect the adoption and use of these payment cards, as previous research has shown. However, there still exists a substantial lack of understanding of the specific effects on security, convenience, and social influence of consumer preferences on these digital payment options.

In addition, according to Siau et al. (2020), understanding the factors affecting consumer preferences and financial behavior has become increasingly important for researchers and practitioners in networking with the rapidly growing digital payment solutions and epidemics, which has led to sustained growth and rapid move towards contactless communication. To support this, there may be a significant knowledge gap related to the lack of proper comparative research focusing on e-wallets, debit cards, and credit cards, especially in the context of changing consumer preferences it is filled with.



Not just that, to further complicate matters, the various security, convenience, and social influence tools integrated into e-wallets, debit cards, and credit cards create a complex environment that requires review to understand the key forces influencing consumer behavior and preferences. Because of the complex interactions between these variables and their impact on consumer choice, comprehensive research is needed to determine whether consumer preferences are changing now and how they might change in the future.

According to Karajaluoto et al. (2021), the fierce competition in the digital payments industry requires a thorough understanding of the many factors affecting consumer acceptance and usage of e-wallets, debit cards, and credit cards. It is important to explore how to make complex decision information and identify key forces influencing customer preferences. This will assist stakeholders in adapting their products and services more effectively to changing demands and market needs encountered.

According to Böhm et al. (2020), there is perhaps a greater need for comprehensive research that only examines consumer preferences as they are presently differentiated but gives perspective on interview methods and policies that can shape the development of digital payments such as e-wallets, debit cards, and credit cards. By addressing this important knowledge gap this review hopes to add to the existing literature and provide an insightful analysis that can guide strategic choices and policy in the digital payments industry, advertising for a more consumer-focused position is a financial solution.

### **1.3 Research Question**

1. Are there a relationship between security and consumer preferences for payment methods?
2. Are there a relationship between convenience and consumer preferences for payment methods?
3. Are there a relationship between social influence and consumer preferences for payment methods?

### **1.4 Research Objectives**

The aim of this research is analyzing consumer preferences and financial behavior: a comparative study of e-wallets, debit cards, and credit cards.

1. To examine the relationship between security and consumer preferences for payment methods.
2. To examine the relationship between convenience and consumer preferences for payment methods.
3. To examine the relationship between social influence and consumer preferences for payment methods.

### **1.5 Scope of the Study**

This research compared e-wallets, debit cards, and credit cards for the purpose of analyzing customer preferences and financial behavior. This can be witnessed by the security, convenience, and social influence that shape customer choices and spending habits regarding e-wallets, debit cards, and credit cards. 200 randomly selected Malaysian respondents participated in the present investigation.

### **1.6 Significance of Study**

This research is significant because it contains the perspective to provide insightful information on the nuances of consumer financial behaviors and preferences in relation to digital methods of payment, with a particular focus on e-wallets, debit cards, and credit cards. The research intends to give researchers a broad overview of the motivations driving consumer acceptance and utilization behaviors within the digital payment ecosystem by thoroughly

analyzing the elements impacting consumer decision-making, such as security, convenience, and social influence.

The outcomes of this investigation have the potential to benefit a wide range of stakeholders, such as financial institutions, technology firms, legislators, and researchers, by allowing them to modify their approaches, offerings, and merchandise as needed to satisfy the shifting needs of customers. Furthermore, by promoting a greater knowledge of the intricate processes influencing consumer preferences and behaviors in a progressively digitalized financial environment, the research has the advantage of having to add to the body of literature already in the area of consumer behavior and digital payment methods.

## **1.7 Definition of Term**

### **1.7.1 E-Wallet**

A digital payment method known as an "e-wallet" enables users to store money and conduct online purchases using a mobile app or website. It's a digital wallet that functions similarly to a physical wallet, except users can link bank accounts to their wallets to make transactions. The services that Malaysian e-wallets typically offer include peer-to-peer payments, online and in-store purchases, choices for paying bills, and the storage of loyalty cards and discounts.

The well-known Malaysian e-wallet businesses include GrabPay, BigPay, Boost, Touch 'n Go, AliPay, MAE, and others. Due to these e-wallets' effectiveness, convenience, and variety of user promos and incentives, they have become more and more popular. The Malaysian government has pushed the usage of e-wallets through initiatives like e-Tunai Rakyat, which provides monetary incentives to the general public to make digital payments (Siew et al, 2021).

### **1.7.2 Debit Card**

A debit card, often known as a bank card or check card, is a sort of payment card that enables users to conduct transactions by withdrawing funds directly from their checking account. Unlike credit cards, debit cards don't call for borrowing money. Instead, the whole cost of the purchase is immediately deducted from the cardholder's available balance. Debit

cards can be used for in-person and online shopping, cash withdrawals from ATMs, and online bill payment (Mulan, 2019). By providing the card information online or at point-of-sale terminals, anyone can use them. For further security, they usually include a personal identification number (PIN).

### **1.7.3 Credit Card**

A credit card is a payment card that can be used to make purchases up to a certain credit limit. The card issuer extends credit to cover the transaction when a credit card is used, so the cardholder does not have to have the whole amount accessible at the time of purchase. With the condition that the person repays the loan amount in the future, credit cards give access to a line of credit that can be used for purchases, balance transfers, or cash advances. The borrowed funds must eventually be repaid by the cardholder, either in whole or through monthly installments, usually with an increased interest rate if the debt is not paid off in full (Surekha et al, 2022).

## **1.8 Organization of the Proposal**

Chapter One provides illustrations of the study's background, problem statement, research questions and objectives, scope of the study's scope, and significance of the study. Chapter Two will provide literature reviews by summarizing ideas, hypothesis statements, and conceptual frameworks from articles written by other researchers. Methods of data collection, sample size, the development of research instruments, variables, and data analysis will all be covered in Chapter Three. In the meantime, the IBM SPSS Statistics 27 results are presented in Chapter 4, and the study's summary, policy implications, limitations, and recommendations are presented in Chapter 5, which is the last chapter.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Introduction

With the introduction of digital payment options like e-wallets, debit cards, and credit cards, consumer preferences and financial behavior have experienced considerable changes. These payment methods have grown in acceptance because of their convenience, security, and social influence in today's quick-paced and technologically advanced society.

According to Singh, G. (2019), consumers have grown to enjoy e-wallets, also called digital wallets. Consumers may conduct transactions swiftly and effortlessly with the use of e-wallets, which provide frictionless and contactless payment experience. E-wallets satisfy the needs and preferences of tech-savvy customers with features like one-click payments and personalized offers.

Besides, debit cards enable users to make payments from their bank accounts. They provide card-based transactions convenience without the chance of overpaying or accruing debt. Because they reduce the need to carry large amounts of cash, debit cards are generally accepted and give users a sense of security. Debit cards are popular among people because they make it easier for them to keep track of their spending and manage their money (Alam et al, 2021).

In terms of consumer financial behavior, credit cards have long been popular. They provide users the freedom to buy things and then pay for them gradually over time. Credit cards offer a variety of benefits, such as rewards programs, cashback deals, and travel advantages, which improve customer happiness and encourage card use. Making on-time payments and limiting their credit utilization are crucial ways for consumers to utilize credit cards and prevent getting into debt appropriately (Singh, G., 2019).

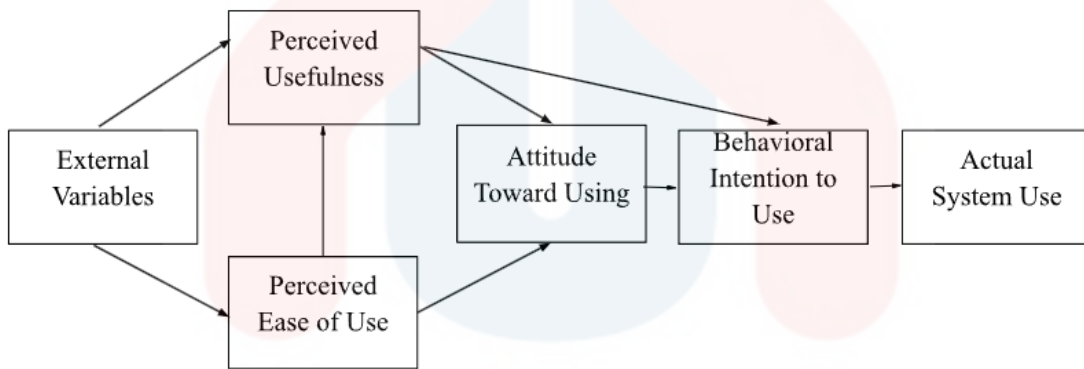
The decision between multiple ways to pay ultimately comes down to a person's lifestyle, financial objectives, and personal preferences. In conclusion, digital payment methods including e-wallets, debit cards, and credit cards are now more popular among consumers and influence their

financial behavior (Aji et al, 2022). To meet the varied demands and preferences of customers in the modern digital era, each payment option provides special features and advantages.

## 2.2 Underpinning Theory

### 2.2.1 Technology Acceptance Model (TAM)

To analyze and predict users' acceptance and usage of technology, researchers have utilized the Technology Acceptance Model (TAM), a theoretical framework. TAM was created by Fred Davis in the 1980s and claims that perceived utility and perceived ease of use are the two main factors that impact users' attitudes and intentions toward implementing a specific technology.



**Figure 2.2.1 Technology Acceptance Model (TAM)**

According to TAM, if consumers believe a technology will help them achieve their objectives or become more efficient, they are more inclined to embrace and use it, according to TAM. If payment systems like e-wallets, debit cards, and credit cards provide safe and easy means to transact, handle money, and receive rewards or discounts, for example, users can view these as helpful (Fred, 1980). According to TAM, if a user believes a technology is simple to use, they are more likely to embrace and use it. Users might favor payment methods that are simple, easy to understand, and require few steps or complexity when conducting transactions or maintaining accounts.



Researchers have expanded the Technology Acceptance Model (TAM) to include more variables that affect the acceptance of technology. If users believe that significant people or groups in their social context support or anticipate them using technology, they are more likely to start using it. According to Benny et al, (2023), when it comes to payment options, consumers' decisions to use e-wallets, debit cards, or credit cards may be impacted by the standards and advice of their family, friends, and other well-known individuals.

## 2.3 Previous Studies

### 2.3.1 E-wallet

E-wallet security issues, user acceptance, and their impact on financial inclusion have all been the focus of previous studies. As stated by Yang et al, (2021), the perceived usefulness and usability of e-wallets have been studied about their impact on users' decisions to utilize them. The security measures used by e-wallet providers to protect user data and transactions are being studied by others.

Due to the government's encouragement of digital payments, rising smartphone usage, and the ease of cashless transactions, e-wallet usage has been rising quickly in Malaysia. As reported by Jeremy (2022), the average monthly active e-wallet user base in Malaysia climbed by 43% in 2020, according to data published by iPrice Group. Malaysia is home to several well-known e-wallet companies. Boost, Maybank QRPay, GrabPay, Touch 'n Go e-wallet, and Boost are a few of the widely used e-wallets in the nation. Peer-to-peer transfers, bill payments, retail payments, loyalty programs, and other features and services are accessible with these e-wallets (Chea, C. 2020).

Research on potential risks of e-wallets, such as fraud, identity theft, and privacy concerns, has also been conducted. Bank Negara Malaysia (BNM), the country's central bank, regulates e-wallet providers in Malaysia. To guarantee the security, confidentiality, and integrity of e-wallet transactions, BNM has put policies and procedures in place. It is recommended by Lee & Daniel (2017), that the users pick trustworthy e-wallet providers and adhere to security best practices, which include using two-factor authentication and using strong passwords.

### **2.3.2 Debit Card**

Research has looked at the preferences and usage patterns of debit cards among consumers. These studies have looked at things including the frequency of debit card use, the reasons for selecting debit cards over other payment options, and the usage patterns of debit cards among different demographic groups (Cadence Bank, 2021).

Studies have investigated how consumer spending behavior is affected by the use of debit cards. Given that debit card users are using their own money rather than borrowing it, several studies indicate that using debit cards can result in more efficient spending than credit card users. When a debit card transaction is made, money is taken right out of the account balance because the card is connected to a checking or savings account. According to Bachas et al, (2018), debit card users are limited to spending the amount that is available in the connected account, and unlike credit cards, they are unable to borrow money.

Koraus et. al, (2019) on the other hand revealed that the security issues of using debit cards, such as the possibility of fraud and identity theft, have been the subject of numerous studies. Authentication PINs and chip technology are two common security measures on debit cards. By implementing these precautions, the card is kept safe from unwanted usage. Depending on the issuer, debit cards have different purchase protections. Debit cards typically provide less purchasing protection than credit cards. With a debit card or credit card, a user may be held liable for up to \$50 in fraudulent purchases. However, many credit card issuers offer zero liability protection. The fraud prevention policies of the card issuer usually shield cardholders from fraudulent transactions as well.

### **2.3.3 Credit Card**

According to Nanda (2021), credit card debt and financial well-being have been studied by one another. High credit card debt can hurt a person's overall financial well-being and can be a source of financial stress, according to research. Up to a set credit limit, credit cards give customers access to a line of credit via which they can make transactions. The act of using a credit card for a transaction amount to the cardholder borrowing money



from the credit card provider. Within the allotted time, the cardholder must return the borrowed amount in whole or in equal monthly installments.

The impact of credit card rewards programs on customer behavior has been studied by researchers. Numerous studies have investigated how these incentives affect consumers' loyalty, spending patterns, and credit card issuers overall (Alison et al, 2023). These benefits may take the form of cashback, airline miles, travel points, discounts, or other incentives. As mentioned by Becky (2023), extra benefits offered by certain credit cards include access to airport lounges, extended warranties, purchase protection, and travel insurance.

For both customers and financial organizations, credit card fraud is a serious risk. Research has looked into the frequency of credit card fraud, the techniques employed by scammers, and how well security measures work to stop and identify fraudulent transactions. The findings of this research help the creation of stronger security measures and fraud prevention techniques. Security measures on credit cards, such as chip technology and PINs or signatures for authentication, are common, said Gallimore, N.A. (2022). Furthermore, card issuers usually provide fraud protection mechanisms that shield cardholders from unauthorized transactions.

#### **2.3.4 Security**

The security of digital payments, covering a range of techniques like contactless, online, and mobile payments, has been extensively researched. According to Gallimore, N.A. (2022), many digital payment authentication techniques, including passwords, PINs, biometrics like facial recognition or fingerprint, and two-factor authentication, have been studied for efficacy. In addition to identifying potential weaknesses, these studies assess the approaches' usefulness and security.

These studies concentrate on the data security and encryption strategies used in digital payment systems. To guarantee that sensitive payment information is sufficiently protected, researchers examine the effectiveness of encryption techniques, secure transmission protocols such as Secure Socket Layer (SSL) and Transport Layer Security

(TLS), and data storage procedures (Julie, 2020). Maintaining the integrity and secrecy of digital transactions while preventing unwanted access to data is the aim.

Research has looked into the security of mobile wallets and payment apps, among other mobile payment platforms. These studies look into risks to the mobile payment environment, including malware, data breaches, and illegal access, and they suggest countermeasures. As reported by Almaiah et al, (2022), the security of mobile wallets, payment apps, and Near Field Communication (NFC) technology is becoming even more common due to the growing use of mobile payment platforms. Jocelyn (2022) mentioned looking into issues unique to mobile payment systems, including data leakage via NFC, malware assaults, and unauthorized app permissions. The results of these investigations contribute to enhancing the safety of mobile payment systems and securing user data.

### **2.3.5 Convenience**

Everything today needs to happen quickly. No matter how important it is, individuals have already been educated to act quickly. Likewise, when it comes to payments, most individuals believe that the quickest and most secure method is cashless. Studies compare the time and money savings associated with digital payments to those of older methods. Shree et al, (2021) examined things like faster transaction times, less need for actual currency or checks, and financial savings from things like processing fees and shipping costs. One way to measure this would be to compare the amount of time that contactless payments save over cash transactions.

Research in this field looks at the variables that affect customers' choices about adopting and utilizing digital payment options. These elements include technology assurance, connectivity with current systems, perceived utility, and ease of use. For example, Arfi et al, (2022) stated that they could look into how people's tendency to accept digital payments is influenced by factors like how easy it is to make payments or how many options there are for making payments. Researchers and companies can create more practical and user-friendly payment systems by having a better understanding of these factors.

Therefore, studies look at customer behavior and preferences about digital payments. Researchers look into things like usage habits, adoption patterns, and payment preferences that vary throughout generations. For example, studies may examine how Gen Z or millennial consumers view digital payments as more convenient than those in previous generations. Gen Z prefers digital payment more due to its effectiveness and convenience. Businesses may better adapt their payment solutions to the unique convenience needs of various consumer segments by having a thorough understanding of consumer preferences (Pardo, 2023).

### **2.3.6 Social Influence**

Research has explored the social impact of digital payment methods on consumer behavior, social norms, and social relationships. Patil et al, (2017) have indicated that social norms significantly influence the adoption of digital payment methods. According to a Stanford University study, for instance, people were more likely to use mobile payment apps if they thought their friends used them regularly. The drive for conformity and social acceptance is the source of this social influence. A person might be more likely to accept a certain digital payment app if they see their friends or coworkers using it, for example, as they may view it as the standard among their social circles.

Studies have investigated how digital payment systems can affect social status and function as a kind of social influence. Reported by Alfany et al, (2019), this field looks at how people's perceptions of their social standing or image can be influenced by the payment methods they use or the digital wallets they use. For example, studies have demonstrated that using exclusive or premium digital payment methods can improve people's perceptions of their status. According to Allar K. (2023), the adoption of digital wallets designed just for luxury brands, like Louis Vuitton's, is one example. These wallets can be viewed as status symbols that show one's association with a high-end brand.

Some researchers have investigated the effects that digital payment methods have on social connections that occur throughout transactions. According to a study by Kalinic et al, (2019), peer-to-peer payment applications (P2P) and other digital payment methods can make it easy and quick for friends to split bills when dining out or going on a group

adventure. The payment procedure is organized, and the whole social experience is improved, as there is no longer a need for cash transactions or difficult calculations. Because of this social effect, lots of our friends and those in our immediate surroundings may consider us to have a beneficial feature that will help them in a situation where cashless transactions are possible.

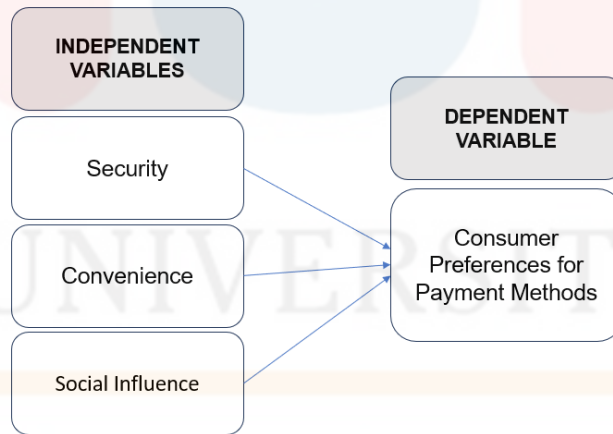
## 2.4 Hypothesis Statement

**Hypothesis 1:** There is a positive correlation between security and consumer preferences for payment methods.

**Hypothesis 2:** There is a positive correlation between convenience and consumer preferences for payment methods.

**Hypothesis 3:** There is a positive correlation between social influence and consumer preferences for payment methods.

## 2.5 Conceptual Framework



**Figure 2.5: Framework**

The independent variables that had been chosen to be discussed in this paper are security, convenience, and social influence on how it causes consumer preferences for their payment method.

Security is directly focusing on people's curiosity about their private information being protected. Cashless systems adapted among communities are becoming a key concern. This is because it has opened a new path for fraud and cyber-attacks. E-wallet is securing its system to overcome circumstances that relate to any cybercrime possibilities which could hack privacy in e-wallet apps. As for debit cards and credit cards, the security is against phishing cybercrime which is a technique to gain user's information. Email spoofing and spam emails are techniques used to attract users to visit fake websites to collect personal information that might cause them to become victims (Muharram, S.S.B. et al. 2022). Moreover, every transaction made will be notified directly to the mobile number to assure the user experiences secure transactions.

Technology advancement is making people's lives easier and time that could be saved to purchase and use services. The post-pandemic of Covid-19 has encouraged more people to use E-wallet in various online transactions which allow users to reload directly from their mobile banking apps. The availability of debit cards and credit cards in various places and platforms makes transactions can be done fast. Moreover, most people do not have to bring a lot of cash everywhere which they can tap their card in mostly convenience stores (Mokhtar, N.F., 2019).

The third independent variable is social influence that also leads towards a cashless society. The internet connection has linked everyone to not carry cash and change of lifestyle (Kadir, et al. 2022). Social influence includes family members, friends, and coworkers within the social circle who have the power to raise awareness and persuade people to utilize the e-wallet. Experience in using E-wallet is shared among them about the benefits, enjoyment, and convenience of making payments regardless. Compared to e-wallets, debit cards and credit cards have been used before and known well among people. The usage of debit cards is mostly influenced by individual surroundings as well as credit cards. However, the use of credit cards might also depend on individual lifestyle and attitudes.

## **2.6 Summary/ Conclusion**

The purpose of this research study is mainly to identify which payment methods consumers use frequently, e-wallet, debit cards, and credit cards. The youth nowadays are exposed to these payment methods by their parents, family, and friends, proving that digitalization has changed the lifestyle of the current generation. It has also created an environment of cashless when paying for

groceries and purchasing goods. Moreover, debit cards and credit cards have adopted technology to encourage consumers to spend their money efficiently and conveniently. Hence, there are risks of adapting these payment methods as they are exposed to online threats. Awareness about security and safety has been notified where users are not allowed to share their information carelessly.

Consumers believe transactions done been successfully rods are secured as they get notification if the transaction has successfully been made. Through this, it will create a positive experience for using e-wallet, debit cards, and credit cards to make any payment. They do not have to bring cash as to this day most businesses have engaged in using online payment. The influence from various sources such as advertisements, influencers, and colleagues might as well determine the person's decision which is more convenient for them. Considering all this, it depends on the individual what makes them use certain payment methods frequently as it is subject to their preference and lifestyle.



## **CHAPTER 3**

### **RESEARCH METHODS**

#### **3.1 Introduction**

This section presents an overview of methods used in analyzing this research. A significant process is made through quantitative research to generate comprehensive understanding about the purpose of this study. Providing the research design applied through running a questionnaire survey in this process. From the survey, data is collected which can be measured and analyzed. Data collected determines the relationship between variables to create hypotheses. The primary aim is to examine and acknowledge which current digital payment methods are preferred by consumers.

#### **3.2 Research Design**

The purpose of research design is to address research questions by using empirical data. It is necessary to make decisions from research objectives and approach when creating research design to gain research answers. The plan consists of an overall research scheme and program. Thus, research design is a broad approach that encompasses all aspects of the research and guides researchers throughout the entire process (Kinyua, 2023). This study uses the method of collecting data by distributing a questionnaire to a representative group of people.

##### **3.2.1 Quantitative Research Design**

Quantitative research is a method that involves statistical techniques for conducting research (Asenahabi 2019, Kinyua 2023). By proposing targeted and focused questions that result in a collection of quantitative data from a significant number of participants is the purpose to conduct this research. Thus, it is focusing on understanding how respondents feel, think, or act in a particular way. This indicates why the respondents are provided with the identical set of standardized questions. There are two categories of quantitative research which are non-experimental research and experimental research. This study is a non-experimental design, as the data collected is not through experiment. The survey design opted for this study in collecting information.

### 3.2.2 Survey Research Design

The survey research used in this study is a questionnaire where data are gathered with the goal of generalizing the sampled data to the entire population. This method is convenient for researchers to acknowledge the target population behavior. In the questionnaire, it is constructed with four sections which are A, B, C, and D. Those sections include demographic info, dependent variables, independent variables, and short answers. The part of dependent variables and independent variables measured by satisfaction level of scale from 1 to 5 can be chosen by respondents.

<b>Strongly Disagree (SD)</b>	<b>Disagree (D)</b>	<b>Neutral (N)</b>	<b>Agree (A)</b>	<b>Strongly Agree (SA)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

**Table 3.2.2: Level of satisfaction**

### 3.2.3 Correlational Research Design

The degree of relationship between variables can be measured and described using correlational research, a non-experimental quantitative design. Additionally, it is to identify connections between the characteristics of the respondents and their stated behavior and points of view. In this study, a descriptive design is applied to highlight a description of how the variables relate to one another. Based on the table below shows the variables that matter for this research being conducted.

<b>SECTION</b>	<b>VARIABLES</b>
<b>SECTION B: DEPENDENT VARIABLES</b>	Consumer Preferences for Payment Methods
<b>SECTION C: INDEPENDENT VARIABLES</b>	Security
	Convenience
	Social Influence

**Table 3.2.3: Dependent variable and independent variables**



### **3.3 Data Collection Methods**

#### **3.3.1 Primary Data**

This study, the primary data is obtained from questionnaires as the main source of information. When making decisions, the primary data is more dependable and offers an enhanced level of confidence since the analysis is dependable and maintains a direct link to the events that occurred. Thus, in this study the questionnaire is shared through various social media such as WhatsApp, Instagram, and Telegram to gather the primary data. The data collected contained consumer preferences of payment methods that become most-likely frequently being used by them. Hence, it can be figured about consumer perspective and point of view towards e-wallet, debit cards, and credit cards.

#### **3.3.3 Scale of Measurement**

Scale measurement is essential to interpreting the numbers allocated to individuals, things, and events. In this study, the scales that were used are nominal scale, ordinal scale, and interval scale.

##### **3.3.3.1 Nominal Scale of Measurement**

In a nominal scale, numbers are solely used as “tags” or “labels” to help with classification or identification. Based on a characteristic, the values can be assigned from nominal scales to a countable number of different groups. When scale values are transformed one way to another, it remains nominal scales since it is only categorized and the scale's meaning is retained (Feuerstahler, L., 2023). The categories are not in any sequence. The nominal data can be used to define the groups of data to make a comparison. In this study, gender is classified as nominal data.

##### **3.3.3.2 Ordinal Scale of Measurement**

An ordinal scale is values that correspond to the relative ordering of the observations and the meaning remains intact during monotonic transformation (Feuerstahler, 2023). It is used to show the variables' order rather than their

individual differences. The statistical data type known as the ordinal scale has variables that are ranked in order. However, there is no degree of variation between the categories. A precise comparison between the two categories cannot be produced by the scale. Age, Race, Education Level, and Employment Status are the ordinal scale in this study.

### **3.3.3.3 Interval Scale of Measurement**

Interval scale is a linear transformation that maintains the scale's meaning and for which equal variations in scale values reflect equal variations in the measured property (Feuerstahler, 2023). The central tendency in this scale can be done using the mean, median, or mode. The interval scale allows for the mathematical calculation of the difference between variables and has all the characteristics of the ordinal scale. This scale's primary feature is the objects' equal distance differences from one another. In this study, respondents are provided with five scales of satisfaction where they must choose from 1 to 5. The satisfaction scales range is measured from strongly disagree, disagree, neutral, agree, and strongly agree.

## **3.4 Study Population**

In this study, we are focusing on consumers that frequently use digital payment methods in doing online transfers, groceries shopping, pay bills, or any other payment activities that require choosing these methods. During the pandemic, people were advised to use online payment methods in order to avoid making physical contact. This situation has brought a cashless environment where people can pay directly through their smartphone or just swipe their bank card. Hence, this study is to reach any individual in Malaysia that has e-wallets account and bank accounts to achieve the objective of this research study.

### 3.5 Sample Size

According to Lakens, D. (2022), the main goal of providing a sample size justification for studies like these is to clarify how the data that is collected is expected to be useful in providing valuable information based on what the researcher is trying to infer. In simple terms, the number of observations or respondents is an important factor to consider when conducting a research project. When determining an appropriate sample size, it is important to consider various factors. The characteristics that need to be considered are the completion rate, the research supervisor, the sample size used in related studies, the number of variables or model complexity, the analytical method, the time, and resources required, and the data analysis program.

The researchers in this study focused on examining how different social groups use e-wallets, debit cards, and credit cards to support their hypothesis about their impact. A total of 200 participants will be selected randomly to receive this survey. The term "sample size" pertains to the number of observations or participants that should be included in a study. When determining the appropriate sample size, it is important to consider several criteria. Some of the variables that need to be considered include the study strategy, analytical technique, number of variables or model complexity, time, and resources available, completion rate, research supervisor, sample size used for similar studies, and the data analysis program.

### 3.6 Sampling Techniques

A sample is a smaller subset that forms a larger population. Sampling is the process of gaining a set of individuals to collect information from that sample for research purposes. For example, a sample of 30 students is being asked to fill in a form for research. There are two types of sampling techniques. The techniques that are mainly used by researchers are probability and non-probability sampling.

Probability sampling is randomly selected to allow strong statistical inferences. Non-probability is selected based on convenience and certain criteria to allow the ease of data collection. For this research, the non-probability technique is used. It consists of snowball sampling, quota sampling, judgmental sampling, and convenience sampling. Convenience sampling is used for this research to collect the data as no inclusion had been specified before subjects were chosen.

### 3.7 Research Instrument Development

The main tool utilized by the researcher to collect data for a survey study is known as the research instrument. The research instrument refers to an extra measurement tool, like a scale or questionnaire, that the researcher creates to collect information for their study topic. A survey is a set of questions designed to gather specific and personalized statistical information from the people who answer them. The survey will be designed and sent to participants in the English language. This is done to reduce any difficulties and use clear language that will help participants understand each question easily.

The researcher selected Likert-scale questions from a variety of cover types. The conclusion of the study questionnaire. Each set of questionnaires will consist of 71 questions. In total, the survey questionnaire will consist of four main sections. Section A inquiry primarily centers around gathering demographic data from each respondent. This data includes information such as their gender, age, race, level of education, and employment status. Section B is made up of a total of 15 questions.

Out of these 15 questions, each 5 of them focus on dependent variables that are related to consumer preferences for e-wallet, debit cards, and credit cards. The remaining 45 questions in section C are centered around independent variables. 3 independent variables in this study are security, convenience, and social influence. Security refers to the level of protection or safety provided. Convenience relates to the ease and comfort of use. Social influence refers to the impact of others' opinions and knowledge on decision-making. Part D consists of a total of six brief questions.

Section B and C are measured by 5 points of Likert Scale which range from 1= Strongly Disagree, 2= Disagree, 3= Natural, 4= Agree and 5= Strongly Agree. The following table are showing the Likert Scale:

<b>Strongly Disagree (SD)</b>	<b>Disagree (D)</b>	<b>Natural (N)</b>	<b>Agree (A)</b>	<b>Strongly Agree (SA)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

**Table 3.7: Measurements for Section B and C**

In quantitative research, instruments and questionnaires are the primary sources of data that are being analyzed to provide answers for the research question or the hypothesis of the study. In this study, the researchers used their entries to develop a series of questions tables which represent a few components of a variable to be measured.

### 3.8 Measurement of the Variables

#### 3.8.1 Descriptive Analysis

Descriptive analytics, as Catherine, C. (2021) explains, refers to the identification of patterns and relationships within historical and current data. The reason it is sometimes called the most basic form of data analysis is because it simply identifies patterns and connections without going into further detail.

Descriptive analytics is a field within data analytics that focuses on summarizing and analyzing past data to gain fresh insights and a better understanding of previous events and trends. It serves as the foundation for more advanced analytics, like predictive and prescriptive analytics, and is the essential step in data analysis.

#### 3.8.2 Spearman’s Rank Correlation Analysis

According to Gupta, A. (2023) Spearman’s rank correlation measures the strength and direction of association between two ranked variables. It basically gives the measure of monotonicity of the relation between two variables i.e., how well the relationship between two variables could be represented using a monotonic function. To examine these research questions, Spearman rank correlation was conducted to evaluate the relationship between the two variables.

<b>Coefficient (r)</b>	<b>Strength</b>
0.91-1.00	Very high relationship
0.71-0.90	High relationship
0.41-0.70	Moderate relationship
0.21-0.40	Slightly weak but definite relationship
0.01-0.40	Weak almost negligible relationship

**Table 3.8.2: Spearman’s Strength of Coefficient Relationship**

### 3.9 Procedure for Data Analysis

The procedure for data analysis is an important step in conducting research. It involves several steps that need to be followed to ensure accurate and reliable results. Here is a brief overview of the procedure: 1. Data Collection: The first step in data analysis is a systematic approach to organizing, assessing, and summarizing data by employing logical or statistical techniques.

The data from this research will be analyzed and examined using the statistical software program SPSS. This SPSS can help researchers through the entire analysis process starting from planning, data collection, data analysis, use and report creation (Rahman et, al. 2021). This method enables the examination, customization, and identification of recognizable patterns among different data components. The data for this study was collected using techniques of multiple linear regression analysis.

#### 3.9.1 Multiple Linear Regression (MLR)

Multiple Linear Regression (MLR) is a statistical method used to analyze the relationship between multiple independent variables and a dependent variable. It is an extension of simple linear regression, which only considers one independent variable. In MLR, we aim to find the best-f.

In this study, multiple linear regression is employed to examine the components. This is because the independent variables, namely security, convenience, and social influence, consist of multiple factors that are independent of each other. Multiple linear regressions will be conducted to forecast consumer preferences and financial behavior in relation to the use of e-wallets, credit cards, and debit cards.



### 3.10 Summary

The purpose of this chapter is to provide an explanation and summary of the research approach that will be utilized. The population being examined in this study is the public. The data collection method chosen is Google Forms, which involves using an electronic questionnaire. The questionnaire will be split into four sections, specifically section A, which pertains to the demographics of the participants. Section B will be centered around the dependent variable, while section C and D will be dedicated to examining the independent variable.

This chapter has discussed various subtopics including research design, data collection methods, population size, sampling technique, sampling size, sampling design, research instrument development, variable measurement, and data analysis procedures. In the upcoming four chapters, we will thoroughly analyze and deliberate upon the outcomes to gain a deeper understanding.

## CHAPTER 4

### DATA ANALYSIS AND FINDINGS

#### 4.1 Introduction

This chapter included the following topics: preliminary analysis, respondent demographic profile, descriptive analysis, validity and reliability tests, spearman correlation analysis, chi-square test, ordinal regression, and hypothesis testing. The descriptive analysis included a synopsis of the respondent's demographic information. Validity and reliability tests are necessary to determine if the samples we gathered are, in fact, representative of the whole population. For this reason, the experiment's dependability was continuously measured using Cronbach's Alpha. Consequently, the degree of validity of the survey would be evaluated using factor analysis. Both correlation and regression analyses were used to assist with better understanding the connections between the variables.

#### 4.2 Preliminary Analysis

According to Creswell & Creswell (2017), pilot testing is a small-scale exploratory study conducted to evaluate the feasibility, identify errors, and improve intended methods with large-scale data analysis any ambiguities, discrepancies, operational problems will be addressed prior to complete execution of the study. To identify or resolve, this test involves a trial run of data collection methods, tools, and procedures. Purpose primarily to enhance the overall validity, reliability, and quality of the curriculum.

Cronbach's Alpha	Strength of Association
<0.6	Poor
0.6 to <0.7	Moderate
0.7 to <0.8	Good
0.8 to <0.9	Very Good
0.9>	Excellent

Sources: Hair et al. (2003)

**Table 4.2.1: Rules of Thumb about Cronbach's Alpha Coefficient Size Table**



Variables	Cronbach's Alpha Value	N of Item	Strength
Consumer preferences for payment methods	0.912	5	Excellent
Security	0.938	5	Excellent
Convenience	0.932	5	Excellent
Social Influence	0.933	5	Excellent

**Table 4.2.2: Reliability Analysis for E-Wallet**

Variables	Cronbach's Alpha Value	N of Item	Strength
Consumer preferences for payment methods	0.911	5	Excellent
Security	0.945	5	Excellent
Convenience	0.937	5	Excellent
Social Influence	0.946	5	Excellent

**Table 4.2.3: Reliability Analysis for Debit Card**

Variables	Cronbach's Alpha Value	N of Item	Strength
Consumer preferences for payment methods	0.964	5	Excellent
Security	0.955	5	Excellent
Convenience	0.967	5	Excellent
Social Influence	0.965	5	Excellent

**Table 4.2.4: Reliability Analysis for Credit Card**

In a reliability test, Cronbach's Alpha assigns a number between 0 and 1, with a value closer to 1 indicating an improved measurement for the variable. Researchers feel more confident conducting their study when a set of scales is more precise, which guarantees the safety of the participant and results information. Finding the consistency of the collected data is the main goal of a reliability test. The dependability of the data analysis for the independent and dependent variables in this study is shown in Table 4.2.2, 4.2.3, 4.2.4. A detailed explanation of the above table is discussed in the validity and reliability tests in Section 4.5.

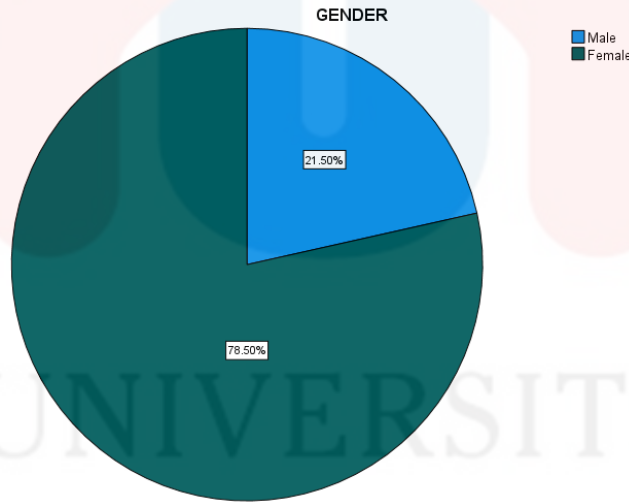
### 4.3 Demographic Profile of Respondents

To analyze customer preferences and financial behavior towards e-wallets, debit cards, and credit cards, we gather data based on the respondents' gender, age, race, education level, and employment status. This data is then used to create the demographic profile of the respondents.

#### 4.3.1 Gender

		<b>GENDER</b>			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	43	21.5	21.5	21.5
	Female	157	78.5	78.5	100.0
Total		200	100.0	100.0	

**Table 4.3.1: Demographic Profile by Gender**



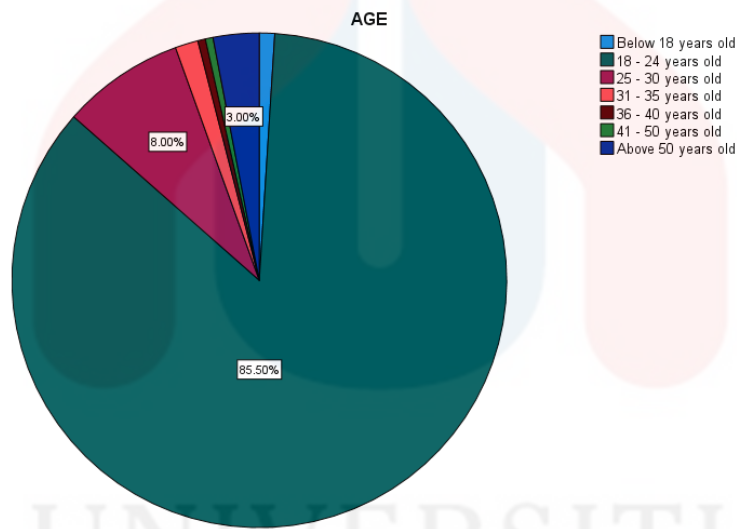
**Chart 4.3.1: Percentages for Demographic Profile by Gender**

The gender of the respondents who have been responding to our questionnaire is displayed in Figure 4.3.1 above. The data indicates that 200 respondents completed the questionnaire, with 43 of them being male (21.5%) and the remaining 157 being female (78.5%).

### 4.3.2 Age

		AGE			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 18 years old	2	1.0	1.0	1.0
	18 - 24 years old	171	85.5	85.5	86.5
	25 - 30 years old	16	8.0	8.0	94.5
	31 - 35 years old	3	1.5	1.5	96.0
	36 - 40 years old	1	.5	.5	96.5
	41 - 50 years old	1	.5	.5	97.0
	Above 50 years old	6	3.0	3.0	100.0
	Total	200	100.0	100.0	

**Table 4.3.2: Demographic Profile by Age**



**Chart 4.3.2: Percentages for Demographic Profile by Age**

The age distribution of the respondents is presented in Figure 4.3.2. First, there are just two respondents (1% of the total) who are below the age of 18. With 171 respondents or 85.5% of the total, the second age group had the greatest number of survey respondents (18–24 years old). With 16 respondents (8.0%), the 25–30 age group has the second-highest percentage of responders of that age group. The next group, consisting of 3 people (1.5%), is those aged 31 - 35. There is one person, or 0.5%, in each age group—36–40 years old and 41–50 years old. The final group of respondents, consisting of 6 people, is above 50 years old. Of these, 3.0% completed the online survey.

4.3.3 Race

		RACE			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	141	70.5	70.5	70.5
	Chinese	46	23.0	23.0	93.5
	Indian	5	2.5	2.5	96.0
	Others	8	4.0	4.0	100.0
	Total	200	100.0	100.0	

Table 4.3.3: Demographic Profile by Race

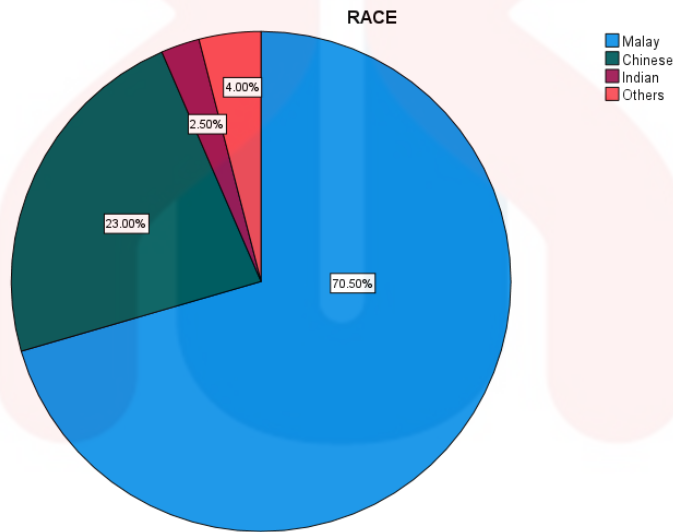


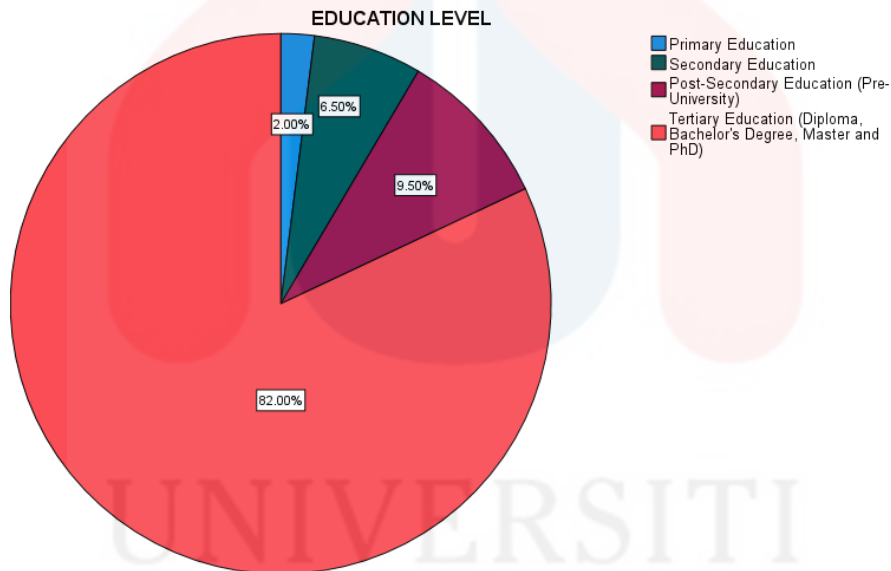
Chart 4.3.3: Percentages for Demographic Profile by Race

The 141 respondents in total identified as Malay with 70.5%, as seen in the previous Figure 4.3.3. Accordingly, 46 respondents, or 23% of the data, are Chinese, making up the second-largest group of respondents. Of the total respondents, 5 of them are Indian respondents, making up the 2.5% parts and 8 people (4%), for other races.

### 4.3.4 Education Level

		EDUCATION LEVEL			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary Education	4	2.0	2.0	2.0
	Secondary Education	13	6.5	6.5	8.5
	Post-Secondary Education (Pre-University)	19	9.5	9.5	18.0
	Tertiary Education (Diploma, Bachelor's Degree, Master, and Ph.D.)	164	82.0	82.0	100.0
	Total	200	100.0	100.0	

**Table 4.3.4: Demographic Profile by Education Level**



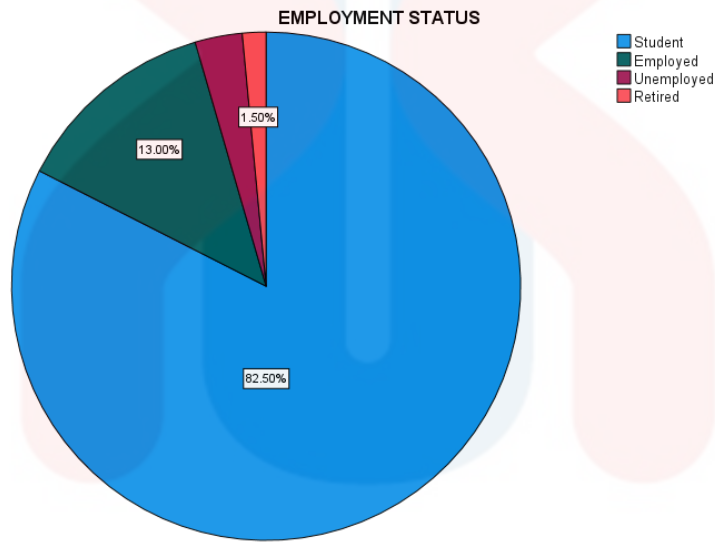
**Chart 4.3.4: Percentages for Demographic Profile by Education Level**

The respondents' level of education is displayed in Figure 4.3.4 above. There are 4 people in the primary education group (2%). 13 people make up the group with 6.5% in secondary education. 9.5% of respondents belong to the following group, post-secondary education (pre-university), which has 19 people. On the other hand, 164 respondents, or the biggest percentage (82%), indicated that higher education, which includes diplomas, bachelor's degrees, master's, and PhD, was the subject of the most inquiries.

### 4.3.5 Employment Status

EMPLOYMENT STATUS					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	165	82.5	82.5	82.5
	Employed	26	13.0	13.0	95.5
	Unemployed	6	3.0	3.0	98.5
	Retired	3	1.5	1.5	100.0
	Total	200	100.0	100.0	

**Table 4.3.5: Demographic Profile by Employment Status**



**Chart 4.3.5: Percentages for Demographic Profile by Employment Status**

With 165 responses, or 82.5% of the total, the majority of the respondents were students, according to Figure 4.3.5, which indicated employment status. There were 26 respondents (13%) who are employed, and there were 6 respondents (3%), who are unemployed. Three respondents who are retired account for 1.5% of the total.



#### 4.4 Descriptive Analysis

Short informative coefficients, known as descriptive statistics, are used to provide a quick summary of a certain data collection, which may be a sample or the entire population. To put it briefly, descriptive statistics provide brief explanations of the sample and data measurements, helping in describing and understanding the characteristics of a particular data point.

Metrics of the center, such as the mean, median, and mode, are the most well-known kinds of descriptive statistics and are applied in practically all mathematical and statistical contexts. After adding up each figure in the data set and dividing the result by the total number of figures in the set, the mean, or average, is generated (Adam H., 2023).

##### 4.4.1 Dependent Variable and Independent Variable

###### a. E-Wallet

<b>Descriptive Statistics</b>			
	N	Mean	Std. Deviation
MEAN_DVE	200	4.1140	.84318
MEAN_IVES	200	4.0890	.89974
MEAN_IVEC	200	4.1580	.83938
MEAN_IVESI	200	4.0580	.84890
Valid N (listwise)	200		

**Table 4.4.1.1: Descriptive Statistics for E-Wallet**

The e-wallet's dependent and independent variables' descriptive statistics are displayed in the table above. The independent variable for e-wallet under convenience (IVEC) has the highest mean value among the other variables, 4.1580, according to the table, whereas the independent variable for e-wallet under social influence (IVESI) has the lowest mean value, 4.0580. This indicates that the majority of respondents agreed and gave an e-wallet's convenience a higher vote than its social influence. Because the results are less than 1, the standard deviation enables us to conclude that the data collection is significant.

## b. Debit Card

	N	Mean	Std. Deviation
MEAN_DVD	200	4.0320	.91299
MEAN_IVDS	200	4.1210	.87716
MEAN_IVDC	200	4.1350	.88878
MEAN_IVDSI	200	4.0010	.93712
Valid N (listwise)	200		

**Table 4.4.1.2: Descriptive Statistics for Debit Card**

The dependent and independent variables of the debit card are displayed in the above table along with their descriptive statistics. Based on the table, the convenience independent variable for debit cards (IVDC) has the highest mean value of all the variables, at 4.1350, while the social influence independent variable for debit cards (IVDSI) has the lowest mean value, at 4.0010. This shows that the majority of respondents agreed and evaluated the convenience of a debit card higher than its social influence. Our conclusion about the accuracy of the data collection is made possible by the standard deviation, which is less than 1.

## c. Credit Card

	N	Mean	Std. Deviation
MEAN_DVC	200	3.3390	1.30252
MEAN_IVCS	200	3.8380	1.03998
MEAN_IVCC	200	3.7640	1.12741
MEAN_IVCSI	200	3.7680	1.07441
Valid N (listwise)	200		

**Table 4.4.1.3: Descriptive Statistics for Credit Card**

The table above shows the descriptive statistics for the dependent and independent variables related to credit cards. The credit card under security independent variable (IVCS) has the greatest mean value (3.8380) of all the variables, while the credit card dependent variable (DVC) has the lowest mean value (3.3390), as indicated by the table. This suggests that the independent variable for credit cards under security was more widely accepted by respondents than the

dependent variable for credit cards. We can determine the reliability of the data collection because the standard deviation results are more than 1.

**4.4.2 Descriptive Statistics for Security**

**a. E-Wallet**

<b>Descriptive Statistics</b>			
	N	Mean	Std. Deviation
IVES1	200	4.10	1.008
IVES2	200	4.13	1.001
IVES3	200	4.07	1.010
IVES4	200	4.02	1.030
IVES5	200	4.13	.977
Valid N (listwise)	200		

**Table 4.4.2.1: Descriptive Statistics for Security (E-Wallet)**

The e-wallet security's independent variables' descriptive statistics are shown in the table above. The mean value of 4.13 is represented by the e-wallet's second and fifth independent variables regarding security. The data indicates that respondents were in fully agreed with the following statements: "I am satisfied with the PIN or password protection offered by my e-wallet to prevent unauthorized access" (IVES2) and "I am satisfied that only one unique device is applicable to link an account" (IVES5). With a mean score of 4.02, respondents gave a fairly low response to the fourth independent variable on e-wallet security, "I feel confident in the biometric authentication (fingerprint or face recognition) feature offered by my e-wallet" (IVES4). It shows that respondents are not fully trusting the features that ensure their privacy. Because the results of the standard deviation are greater than 1, we can therefore learn the validity of the data collection.

## b. Debit Card

Descriptive Statistics			
	N	Mean	Std. Deviation
IVDS1	200	4.17	.936
IVDS2	200	4.17	.957
IVDS3	200	4.07	.951
IVDS4	200	4.12	.964
IVDS5	200	4.08	1.034
Valid N (listwise)	200		

**Table 4.4.2.2: Descriptive Statistics for Security (Debit Card)**

The table above presents the descriptive statistics for the independent variables related to debit card security. The first and second independent variables for the security of its debit cards indicate a mean value of 4.17. The data reveals that respondents fully agreed with the following statements: "I feel satisfied with the notifications and alerts for transactions made using debit cards" (IVDS1) and "I feel satisfied with the ability to temporarily freeze or block the accounts in case of debit card loss or theft" (IVDS2). "I feel satisfied with the debit cards fraud detection systems in place to monitor and identify suspicious activities" (IVDS3) was the third independent variable on debit card security that respondents slightly agreed with, with a mean score of 4.07. There is an independent variable with a value greater than 1, even if the standard deviation data are mostly less than 1. As a result, using the 200 responses, we can determine how reliable the data collection process was.

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### c. Credit Card

Descriptive Statistics			
	N	Mean	Std. Deviation
IVCS1	200	3.85	1.148
IVCS2	200	3.88	1.094
IVCS3	200	3.84	1.132
IVCS4	200	3.82	1.142
IVCS5	200	3.80	1.130
Valid N (listwise)	200		

**Table 4.4.2.3: Descriptive Statistics for Security (Credit Card)**

The credit card security independent variables' descriptive statistics are shown in the table above. The highest mean value of 3.88 is indicated by the credit card security's second independent variable. According to the data, the majority of respondents agreed with the statement, "I feel satisfied with the ability to temporarily freeze or block the accounts in case of credit card loss or theft" (IVCS2). This statement surely makes a great impact on users due to many irresponsible people who might misuse the cards to take advantage. The fifth independent variable for the credit card's security, which reads, "I feel satisfied with customer support services to assist users with any security-related concerns," has the lowest mean value, 3.80 (IVCS5). Due to their general equal agreement with all states, those variables didn't differ much in mean value. The standard deviation is reliable because the value is more than 1.

### 4.4.3 Descriptive Statistic for Convenience

#### a. E-Wallet

Descriptive Statistics			
	N	Mean	Std. Deviation
IVEC1	200	4.14	.981
IVEC2	200	4.18	.955
IVEC3	200	4.22	.892
IVEC4	200	4.15	.914
IVEC5	200	4.10	.987
Valid N (listwise)	200		

**Table 4.4.3.1: Descriptive Statistics for Convenience (E-Wallet)**

The descriptive statistics of the e-wallet of its convenience's independent variables can be seen in Table 4.4.3.1. The third independent variable, e-wallet convenience, shows the highest mean value of 4.22. As per the results, the majority of respondents agreed with the statement, "I find it convenient to view transaction history through the selected apps" (IVEC3). Because the app lets users check their transaction history at any moment, most respondents find it helpful for tracking their spending. The least amount of mean value, 4.10, is found in the fifth independent variable regarding the convenience of the e-wallet: "I find it convenient on setting up and registering my e-wallet was user-friendly and hassle-free" (IVEC5). Because the value is less than 1, the standard deviation is significant.



## b. Debit Card

Descriptive Statistics			
	N	Mean	Std. Deviation
IVDC1	200	4.05	1.065
IVDC2	200	4.21	.989
IVDC3	200	4.17	.986
IVDC4	200	4.16	.959
IVDC5	200	4.10	.970
Valid N (listwise)	200		

**Table 4.4.3.2: Descriptive Statistics for Convenience (Debit Card)**

The table above shows the descriptive statistics of the independent variables relating to the debit card's convenience. The second independent variable for debit cards of convenience, with a mean value of 4.21, is the highest among others. Most respondents agreed with the following statement: "I find it convenient to carry debit cards instead of cash, as it allows for easy and secure transactions" (IVDC2). Since it is more convenient for them to leave home without cash these days, most people tend to remain cashless whenever they go. In the meantime, the first independent variable about debit card convenience has the lowest mean value, 4.05: "I find it convenient to use my debit card for transactions with no place and time limitation" (IVDC1). The standard deviation is dependable as, except for the first variable, all values are less than 1.

### c. Credit Card

Descriptive Statistics			
	N	Mean	Std. Deviation
IVCC1	200	3.72	1.212
IVCC2	200	3.78	1.204
IVCC3	200	3.82	1.165
IVCC4	200	3.76	1.205
IVCC5	200	3.75	1.210
Valid N (listwise)	200		

**Table 4.4.3.3: Descriptive Statistics for Convenience (Credit Card)**

The table above shows the descriptive statistics of the independent variables relating to the credit card's convenience. The third independent variable for credit cards of convenience, with a mean value of 3.82, is the highest among others. The majority of respondents agreed with the following statement: "I find it convenient to view transaction history through the statements or reports provided by the issuer" (IVCC3). While the first independent variable about credit card convenience has the lowest mean value, 3.72: "I find it convenient to use my credit card for transactions with no place and time limitation" (IVCC1). The standard deviation is reliable as all values are more than 1.

#### 4.4.4 Descriptive Statistic for Social Influence

##### a. E-Wallet

Descriptive Statistics			
	N	Mean	Std. Deviation
IVESI1	200	4.06	.962
IVESI2	200	4.03	.942
IVESI3	200	4.00	.962
IVESI4	200	4.05	.965
IVESI5	200	4.14	.951
Valid N (listwise)	200		

**Table 4.4.4.1: Descriptive Statistics for Social Influence (E-Wallet)**

The descriptive statistics of the independent variables that relate to the social influence of the e-wallet can be read in the above table. With a mean value of 4.14, the fifth independent variable of e-wallets' social influence is the highest of all. "The recommendations and experiences of individuals within my social circles have influenced my trust and reliance on e-wallets," was a statement that most respondents agreed with (IVESI5). "The behavior and preferences of social networks have a notable impact on my perception and usage of e-wallets" (IVESI3) is the third independent variable describing the social influence of e-wallets. It has the lowest mean value, 4.00. It demonstrates that respondents might be persuaded to use e-wallets by factors other than social networking, such as their environment. The standard deviation is accurate as all values are less than 1 and it is significant.

## b. Debit Card

Descriptive Statistics			
	N	Mean	Std. Deviation
IVDSI1	200	4.09	1.031
IVDSI2	200	3.99	1.022
IVDSI3	200	3.94	1.033
IVDSI4	200	3.98	1.049
IVDSI5	200	4.00	1.027
Valid N (listwise)	200		

**Table 4.4.4.2: Descriptive Statistics for Social Influence (Debit Card)**

The above table shows the descriptive statistics of the independent variables that are related to the debit card's social influence. Of all the independent variables, the first one that measures the social influence of debit cards has the greatest mean value, 4.09. According to IVDSI1, most respondents, "I feel influenced by the growing popularity of contactless payments as it is a fast and hygienic way to complete the transaction." The statement is mostly true because quick and hygienic methods are more important. The third independent variable defining the social influence of debit cards is "The behavior and preferences of social networks have a notable impact on my perception and usage of debit cards" (IVDSI3). At 3.94, it has the lowest mean value. It shows how factors other than social networking, such as the respondents' surroundings, could influence them to use debit cards. Given that every value is greater than 1, the standard deviation can be accepted.

### c. Credit Card

Descriptive Statistics			
	N	Mean	Std. Deviation
IVCSI1	200	3.78	1.113
IVCSI2	200	3.73	1.156
IVCSI3	200	3.80	1.140
IVCSI4	200	3.76	1.153
IVCSI5	200	3.78	1.178
Valid N (listwise)	200		

**Table 4.4.4.3: Descriptive Statistics for Social Influence (Credit Card)**

The independent variables related to the social influence of credit cards are displayed in the above table with their descriptive statistics. The third independent variable, which defines credit cards' social influence, has the highest mean value (3.80) of all the others. "The behavior and preferences of social networks have a notable impact on my perception and usage of credit cards," was a statement that most respondents agreed with (IVCSI3). For people who earn a lot of money, the statement is mainly true because they frequently interact with and are affected by their coworkers. "Societal norms and trends play a significant role in influencing my decision to adopt credit card payment method" (IVCSI2) is the second independent variable that defines the social influence of credit cards. Its mean value is the lowest, at 3.73. It is acceptable to accept the standard deviation because all values are bigger than 1.

#### 4.5 Validity and Reliability Test

A statistical method used in research to assess the stability and consistency of scales or measurements is called a reliability test. It helps researchers identify whether repeating the same measurements in similar circumstances gives consistent results.

A reliability test is frequently used to examine a scale or measure that consists of several items or variables to assess its reliability or internal consistency. The range of values for Cronbach's alpha is 0 to 1. According to Greco et. al, 2018, Nunnally (1978) determined that a suitable Cronbach's alpha is 0.7 and falls above 0.8. For a score of 0.8 and above is the best. By using a standardized 0 to 1 scale, Cronbach's alpha measures the degree of agreement. There is more agreement between the elements when the values are higher. The reliability test result is displayed in the table below, which was generated by SPSS.

##### a. E-Wallet

Variables	Cronbach's Alpha Value	N of Item	Strength
Consumer preferences for payment methods	0.912	5	Excellent
Security	0.938	5	Excellent
Convenience	0.932	5	Excellent
Social Influence	0.933	5	Excellent

**Table 4.5.1: Reliability Test for E-Wallet**

Table 4.5.1 above shows Cronbach's Alpha Value for each dependent and independent variable of e-wallets with a total of 200 respondents having answered the online survey. According to the table, the value of Cronbach's Alpha for all variables is more than 0.8 and this shows that the result is significant and good for the reliability test. There is correlation between the items at all. Each variable has a total of 5 questions and the result is excellent. The independent variable of e-wallet's security has the highest Cronbach's Alpha value among other variables with 0.938.



### b. Debit Card

Variables	Cronbach's Alpha Value	N of Item	Strength
Consumer preferences for payment methods	0.911	5	Excellent
Security	0.945	5	Excellent
Convenience	0.937	5	Excellent
Social Influence	0.946	5	Excellent

**Table 4.5.2: Reliability Test for Debit Card**

The Cronbach's Alpha Values for the dependent and independent variables relating to debit cards are displayed in Table 4.5.2 above. The table indicates that all variables have Cronbach's Alpha values of more than 0.8, indicating a perfect and excellent result for the reliability test. The result is excellent and includes five questions for each variable. There is a correlation between the variables. Among the other variables, the independent variable of debit card's social influence has the highest Cronbach's Alpha value (0.946).

### c. Credit Card

Variables	Cronbach's Alpha Value	N of Item	Strength
Consumer preferences for payment methods	0.964	5	Excellent
Security	0.955	5	Excellent
Convenience	0.967	5	Excellent
Social Influence	0.965	5	Excellent

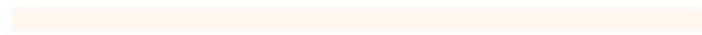
**Table 4.5.3: Reliability Test for Credit Card**

Table 4.5.3 above shows the Cronbach's Alpha Values for the credit card dependent and independent variables. All the variables in the table have Cronbach's Alpha values of more than 0.8, which means the reliability test provided excellent results. There are five questions for each

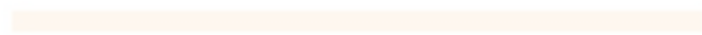
variable provided. The variables are correlated with one another. With a Cronbach's Alpha score of 0.967, the independent variable of credit card convenience has the greatest value among the other variables.



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#### 4.6 Spearman's Correlation Analysis

Spearman p	Correlation
> 0.70	Very strong relationship
0.40-0.69	Strong relationship
0.30-0.39	Moderate relationship
0.20-0.29	Weak relationship
0.01-0.19	No or negligible relationship

**Table 4.6: Spearman's Correlation Analysis**

Table 4.6 shows the Spearman's Correlation Analysis based on the dependent and independent variables. According to Jim Frost (2021), Spearman's correlation coefficients range from -1 to +1. The sign of the coefficient shows whether the relationship is monotonic and positive or negative. When two variables have a positive correlation, one tends to rise along with the other. When there is a negative correlation, it means that one variable decreases as the other grows. Values near -1 or +1 represent stronger relations than values around 0. The consumer preferences for payment methods, which are the dependent variables, and the security, convenience, and social influence, which are the independent variables, are correlated with Spearman's Correlation Analysis based on our data collection. An online survey has been made with 200 respondents participating to answer the form.

**a. E-Wallet**

			<b>Correlations</b>			
			MEAN_D VE	MEAN_IV ES	MEAN_IV EC	MEAN_IV ESI
Spearman's rho	MEAN_D VE	Correlation Coefficient	1.000	.704**	.729**	.674**
		Sig. (2-tailed)	.	.000	.000	.000
		N	200	200	200	200
	MEAN_IV ES	Correlation Coefficient	.704**	1.000	.850**	.753**
		Sig. (2-tailed)	.000	.	.000	.000
		N	200	200	200	200
	MEAN_IV EC	Correlation Coefficient	.729**	.850**	1.000	.765**
		Sig. (2-tailed)	.000	.000	.	.000
		N	200	200	200	200
	MEAN_IV ESI	Correlation Coefficient	.674**	.753**	.765**	1.000
		Sig. (2-tailed)	.000	.000	.000	.
		N	200	200	200	200

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

**Table 4.6.1: Correlation result for E-Wallet**

The correlation coefficient analysis between the research's dependent and independent variables is displayed in the table above. P=0.704 indicates a very strong relationship between consumer preferences for payment methods and e-wallet security. Similarly, there is also a very strong relationship between customer preferences for payment methods and the convenience of e-wallets with the value of p=0.729. Both variables are bigger than 0.7. Meanwhile, the value of p=0.674, which is smaller than 0.7, indicates a strong relationship between consumer preferences for payment methods and the social influence of e-wallets. Every variable has a strong correlation with every other variable.

**b. Debit Card**

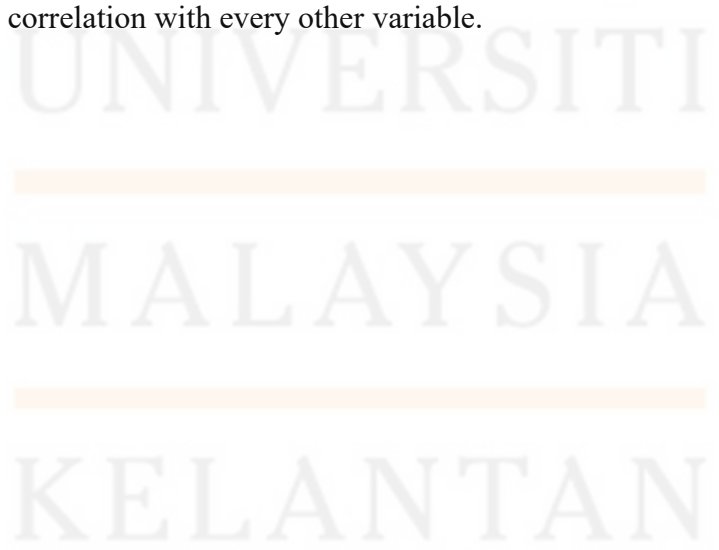
**Correlations**

			MEAN_ DVD	MEAN_I VDS	MEAN_I VDC	MEAN_I VDSI
Spearman's rho	MEAN_D VD	Correlation Coefficient	1.000	.677**	.687**	.620**
		Sig. (2-tailed)	.	.000	.000	.000
		N	200	200	200	200
	MEAN_I VDS	Correlation Coefficient	.677**	1.000	.861**	.743**
		Sig. (2-tailed)	.000	.	.000	.000
		N	200	200	200	200
	MEAN_I VDC	Correlation Coefficient	.687**	.861**	1.000	.795**
		Sig. (2-tailed)	.000	.000	.	.000
		N	200	200	200	200
	MEAN_I VDSI	Correlation Coefficient	.620**	.743**	.795**	1.000
		Sig. (2-tailed)	.000	.000	.000	.
		N	200	200	200	200

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

**Table 4.6.2: Correlation result for Debit Card**

The table above displays the results of the correlation coefficient analysis between both dependent and independent variables. There is a strong correlation ( $p=0.677$ ) between customer preferences for payment methods and debit card security. With values of  $p=0.687$  and  $p=0.620$ , respectively, there is a strong correlation between customer preferences for payment methods towards the convenience and social influence of debit cards. With a p-value of less than 0.7, every variable has a strong correlation with every other variable.



**c. Credit Card**

			<b>Correlations</b>			
			MEAN_D VC	MEAN_IV CS	MEAN_IV CC	MEAN_IVC SI
Spearman's rho	MEAN_DV C	Correlation Coefficient	1.000	.654**	.685**	.619**
		Sig. (2-tailed)	.	.000	.000	.000
		N	200	200	200	200
	MEAN_IV CS	Correlation Coefficient	.654**	1.000	.897**	.837**
		Sig. (2-tailed)	.000	.	.000	.000
		N	200	200	200	200
	MEAN_IV CC	Correlation Coefficient	.685**	.897**	1.000	.856**
		Sig. (2-tailed)	.000	.000	.	.000
		N	200	200	200	200
	MEAN_IV CSI	Correlation Coefficient	.619**	.837**	.856**	1.000
		Sig. (2-tailed)	.000	.000	.000	.
		N	200	200	200	200

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

**Table 4.6.3: Correlation result for Credit Card**

The table above displays the results of the correlation coefficient analysis between both dependent and independent variables. There is a strong correlation ( $p=0.677$ ) between customer preferences for payment methods and debit card security. With values of  $p=0.687$  and  $p=0.620$ , respectively, there is a strong correlation between customer preferences for payment methods towards the convenience and social influence of debit cards. With a p-value of less than 0.7, every variable has a strong correlation with every other variable.

## 4.7 Chi-Square Test

To determine if the data is as expected, a Chi-square test is used for hypothesis testing. According to Hayes (2023), the test's primary concept is to determine whether the null hypothesis is true by comparing the observed values in the data to the expected values. The definition of "expected" in the context of Chi-square is what we expect to happen in the case that the null hypothesis is true.

If the observed distribution greatly differs from the predicted distribution (indicating no correlation), the null hypothesis can be rejected, and it is possible to conclude that there is a relationship between the variables. In general, a p-value below a chosen significance level (commonly 0.5) indicates that the observed association is unlikely to have occurred by chance alone.

### 4.7.1 Consumer preferences for payment methods (DV) and Security (IV)

#### a. E-wallet

<b>Chi-Square Tests</b>			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	637.729 <sup>a</sup>	289	.000
Likelihood Ratio	364.641	289	.002
Linear-by-Linear Association	89.509	1	.000
N of Valid Cases	200		

a. 321 cells (99.1%) have expected count less than 5. The minimum expected count is .01.

**Table 4.7.1.1: Chi-Square Test for DV and Security (E-Wallet)**

The table shows the Chi-Square Tests of consumer preferences for payment methods and security of e-wallets. The result shows a p-value of 0.000 which is very close to zero suggesting an extremely strong statistical significance. The observed association between the categorical variables is highly significant to chance alone. This can be interpreted as evidence to reject the null hypothesis, indicating the association between the variables.



**b. Debit Card**

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	751.802 <sup>a</sup>	272	.000
Likelihood Ratio	319.883	272	.024
Linear-by-Linear Association	102.018	1	.000
N of Valid Cases	200		

a. 302 cells (98.7%) have expected count less than 5. The minimum expected count is .01.

**Table 4.7.1.2: Chi-Square Test for DV and Security (Debit Card)**

The table above indicates the Chi-Square Test between consumer preferences for payment methods and debit card security. A Pearson Chi-Square test with a p-value of 0.000 dignifies an extremely strong association between the variables. This indicates that the observed relationship is unlikely a result of random chance. The lower the p-value, the stronger the result against the null hypothesis, supporting the presence of a significant association.

**c. Credit Card**

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	607.690 <sup>a</sup>	360	.000
Likelihood Ratio	395.563	360	.095
Linear-by-Linear Association	81.342	1	.000
N of Valid Cases	200		

a. 396 cells (99.2%) have expected count less than 5. The minimum expected count is .01.

**Table 4.7.1.3: Chi-Square Test for DV and Security (Credit Card)**

The Chi-Square Tests of consumer preferences for payment methods and credit card security are displayed in the table. The final result displays a p-value of 0.000, which is incredibly near to zero and indicates a highly significant result. The observed relationship between the categorical variables is strongly associated. This

suggests that there is a relationship between the variables, supporting the rejection of the null hypothesis.

#### 4.7.2 Consumer preferences for payment methods (DV) and Convenience (IV)

##### a. E-Wallet

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	967.840 <sup>a</sup>	272	.000
Likelihood Ratio	344.091	272	.002
Linear-by-Linear Association	111.441	1	.000
N of Valid Cases	200		

a. 301 cells (98.4%) have expected count less than 5. The minimum expected count is .01.

**Table 4.7.2.1: Chi-Square Test for DV and Convenience (E-Wallet)**

The Chi-Square Test between consumer preferences for payment methods and e-wallet convenience is displayed in the table above. An incredibly significant correlation between the variables is indicated by a Pearson Chi-Square test with a p-value of 0.000. This suggests that it is impossible that the relationship seen is the product of random chance. The outcome is stronger against the null hypothesis and supports the existence of a significant correlation when the p-value is lower.

##### b. Debit Card

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	859.271 <sup>a</sup>	256	.000
Likelihood Ratio	342.502	256	.000
Linear-by-Linear Association	111.178	1	.000
N of Valid Cases	200		

a. 285 cells (98.6%) have expected count less than 5. The minimum expected count is .01.

**Table 4.7.2.2: Chi-Square Test for DV and Convenience (Debit Card)**

The table displays the results of customer preferences for payment methods and debit card convenience based on the Chi-Square Tests. A very significant result

is shown by the final result's p-value of 0.000, which is extremely close to zero. Each of the variables has a strong correlation with one another. Accordingly, the null hypothesis is rejected since it implies a correlation between the variables.

**c. Credit Card**

<b>Chi-Square Tests</b>			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	784.910 <sup>a</sup>	340	.000
Likelihood Ratio	461.752	340	.000
Linear-by-Linear Association	92.097	1	.000
N of Valid Cases	200		

a. 374 cells (98.9%) have expected count less than 5. The minimum expected count is .01.

**Table 4.7.2.3: Chi-Square Test for DV and Convenience (Credit Card)**

As a result of Chi-Square tests, the consumer preferences for payment methods and credit card convenience are shown in the above table. A Pearson Chi-Square test showing a 0.000 p-value for the variables indicates a highly significant relationship between each. This implies that there is a strong correlation between the variables. When the p-value is smaller, the result is stronger, rejecting the null hypothesis and confirming the significant connection.



### 4.7.3 Consumer preferences for payment methods (DV) and Social Influence (IV)

#### a. E-Wallet

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	725.635 <sup>a</sup>	255	.000
Likelihood Ratio	341.352	255	.000
Linear-by-Linear Association	96.202	1	.000
N of Valid Cases	200		

a. 284 cells (98.6%) have expected count less than 5. The minimum expected count is .01.

**Table 4.7.3.1: Chi-Square Test for DV and Social Influence (E-Wallet)**

The result of the Chi-Square Tests above has shown that there is a strong association between consumer preferences for payment methods and the social influence of e-wallets. As stated in the table above, the p-value is 0.000 and indicates that the variables are reliable between each other. A lower p-value means that the null hypothesis is rejected and assumes no association being tested.

#### b. Debit Card

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	603.580 <sup>a</sup>	272	.000
Likelihood Ratio	350.972	272	.001
Linear-by-Linear Association	87.275	1	.000
N of Valid Cases	200		

a. 302 cells (98.7%) have expected count less than 5. The minimum expected count is .01.

**Table 4.7.3.2: Chi-Square Test for DV and Social Influence (Debit Card)**

Consumer preferences for payment methods and the social influence of debit cards are strongly associated, as shown by the results of the Chi-Square tests mentioned above. The variables are dependable with one another, as the p-value of 0.000 in the table above shows. If the p-value is smaller, it indicates that there is no correlation being investigated and that the null hypothesis is rejected.

**c. Credit Card**

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	701.486 <sup>a</sup>	380	.000
Likelihood Ratio	403.979	380	.190
Linear-by-Linear Association	75.319	1	.000
N of Valid Cases	200		

a. 417 cells (99.3%) have expected count less than 5. The minimum expected count is .01.

**Table 4.7.3.3: Chi-Square Test for DV and Social Influence (Credit Card)**

The results of the Chi-Square tests indicated above show a high correlation between consumer preferences for payment methods and the social influence of credit cards. As seen by the p-value of 0.000 in the above table, the variables are correlated with each other. A study with rejection of the null hypothesis is indicated by a decreased p-value.

**4.8 Ordinal Regression**

In this study, the ordinal regression approaches were used to model association with the ordinal outcome, ranking between E-wallet, debit card, and credit card according to consumer preferences in order to analyze the data and achieve our goal. Ordinal logistic regression (OLR) is often utilized when researchers have categories for the dependent variable that are ordered. This regression technique enables in discovering the relationship between variables that contribute to consumer preferences for payment methods.

Ordinal logistic regression will therefore give a more efficient depiction of the data when the dependent variable is sorted (Kadir & Omer, 2021). Normality and constant variance are unaffected by the ordinal regression model. On the other hand, it does necessitate the parallel lines assumption for every category of result level (DeCoster & Claypool, 2004).

## a. E-Wallet

Model Fitting Information				
Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	825.798			
Final	562.203	263.595	44	.000

Link function: Logit.

**Table 4.8.1: Ordinal Regression for E-Wallet**

The model fitting information above contains the -2 Log Likelihood for an Intercept only and the Full Model. The likelihood ratio chi-square test is to identify whether there is a significant improvement in fit of the Final model relative to the intercept only model. Based on the result, there is a significant improvement in fit of the Final model over the null model [ $\chi^2(44) = 263.595, p < .001$ ].

## b. Debit Card

Model Fitting Information				
Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	818.970			
Final	576.022	242.948	46	.000

Link function: Logit.

**Table 4.8.2: Ordinal Regression for Debit Card**

Based on the model fitting information above contains the -2 Log Likelihood for an Intercept only and the Full Model. The likelihood ratio chi-square test is to identify whether there is a significant improvement in fit of the Final model relative to the intercept only model. Based on the result, there is a significant improvement in fit of the Final model over the null model [ $\chi^2(46) = 242.948, p < .001$ ].

## c. Credit Card

Model Fitting Information				
Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	915.096			
Final	716.501	198.595	53	.000

Link function: Logit.

**Table 4.8.3: Ordinal Regression for Credit Card**

According to the model fitting information above contains the -2 Log Likelihood for an Intercept only and the Full Model. The likelihood ratio chi-square test is to identify whether there is a significant improvement in fit of the Final model relative to the intercept only model. Based on the result, there is a significant improvement in fit of the Final model over the null model [ $\chi^2(53) = 198.595, p < .001$ ].



## 4.9 Hypothesis Testing

**Hypothesis 1:** There is a positive correlation between security and consumer preferences for payment methods.

### a. E-Wallet

<b>Correlations</b>			MEAN_DV E	MEAN_IVE S
Spearman's rho	MEAN_DV E	Correlation Coefficient	1.000	.704**
		Sig. (2-tailed)	.	.000
		N	200	200
	MEAN_IVE S	Correlation Coefficient	.704**	1.000
		Sig. (2-tailed)	.000	.
		N	200	200

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

**Table 4.9.1: Hypothesis 1 for E-Wallet**

The table above shows the relationship between E-wallet security and consumer preferences for payment methods using Spearman's rho correlation coefficient. The relationship is highly significant as the significance level is 0.000 as the p-value is less than 0.01. It appears that Spearman's rho is 0.704. There is a very strong relationship between those two variables. To put it another way, there is substantial evidence to back up the claim that there is a significant positive correlation between these two variables.

### b. Debit Card

<b>Correlations</b>			MEAN_DV D	MEAN_IVD S
Spearman's rho	MEAN_DV D	Correlation Coefficient	1.000	.677**
		Sig. (2-tailed)	.	.000
		N	200	200
	MEAN_IVD S	Correlation Coefficient	.677**	1.000
		Sig. (2-tailed)	.000	.
		N	200	200

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

**Table 4.9.2: Hypothesis 1 for Debit Card**

Based on the table above, the relationship between debit card security and consumer preferences for payment methods have a strong positive relationship. The correlation coefficient is 0.677. It indicates that there is a strong positive relationship. The significance level is 0.000. This means that the relationship is highly significant at level 0.01. There is a significant positive correlation between these two variables to put it simply.

**c. Credit Card**

			MEAN_DV C	MEAN_IVC S
Spearman's rho	MEAN_DV C	Correlation Coefficient	1.000	.654**
		Sig. (2-tailed)	.	.000
		N	200	200
	MEAN_IVC S	Correlation Coefficient	.654**	1.000
		Sig. (2-tailed)	.000	.
		N	200	200

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

**Table 4.9.3: Hypothesis 1 for Credit Card**

The correlation table above displays the relationship between two variables, credit card security and consumer preferences for payment methods, using Spearman’s rho correlation coefficient. There is a strong positive relationship as the correlation coefficient is 0.654. The p-value for this correlation is 0.000, which is less than 0.01. The level of 0.01 signifies that this correlation is statistically significant. Hence, there is compelling evidence to support the idea of a significant positive correlation between these two variables.

**Hypothesis 2:** There is a positive correlation between convenience and consumer preferences for payment methods.

**a. E-Wallet**

<b>Correlations</b>			MEAN_DV E	MEAN_IVE C
Spearman's rho	MEAN_DV E	Correlation Coefficient	1.000	.729**
		Sig. (2-tailed)	.	.000
		N	200	200
	MEAN_IVE C	Correlation Coefficient	.729**	1.000
		Sig. (2-tailed)	.000	.
		N	200	200

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

**Table 4.9.4: Hypothesis 2 for E-Wallet**

The table above shows the relationship between two variables which are E-wallet convenience and consumer preferences for payment methods using Spearman's rho correlation coefficient. The correlation coefficient is 0.729. This indicates a strong positive relationship. The p-value for this correlation is 0.000, less than 0.01, which is statistically significant at the 0.01 level. Thus, there is proof of the existence of a significant positive correlation between these variables.

**b. Debit Card**

<b>Correlations</b>			MEAN_DV D	MEAN_IVD C
Spearman's rho	MEAN_DVD	Correlation Coefficient	1.000	.687**
		Sig. (2-tailed)	.	.000
		N	200	200
	MEAN_IVD C	Correlation Coefficient	.687**	1.000
		Sig. (2-tailed)	.000	.
		N	200	200

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

**Table 4.9.5: Hypothesis 2 for Debit Card**

The correlation table above presents the Spearman's rho correlation coefficient between two variables, debit card convenience and consumer preferences for payment methods. The correlation coefficient shown between these two variables is 0.687. This indicates a strong positive relationship. The significance level is less than 0.000 less than 0.01 which is these correlations are significant. Put more simply, there is a tendency for the values of these variables to move together in a positive direction. The link between the two

variables is somewhat strong; that is, when one increases, the other tends to increase as well.

**c. Credit Card**

<b>Correlations</b>			MEAN_DV C	MEAN_IVC C
Spearman's rho	MEAN_DV C	Correlation Coefficient	1.000	.685**
		Sig. (2-tailed)	.	.000
		N	200	200
	MEAN_IVC C	Correlation Coefficient	.685**	1.000
		Sig. (2-tailed)	.000	.
		N	200	200

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

**Table 4.9.6: Hypothesis 2 for Credit Card**

Based on the table above, it is Spearman’s rho correlation coefficient between two variables which are credit card convenience and consumer preferences for payment methods. The correlation coefficient is 0.685. There is a strong positive relationship between these variables. The significance level is less than 0.01. The p-value for this correlation is 0.000 which suggests that it is significant. This can be conveyed that the variable will increase if the other variable tends to increase as the relationship is moderately strong.

**Hypothesis 3:** There is a positive correlation between social influence and consumer preferences for payment methods.

**a. E-Wallet**

<b>Correlations</b>			MEAN_DV E	MEAN_IVE SI
Spearman's rho	MEAN_DVE	Correlation Coefficient	1.000	.674**
		Sig. (2-tailed)	.	.000
		N	200	200
	MEAN_IVE SI	Correlation Coefficient	.674**	1.000
		Sig. (2-tailed)	.000	.
		N	200	200

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

**Table 4.9.7: Hypothesis 3 for E-Wallet**

The correlation table above shows Spearman's rho correlation coefficients between E-wallet social influence and consumer preferences for payment methods. The correlation coefficient is 0.674. These two variables specify that it has a strong positive relationship. The significance level is 0.000 which is less than 0.01. This means that these correlations are statistically significant. There is high probability that between these two variables if it increases the others will increase as well, with a moderate level of strength in their relationship.

**b. Debit Card**

			MEAN_DV D	MEAN_IVD SI
Spearman's rho	MEAN_DVD	Correlation Coefficient	1.000	.620**
		Sig. (2-tailed)	.	.000
		N	200	200
	MEAN_IVD SI	Correlation Coefficient	.620**	1.000
		Sig. (2-tailed)	.000	.
		N	200	200

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

**Table 4.9.8: Hypothesis 3 for Debit Card**

As can be seen in the correlation table above, it shows Spearman’s rho correlation coefficients between two variables which are debit card social influence and consumer preferences for payment methods. The correlation coefficient between these two variables is 0.620, showing that there is a strong positive relationship. The p-value is 0.000 which indicates that these correlations are significant because it is less than 0.01. In another way, there is a tendency for these variables to move together if the other variable is increased as the relationship is of moderate strength.

**c. Credit Card**

			MEAN_DV C	MEAN_IVC SI
Spearman's rho	MEAN_DVC	Correlation Coefficient	1.000	.619**
		Sig. (2-tailed)	.	.000
		N	200	200
	MEAN_IVC SI	Correlation Coefficient	.619**	1.000
		Sig. (2-tailed)	.000	.
		N	200	200

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

**Table 4.9.9: Hypothesis 3 for Credit Card**

Based on the table above, showing the Spearman’s rho correlation coefficients between credit card social influence and consumer preferences for payment methods. The correlation coefficient is 0.619. This means that there is a strong positive relationship between these variables. As for the significance level, the p-value is 0.000 which is less than 0.01. This signifies that these correlations are significant. Thus, there is a tendency that both variables’ value to increase if the other increases as the relationship is strong.

#### 4.10 Summary / Conclusion

In general, it can be said that from the data gathered for demographic info which are gender, age, race, education level and employment status has contributed to assessing the reliability of this study prediction. The reliability conducted to examine the correlation between variables and all the items show an excellent result based on Cronbach's Alpha Value.

Moreover, the correlation coefficient analysis for dependent and independent variables specifies a strong positive relationship. The three hypotheses acquired have a positive correlation between independent variables (security, convenience, and social influence) and dependent variables (consumer preferences for payment methods). Thus, the statistical result gained from SPSS, can be proceeded to the extent for study's key finding and further recommendation.



## CHAPTER 5

### DISCUSSION AND CONCLUSION

#### 5.1 Introduction

In this chapter, the research findings will be interpreted in detail according to the previous chapter. It includes the study's hypothesis about the variables. This section is solely focusing on conveying the implications of the study and its significance. The problem statement concerning the complexities of consumer preferences and financial behaviors in the context of digital payment is enlightened from the data finding of this research study.

The use of SPSS software helps researchers to provide data analysis and numeral outcome predictions regarding the group that utilized digital payments in various occasions. This will help conduct future study related to the issue for academics to emphasize the field of the study. Hence, hypothesis testing indicates the positive relationship of the variables to support the theory applies to a population. Thus, this chapter is reviewing the objectives of this research based on the research finding.

## 5.2 Key Findings

The main aim in doing this research is to evaluate the relationship between independent variables which are security, convenient, and social influence and dependent variable, consumer preferences for payment methods. The payment methods suggested in conducting this research are E-wallet, debit card and credit card. There are 200 respondents that have been randomly chosen as sample size. Those respondents involved are literally from different backgrounds and demographics. The method utilized in collecting further data was from various social media such as WhatsApp, Instagram, and Telegram. Thus, this research was made through quantitative research to gain comprehensive understanding.

The finding extracted from data collected through questionnaires shows the respondents characteristics based on demographic analysis. There are 200 respondents involved in data collection whereas 157 are females and 43 are males. The recorded demographic data shows that the highest age contributed in this study is the age of 18-24 years old which is 171 respondents, 85.5% from the total number of respondents. While the least is from the group age of above 30 years old and below 18 years old. There are 165 students recorded answering the questionnaire, with the rest being employed (26), unemployed (6), and retired (3) It shows that, nowadays, youth nowadays frequently use E-wallet, debit card, and credit card as they are exposed to digitalization.

The reliability test conducted is to measure the validity and consistency of the scale. Researchers can determine how closely the items in the questionnaire are related to one another using reliability analysis. Cronbach's alpha measures the level of agreement using a standard 0-1 scale. The Cronbach Alpha value for E-wallet variables shows an excellent result which shows consumer preferences for payment methods (0.912), security (0.938), convenience (0.932), and social influence (0.933). Next, the Cronbach's Alpha value for debit card variables shows an excellent result which shows consumer preferences for payment methods (0.911), security (0.945), convenience (0.937), and social influence (0.947). Credit cards also have an excellent result for Cronbach's Alpha Value, whereas consumer preferences for payment methods (0.964), security (0.955), convenience (0.967), and social influence (0.965).

The Spearman's Correlation analysis shows the variables relationship whether it has positive or negative correlation. The dependent variables and independent variables for E-wallet

have strong positive relationships. It is the same for variables of debit card and credit card, there is a strong correlation with every other variable.

Responses received from respondents through the short questions section in the questionnaire help researchers to acknowledge deeply which digital payment methods are used frequently among consumers. The use of e-wallet per month could reach 60 times and above with the average spend of RM500, but there are also those that spend above RM 1000. As for debit cards, the average usage of this digital payment method is frequent in their daily life. The amount spent monthly could be average to RM500 and above depending on the savings amount of their personal account. This is because they can utilize the money that they already have in their bank account to make any purchases, to withdraw or make transactions between accounts.

The average time in using a credit card to make a transaction is not often, as most of the respondents do not have this payment method and are not personally using it. The highest recorded total amount spent per month is nearly RM5000. This shows that many people personally choose e-wallets and debit cards over credit cards to make any transaction. The frequency they use those payment methods indicates how convenient they are, which helps to make tasks easier.

## 5.3 Discussion

### 5.3.1 There is a positive correlation between security and consumer preferences for payment methods.

Security has a good and highly positive connection with the consumer preferences for payment methods. Based on Table 4.9.1, 4.9.2, 4.9.3, the significant Spearman correlation value of 0.704 for E-Wallet, 0.677 for Debit Card and 0.654 for Credit Card confirms what was apparent from the graph; there appears to be a positive correlation between the two variables, substantiating hypothesis H1 that there is a positive and significant relationship between security and consumer preferences for payment methods. The findings are supported by many researchers who have conducted related studies on security, including a survey by Stavins (2018), which found that security had a significant positive effect on consumer preferences for payment methods.

There are several reasons why security may have this effect. First, feeling secure about financial information and transactions is a major concern for many consumers. Payment methods perceived as secure can alleviate anxiety and stress associated with sharing financial data or completing transactions. This makes the entire payment process a more positive and enjoyable experience for consumers. Second, consumers prioritize payment methods that minimize the risk of fraud and theft. This includes features like strong authentication, data encryption, and fraud detection mechanisms. Secure payment methods offer peace of mind, knowing that their financial information is less likely to be compromised.

Third, when consumers trust a payment method to be secure, they are more likely to rely on it for future transactions. This builds trust and loyalty towards the payment provider and the merchants who accept it. This can lead to increased usage and adoption of the secure payment method. The research suggests that security is an essential factor influencing consumer preferences for payment methods.

### **5.3.2 There is a positive correlation between convenience and consumer preferences for payment methods.**

Convenience has a good and positive connection with the consumer preferences for payment methods. Based on Table 4.9.4, 4.9.5, 4.9.6, the significant Spearman correlation value of 0.729 for E-Wallet, 0.687 for Debit Card and 0.685 for Credit Card confirms what was apparent from the graph; there appears to be a positive correlation between the two variables, substantiating hypothesis H2 that there is a positive and significant relationship between convenience and consumer preferences for payment methods. The findings are supported by many researchers who have conducted related studies on convenience, including a survey by Alarooj, n.d. (2018) which found that convenience had a significant positive effect on consumer preferences for payment methods.

There are several reasons why convenience may have this effect. First, convenient payment methods streamline the checkout process, reducing the number of steps and time needed to complete a transaction. This is especially important in today's fast-paced world where people value efficiency and immediacy. Imagine waiting in line to fumble with cash or enter card details; a quick tap with your phone or contactless card feels much smoother. Second, a seamless payment experience contributes significantly to overall customer satisfaction. When paying feels effortless and error-free, it reduces frustration and leaves a positive impression. Conversely, cumbersome payment methods can be a major source of annoyance and can even lead to abandoned carts or purchases.

Third, as convenient payment methods become increasingly prevalent and accepted, they become the norm, influencing consumer expectations and preferences. The widespread adoption of contactless payments, for instance, has made cash feel outdated and inconvenient for many. The research suggests that convenience is an essential factor influencing consumer preferences for payment methods.

### **5.3.3 There is a positive correlation between social influence and consumer preferences for payment methods.**

Social influence has a good and positive connection with the consumer preferences for payment methods. Based on Table 4.9.7, 4.9.8, 4.9.9, the significant Spearman correlation value of 0.674 for E-Wallet, 0.620 for Debit Card and 0.619 for Credit Card confirms what was apparent from the graph; there appears to be a positive correlation between the two variables, substantiating hypothesis H3 that there is a positive and significant relationship between social influence and consumer preferences for payment methods. The findings are supported by many researchers who have conducted related studies on social influence, including a survey by Gunawan et al. (2023) which found that social influence had a significant positive effect on consumer preferences for payment methods.

There are several reasons why social influence may have this effect. First, people often imitate the behavior of those they perceive as influential, especially in situations where they feel uncertain or unfamiliar. This can lead to the adoption of new payment methods if friends, family, or other social groups are using them. Second, positive recommendations from trusted sources can significantly impact consumer preferences. If friends or family have positive experiences with a specific payment method, they are likely to recommend it to others, increasing its perceived value and appeal.

Third, payment methods can sometimes be associated with specific values or identities. For example, using a contactless payment method might be seen as being modern and tech-savvy, while using a cash-back credit card might be associated with being financially responsible. The research suggests that social influence is an essential factor influencing consumer preferences for payment methods.



## 5.4 Implications of the study

This study holds significant potential to shed light on the evolving landscape of consumer preferences and financial behavior in the digital age. By comparing e-wallets, debit cards, and credit cards, it can reveal which factors influence consumers' choices, such as convenience, security, and social influence. Understanding these drivers can inform marketing strategies for financial service providers, allowing them to tailor products and services to specific demographics and spending habits. Additionally, the study's findings could be valuable for policymakers in promoting financial inclusion, especially for those who may have limited access to traditional banking services. By identifying the barriers and preferences of unbanked or underbanked populations regarding e-wallets and prepaid cards, policymakers can design initiatives to encourage adoption and bridge the financial access gap.

The research could also provide valuable insights into the future of payment methods and market trends. Analyzing how consumer preferences are shifting towards or away from e-wallets, debit cards, and credit cards can shed light on the potential for further disruption and innovation in the financial sector. This knowledge can be leveraged by financial institutions and technology companies to develop new payment solutions that cater to evolving consumer needs and preferences. Additionally, the study can contribute to a deeper understanding of the competitive landscape between different payment providers, allowing them to adapt their offerings and marketing strategies to stay ahead of the curve.

## 5.5 Limitation of the study.

This study, while insightful, is not without limitations. Firstly, the generalizability of the findings might be constrained by the chosen sample. The study's scope could be broadened by including participants from diverse demographic backgrounds, income levels, and geographical locations. This would allow for a more comprehensive understanding of how preferences and behaviors differ across various segments of the population.

Secondly, the study's focus on a specific point in time may not fully capture the dynamic nature of consumer preferences and financial behavior. Technological advancements, economic fluctuations, and social trends can all influence how people choose to pay and manage their



finances. Therefore, longitudinal research would be valuable for observing how preferences and behaviors evolve over time, providing a more nuanced picture of the evolving landscape.

By acknowledging these limitations, the study can be seen as a valuable starting point for further research. Expanding the scope and timeframe of future investigations will contribute to a deeper understanding of consumer preferences and financial behavior within the context of e-wallets, debit cards, and credit cards.

### **5.6 Recommendation or suggestion for future research.**

Deepen the analysis by segmenting consumers by moving beyond general preferences and delve into specific consumer groups based on demographics, income levels, and spending habits. This will reveal nuanced differences in how individuals interact with each payment method, allowing for targeted marketing strategies and product development. Consider investigating how factors like financial literacy and risk aversion influence their choices.

Next, explore the impact of emerging technologies by investigating how blockchain, cryptocurrencies, and other innovative financial tools are shaping consumer preferences and influencing the future of cashless transactions. Analyze how these technologies might disrupt the current landscape and reshape the competitive dynamics between e-wallets, debit cards, and credit cards.

Next, longitudinal studies by conducting longitudinal studies to track changes in consumer preferences and financial behavior over time. This can reveal the impact of technological advancements, evolving economic conditions, and marketing campaigns on payment method adoption. Additionally, it can provide valuable insights into the long-term sustainability and potential pitfalls of different payment options.

## 5.7 Overall conclusion of the study

This study investigated the factors influencing consumer preferences for payment methods, focusing on security, convenience, and social influence. The findings revealed a strong and positive correlation between all three factors and consumer preferences.

Security emerged as the most influential factor, with E-Wallets, Debit Cards, and Credit Cards all exhibiting significant positive correlations. This highlights the paramount importance of consumers feeling secure about their financial information and transactions. Secure payment methods alleviate anxiety, promote trust, and encourage repeat usage.

Convenience closely followed security in terms of influence. Consumers value streamlined checkout processes and seamless payment experiences. Convenient payment methods reduce frustration, enhance customer satisfaction, and become the expected norm. E-Wallets again topped the charts in this category, followed by Debit and Credit Cards.

Social influence also played a significant role, indicating that consumers are likely to adopt payment methods used by their peers and trusted sources. Positive recommendations and perceived associations with values or identities can significantly impact preferences. E-Wallets again garnered the highest correlation, suggesting their growing popularity and social acceptance.

While all three payment methods (E-Wallets, Debit Cards, and Credit Cards) showed positive correlations with all three influencing factors, E-Wallets emerged as the overall most popular choice. Their strong performance in security, convenience, and social influence suggests that they cater effectively to evolving consumer preferences. However, it is important to note that individual preferences may vary based on specific demographics and usage patterns.

This study provides valuable insights for payment service providers and merchants seeking to attract and retain customers. By prioritizing security, convenience, and social aspects, they can develop and promote payment methods that resonate with today's consumers.

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## Appendix A – Questionnaire

### “ANALYZING CONSUMER PREFERENCES AND FINANCIAL BEHAVIOR: A COMPARATIVE STUDY OF E-WALLETS, DEBIT CARDS, AND CREDIT CARDS”

Greetings to all dear respondents,

We are Bachelor of Entrepreneurship (Commerce) students with honors from the University of Malaysia Kelantan (UMK). We are currently conducting a research survey regarding “Analyzing Consumer Preferences and Financial Behavior: A Comparative Study of E-wallets, Debit Cards, and Credit Cards”. We would be most grateful if you could answer this questionnaire to complete the task. This research is for academic purposes only; your information will be confidential. Your cooperation and time for the answer this questionnaire will be appreciated. Thank you.

#### SECTION A: DEMOGRAPHIC INFO

You are required to choose at the appropriate answer.

1. Gender:

Male	Female

2. Age:

Below 18	18 - 24	25 - 30	31 - 35	36 - 40	41 - 50	Above 50

3. Race:

Malay	Chinese	Indian	Others



4. Education Level:

Preschool Education	Primary Education	Secondary Education	Post-Secondary Education	Tertiary Education

5. Employment Status:

Student	Employed	Unemployed	Retired

**SECTION B: DEPENDENT VARIABLES**

This section will measure your behavioral intention to Consumer preferences for payment methods. Please mark your answer based on the scale from 1 to 5.

<b>Strongly Disagree (SD)</b>	<b>Disagree (D)</b>	<b>Neutral (N)</b>	<b>Agree (A)</b>	<b>Strongly Agree (SA)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

<b>CONSUMER PREFERENCES FOR PAYMENT METHODS</b>		<u>SD</u>	<u>D</u>	<u>N</u>	<u>A</u>	<u>SA</u>
<i>SECTION B1: E-WALLETS</i>						
1.	I use e-wallets for contactless payments, especially in situations where carrying cash may be inconvenient.	1	2	3	4	5
2.	I use e-wallets for making payments because of the additional benefits such as rewards and cashback offers they provide.	1	2	3	4	5
3.	I use e-wallets for online purchases as they offer additional protection against fraud and disputes.	1	2	3	4	5
4.	I use e-wallets for their simplicity and the fact that there are no interest charges or monthly bills to worry about.	1	2	3	4	5
5.	I use e-wallets for making payments due to their convenience.	1	2	3	4	5
<i>SECTION B2: DEBIT CARDS</i>						

1.	I use debit cards for contactless payments, especially in situations where carrying cash may be inconvenient.	1	2	3	4	5
2.	I use debit cards for making payments because of the additional benefits such as rewards and cashback offers they provide.	1	2	3	4	5
3.	I use debit cards for online purchases as they offer additional protection against fraud and disputes.	1	2	3	4	5
4.	I use debit cards for their simplicity and the fact that there are no interest charges or monthly bills to worry about.	1	2	3	4	5
5.	I use debit cards for making payments due to their convenience.	1	2	3	4	5
<i>SECTION B3: CREDIT CARDS</i>						
1.	I use credit cards for contactless payments, especially in situations where carrying cash may be inconvenient.	1	2	3	4	5
2.	I use credit cards for making payments because of the additional benefits such as rewards and cashback offers they provide.	1	2	3	4	5
3.	I use credit cards for online purchases as they offer additional protection against fraud and disputes.	1	2	3	4	5
4.	I use credit cards for their simplicity and the fact that there are purchase limit that could avoid from overspending.	1	2	3	4	5
5.	I use credit cards for making payments due to their convenience.	1	2	3	4	5

**SECTION C: INDEPENDENT VARIABLE**

This section will measure Security, Convenience and Social Influence to Consumer preferences for payment methods. Please mark your answer based on the scale from 1 to 5.

<b>Strongly Disagree</b> <b>(SD)</b>	<b>Disagree</b> <b>(D)</b>	<b>Neutral</b> <b>(N)</b>	<b>Agree</b> <b>(A)</b>	<b>Strongly Agree</b> <b>(SA)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

<i>SECTION C1: E-WALLETS</i>						
<b>SECURITY</b>		<u>SD</u>	<u>D</u>	<u>N</u>	<u>A</u>	<u>SA</u>
1.	The e-wallet I use provides two-factor authentication (2FA) to secure my transactions.	1	2	3	4	5
2.	I am satisfied with the PIN or password protection offered by my e-wallet to prevent unauthorized access.	1	2	3	4	5
3.	I am satisfied with the overall security measures taken by e-wallets to protect my personal and financial information.	1	2	3	4	5
4.	I feel confident in the biometric authentication (fingerprint or face recognition) feature offered by my e-wallet.	1	2	3	4	5
5.	I am satisfied that only one unique device is applicable to link an account.	1	2	3	4	5
<b>CONVENIENCE</b>		<u>SD</u>	<u>D</u>	<u>N</u>	<u>A</u>	<u>SA</u>
1.	I find it convenient to use my e-wallet for transactions with no place and time limitation.	1	2	3	4	5
2.	I feel convenient with the process of adding funds or topping up money.	1	2	3	4	5
3.	I find it convenient to view transaction history through the selected apps.	1	2	3	4	5

4.	I feel satisfied on the availability of customizable spending limits and control features on my e-wallet adds to the convenience of managing my finances.	1	2	3	4	5
5.	I find it convenient on setting up and registering my e-wallet was user-friendly and hassle-free.	1	2	3	4	5
<b>SOCIAL INFLUENCE</b>						
1.	I feel influenced by the growing popularity of contactless payments as it is fast and hygienic way to complete the transaction.	1	2	3	4	5
2.	Societal norms and trends play a significant role in influencing my decision to adopt e-wallets payment method.	1	2	3	4	5
3.	The behaviour and preferences of social network have a notable impact on my perception and usage of e-wallets.	1	2	3	4	5
4.	Social media and advertising have played a significant role in shaping my attitudes and preferences towards the use of e-wallets.	1	2	3	4	5
5.	The recommendations and experiences of individuals within my social circles have influenced my trust and reliance on e-wallets.	1	2	3	4	5

<i>SECTION C2: DEBIT CARDS</i>						
<b>SECURITY</b>		<u>SD</u>	<u>D</u>	<u>N</u>	<u>A</u>	<u>SA</u>
1.	I feel satisfied with the notifications and alerts for transactions made using debit cards.	1	2	3	4	5
2.	I feel satisfied with the ability to temporarily freeze or block the accounts in case of debit card loss or theft.	1	2	3	4	5
3.	I feel satisfied with the debit cards fraud detection systems in place to monitor and identify suspicious activities.	1	2	3	4	5
4.	I feel satisfied to set spending limits towards debit cards adds an extra layer of security.	1	2	3	4	5
5.	I feel satisfied with customer support services to assist users with any security-related concerns.	1	2	3	4	5
<b>CONVENIENCE</b>		<u>SD</u>	<u>D</u>	<u>N</u>	<u>A</u>	<u>SA</u>
1.	I find it convenient to use my debit card for transactions with no place and time limitation.	1	2	3	4	5
2.	I find it convenient to carry debit cards instead of cash, as it allows for easy and secure transactions.	1	2	3	4	5
3.	I find it convenient to view transaction history through the statements or reports.	1	2	3	4	5
4.	I feel satisfied on the availability of customizable spending limits and control features on my debit card adds to the convenience of managing my finances.	1	2	3	4	5
5.	I find it convenient on setting up and registering my debit card was user-friendly and hassle-free.	1	2	3	4	5
<b>SOCIAL INFLUENCE</b>						
1.	I feel influenced by the growing popularity of contactless payments as it is fast and hygienic way to complete the transaction.	1	2	3	4	5

2.	Societal norms and trends play a significant role in influencing my decision to adopt debit cards payment method.	1	2	3	4	5
3.	The behaviour and preferences of social network have a notable impact on my perception and usage of debit cards.	1	2	3	4	5
4.	Social media and advertising have played a significant role in shaping my attitudes and preferences towards the use of debit cards.	1	2	3	4	5
5.	The recommendations and experiences of individuals within my social circles have influenced my trust and reliance on debit cards.	1	2	3	4	5

<i>SECTION C3: CREDIT CARDS</i>						
<b>SECURITY</b>		<u>SD</u>	<u>D</u>	<u>N</u>	<u>A</u>	<u>SA</u>
1.	I feel satisfied with the notifications and alerts for transactions made using the credit cards.	1	2	3	4	5
2.	I feel satisfied with the ability to temporarily freeze or block the accounts in case of credit cards loss or theft.	1	2	3	4	5
3.	I feel satisfied with the credit cards fraud detection systems in place to monitor and identify suspicious activities.	1	2	3	4	5
4.	I feel satisfied to set spending limits towards credit cards adds an extra layer of security.	1	2	3	4	5
5.	I feel satisfied with customer support services to assist users with any security-related concerns.	1	2	3	4	5
<b>CONVENIENCE</b>		<u>SD</u>	<u>D</u>	<u>N</u>	<u>A</u>	<u>SA</u>
1.	I find it convenient to use my credit card for transactions with no place and time limitation.	1	2	3	4	5
2.	I find it convenient to carry credit cards instead of cash, as it allows for easy and secure transactions.	1	2	3	4	5
3.	I find it convenient to view transaction history through the statements or reports provided by the issuer.	1	2	3	4	5
4.	I feel satisfied on the availability of customizable spending limits and control features on my credit card adds to the convenience of managing my finances.	1	2	3	4	5
5.	I find it convenient on setting up and registering my credit card was user-friendly and hassle-free.	1	2	3	4	5
<b>SOCIAL INFLUENCE</b>						



1.	I feel influenced by the growing popularity of contactless payments as it is fast and hygienic way to complete the transaction.	1	2	3	4	5
2.	Societal norms and trends play a significant role in influencing my decision to adopt credit cards payment method.	1	2	3	4	5
3.	The behaviour and preferences of social network have a notable impact on my perception and usage of credit cards.	1	2	3	4	5
4.	Social media and advertising have played a significant role in shaping my attitudes and preferences towards the use of credit cards.	1	2	3	4	5
5.	The recommendations and experiences of individuals within my social circles have influenced my trust and reliance on credit cards.	1	2	3	4	5

**SECTION D: SHORT QUESTIONS**

<i>SECTION D1: E-WALLETS</i>	
1.	Q: How many times, on average, do you make transactions using an E-Wallet in a month? Short Ans: ____
2.	Q: On average, how much (in MYR) do you spend per month using an E-Wallet? Short Ans: ____
<i>SECTION D2: DEBIT CARDS</i>	
1.	Q: How many times, on average, do you make transactions using Debit Cards in a month? Short Ans: ____
2.	Q: On average, how much (in MYR) do you spend per month using Debit Cards? Short Ans: ____
<i>SECTION D3: CREDIT CARDS</i>	
1.	Q: How many times, on average, do you make transactions using Credit Cards in a month? Short Ans: ____
2.	Q: On average, how much (in MYR) do you spend per month using Credit Cards? Short Ans: ____

Thank you for your participation.

Google Form Link: <https://forms.gle/v6Zj62PqjxaktQDY8>

## APPENDIX B

### GANTT CHART

Task / Week	W 1	W 2	W 3	W 4	W 5	W 6	W 7	W 8	W 9	W 10	W 11	W 12	W 13	W 14
-Meeting and discussion with supervisor														
-Identification of title, research area and respondents														
Prepare problem statement, research objective, research questions														
Define the conceptual framework, Literature review														
Choose population, sample size, sampling techniques														
Instrument development, measurement of the variables														
Procedure for data analysis														
Drafting questionnaire														
Submission of Research Proposal Draft														
Submission of Final Research Proposal														
Distribute questions														
Actual data collection														
Key in data in SPSS														

FKP

