CONSUMER ACCEPTANCE OF INNOVATION
IN PAYMENT METHODS
BY CREDIT CARD IN BUSINESS

SYAHRUL HAFIZ BIN SARLAN

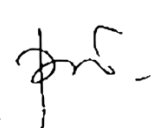# UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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'I/We* hereby admit that we have read this thesis and in my/our* opinion this thesis meet the scope and quality for the purpose of awarding Bachelor's Degree of Technology Management (Innovation Technology)'

SIGNATURE:

SUPERVISOR: TS. DR. YUSRI BIN ARSHAD

DATE: 30 JANUARY 2023

SIGNATURE:

PANEL: DR. KAMARUDIN BIN ABU BAKAR

DATE: 30 JANUARY 2023

DECLARATION OF ORIGINAL WORK

"I at this moment declare that this report is entirely my work with project title "Consumer acceptance of innovations in payment methods by credit card in business" except for a few clarifications and passages where every source is cited.

SIGNATURE:

NAME: SYAHRUL HAFIZ BIN SARLAN

DATE: 30 JANUARY 2023

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SYAHRUL HAFIZ BIN SARLAN

Report submitted in fulfillment of the requirement for the Bachelor Degree of
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DEDICATION

I would like to dedicate my gratitude to my dear parents, who have supported me both spiritually and monetarily.

SARLAN BIN NAPIAH

SITI SALMIAH BINTI RAMLI

Thanks to my supervisor and panel for guiding me through my research study.

TS DR. YUSRI BIN ARSHAD (Supervisor)

Thank you so much for always being understanding and for my friends who supported and assisted me; without their support and blessing, this study would be difficult to accomplish in the time allotted. Thank you very much.

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ABSTRACT

This study was conducted to examine consumer acceptance of innovations in credit card payment methods in businesses in Ayer Keroh, Melaka. A bank or financial services provider issues a thin, rectangular piece of plastic or metal known as a credit card, which allows cardholders to borrow money to make purchases at businesses that accept credit cards. When someone uses a credit card, they are responsible for paying the whole debt, together with any interest fees and any additional payments they committed to, by the card's expiration date. In addition, the new payment method from cash to credit card is a method that helps consumers in the payment process at the place of business. Both domestically and internationally, credit cards have become one of the most popular methods of payment. Customers may avoid the trouble of carrying cash and lower their risk of losing money. In addition, this study has used quantitative methods. In addition, questions distributed using the Google Form method. With this, the respondent around 150 can answer the questions given by the researcher to get the data needed for the study. The data obtained was entered into SPSS (ver.26) in order to obtain the data that needs to be used for the researcher to complete the study. Therefore, in this study, the researcher also gives the opinion of this study to knowledge, industry and the country. Finally, the researcher also gives suggestions to future researchers who want to use this study as a reference source.

ABSTRAK

Kajian ini telah dijalankan untuk mengkaji penerimaan pengguna terhadap inovasi dalam kaedah pembayaran mengikut kad kredit dalam perniagaan di Ayer Keroh, Melaka. Kad kredit ialah sekeping plastik atau logam nipis, segi empat tepat yang disediakan oleh bank atau perniagaan perkhidmatan kewangan yang membolehkan pemegang kad meminjam wang untuk membayar produk dan perkhidmatan di peruncit yang menerima kad kredit. Kad kredit memerlukan pemegang kad membayar balik jumlah yang dipinjam, ditambah dengan sebarang faedah yang dikenakan dan sebarang bayaran lain yang dipersetujui, sama ada secara keseluruhannya pada tarikh tamat tempoh atau secara ansuran. Selain itu, dengan adanya kaedah pembayaran yang baharu iaitu daripada tunai kepada kad kredit merupakan kaedah yang membantu pengguna dalam proses pembayaran di tempat perniagaan. Di dalam dan di luar negara, kad kredit menjadi salah satu kaedah pembayaran yang paling popular. Pelanggan mungkin mengelakkan masalah membawa wang tunai dan mengurangkan risiko kehilangan wang. Selain itu, kajian ini telah menggunakan kaedah quantitif. Disamping itu, soalan yang diedarkan menggunakan kaedah Google Form. Dengan ini, respondent sebanyak 150 boleh menjawab soalan yang diberikan oleh pengkaji bagi mendapatlan data yang diperlukan untuk kajiannya. Data yang diperolehi didapati dimaskukan di dalam SPSS (ver.26) agar mendapatkan data yang perlu digunakan untuk pengkaji bagi menyiapkan kajian tersebut. Oleh itu, di dalam kajian ini juga pengkaji memberikan pendapat kajian ini kepada pengetahuan, industri dan negara. Akhir sekali, pengkaji juga memberikan cadangan kepada pengkaji yang akan datang apabila ingin menjadikan kajian ini sebagai sumber rujukan.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter will discuss understanding consumer acceptance of innovations in credit card payment methods in business during the Covid-19 pandemic in Ayer Keroh, Melaka. In addition, this introduction also contains the background of the study, problem statement, research questions, research objectives, the scope of the study and the importance of the study will be discussed in this chapter. This study was also conducted to find out whether during the Covid-19 pandemic season we use innovative methods for payment, namely credit cards for shopping at the place of business.

Bank of America was the first company to offer credit cards. In 1958, they sent Bank Americard credit cards to some California markets without being asked. In 1966, Bank Americard became the first licensed general-use credit card in the United States. A decade later, it would be changed to Visa to reflect its growing international reach (Steele, 2022).

Since the beginning of time, governments have recognised the need of regulating money and payment systems because of their central role in the efficient functioning of markets. In many interactions, payment may be an afterthought, yet it is still crucial. Payment instruments, or ways to move money, were among the first sectors to undergo digitalization, having a significant influence on both the payments industry and markets more broadly. The process is continuing, and a number of new payment innovations are on the horizon (Rysman, 2017).

1.2 Background of Study

This study set out to investigate the understanding of consumer acceptance of innovations in payment methods by credit cards in business during the pandemic of Covid-19 in using credit card consumers in Ayer Keroh, Melaka. This research focuses on the consumers using credit cards in Ayer Keroh, Melaka.

Credit cards are small, rectangular pieces of plastic or metal that a bank or other financial institution provides to its clients so that they can borrow money to pay for products and services at retailers who accept credit cards (Bloomenthal, 2021). A credit card is a convenient method of payment that allows you to buy goods and services right away without having to use cash. Responsible credit card usage and debt management are synonymous with smart credit card usage. If used wisely, credit cards can give you complete financial control. We believe that by providing this information, we will be able to assist you in making the best decisions possible while using your credit card (Ocbc, 2022).

Credit cards are almost identical in terms of their 16-digit card numbers, expiry dates, magnetic stripes, and EMV chips. Both may make shopping in shops or online straightforward and convenient, with one significant exception. Credit cards allow you to make purchases or cash withdrawals up to the card's credit limit, with the issuer acting as a lender (Cussen, 2022).

During the pandemic of Covid-19, many people used cashless payment methods by debit and credit. This is because many shoppers nowadays also do not carry a lot of cash in their wallets. This is because cardholders prioritize physical hygiene and do not have to interact with anyone in the store. This research focuses on the effectiveness of the innovation of payment methods by credit cards in the place of business to the customer during the pandemic of Covid-19 (Cussen M. P., 2022).

1.3 Problem Statement

A credit card problem is when you reach your credit limit. You may not be able to use the card if you have made too many charges or gone over the card's credit limit. This is how your bank tells you that you can't borrow money from them again until you pay them back. This was also true during the Covid-19 pandemic when people who used credit cards lost their jobs. Because of this, they can't pay for things like houses and cars that they need. (Gailey, 2017). It's simple to input a credit card number, expiration date, or security code erroneously while making a transaction, especially online or using a mobile app. Your billing address could also be incorrect. Next, a credit card problem is inaccurate payment data. All of these scenarios for refused transactions could be straightforward ones. Make sure your card information is accurate by checking it twice. However, if you have too many incidents like this, your account may be frozen. You might then need to get in touch with your issuer to clear up any confusion. Particularly if you have numerous billing addresses, always input your information precisely and double-check it before pressing submit. An address change should be promptly reported to your issuer since having accurate personal information on hand helps fraud (Little, 2022). Using a credit card for common purchases. With this, using credit cards for routine, everyday expenditures are another trap that individuals frequently fall into. Charging non-discretionary items on a credit card might be risky if you don't have a monthly budget and can't simply pay off your credit card amount in full each month. You'll make significant progress toward bringing your spending under control if you keep regular expenditures like groceries and utility payments off of your credit card balance (Fontinelle, 2022). A steep interest rate It's because the high interest rates aren't just about making a profit for the bank or a lending tycoon; it's about the danger involved. Credit card companies have few legal recourses when you fail to pay your charge. The issuer may ruin your credit score, incur legal fees, and go through the trouble of a lawsuit, but there is no assurance it will recover its losses (Gregory, 2022). Lastly, the problem with using a credit card in business is physical damage to the credit card. Your credit card may stop working if you've had it in your possession for a long time due to demagnetization (Jadhav, 2022).

1.4 Research Question

The main purpose of the research is to identify and analyze the factors that influence consumers in using credit card in business in business at Ayer Keroh, Melaka.

1. What is the effective use of credit cards in business?

2. What benefits of credit cards in business?

3. What are the factors consumers use credit cards in business?

1.4 Research Objective

The objective of this research study is to find out how consumers use their card credit while shopping in business. The specific objectives of this research are:

1. To determine the effective use of credit cards in business.

2. To identify the benefit of credit cards in business.

3. To examine the factors consumers use credit cards in business.

1.6 Scope of the Research

This research aims to analyse how different elements of the Ayer Keroh, Melaka consumer acceptance of innovation in payment method in business. Therefore, this study is to determine the effective use of credit among card users in business in Ayer Keroh, Melaka. In addition, the most affecting the use of credit cards to buy in business during the pandemic in Ayer Keroh, Melaka was the latter from the purpose of research. The scope of the study is that an online questionnaire will be sent to credit card users in Ayer Keroh, Melaka.

1.7 Research Significant

Research significance is important in the use of credit cards in business premises during the Covid-19 pandemic in Ayer Keroh, Melaka. The results of this research will benefit consumers in utilizing their credit cards while wanting to buy goods in business during the Covid-19 pandemic season in Ayer Keroh, Melaka. In addition, the results of the research can help us understand the factors consumers use credit cards in business in the future. Credit cards are important resources in Malaysia because the availability of new payment methods today can facilitate consumers in making payments in purchases at the business. With this, it is hoped that this study can help a little to the users of credit cards for future studies.

1.8 Summary

The target population of this study is Ayer Keroh, Melaka residents who use credit cards. This study was also conducted to find out whether during the Covid-19 pandemic season we use innovative methods for payment credit cards. If used wisely, credit cards can give you complete financial control. A credit card problem is when you reach your credit limit. You may not be able to use the card if you have made too many charges or gone over the limit. This was true during the Covid-19 pandemic when people who used credit cards lost their jobs. About a month prior to your existing card expiring, most banks will issue you a new one. Credit cards are important resources in Malaysia because the availability of new payment methods today can facilitate consumers in making payments in purchases in business. The results of this research will benefit consumers in utilizing their credit cards while wanting to buy goods in business in Ayer Keroh, Melaka during the Covid-19 pandemic season.
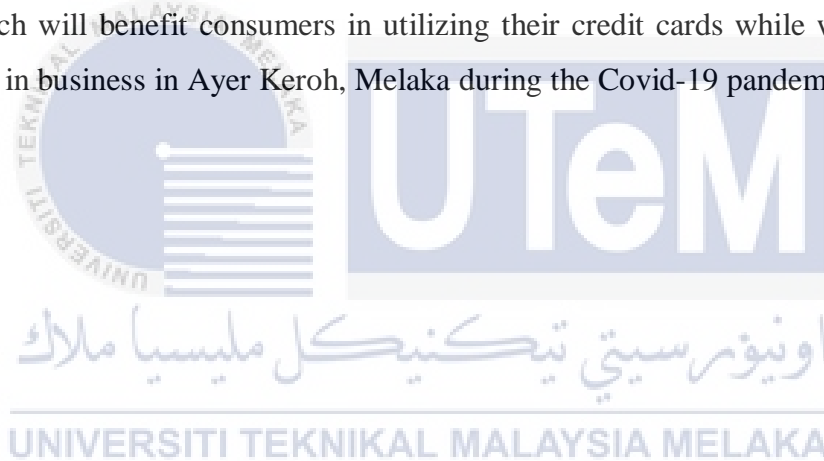
CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This study aims to investigate the variables that influence consumer purchasing decisions on consumer acceptance of innovation payment methods using credit cards. This chapter will describe in more detail how the variables influence consumer purchasing decisions in using new innovative methods in payments in businesses using credit cards involved during the course of this research. In this chapter, helps the researcher grasp the study's significance. This chapter highlights how variables such as factors and types of goods influence consumers 'decisions in using payment methods that use credit cards when purchasing at business premises. In this chapter also the researcher has used articles, journals, websites, and distributed books have been collected to explore the hypotheses and past experimental examinations identified with this investigation.

2.2 Consumer Acceptance of Innovation

The outcomes of retail payments are generally predictable: the most common alternatives to debit are cash, followed by credit. The high showing of checks in retail is driven by customers without credit cards. Charge cards and credit cards were first developed in the 1950s. On the other hand, may took a long time on the phone to get clearance to use a credit card (about four minutes) and a subsequent paper confirmation exchange between institutions. Visa was able to develop a completely electronic system in 1974 thanks to a series of investments, eliminated the need for paper exchange and cut the approval process down to 40 seconds. MasterCard soon after

made a comparable investment (Rysman, 2017). By "electronic payment systems," we mean the use of credit cards, ATMs, Electronic Fund Transfers (EFT), and online payments to make it easier for customers to pay for a product or service (Vassilious,2004). Users' gender, age, level of education, income, marital status, culture, and feelings about debt has a lot to do with how often they use electronic payments (Abdul-Muhmin and Umar, 2007). Concluded that customers should always utilise their credit cards to make payments and pay off their balances in full by the due date based on derlying incentives compared to alternative payment tools. (Chakravorti 1997).

2.3 Payment Methods

The manner in which consumers make purchases are known as payment methods. You may pay using your phone at a retailer that also accepts cash, cheques, gift cards, credit cards, prepaid cards, and debit cards. Payment processors, e-wallets, prepaid cards, direct bank account transfers, and credit cards are just some of the many online payment alternatives accessible to e-commerce firms. There are often many alternatives for each payment type. Stripe, Authorize.net, Braintree by Paypal, Shopify Payments, and many more are just a few examples of payment processors. You may use a variety of credit cards, including American Express, Mastercard, Visa, and Discover. Both Google Pay and Apple Pay are additional payment options (Sara, 2021). A payment method is the means through which a consumer makes a purchase. One of the first forms of payment was barter, or the exchange of goods. In subsequent epochs, other methods of exchange emerged, such as the use of currency, coins, and credit cards. In recent years, the use of digital currencies like Bitcoin and electronic bank transactions have both increased in popularity (Tamplin, 2022). Instead, payment is the delivery of agreed-upon amounts of relevant goods and services in return for money, goods, or services. Payment may be made in a variety of ways, including bartering services for money or vice versa.

2.4 Credit Card

Credit cards allow cardholders to make purchases or cash withdrawals up to the card's credit limit, using borrowed funds from the credit card's issuing company (Cussen, 2022). People may make purchases using credit cards in a secure, dependable, and practical manner. Credit cards sometimes provide rewards for frequent usage, dispute resolution services, and no-interest short-term loans to customers who don't carry a debt from one billing cycle to the next (Gruyter, 2003) Most of the time, the interchange fees that credit card issuers get from merchants are a smaller part of their income than what banks make off of credit card customers in the form of interest and fees (Miller, 2014). If credit cards are stolen or lost, designated stores falsely claim cardholders' account funds using forged or fabricated vouchers, putting cardholders in danger of reporting the loss and guarantors at risk of taking responsibility, and so on. During this time, "Cardholder Application Agreements" and "Merchants contracts" were primarily utilized to control issuers', cardholders', and merchants' rights and obligations, although these contracts and some original laws were unable to resolve various legal issues arising from credit card use (Gang, 2017). If credit risk is not managed prudently, credit card proliferation could have negative effects on cardholders and financial institutions. It was shown that timely payment of credit card balances was significantly influenced by users' credit card attitudes, dependability, image awareness, and financial preparedness (Chong, 2017). When you apply for a credit card, the issuing bank or financial institution will set your credit limit. There is a maximum amount of money you may borrow, and it is based on your credit limit. Rather of giving you the whole loan amount up front, the card issuer lets you utilise as much of the available credit as you choose at any one moment. If your debt is less than or equal to your credit limit, you may keep borrowing and just have to pay the minimum amount due each month (Irby, 2022). Credit cards allow you to borrow money from a bank on the promise that you will repay the loan plus interest by the due date. Compared to other methods of payment, like cash or debit cards, which both require that you have the money available for payment at the moment of purchase, the flexibility to buy now and pay later is superior. Credit cards not only provide you additional payment flexibility but also help you build credit so you may be approved for other financial products like loans and mortgages. (White, 2022).

2.5 Element of The Consumer Acceptance of Innovation in Payment Methods By Credit Card

2.5.1 Perceived Risk

An individual's perceived risk is the sum of their worries about the possible outcomes of adopting a product. Buying this item makes the customer feel like they are taking a risk, both emotionally and practically. How consumers perceive a product's worth is exactly what it is (MBA, 2015). A person's arbitrary estimation of the degree of danger connected to a specific hazard (e.g., health threat). Perceived risk refers to a consumer's anxiety about the potential downsides of a purchase, particularly one with a high price tag, such as a home, automobile, or computer. There are always doubts in a customer's mind when they consider making a purchase, particularly if the item in question is pricey (Lake L. , 2019).

Customers may use their credit cards to make purchases in person, online, or via mobile apps. Credit cards are unique from other forms of electronic payment in that they may be used to obtain consumer loans. When a customer pays a bill using a credit card, the bank gives him the exact amount due, and he is responsible for paying it back in full, as soon as possible. Customers who use alternative e-payment methods, on the other hand, money must first be deposited into the account before being used for billing from the balance in the account (Seetharaman, 2016).

Potential losses may result from the kind of transaction and the two uses of consumer credit and paying bills, on the basis of credit card features and practises (Foscht, 2018). Customers speak with the bank to request a credit card and register for its use. The credit card is issued by the bank with the proper credit limit once the bank has approved the application documents. The cryptocurrency will then be transferred from the buyer's account to the seller's account, allowing the buyer to borrow money from a bank and use it to pay bills using a credit card (Turban, 2018). Credit cards deter people from borrowing and repaying because they make people feel like they

have to put in more work to use them correctly, which in turn raises the risk of their being misused (Hassan, 2018).

Overspending if you can't resist the impulse to spend money, a credit card might be a perilous tool. Their drive to purchase or consume more is stimulated by the simple availability of credit, which also lessens the pain of making payments. Their alluring discounts, cashback incentives, and reward points also tempt many people to make unneeded purchases. Many people thus find up spending more than they can afford to pay back (Chronicle, 2017). To avoid making the wrong decision in a market where many various credit cards with varied features, fees, and rewards are offered by each card issuer, it's important to take the time to research each card's pros and cons before applying. Most credit cards are designed for certain types of customers with specific spending habits, so using the wrong card might mean foregoing valuable rewards and other advantages (Chronicle, 2017).

2.5.2 Perceived Benefits

The term "perceived benefit" describes how people interpret the advantageous effects of a particular action. The phrase "perceived advantage" is widely used in behavioural medicine to describe a person's reasons for engaging in a behaviour and choosing an intervention or course of therapy (Leung, 2013). An advantage is seen to exist when it is believed that a certain action will result in a positive outcome, whether the threat is genuine or imagined (Chandon, 2000). Traditional shopping behaviours are the most common contexts for the perceived benefit of purchase construct, which is unique to an individual's estimation of the benefits they would get from engaging in a certain shopping activity. There is a connection between the theoretically-oriented study of traditional retail patronage concerns and the empirically-focused study of non-store patronage behaviour. (Liu, 2013).

Accepting credit card payments almost reduces the chance of having to handle problems brought on by a bad or rejected check. You won't have to spend time looking for the customer to get them to pay for the goods or services in full or take a big financial hit from bad checks (Carbajo, 2019). Users of debit cards do not need to worry about withdrawing cash from an ATM. This might be troubling for those who are concerned about the loss or theft of cash, which they would never be able to replace. Cards that are lost or stolen, on the other hand, maybe simply replaced (Faraldo, 2017). Personal credit cards are designed to cater to individuals' spending preferences, which often entail modest spending amounts on technological devices and home furnishings. This credit limit just isn't enough for many firms. Inventory purchases on a weekly or monthly basis might rapidly deplete available finances (Williams, 2022).

Credit card purchases provide some protection against fraud losses. When a criminal makes a purchase using your debit card, the funds are instantly stolen from your account. The late fines and damage to your credit score that might result from the bounce of a check you sent or planned a payment for online are not worth the convenience. Even if you were not at fault, the missed or late payments might negatively affect your credit. For fraudulent transactions to be reversed and funds to be returned to your account, the bank must first undertake an investigation, which may take some time (Fontinelle, 2021).

Your credit score might increase with a credit card. Your credit report includes information about your credit card accounts and your payment history. This information will help you establish a solid credit history, improving your chances of being approved for additional loans like mortgages and vehicle loans as long as you maintain your account in good standing (Lilly, 2022). Credit cards are more secure than conventional checking techniques in terms of security features. Someone may empty your bank account if they were to have access to it. The bank would then process your fraud complaint and replace the monies, and you would have to waitCredit card fraud doesn't cost you anything; you only have to wait for the card issuer to put a stop to the crime (Irby, The Pros and Cons of Credit Cards, 2021).

2.5.3 Perceived Usefulness

Perceived usefulness, according to Davis (1986), relates to users' subjective beliefs that using specific technologies may improve their capacity to do their tasks. The perceived utility of a technology is its perceived effect on the user's performance on a given task (Ilham, 2012). A method's "perceived utility" is its perceived impact on a person's productivity. One's confidence that adopting a new system would improve their efficiency at work is a measure of its perceived value (Jahangir, 2008). Some people are enticed to use credit cards because of how convenient they are. Credit cards may be used in lieu of money or checks and can also be used to build credit. One's propensity to make use of credit cards is strongly influenced by their perceived utility due to the ways in which they facilitate job completion, provide advantages, and improve financial management (Abdul-Muhmin, 2019). An individual's assessment of the efficacy of a given method to boost their productivity at work. Credit card use increases as cardholders grow more familiar with their cards' features and conveniences (Davis, 2019). They may even use credit cards to make cash withdrawals if required (Liu, 2021).

Due to the convenience of using a credit card, more and more people are turning to them for everyday purchases (Lee, 2021). Credit cards were utilized not just as a cash and check substitution, but also as a source of revolving credit by consumers (Sudhagar, 2012). A credit card is a simple method to receive fast credit, whether you need it for an urgent financial need or to buy expensive equipment for your house. Simply swipe your credit card to pay for these costs, and you can conveniently reimburse the money aftafterwardvery one of us has encountered situations in life when we needed more money than we had in our savings account. A credit card is a strong financial instrument that may assist us in getting that extra money anywhere, at any time (Birla, 2019).

Credit cards may be used to pay bills as well as buy purchases offline or online. Your credit card information is sent to the merchant's bank when you pay with either one. The credit card company then authorises the bank to complete the sale. The card company will next need to check your details and decide whether to allow or reject the transaction (Lake, 2021). Perceived usefulness may be used as a gauge for how much a person thinks having a credit card will improve his or her ability to pay for everyday costs. According to empirical studies, consumers' planned usage of credit cards is significantly influenced by perceived usefulness (Leong, 2013).

2.5.4 Perceived Behavioral Control

In his theory of planned behaviour, proposed the concept of "perceived behavioural control" as a factor influencing both behavioural intention and actual behaviour. Self-efficacy and perceived behavioural control have a same conceptual foundation since they both refer to an individual's belief that the relevant behaviour is under his or her control. In contrast to perceived behavioural control, which is often evaluated by how simple or difficult the behaviour is (e.g., "I find it tough to exercise three times a week"), self-efficacy is operationalized by the person's confidence in the ability to carry out the behaviour despite hurdles (Ajzen, 1988).

One perception of behavioral control, as well as their understanding of credit cards, has a major impact on their desire to use them. However, since credit card usage and payment are out of control, people utilize only based on emotion and without regard for the consequences. Credit card use is also influenced by a lack of awareness or information. A low credit card balance is more common among those who have a high degree of personal agency. It was also discovered that a high level of perceived behavior no did not influence electronic transaction instruments (Kennedy, 2019). The technical capacity to pay a credit card bill was high, but the ability to conduct credit card transactions was still poor. Meanwhile, the respondents' perceptions of signs relating to their capacity to regulate, cease using credit cards, and their financial abilities got the lowest ratings (Sari, 2011).

Customers choose credit cards because of the convenience of a simple credit card acceptance process at retail locations (Sudhagar, 2012). as a personality characteristic linked to the capacity to withstand pressure and sustain self-control. Without breaking habits and engaging in dangerous behaviors, of course, this fact. Concerning credit card debt (Levine, 2014). The importance of users exercising more self-control in managing their emotions was emphasised. As a result, individuals refrain from making impulsive compulsive purchases that add to their debt (Braun, 2016). Shown that it could take more effort for individuals to understand information regarding the effects or implications of a given activity if they have little or no experience doing so (Kidwell, 2008). Compared to men, women said they were less satisfied with their financial condition and retirement savings (Index, 2014).

A model of structural equations takes into consideration financial well-being as a result of credit card use habits, social financial comparisons, self-assurance in managing finances, and parental financial education for kids (Sotiropoulos, 2013). Having a positive outlook, being more motivated, displaying an addictive personality, having a greater sense of risk, and being deemed to be poor decision-makers who are less careful while engaging in purchasing behaviour. The excessive spending and bad money management of credit card users are the main causes of credit card debt, which impacts their attitude toward saving (Akela, 2020).

2.5.5 Subjective Norm

Expectations that a major person or group would support and encourage a certain behaviour are known as subjective norms. Subjective norms are the expectations and motivations to conform to the actions and beliefs of one's peers (Ham, 2015). Subjective norms are the beliefs that the majority of individuals either support or oppose a certain behaviour. This factor is related to whether or not the individual's circle of friends and acquaintances thinks the individual should participate in the behaviour (Wayne, 2019). The theory of deliberate action holds that individuals' actions are influenced by social standards that they themselves have created (Ajzen, 1991). A person's subjective norms reflect his or her belief in how his or her circle of friends and relatives would feel about a certain behaviour. Typically, subjective norms are used to gauge how much social pressure there is on people to engage in or refrain from a certain action (Ajzen, 1985).

Since credit cards are commonplace, it is safe to assume that the individual in question possesses one (Hayhoe, 2019). Parents, schoolmates, friends, and the media are some more factors that have an impact on young people learning and socialising to infancy through maturity, according to the research. Individuals' financial choices, particularly the usage of credit cards, are influenced by these topics. Subjective norm influences how much a person believes those close to them (family and friends), as well as outside references like friends, coworkers, banks, the media, and advertisements, think he or she should use a credit card (Hilgert, 2019).

Impact the subjective norms on intents and acts on telebanking adoption was validated by empirical research, with the importance of subjective standards of friends in particular. Because of time and other resource constraints, further study might be conducted in other situations with a better representation of the telebanking population of private commercial banks (Nayanajith, 2020). Credit cards were utilized not just as a cash and check substitution, but also as a source of revolving credit by consumers (Sudhagar, 2012).

Furthermore, media that is expressly meant to reach a big audience or viewers has helped to raise consumer awareness of credit cards (Ismail, 2014). People who wish to uphold a way of life based on their surroundings are more prone to make impulsive purchases, which is simpler to achieve with credit cards (Khare, 2013). He showed how the environment in which a person grows and uses a credit card is also responsible. Who showed that people are conscious of their financial choices, especially those involving selecting banking goods or services (Fraczek, 2015). The subjective norms can be measured by influence of friends and family, the lifestyle and subjective moral (O'Neill, 2012).

2.6 Reason Behind the Choice of Theory

One of the most crucial and mundane parts of writing a thesis is choosing a theory to back up the research topic. An important notion was developed after researchers read a number of articles and studies on the topic of consumers' openness to new innovations and credit card payment methods.

It has also been observed, in accordance with the Theory of Planned Behavior, that if someone has the intention to do a desired behaviour, then they are more likely to actually perform that behaviour (like upgrading software) is somewhat influenced by their perception of how influential others would see their activities (Venkatesh, Morris, Davis, & Davis, 2003). To better predict a person's intention to participate in a behaviour at a certain time and location, the Theory of Reasoned Action (TRA) was renamed the Theory of Planned Behavior (TPB) in 1980. The most important part of this framework is the conviction in the likelihood that a specific course of action will achieve the desired consequences, as well as the personal judgement of the advantages and disadvantages of such results, which influence behavioural intent. The inclusion of perceived behavioural control, which considers whether a person truly feels they have control over the behaviour they desire to participate in, is the main factor that increases the accuracy of the Theory of Planned Behavior (U.S. Department of Health and Human Services, 2005).

2.7 Theoretical Development

Theory of Planned Behavior
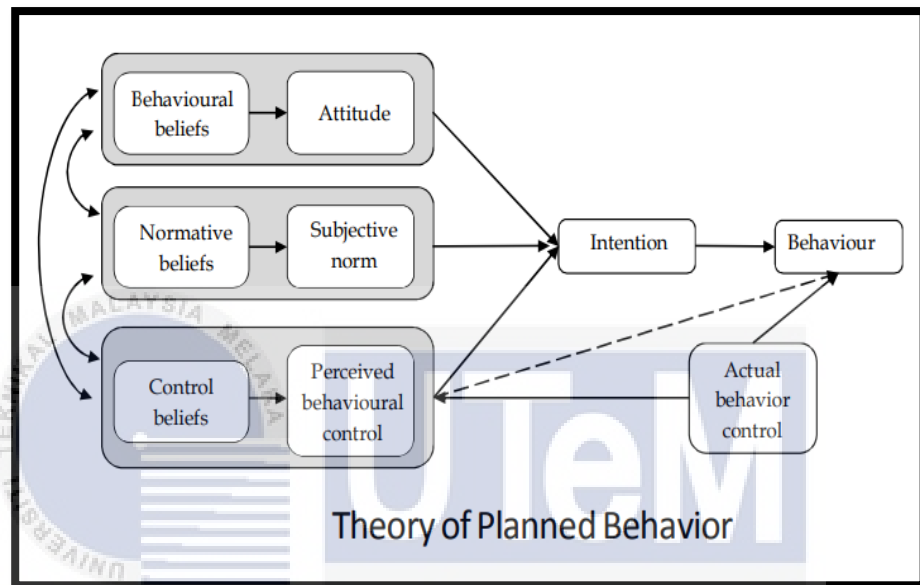
Figure 2.1: Theory of Planned Behavior by Ajzen 2002

(Ajzen, 2002)

Based on the figure 2.1 by Ajzen in 2002 theory of planned behavior. (TPB) was created by incorporating a component known as Perceived Behavior Control into the Theory of Reasoned Action (TRA) (PBC). PBC inclusion seeks to explain intents and behaviours that are affected by both the ease (or difficulty) of participating in the activity as well as a person's subjective ideas and norms (Ajzen, 2002). The foundation of TPB is the idea that individuals are rational creatures who make structured use of a range of pertinent knowledge. With the TPB model, I was able to find out the level of consumer acceptance of innovation in payment methods from cash to credit card.
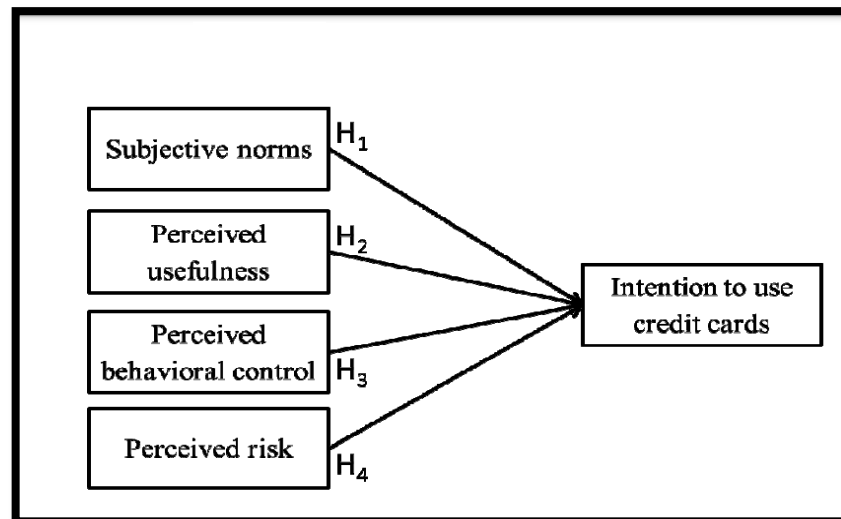
Figure 2.2: Theory of Planned Behavior by Quan 2017

(Quan, 2017)

Based on figure 2.2, Quan created the theoretical framework above in 2017. The dependent variable is the credit card use intent, whereas the independent factors are the perceived norm, utility, behavioural control, and risk. Subjective norms are the expectations that a significant individual or group would accept and support a given behaviour. A person's subjective norm is formed by their desire to conform to the beliefs of others and their perception of social pressure from others to act in a certain way. Users' subjective perceptions of how particular technologies may enhance their job performance are referred to as perceived utility. The sense of difficulty in implementing a behavior is known as perceived behaveriol control. Furthermore, Perceived risk refers to a buyer's estimation of the danger and potential negative outcomes associated with a purchase.
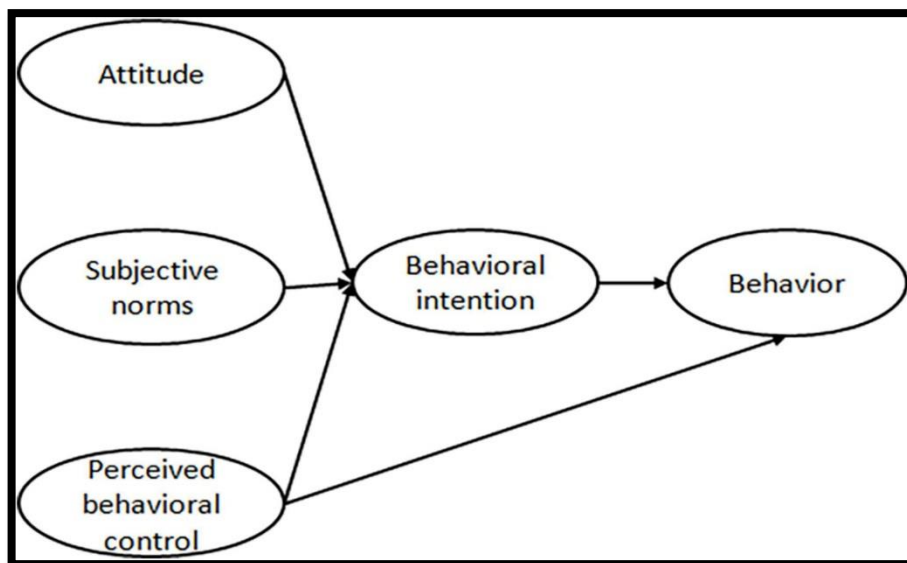
Figure 2.3: Theory Planed Behavior by Ajzen 1985

Based on figure 2.3 by Ajzen introduced Planned behaviour theory's basic premise (1985). The hypothesis states that an individual's behaviour is determined mostly by their behavior's goal and their sense of control over their behaviour. Mood, the belief that one is in control of one's behaviour, and one's own standards are all factors in shaping behavioural intent (Jing et al., 2016). Complex economic, psychological, and other forms of decision making all have a role in shaping individual behaviour. A person's behavioural intention is their propensity to act in a certain way. When a person takes part in a behaviour, their attitude reflects the consequences they anticipate. The expectations and perspectives of a significant other or group of individuals on the issue constitute subjective norms. Perceived behaviour refers to the amount of command and effort needed to execute a certain action. Since the subject makes deliberate plans and selections, the fundamental framework of the Theory of Planned Behavior is utilised to examine the effects of attitudes, subjective standards, and perceived behavioural control on behavioural intention.

2.8 Research Framework

The research model shown in figure is interpreted by the author based on several studies in the field of consumer behavior towards the use of credit cards when making payments in business. The framework shown in Figure 2.4 illustrates the factors influencing consumers in using credit card payment methods.
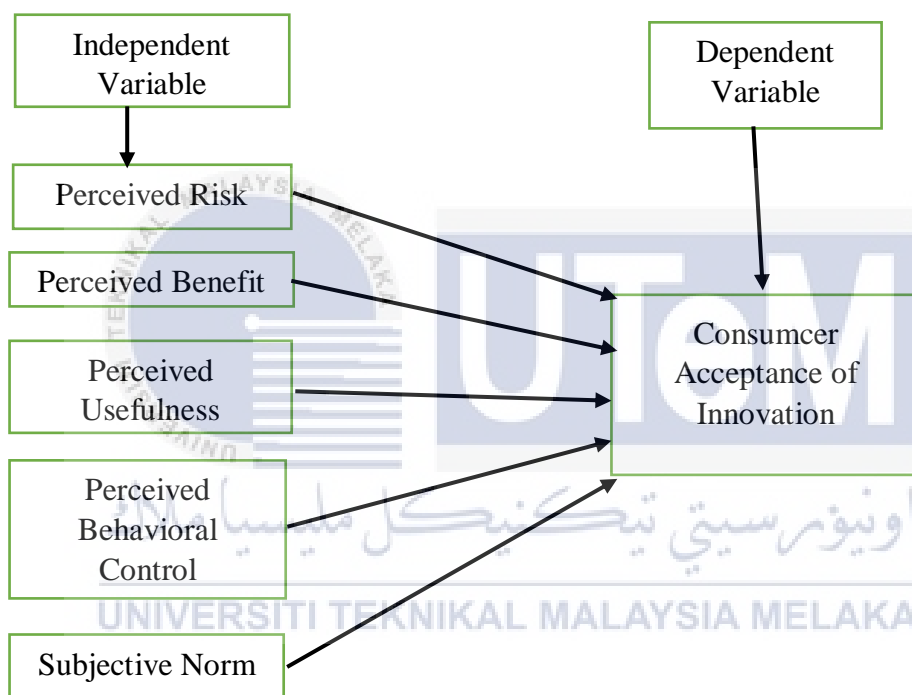
Figure 2.4: Independent Variable and Dependent Variable

The above model showns a relationship between the dependent variable (DV) and independent variable (IV). Based on figure 2.4 above shows that the dependent variable (DV) is (consumer acceptance of innovation) and (IV) while the independent variable is (perceived risk, perceived benefits, perceived usefulness, perceived behavioral control and subjective norm.

2.9 Hypothesis

Hypothesis 1

H0: Perceived risk has a significant relationship to consumer acceptance of innovations in payment methods by credit cards in the business.

H1: Perceived risk has a not significant relationship with consumer acceptance of innovations in payment methods by credit cards in the business.

Hypothesis 2

H0: Perceived benefits has a significant relationship with consumer acceptance of innovations in payment methods by credit card in the business.

H1: Perceived benefits has a not significant relationship with consumer acceptance of innovations in payment methods by credit card and in business.

Hypothesis 3

H0: Perceived usefulness has a significant relationship with consumer acceptance of innovations in payment methods by credit card in the business.

H1: Perceived usefulness has a not significant relationship with consumer acceptance of innovations in payment methods by credit card in the business.

Hypothesis 4

H0: Perceived behavioral control has a significant relationship with consumer acceptance of innovations in payment methods by credit card in the business.

H1: Perceived behavioral control has a not significant relationship with consumer acceptance of innovations in payment methods by credit card in the business.

Hypothesis 5

H0: Subjective norm has a significant relationship with consumer acceptance of innovations in payment methods by credit card in the business.

H1: Subjective norm has a not significant relationship with consumer acceptance of innovations in payment methods by credit card in the business.

2.10 Summary

Consumer acceptance of changes in payment methods in business is a critical aspect of the success of its adoption in Malaysia. The innovation change of the method changed thus defining a new standard pattern if consumers from using cash to a credit card. It aims to understand what are the triggers of this shift and the critical success factors for making payments in business. Moreover, the theoretical framework analyzed looks at the use of new payment methods and the planned behavior of consumers in making payments at business premises. Several studies in Malaysia look at how users of cards in making purchases easily regardless of the risks, benefits of perceived usefulness, perceived behavioral controls, and subjective norms that will apply when using credit cards.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

Methodology in research refers to the procedures used to investigate and ultimately resolve a research question. To solve various research questions, scientists must use various research strategies. Research technique involves a variety of approaches to resolving research issues using various criteria. The present research was about the consumer acceptance of innovation in payment in business in Ayer Keroh, Melaka. So, the domain and scope of this study was about the overall consumer acceptance of innovation in payment method by credit card in Ayer Keroh, Melaka. The research was considered to generalize to the whole domain and population of the study.

This section will focus on the methodology research used for this research. The research will gather data and record it so that the results can be understood and relied upon. The time of this research is important as it acts as a guide for researchers to ensure that this study is completed in a time without any suspension. The research type, research design, research strategy, population, and tool to collect data are described. The final section summarizes the chapter.

3.2 Research Type

Different research approaches are referred to as "types of research." Depending on your aims, deadlines, and other factors, certain kinds may be more appropriate for specific research. The first step is to settle on a focus and objectives for your academic pursuits (Indeed, 2021). In this research, researcher using quantitative. Quantitative research using on numerical data, such as statistics and measurements, to study particular topics, including who, what, where or when. Most often, the findings are shown graphically or in tabular form (Indeed, 2021).

3.3 Research Design

The research design is the blueprint for the researcher's chosen set of techniques and methods for doing market research. Researchers may set up future studies in a way that is efficient and effective based on the design they adopt. Multiple research methods, including qualitative, quantitative, and combined approaches, are available. Experimental studies, surveys, correlational studies, and quasi-experimental review studies are only few of the study approaches available to researchers under various research designs. Methods of research may be further broken down into areas like descriptive studies, topic generation, and experimental design (Voxco, 2020).

The research design in my research is an approach to positivism. It is because ontology believes that there is only one reality and epistemology can be measured by using reliable tools and designs. The research approach in my research is deductive due to the quantitative data being collected from an amount sample of people and the data can be measured by numbers. After that, the research strategy in the research surveys. My research is focused on the perspective of adoption and understanding of consumer acceptance of innovations in payment methods by credit cards in business during the pandemic of Covid-19 in Ayer Keroh, Melaka.

The reason is that a quantitative research design can be done by using only one method to gather the data. In addition, for the time horizon, cross-sectional is suitable in the research due to the completion of research in a specific period. After collecting the data from the survey questionnaire, the data analysis will be conducted for further study.

3.3 Methodology Choices

There are three different research methodologies: mixed-methods, qualitative, and quantitative (Loop, 2018). The researcher will be using a quantitative approach to the investigation. There are three primary categories of research methods: qualitative, quantitative, and mixed-methods. Acquisition and analysis of numerical data constitutes quantitative research. It may help you find commonalities, make inferences, evaluate connections, and extrapolate to larger samples. Quantitative research is the polar opposite of qualitative research, which collects and analyses material that cannot be reduced to numbers, such as text, video, or audio (Bhandari, 2021). Assuming a selection from a set portfolio of rules, techniques, approaches, and instruments, the methodology of choice is essentially an alternative. A rationale is not required to make the selection or preference. Abstract Standardization is not always necessary when developing a research approach (Dumitru, 2009).

In addition, the link between the independent and dependent variables is examined via quantitative research for the purposes of statistical analysis and hypothesis formation. The researcher used quantitative to study the relationship between perceived risk, perceived benefits, perceived usefulness, perceived behavioral control, and subjective norms.

3.4 Data Collection

Information gathered via data collecting may be used for a variety of corporate purposes, including but not limited to: decision making, planning, research, and strategic development. Projects and applications using data analytics should include the following: Accurate data collecting allows one to make educated guesses about future trends, behaviours, and circumstances, as well as to build and analyse solutions (Stedman, 2020). Methods of collecting and analysing precise information from a range of sources for the purpose of solving research problems, answering questions, assessing results, and predicting future outcome. (Simplilearn, 2022). Primary data is information collected and analysed by the researcher themselves, such as via surveys, interviews, and experiments aimed to answer questions about and provide light on the specific research problem at hand (Benedictine, 2020). Primary data consists of information obtained by direct observation or participation in an experiment. This is the information you gather in order to complete a certain study. The procedure of collecting primary data is straightforward and may be modified to fit the specific requirements of any given business. Although time-consuming, gathering such first-hand knowledge is essential in many business situations. The first reference is where the bulk of the information may be found (Intellspot, 2017).

The researcher drew on both primary and secondary sources for information throughout the course of the investigation.

3.5.1 Primary Data

Information collected by researchers from original sources (primary data) via experiments, surveys, and interviews. Primary data, collected directly from the point of origin, is the most useful for academic purposes (Formplus, 2020). Primary data are the outcomes of the researcher's own efforts to collect information, such as survey

responses, interview transcripts, or experimental findings gathered with the express purpose of understanding and resolving the topic under investigation. The primary data you collect will be tailored specifically to your research needs. Information gathered for the first time, with the intention of being studied; this might be through firsthand experience or from primary sources. Raw data may also be described as first-hand knowledge or information. Data collecting is expensive since it requires the time and effort of a company or organisation outside of your own to do the task. The process of data collection is managed and supervised by the investigator themselves. The bulk of the data is acquired via surveys, case studies, focus groups, personal interviews, physical tests, and observations (Byju, 2019).

The researcher gathered primary data using a questionnaire survey for this investigation. The primary benefit of this method is the ease and low cost with which a huge population may be studied. When looking for a quantitative response to a research question, a standard questionnaire is the way to go. Analyzing these results shouldn't be too difficult. People were personally given the questionnaires to fill out.

3.5.2 Secondary Data

"Secondary data" refers to information that has already been collected and is easily accessible from other sources. These data may be used instead of primary data when collecting primary data is very difficult. They might be gathered more quickly and simply than primary data (Juneja, 2015). As was explained before, "secondary data" is information that is not directly relevant to the work at hand. Secondary information may originate from inside an organisation, but more often than not it is obtained from outside parties. If it's easy to grasp, secondary data is simply merely the main data of another organisation. Due to their abundance, secondary data sources are increasingly being used for analysis and investigation. They may be used to address many issues and are more accessible than primary sources of information. Secondary data may not be as fresh and useful as primary data, but they are often more organised and trustworthy (Hillier, 2022). Information that has already been collected for another

purpose, but may still be useful for your study, is known as secondary data. That is to say, someone else, not you, has obtained this information before. All of the information is now at your disposal. Secondary data refers to information gathered from unofficial sources. It is a tried and true method. This is why it is referred to as "secondary." Secondary data may be uncovered in a variety of places, including reports, libraries, and the Internet. (Intellspot, 2022).

3.6 Research Location

As such, Ayer Keroh, Melaka, is where the researcher intends to set up shop and carry out the research. Youth were asked to fill out the survey so that we could gather information. Due to the fact that the researcher is interested in determining if respondents achieved their stated goals, the questionnaire focuses heavily on those topic consumer acceptance of innovations in payment methods by credit cards in business in Ayer Keroh, Melaka. So, it will be distributed only to credit card users living in Ayer Keroh, Melaka.

Figure 3.1: Location Ayer Keroh, Melaka

3.7 Research Strategy

In order to do research in a methodical and timely manner, generate high-quality data, and create in-depth reports, it is helpful to have a well-thought-out plan of action, or "research strategy." There are eight primary categories of research methods, and they are as follows: Inquiry strategies include (Sauders, 2017). You need a well-thought-out plan of action in order to focus your thoughts and get things done effectively while doing research. It enables you to conduct studies in a timely and organised manner, allowing you to report thoroughly and provide superior results. By doing so, one may keep their attention, lessen their irritation, improve the quality of their work, and save both time and money. Your application rests on your research plan, which explains why you want to do the research and what kind of experiments you will do to get the answers you need (Jenny, 2014).

Investigation was conducted using a quantitative method, as previously stated. As a result, experimental and survey research are appropriate to study methodologies. There are a few different approaches to survey questionnaires for survey research. The questionnaire was created after an extensive investigation.

3.8 Research Instrument

3.8.1   Questionnaire Design

Designing a questionnaire entail formulating the framework and questions that will be asked on a survey form to gather information about a topic of interest. It's important to think about every step of the survey process (from conception to completion) while crafting a questionnaire. These are made up of the following nine elements: the choice of the survey medium (mail, telephone, in-person, online), question design, sampling, administration of the questionnaire and data collecting, data summarising and analysis, conclusions, and results communication. They also include deciding on the objectives, aims, and research questions (Holyk, 2011).

The questionnaire was written using a systematic format, and questions were written in both English and Malay to ensure effective communication. The questionnaire is divided into three parts, each of which deals with a distinct aspect of the research at hand.

First is Section A which is this section covers the demographic of the respondents contains gender, age, race, education level, occupation and do you always using credit card in business. For Section B, questions that are related to the independent variables of consumer acceptance of innovation (perceived risk, perceived benefits, perceived usefulness, perceived behavioral control, and subjective norms) will be asked in this section. While in Section C questions will be asking the dependent variable which is consumer acceptance of innovation.

The researcher was used a Likert scale with responses ranging from "strongly disagree" (1) to "strongly agree" (5).

Table 3.1: Likert Scale

Scale	Range
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree

3.9 Sampling Design

3.9.1 Target Population

The group from which research and conclusions are to be drawn from the intervention is known as the target population. When conducting a cost-effectiveness study, it's crucial to give a thorough description of the traits of the target population as well as any subgroups. The medical literature, practises, study goals, and background information all have an impact on the selection of features (Barnsbee, 2018). "Target population" is an informal term used mostly in epidemiology. According to common understanding, it alludes to a group of elements about which you're curious. People frequently use the terms "target population" and "population" interchangeably. Because certain samples might not be representative of the community you intended to poll, the word "target" emphasises the fact that we don't always strike the mark when it comes to sampling (Stephanie, 2019). A aim audience is a segment of the general public that has been chosen to represent the market for a certain product, advertisement, or piece of research. The demographic that has been selected as the objective audience is a segment of the overall population (Course, 2018).

The total population of people from which a sample could be taken is known as the target population. A portion of the survey participants, or a sample. The degree to which we can generalise the findings of our research to the relevant target audience is referred to as generalisation. Ayer Keroh, Melaka, and respondents between the ages of 20 and 50 are the focus of this research. Because the researcher is currently a student in Melaka, Ayer Keroh, Melaka was the location of choice.

3.9.2 Sampling Size

The number of participants selected for a study in order to fairly represent the population is referred to as the "sample size" in research. In order to ensure that the overall sample accurately represents the entire population, the sample size is the total number of participants in the study. This number frequently divides into subgroups based on location, gender, and age (Kibuaca, 2021). The total number of unique samples or observations is the sample size for a general population survey. Although it is a very simple notion, picking the right sample size is crucial for a project. The number of participants or observations in a study is known as the sample size. The letter is frequently used to represent this number. A study's capacity to draw conclusions and the accuracy of our estimates are two statistical properties that are impacted by sample size (Iwt, 2008).

A researcher needs to determine the size of the population, or the total number of people who fit a certain demographic profile, the margin of error, or the number of significant levels of confidence that can be attained within a specified interval, and the standard deviation, or range, of possible responses from the sample. An effective method of calculating sample size is necessary because of the rising need for a representative statistical sample in empirical research. To address this issue, we created a handy chart for determining what size sample would be representative of a particular population (Morgan, 1970). The study's survey pool included 150 responses from residents of Ayer Keroh, Melaka. The researcher will use a reference to the whole population to establish the optimal size of the sample.

Formula for determining sample size

$$s = X^2 NP(1 - P) \div d^2 (N - 1) + X^2 P(1 - P)$$

$s =$ required sample size.

$X^2 =$ the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).

$N =$ the population size.

$P =$ the population proportion (assumed to be .50 since this would provide the maximum sample size).

$d =$ the degree of accuracy expressed as a proportion (.05).

Source: Krejcie & Morgan, 1970

Figure 3.2: Krejcie & Morgan

3.10 Time Horizon

Data for a cross-sectional study may be collected all at once, or incrementally over the period of many days, weeks, or months, depending on the nature of the topic being studied. Studies of this kind are called cross-sectional or snapshot analyses. In order to cover a subject comprehensively, a researcher may choose to conduct a long-term study that spans many time periods and looks at different individuals and events each time. To determine the impact of, say, a shift in upper management, a researcher may compare employee responses before and after the transition. This study is longitudinal rather than cross-sectional or single-time since data were collected at two distinct times. When data on the dependent variable is obtained over two or more time periods to answer the research question, the study design is known as a longitudinal study (Chat, 2016). Time ranges are necessary for the research design, regardless of the study approach used, assert. The two main types of temporal frames are longitudinal and cross-sectional. Studies that endure for a while are regularly repeated. Time limits the scope of cross-sectional studies. Because of the time constraints inherent in this investigation, the cross-sectional temporal horizon is used (Saunders et al.2007). A cross-sectional study and a longitudinal study are the two forms of horizontal time. An example of a longitudinal study would be a journal, whereas a cross-sectional study would be a single picture taken at a certain period.

This research is also limited to a certain time, so the researcher chooses a cross-sectional study because this study only involves certain phenomena at a certain time. Cross-sectional studies can also find an event description or phenomenon or explain how relevant factors. For this study, researchers need to explain the variables that can influence consumer acceptance of innovations in payment methods.

3.11   Scientific Canons

The effectiveness of the study and the accuracy of the results might be influenced by a variety of variables. Research findings may be influenced by other forces or occurrences. To address any potential concerns with data quality, this research will use scientific methods, which pertain to validity, reliability, and generalizability. Furthermore, it was noted that scientific canons are crucial for minimising the risks of research quality distortions and correctness (Saunder, 2016).

3.11.1 Pre-Test

The term "pre-test" was used to describe experiments conducted on a subset of respondents prior to a whole research in order to spot potential issues (unclear wording or the questionnaire taking too long to administer). The researchers used real responders to hone the measurement device and spot its flaws. And if something extraneous pops up, the researcher may tweak it to make it more relevant. Five participants were randomly chosen to help improve the questionnaire items in this study. Prior testing yielded four suggestions from respondents (Table 2). After receiving feedback from a pilot test, the survey was adjusted.

Table 3. 2: Recommendations from the Pre-Test

N0	Recommendations	Action
1	Shorten long questions	Done
2	Use sentences that are easy to understand	Done
3	Correct the grammar of each question	Done
4	Setting required on each question so as not to be skipped when answering the Google form	Done

3.11.2 Pilot Test

Pilot testing is the practise of doing a limited, preliminary study of an idea before expanding it on a larger scale. Small-scale studies often use the same methods and processes as their larger counterparts. An important objective of every pilot research is to ascertain the practicability of the eventual, more extensive investigation. The results of the little study may also be used to estimate how much the full study would cost and how many participants will be needed. One may also be called a pilot programme, test run, test, or research (SureHire, 2018). In order to evaluate all of your project's moving parts before they are fully implemented, pilot testing employs a variety of methods. You may think of this as a dress rehearsal to help you iron out any kinks in your plan before you put it into action. Project modelling, observation, and analysis are the three pillars of each successful pilot trial. To fully realise your concept, you must first reconstruct concrete examples of it in action. If you're conducting research, for instance, create a sample size of your demographic and, depending on your method for collecting data, send out your survey or questionnaire (Formplus, Pilot Testing: Meaning, Importance + [Question Example], 2021). Whether you're not sure if your research idea will work, a pilot study may assist. This is a "dress rehearsal" for your study, in which you try out several approaches on a smaller scale. The findings will direct how you approach your comprehensive study. Preliminary studies are essential for both qualitative and quantitative research. We discuss the importance of the pilot study and how it may help you save time, effort, and money (Enago, 2022).

The researcher does a pilot test to determine the dependability of the questionnaire design before handing it over to the respondent to guarantee that there will be no problems answering the questions. To verify that the acquired data will allow inquiry queries to be answered, preliminary analysis using pilot test data might be performed.

Goes on to say that while performing a questionnaire as an experiment, researchers should try their best since, without testing, they won't know whether their surveys would work (Bell,2014). It will also make it easy for the researcher to choose respondents from the Ayer Keroh, Melaka area.

3.11.3 Reliability

The trustworthiness of a method is measured by how reliably it produces the same results time after time. Statistical tests are considered reliable if they consistently provide the same result when applied in the same way and under the same conditions (Middleton, 2022). If the item being measured doesn't change over time, then a dependable measuring device will always provide the same data (Crossman, 2019). When talking about measuring instruments, reliability refers to how consistently accurate they are. Research reliability refers to how consistently and reliably an investigation may provide the same findings (Brm, 2022). Reliability is a statistical measure of how consistent or stable test findings are. Replicability may also be thought of as the potential for a test or study results to be reproduced. A medical thermometer is an example of a reliable tool that provides accurate temperature readings. In a same way that trustworthy research findings can be repeatedly replicated, Every student who takes a legitimate math exam will have their arithmetic knowledge appropriately assessed (Stephanie, 2016).

The uniformity of size is referred to as reliability. The researcher will assess the instrument's reliability after collecting a sufficient number of surveys. This study will use a questionnaire from a prior study in which the validity of the data and analysis has been established; if the findings stay consistent, this study will be considered credible.

3.12 Statistic Tools

3.12.1 Pearson Correlation Analysis

It is important to measure the impact of both dependent and independent variables. Pearson Correlation Analysis was used in this study. This research instrument will be a Likert Scale survey. The r value may be positive or negative, with a typical range of +1 to -1.The most suitable line's data vary more when the value of r is closer to zero; conversely, when the value of r is +1 or -1, the most appropriate line's data vary less (Borgers, 2016).

Table 3.3: Pearson Correlation Analysis

(Source: Develop for this research)

Correlation Coefficient (r)	Strength of the Relationship
<0.00	None Correlation
0.1-0.30	Very Weak
0.31-0.50	Weak
0.51-0.70	Moderate
0.71-0.90	Strong
0.91-1.00	Very Strong

3.12.2 Multiple Regression Analysis

Multiple regressions are used to forecast the value of variables or independent predictors upon which the connection of the analysis between variables relies. An analysis using the independent variables (x) and (y) yields the corresponding equation (y). There are two parts to the regression equation: the regression coefficients and the regression constants (Borges, 2016). Generalized multiple regression models for this study look like this:

$Y = b_0 + b_1X_1 + b_2X_3 + b_4X_4 + b_5X_5$

Where,

Y = Consumer acceptance of innovation payment method

b_0 = Regression constant

X_1 = Perceived risk

X_2 = Perceived benefits

X_3 = Perceived usefulness

X_4 = Perceived behavioral control

X_5 = Subjective norm

b_1, b_2, b_3 = Regression Coefficient

3.13   Summary

My research is focused on the perspective of consumer acceptance of innovations in payment methods by credit cards in business in Ayer Keroh, Melaka. There were two sorts of information employed by the researcher, both of which provided numbers for analysis. To put it simply, primary data is information that the researcher has collected and compiled themselves. Data that has previously been collected is called secondary data. The research process involves a series of steps. When you take the time to plan out your research, you'll be able to complete it in a timely and methodical manner. The questionnaire was written using a systematic format, with questions written in both English and Malay to ensure effective communication. The study was designed using a 5-point Likert scale, with 1 representing "strongly disagree" and 5 representing "strongly agree". Scientific cannons are important in reducing the possibilities that may lead to quality distortions and accuracy of research. This study will use a questionnaire from a prior study in which the validity of the data and analysis has been established; if the findings stay consistent, this study will be considered credible. The reliability of independent variable analysis and dependent variables was evaluated using Pearson Correlation Analysis. As the value of variables or independent predictors is utilised in multiple regressions, it is possible to make predictions about the nature of the connection between them.

CHAPTER 4

DATA ANALYSIS AND CONCLUSION

4.1 Introduction

The results of the questionnaire distributed in Ayer Keroh, Melaka, are detailed in this chapter. Questions on the respondents' demographic background were included in the questionnaires sent out to 150 respondents. The survey's findings and analysis are presented here. In this chapter, we describe the findings of a study that used descriptive analysis and hypothesis testing to discover an intriguing correlation between variables. All of the questionnaire responses must be coded and imported into SPSS for statistical analysis.

The information is then evaluated and interpreted. The analysis of the data and the interpretation of the results are guided by the aims of the study. There were four areas of analysis and discussion in this chapter. The first section is dedicated to a discussion of the respondents' personal histories. Even though this was an inferential study, it was aimed at determining what factors influence customers' openness to new forms of credit card-based payment. There are 150 people that filled out the study's Google form questionnaire. All data was analysed using SPSS 26.0 for Windows by the researcher, and the results were tabulated. SPSS, short for "Statistical Package for the Social Sciences," is a popular statistical analysis programme developed by IBM. Many different kinds of data may be studied using SPSS. Data may be collected in a variety of ways, but the most common ones include surveys, databases of customers, analytical tools like Google Analytics, the outcomes of scientific studies, and server logs. Researchers from a wide range of fields utilise SPSS (Statistical Package for the Social Sciences) to conduct quantitative analyses of large datasets. The SPSS environment, basic data preparation and management, descriptive statistics, and frequent statistical analysis are all covered in this introductory training (T-test, ANOVA, correlation, regression).

All of the information was gathered via responses to a questionnaire sent out to user card credit in Ayer Keroh, Melaka. 15 people filled out a pilot version of the questionnaire to make sure it was clear and easy to comprehend. Prior to conducting the survey, it is crucial to have a thorough understanding of the questionnaire's limitations and positioned mistakes. After the pilot exam was sent, several edits were made to fix things like grammatical problems, too lengthy questions, and spelling mistakes, as measured by Cronbach's Alpha.

4.2 Pilot Test

The surveys were pilot tested with 15 respondents to make sure they were error-free using SPSS. The result was used to provide a clear response from respondents and can lead to more reliable results. The purpose to conduct a pilot test is to determine the validity and reliability of the questionnaire and if there is any potential error or mistakes in the questionnaire before being distributed to a real sample. Then, some changes and corrections has been repaired after distributing the pilot test if respondents were still not clear with the questionnaire. The table underneath demonstrated the effect of the pilot test is 0.995. The lowest acceptable Cronbach's Alpha in a pilot study is 0.7. (Cronbach, 1951). Since the accepted result for the unshakable quality test is more than 0.60, we may conclude that the pilot test was conducted correctly. The goals of a pilot study are to ascertain whether or not more research should be conducted, and if so, how. A pilot study differs from the main or full-size research in that it is undertaken on a lesser scale. In other words, the primary purpose of the pilot research is to enhance the quality and efficacy of the subsequent primary study.

Table 4.1: Reliability Statistics for Pilot Test

Reliability Statistics	
Cronbach's Alpha	N of Item
.955	30

4.3 Reliability Statistics

Accuracy of this investigation's findings calls on reliable quality assessment practises and institutional support. Cronbach's Alpha was used to quantify the reliability of this analysis, which was conducted to determine the degree to which different variables are related. According to Malhotra (2014), alpha coefficient changes between 0.6 and 1.0 are considered respectable and competent enough to employ in this investigation.

Based on Table 4.2. The results of Cronbach's Alpha for perceived risk are 0.878, perceived benefits are 0.825, perceived usefulness is 0.870, perceived behavioral control is 0.846, subjective norm is 0.852 and lastly, consumer acceptance is 0.849.

Table 4.2: Reliability Statistic for Variable

Variable	Number of Items (N)	Cronbach's Alpha
Perceived Risk	5	0.878
Perceived Benefits	5	0.825
Perceived Usefulness	5	0.870
Perceived Behavioral Control	5	0.846
Subjective Norm	5	0.852
Consumer Acceptance	5	0.849

4.4 Descriptive Statistic on Demographic

In this section, the researcher will analyze respondents' demographic information by using frequency analysis. 36 sets of questionnaires had been distributed in Google form to the people around Ayer Keroh, Melaka. All data were gathered and analyzed. This section, was diverse into six categories which are gender, age, education level, race, occupation, and do you always use a credit card to shop at a business.

4.4.1 Distribution of Respondents by Gender
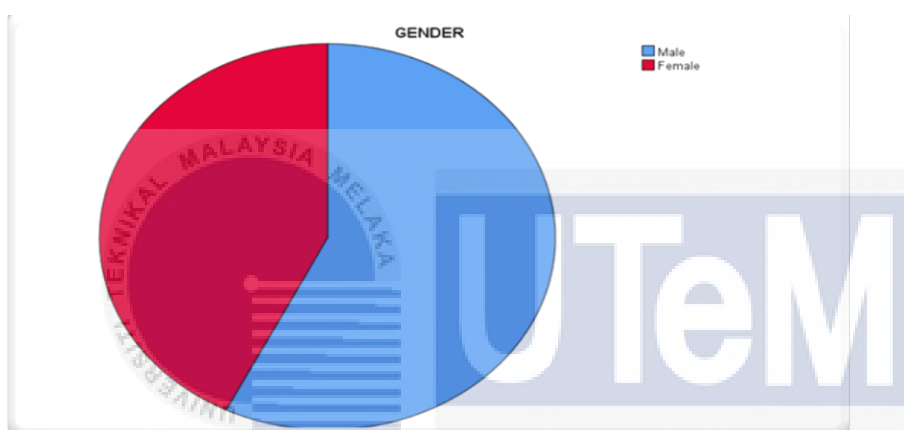
Figure 4.1: Distribution of Respondents by Gender

Table 4.3: Distribution of Respondents by Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	86	57.3	57.3	57.3
	Female	64	42.7	42.7	100.0
	Total	150	100.0	100.0	

Based on Table 4.3 and Figure 4.1, there are 86 male respondents and 64 female respondents out of the 150 respondents. The results show that males accounted for slightly more than the total respondents with 57.3% while the other 42.7% were accounted for by females.

4.4.2 Distribution of Respondent by Age
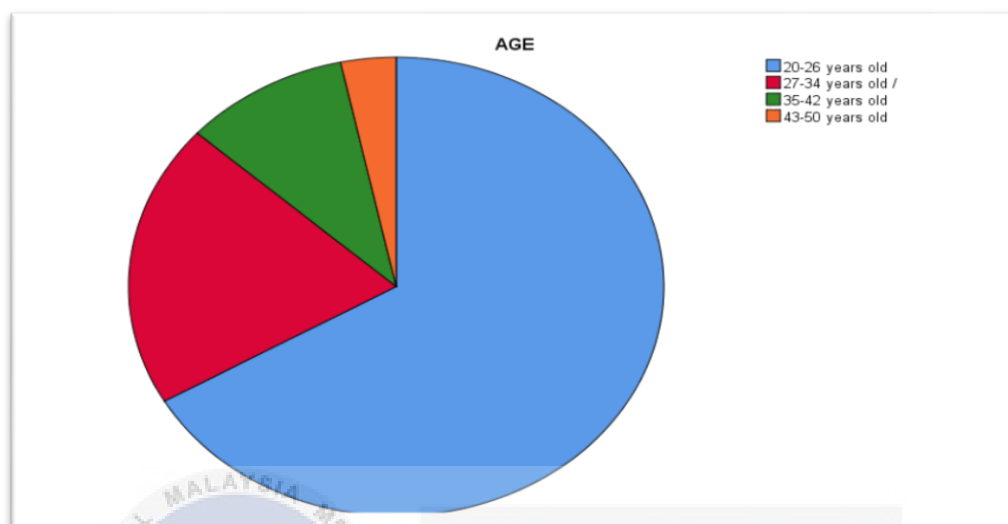
Figure 4.2: Distribution of Respondents by Age

Table 4.4: Distribution of Respondents by Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-26 years old	100	66.7	66.7	66.7
	27-34 years old	30	20.0	20.0	86.7
	35-42 years old	15	10.0	10.0	96.7
	43-50 years old	5	3.3	3.3	100.0
	Total	150	100.0	100.0	

Table 4.4 and Figure 4.2 shows the distribution of respondents by age. There are respondents aged between 20-26 years old which are 100 respondents (66.7%) and 27-34 years old that are 30 respondents (20%). There are also respondents aged between 35-42 years old that are 15 respondents (10 %). Lastly, there are also respondents aged between 43-50 years old that are 5 respondents (3.3%).

4.4.3: Distribution of Respondents by Education Level
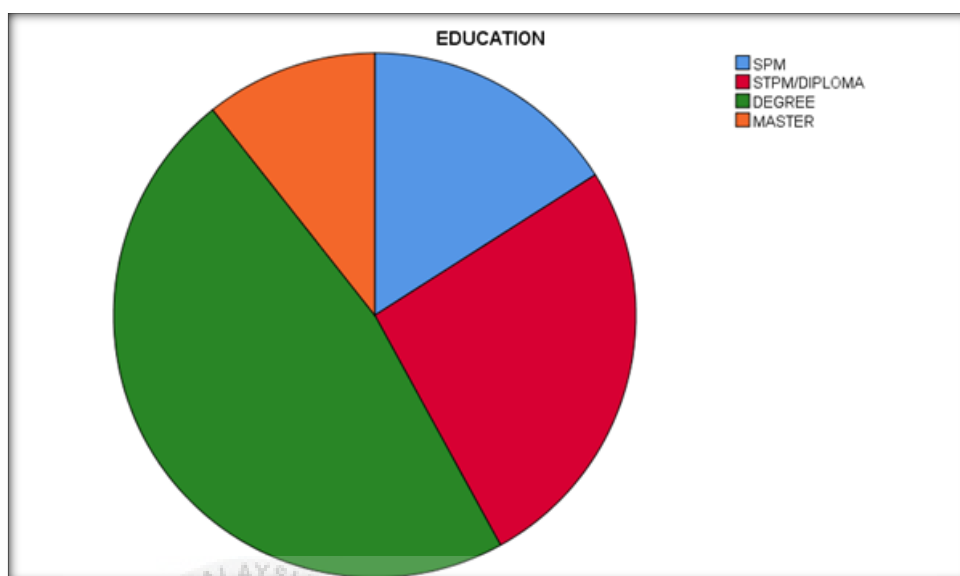
Figure 4.3: Distribution of Respondents Education Level

Table 4.5: Distribution of Respondents Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SPM	24	16.0	16.0	16.0
	STPM/DIPLOMA	39	26.0	26.0	42.0
	DEGREE	71	47.3	47.3	89.3
	MASTER	16	10.7	10.7	100.0
	Total	150	100.0	100.0	

Table 4.5 and Figure 4.3 shows the distribution of respondents by education level. There are 24 respondents (16%) from SPM educational level and there are 39 respondents (26%) from STPM/DIPLOMA educational level. Then there are 71 respondents (47.3%) from Degree educational level and lastly, 16 respondents (10.7%) are from Master educational level.

4.4.4 Distribution of Respondents by Race
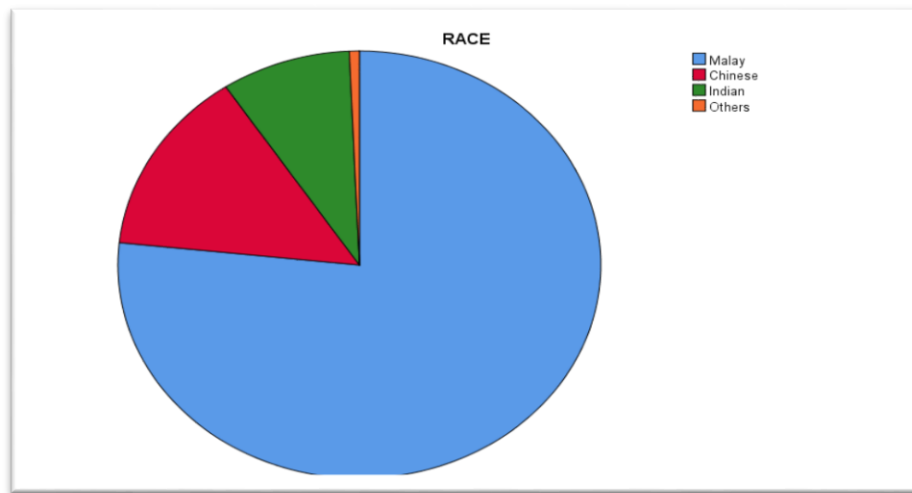
Figure 4.4: Distribution of Respondents by Race

Table 4.6: Distribution of Respondents by Race

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	115	76.7	76.7	76.7
	Chinese	21	14.0	14.0	90.7
	Indian	13	8.7	8.7	99.3
	Others	1	.7	.7	100.0
	Total	150	100.0	100.0	

Table 4.6 and Figure 4.4 shows the distribution of respondents by race. There are 115 respondents (76.7%) from Malay and there are 21 respondents (14%) from Chinese. Then there are 13 respondents (8.7%) from Indian and lastly, 1 respondent (0.7%) are from other.

4.4.5 Distribution of Respondents by Occupation
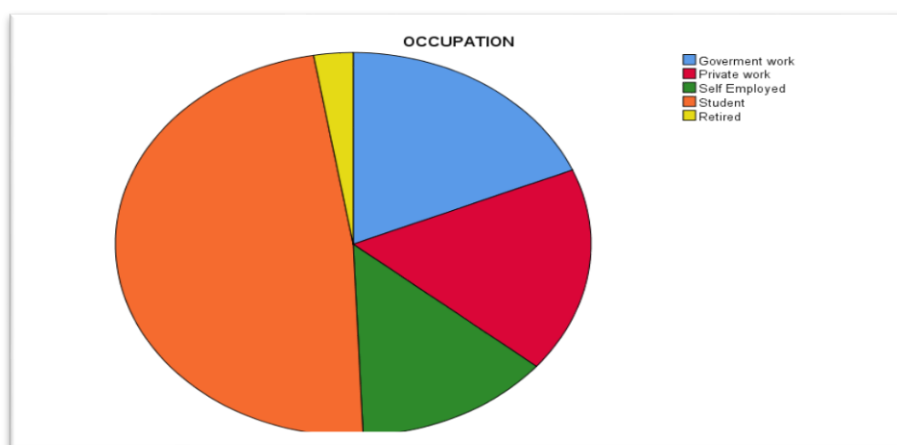
Figure 4.5: Distribution of Respondents by Occupation

Table 4.7: Distribution of Respondents by Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Government work	28	18.7	18.7	18.7
	Private work	26	17.3	17.3	36.0
	Self Employed	20	13.3	13.3	49.3
	Student	72	48.0	48.0	97.3
	Retired	4	2.7	2.7	100.0
	Total	150	100.0	100.0	

Table 4.7 and Figure 4.5 shows the distribution of respondent by occupation. There 28 respondents (18.7%) are from government work and there are 26 respondents (17.3%) are from private work. Then there are 20 respondents (13.3%) from self-employed and there are 72 respondents (48%) are students. Lastly, there are 4 respondents (2.7%) are from retired.

4.4.6 Distribution of Respondents by do you always using a credit card at a business.
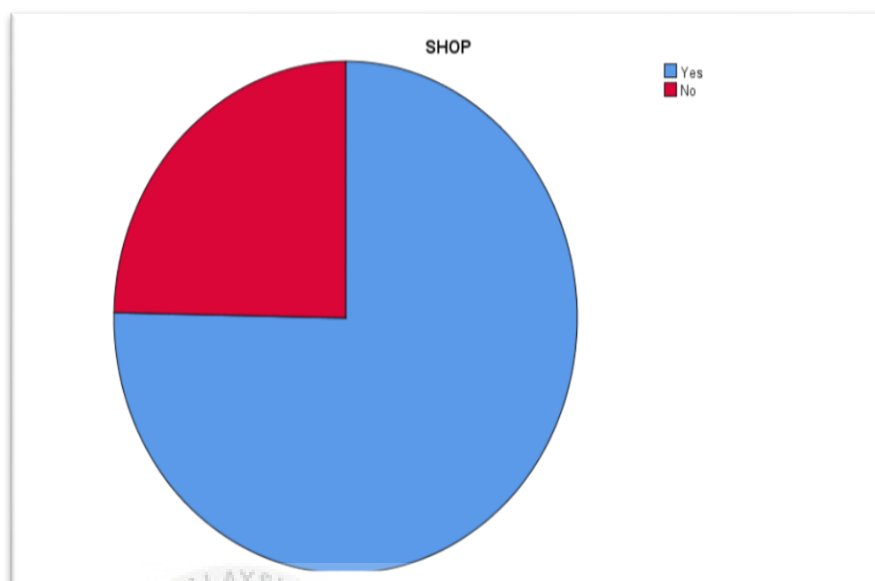
Figure 4.6: Distribution of Respondents by do you always using a credit card at a business

Table 4.8: Distribution of Respondents by do you always using a credit card at a business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	113	75.3	75.3	75.3
	No	37	24.7	24.7	100.0
	Total	150	100.0	100.0	

Table 4.8 and Figure 4.6 shows the distribution of respondent using a credit card at a business. There 113 respondents (75.3%) agree with using a credit card at a business and there are 37 respondents (24.7) are not agree with using a credit card at a business.

4.5 Descriptive Analysis

According to Feinberg and Kadam (2002), illuminating metrics are used to depict the main highlights of the data under study, and it also streamlines the massive amount of data in an acceptable way. Analysts are prompted to consider all available avenues of inquiry by this thorough study, which is made possible by the transparency of the investigation. Based on the data presented by Hwang (2009), the following table presents an interpretation of the estimated mean score:

Table 4.9: Value of Mean Score

Score	Meaning
1.00 – 1.80	Very Low
1.81 – 2.60	Low
2.61 – 3.40	Moderate
3.41 – 4.20	High
4.21 – 5.00	Very High

Table 4.10: Descriptive Statistic Analysis for Perceived Risk

Item	Question	Mean	Std. Deviation
PR1	I will spend extravagantly when using a credit card.	4.06	1.101
PR2	I will experience a reduction in credit score due to late payments.	4.01	1.170
PR3	Credit card fraud can occur because credit cards can duplicate my card.	4.01	1.087
PR4	High-interest costs because credit cards charge interest rates, also known as finance charges.	4.15	.995
PR5	If I make a mistake in choosing a credit card with this different charges and interest may apply.	4.09	1.036

Table 4.10 shows the mean and standard deviation of all items under the consumer acceptance of innovation in payment method by credit card in the business. All the questions sub-variables had mean values lower than 5.00 representing that most respondents agreed with all the questions presented in this section. The highest mean among the question is 4.15 which is high-interest costs because credit cards charge interest rates, also known as finance charges. While lowest mean is 4.01 and the two questions have the same mean which is using card credit will experience a reduction in credit score due to late payments and credit card fraud can occur because credit cards can duplicate card credit.

Table 4.11: Descriptive Statistic Analysis for Perceived Benefit

Item	Question	Mean	Std. Deviation
PB1	I will get 2% cash back rewards when using credit card.	4.05	1.041
PB2	I will earn reward points for every RM in spending when using the credit card.	4.20	1.010
PB3	When I pay with a credit card can avoid losses from fraud.	4.05	1.079
PB4	Using a credit card makes it easier for me to go anywhere.	4.28	.956
PB5	I can take advantage of the insurance that covers the credit card.	4.17	.954

Table 4.11 shows the mean and standard deviation of all items under the consumer acceptance of innovation in payment method by credit card in the business. All the questions sub-variables had mean values lower than 5.00 representing that most respondents agreed with all the questions presented in this section. The highest mean among the question is 4.28 which is using a credit card makes it easier to go anywhere. While lowest mean is 4.05 and the two questions have the same mean which is user will get 2% cash back rewards when using credit card and when user pay with a credit card can avoid losses from fraud.

Table 4.12: Descriptive Statistic Analysis for Perceived Usefulness

Item	Question	Mean	Std. Deviation
PU1	Credit cards are not just a substitute for cash and checks, but also a source of credit.	4.26	.901
PU2	Use credit cards to make cash withdrawals if required.	4.19	1.015
PU3	I can take advantage of the credit card in helping me as extra money.	4.17	1.060
PU4	I can use a credit card instead of cash but also as a source of revolving credit.	4.14	1.043
PU5	I can use a credit card to pay bills.	4.32	.985

Table 4.12 shows the mean and standard deviation of all items under the consumer acceptance of innovation in payment method by credit card in the business. All the questions sub-variables had mean values lower than 5.00 representing that most respondents agreed with all the questions presented in this section. The highest mean among the question is 4.32 which is the users can use a credit card to pay bills. While lowest mean is 4.14 which is the users can use a credit card instead of cash but also as a source of revolving credit.

Table 4.13: Descriptive Statistic Analysis for Perceived Behavioral Control

Item	Question	Mean	Std. Deviation
PC1	I need to understand the big impact of a credit card before using it.	4.31	.962
PC2	Credit card use is also influenced by a lack of awareness or information.	4.24	.960
PC3	I choose credit cards because of the convenience of a simple credit card acceptance process at business locations.	4.22	.989
PC4	When I failed in money management in the use of credit cards became the cause of credit card debt.	4.40	.875
PC5	Being unable to control my emotions in a credit card purchase caused me to stop using it and my financial ability got the lowest rating.	4.29	.944

Table 4.13 shows the mean and standard deviation of all items under the consumer acceptance of innovation in payment method by credit card in the business. All the questions sub-variables had mean values lower than 5.00 representing that most respondents agreed with all the questions presented in this section. The highest mean among the question is 4.40 which is when users failed in money management in the use of credit cards became the cause of credit card debt. While lowest mean is 4.22 which is the users who choose credit cards because of the convenience of a simple credit card acceptance process at business locations.

Table 4.14: Descriptive Statistic Analysis for Subjective Norm

Item	Question	Mean	Std. Deviation
SN1	I chose to use a credit card because the product is popular.	4.05	1.079
SN2	Great influence (family and friends) caused me to use credit cards.	4.03	1.108
SN3	Credit card helps me in getting an item first before spending my own cash.	4.25	.984
SN4	The media made me aware of using credit cards.	4.30	.968
SN5	I tend to make unplanned purchases that cause me to use a credit card.	4.19	1.047

Table 4.14 shows the mean and standard deviation of all items under the consumer acceptance of innovation in payment method by credit card in the business. All the questions sub-variables had mean values lower than 5.00 representing that most respondents agreed with all the questions presented in this section. The highest mean among the question is 4.30 which is the media made users aware of using credit cards. While lowest mean is 4.03 which is a great influence (family and friends) caused users to use credit cards.

Table 4.15: Descriptive Statistic Analysis for Consumer Acceptance of Innovation

Item	Question	Mean	Std. Deviation
DV1	With an electronic payment system such as a credit card, it is easier for me to pay for purchased items.	4.36	.884
DV2	When it comes to payment, I feel a credit cards are a suitable alternative.	4.23	.928
DV3	With the presence of pay wave near the credit card, it makes it easier for me to buy things because there is no verification of the pin number.	4.38	.864
DV4	When I use a credit card for payment I have to repay the balance in full on the due date.	4.19	1.073
DV5	Credit cards allow me to buy things without carrying cash.	4.45	.887

Table 4.15 shows the mean and standard deviation of all items under the consumer acceptance of innovation in payment method by credit card in the business. All the questions sub-variables had mean values lower than 5.00 representing that most respondents agreed with all the questions presented in this section. The highest mean among the question is 4.45 which is credit cards allow the user to buy things without carrying cash. While lowest mean is 4.03 which is when the user uses a credit card for payment user needs to repay the balance in full on the due date.

4.6 Pearson's Correlation Analysis

The Pearson item-minute correlation coefficient (PPMCC) or simply a bivariate link is referred to as the Pearson correlation coefficient (PCC). The PPMCC is a metric for assessing the significance of the connection between two fixed variables (interim and proportion). The greatest information may be gained about the connections between these factors by examining the r image of a person, which is a measure of their relationship strength. The value of r may be positive or negative, with a value of +1 indicating a perfectly positive direct link and a value of -1 indicating a perfectly negative one. The fundamental goal of this study is to analyse the relationship between the ward variable (consumer acceptability in innovation) and the autonomous variables (risk credit, benefit credit card, credit card selection, and making it simple to users) in Ayer Keroh, Melaka. The goal of this study is to determine whether or not the elements contributing to the expected outcome are positive, negative, or neutral. In addition, existence serves to actualize the link quality between two variables. Consequently, researchers use SPSS programming and the method for Person's item connection (PMCC) to calculate the autonomous components and ward factors. Below is a table illustrating the breadth of the resulting relationship network:

Table 4.16: Strength of the Correlation Coefficient

Correlation Coefficient (r)	Strength of the Relationship
<0.00	None Correlation
0.1-0.30	Very Weak
0.31-0.50	Weak
0.51-0.70	Moderate
0.71-0.90	Strong
0.91-1.00	Very Strong

4.6.1 Relationship between Independent Variable and Dependent Variable

- Independent Variable: Perceived Risk, Perceived Benefit, Perceived Usefulness, Perceived Behavioral Control and Subjective Norm.

Table 4.17: Correlation

Correlations

		Perceived Risk	Perceived Benefit	Perceived Usefulness	Perceived Behavioral Control	Subjective Norm	Consumer Acceptance
P R	Pearson Correlation	1	.806**	.735**	.703**	.775**	.606**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	150	150	150	150	150	150
P B	Pearson Correlation	.806**	1	.820**	.781**	.731**	.696**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	150	150	150	150	150	150
P U	Pearson Correlation	.735**	.820**	1	.777**	.764**	.729**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	150	150	150	150	150	150
P C	Pearson Correlation	.703**	.781**	.777**	1	.684**	.699**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	150	150	150	150	150	150
S N	Pearson Correlation	.775**	.731**	.764**	.684**	1	.699**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	150	150	150	150	150	150
D V	Pearson Correlation	.606**	.696**	.729**	.699**	.699**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	150	150	150	150	150	150

- Dependent Variable: Consumer Acceptance of innovation in payment methods by credit card in business

Table 4.17 Correlation between Perceived Risk, Perceived Benefit, Perceived Usefulness, Perceived Usefulness, Perceived Behavioral Control, and Subjective Norm and Consumer Acceptance of Innovation in Payment Methods by Credit Card in Business.

**, Correlation is significant at 0.1 level (2-tailed)

To determine the relationship between perceived risk, perceived benefit, perceived usefulness, perceived behavioral control, and subjective norm with regard to customer acceptance of innovation payment methods by credit card in business in Ayer Keroh, Melaka, correlation analysis is used. The P-value of 0.000 indicates that there is a substantial correlation between the variables. Jafari et al. (2016) stated that unambiguous and significant values below or equal to 0.05 are between the variables. According to Jafari et al. (2016), a correlation (r) between 0.60 to 0.799 is regarded as being either strong or significant.

Based on Table 4.17, shows the correlation between independent variables which are perceived risk, perceived benefit perceived usefulness, perceived behavioral control, subjective norm, and the dependent variable which is consumer acceptance of innovation in payment methods by credit card in business. The factor of perceived risk, perceived benefit perceived usefulness, perceived behavioral control, subjective norm has a significant relationship between consumer acceptance of innovation in payment method by credit card in business in Ayer Keroh, Melaka due to the significant of 2-tailed p<0.01. The direction of the relationships for variables is positive and the values of correlations for five variables are strong positive.

The strong correlation is perceived usefulness which is (r=0.729; p=0.000). Perceived risk, perceived benefit, perceived behavioral control, and subjective norm was then followed by moderate correlations (r=0.606; p=0.000), (r=0.696; p=0.000), (r=0.699; p=0.000), (r=0.699; p=0.000). Therefore, the factors influencing consumer acceptance of innovation in payment methods by credit card in business in Ayer Keroh, Melaka had a very strong positive relationship.

4.7 Multiple Regression Analysis

To examine the link between independent factors and dependent variables, use multiple regression analysis (MRA). In order to analyse the variance in a dependent variable, this method utilised more than one independent variable. This research has five independent variables which are perceived risk, perceived benefit, perceived usefulness, perceived behavioral control, and subjective norm. The dependent variable is consumer acceptance of innovation in payment methods by credit card in business. MRA in this research is used to identify the most significant independent variable that has an impact on consumer acceptance of innovation in payment methods by credit card in business.

Consumer acceptance of innovation in payment methods by credit card in business: (0.913) + (-0.144) (Perceived Risk) + (0.181) (Perceived Benefit) + (0.255) + (Perceived Usefulness) + (0.244) (Perceived Behavioral Control) + (0.316) (Subjective Norm)

Table 4.18: Model Summary of Multiple Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.785ᵃ	.617	.603	.46261

a. Predictors: (Constant), Perceived Risk, Perceived Benefit, Perceived Usefulness, Perceived Behavioral Control, Subjective Norm

Table 4.18 shows the relationship between independent variables which are perceived risk, perceived benefit, perceived usefulness, perceived behavioral control, and subjective norm while consumer acceptance of innovation in payment methods by credit card in business in Ayer Keroh, Melaka as the dependent variables. From the result analysis using Multiple Regression Analysis (MRA), the Correlation Coefficient (R) value is 0.785 which is a strong relationship. Then, it means that the positive value

of R implies a positive relationship. Besides, the value of R square is 0.617, which means that the consumer acceptance of innovation in payment methods by credit card in business in Ayer Keroh, Melaka was influenced by perceived risk, perceived benefit, perceived usefulness, perceived behavioral control, and subjective norm

Table 4.19: ANOVA

ANOVAᵃ

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	49.566	5	9.913	46.321	.000ᵇ
	Residual	30.817	144	.214		
	Total	80.383	149			

a. Dependent Variable: Consumer acceptance of innovation in payment methods by credit card in business in Ayer Keroh, Melaka

b. Predictors: (Constant), perceived risk, perceived benefit, perceived usefulness, perceived behavioral control, and subjective norm

Table 4.19 above shows the outcome of an Analysis of Variance (ANOVA) of the model's overall significance. ANOVA is a statistical technique used to compare the values of two or more means (David M. Lane, 2005). In this research, the value for F-test is 46.321 and the significance value is less than 0.001 which means that the questionnaires are accepted and there is a significant relationship between independent variables and dependent variable. The total sum of squares in this research is 80.383, while the mean square for regression is 9.913.

The researcher deduces from this that a P value of less than 0.05 indicates that a regression is accurate and dependable for the data. Every independent variable and the dependent variable are significantly correlated are perceived risk, perceived benefit, perceived usefulness, perceived behavioral control, and subjective norm have a relation to consumer acceptance of innovation in payment methods by credit card in business.

Table: 4:20: The Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.913	.232		3.935	.000
	Perceive Risk	-.120	.082	-.144	-1.464	.146
	Perceived Benefit	.172	.105	.181	1.637	.104
	Perceived Usefulness	.231	.094	.255	2.445	.016
	Perceived Behavioral Control	.241	.089	.244	2.699	.008
	Subjective Norm	.282	.082	.316	3.441	.001

a. Dependent Variable: Consumer acceptance of innovation in payment methods by credit card in business in Ayer Keroh, Melaka

Based on Table 4.20, subjective norm is the most significant independent variable in this analysis since its p-value is 0.001, which is lower than the alpha value of 0.05 and its beta value is 0.316 then followed by perceived behavioral control which the p-value is 0.08 and its beta value is 0.244. Next, the third rank of the most significant variable is perceived usefulness as its p-value is 0.16 and its p-value is 0.255. It shows that subjective norm, perceived behavioral control and perceived usefulness are significant in consumer acceptance of innovation in payment methods by credit card in business.

Then, the perceived risk and perceived benefit imply that there is no significant to predict the dependent variable (consumer acceptance of innovation in payment method by credit card in business) because the p-value is more than the alpha value. The p-value for perceived risk is 0.146 and the p-value for perceived benefits is 0.104 more than the alpha value of 0.05. Therefore, these five variables show that there is a positive relationship between perceived risk, perceived benefit, perceived usefulness, perceived behavioral control, and subjective norm with consumer acceptance of innovation in payment methods by credit card in business.

The Standard Beta Coefficient provides a measurement of each variable's contribution to the model. A high value means that the criterion variable is significantly impacted by a unit change in the predictor variable. The Sig (p) values provide a broad overview of each predictor variable's influence. Small p-values and large absolute values indicate that the predictor variable has a significant influence on the criterion variable.

Based on the coefficient in Table 4.20 above shows that the subjective norm preference value has the highest regression coefficient with a value of 0.316 and the significant value is 0.001. The second highest regression coefficient value is perceived usefulness with a value of 0.255 and a significant value is 0.016. The third highest regression coefficient value is perceived behavioral control with a value of 0.244 and a signific value is 0.08. The fourth highest coefficient value is perceived benefit with a value of 0.181 and the significant value is 0.012. The lowest coefficient value is perceived risk with a value of -1.44 and the significant value is 0.146. Based on the result of the regression coefficient value, the researcher concludes that by using MRA, subjective norm preference is the most supportive.

4.8 Hypothesis Testing

Based on Table 4.21, the hypothesis can be tested by using the significant value. The hypothesis is used to test the component of consumer acceptance of innovation and its impact on each independent variable which are perceived risk, perceived benefit, perceived usefulness perceived behavioral control, and subjective norm. From the analysis, the value of significant is tested from the hypothesis testing guideline.

Accept Hi and reject He if significant is lower than 0.05
Accept He and reject Hi if significant is higher than 0.05

Figure 4.7: Guideline for Interpreting Hypothesis Testing

(Source: Developed by the researcher)

Table 4:21: Significant value Table

Independent Variables	t-value	Significant value
Received Risk	-1.464	0.146
Perceived Benefit	1.637	0.104
Perceived Usefulness	2.445	0.016
Perceived Behavioral Control	2.699	0.008
Subjective Norm	3.441	0.001

Hypothesis 1

H0: Perceived risk has a significant relationship to consumer acceptance of innovations in payment methods by credit cards in the business in Ayer Keroh, Melaka.

H1: Perceived risk has a not significant relationship with consumer acceptance of innovations in payment methods by credit cards in the business Ayer Keroh, Melaka.

The result shows the relationship between the consumer acceptance of innovations in payment methods by credit cards in the business in Ayer Keroh, Melaka (dependent), and perceived risk (independent). Based on Table 4.21, the significant value for perceived risk is 0.146 and t-value is -1.464. This value is higher than 0.05. Therefore, Ho is accepted and does not influence the consumers in Ayer Keroh, Melaka to use a credit card in the business.

Hypothesis 2

H0: Perceived benefit has a significant relationship to consumer acceptance of innovations in payment methods by credit cards in the business in Ayer Keroh, Melaka.

H1: Perceived benefit has a not significant relationship with consumer acceptance of innovations in payment methods by credit cards in the business Ayer Keroh, Melaka.

The result shows the relationship between the consumer acceptance of innovations in payment methods by credit cards in the business in Ayer Keroh, Melaka (dependent), and perceived risk (independent). Based on Table 4.21, the significant value for perceived benefits is 0.104 and t-value is 1.637. This value is higher than 0.05. Therefore, Ho is accepted and does not influence the consumers in Ayer Keroh, Melaka to use a credit card in the business.

Hypothesis 3

H0: Perceived usefulness has a significant relationship to consumer acceptance of innovations in payment methods by credit cards in the business in Ayer Keroh, Melaka.

H1: Perceived usefulness has a not significant relationship with consumer acceptance of innovations in payment methods by credit cards in the business Ayer Keroh, Melaka.

The result shows the relationship between the consumer acceptance of innovations in payment methods by credit cards in the business in Ayer Keroh, Melaka (dependent), and perceived usefulness (independent). Based on Table 4.21, the significant value for perceived usefulness is 0.016 and t-value is 2.445. This value is less than the value of 0.05. Therefore, Ho is rejected and it positively influences the consumers in Ayer Keroh, Melaka to use a credit card in the business.

Hypothesis 4

H0: Perceived behavioral control has a significant relationship to consumer acceptance of innovations in payment methods by credit cards in the business in Ayer Keroh, Melaka.

H1: Perceived behavioral control has a not significant relationship with consumer acceptance of innovations in payment methods by credit cards in the business Ayer Keroh, Melaka.

The result shows the relationship between the consumer acceptance of innovations in payment methods by credit cards in the business in Ayer Keroh, Melaka (dependent), and perceived behavioral control (independent). Based on Table 4.21, the significant value for perceived behavioral control is 0.008 and t-value is 2.699. This

value is less than the value of 0.05. Therefore, Ho is rejected and it positively influences the consumers in Ayer Keroh, Melaka to use a credit card in the business.

Hypothesis 5

H0: Subjective norm has a significant relationship to consumer acceptance of innovations in payment methods by credit cards in the business in Ayer Keroh, Melaka.

H1: Subjective norm control has a not significant relationship with consumer acceptance of innovations in payment methods by credit cards in the business Ayer Keroh, Melaka.

The result shows the relationship between the consumer acceptance of innovations in payment methods by credit cards in the business in Ayer Keroh, Melaka (dependent), and subjective norm, perceived usefulness, and perceived behavioral control (independent). Based on Table 4.21, the significant value for the subjective norm is 0.001 and t-value is 3.441, perceived usefulness is 0.16 and t-value is 2,445, and perceived behavioral control is 0.08 and t-value is 2.699. This value is less than the value of 0.05. These 3 independent variables are accepted but perceived risk and perceived benefit are rejected because this significant value is more than 0.05 which are 0.146 and t-value is -.1464 and 0.104 and t- value is 1.637. Therefore, Ho is rejected and it positively influences the consumers in Ayer Keroh, Melaka to use a credit card in the business.

4.9 Discussion

This research is focused on the consumer acceptance of innovations in payment methods by credit cards in the business in Ayer Keroh, Melaka. Based on the previous chapter, the result has shown that three of the independent variable have significant factors influencing the consumer acceptance of innovations in payment methods by credit cards in the business in Ayer Keroh, Melaka which are perceived risk, perceived benefit, perceived usefulness, perceived behavioral control, and subjective norms while two of the variables is not significant to the influencing consumer acceptance of innovations in payment methods by credit cards in the business which is perceived risk and perceived benefit. These factors have been tested by using the Pearson correlation analysis and multiple regression analysis in SPSS in this research.

Throughout the research analysis, the result shows all the positive values whereby the objective of the research is suited to the analysis result. Based on the result obtained from demographic analysis, 86 of the respondents (57.3%) were males which are more than amounts of females with 64 of the respondents (42.7%) Besides, in terms of age, the majority of the respondents aged 20-26 years old which is 100 of the respondents (66.7%). This is followed by 30 respondents (20%) aged between 27-34 years old. Then, the other respondent aged 35-42 years old consists of (10) % with 15 respondents and 5 respondents (5%) aged 43- 50 years old. This proves that consumer acceptance of innovation in payment methods through credit cards in business is in the younger generation who have awareness and are exposed to the use of credit cards to buy goods only using credit cards because it can make it easier for them to carry the security of any credit card that causes the group to take advantage of the credit card. Other than that, most of the respondents are Degree holders with the amount of 71 respondents (47.3%) and 39 respondents with STPM/Diploma (16%). Moreover, there are 24 respondents (16%) that have SPM certificates, and the least is from Masters holders which is 16 respondents (10.7%). Furthermore, it shows that most of the respondents are Malay which is 115 respondents (76.7%) and followed by 21 Chinese respondents (14%). Next, the respondents are Indian which is 13 respondents (8.7%). The lowest contribution of the respondent is other which is Kadazandusun with an

amount of 1 respondent (7%). Lastly, regarding occupation, most of the respondents are students with the amount of 72 respondents (48%) and 28 respondents with government work (18.7). Moreover, there are 26 respondents (17.3) that have private work certificates. Next, the respondents are self-employed which is 20 respondents (13.3%), and the least retired which is 4 respondents (2.7%).

4.9.1 Discussion for Major Finding

Objective 1: To determine the effective use of credit cards in business.

Table 4.22: Multiple Regression Result for

Objective 1

Consumer Acceptance of Innovation in Payment Method	Signification Value
Perceived Risk	0.146
Perceived Benefit	0.104
Perceived Usefulness	0.016
Perceived Behavioral Control	0.008
Subjective Norm	0.001

Table 4.22 shows the correlation between all the independent variables (perceived risk, perceived benefit, perceived usefulness, perceived behavioral control, and subjective norm) and the dependent variable (consumer acceptance of innovation in payment method). All the significant value for all correlation is shown below 0.05 which mean the relationship between the consumer acceptance of innovation in payment method and significant except for the perceived risk and perceived benefit factor which are 0.146 and 0.104 not significant. The reason perceived risk is not significant is many people are not aware of the charges and interest rates associated with their cards, so do user due diligence before user take on any credit (Alison, 2022). This makes users cautious about using credit cards before using it. Therefore, the

precautions taken by the user caused one of the reasons for the rejection. Next, the reason why the perceived benefit is not significant is credit cards serve as short-term loans from a bank. Users have a credit limit depending on income (Alison, 2022). Because of this, credit card users should not overspend which could cause them to go bankrupt. Misconceptions about credit cards cause some to fall into the valley of bankruptcy because they use it without understanding the terms and conditions but enjoy the facility until they are entangled in a long-term debt burden (Sinar, 2022).

Objective 2: To identify the benefit of credit cards in business.

Table 4:23 Coefficient of Multiple Regressions result for objective 2 and objective 3

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	.913	.232		3.935	.000
	PR	-.120	.082	-.144	-1.464	.146
	PB	.172	.105	.181	1.637	.104
	PU	.231	.094	.255	2.445	.016
	PC	.241	.089	.244	2.699	.008
	SN	.282	.082	.316	3.441	.001

a. Dependent Variable: Consumer acceptance of innovation in payment methods by credit card in business in Ayer Keroh, Melaka

Based on table 4.23, subjective norm is the most significant independent variable in this analysis since its p-value is 0.01. which is lower than the alpha value of 0.05 and its beta value is 0.316 then followed by perceived usefulness the p-value is 0.016 and its beta value is 0.255. Next, the third rank of the most significant variable is perceived behavioral control as its p-value is 0.008. It shows that subjective norm,

perceived usefulness, and perceived behavioral control are significant in consumer acceptance of innovation in payment method by credit card in business.

Then, the perceived risk and perceived benefit imply that there are not significant to predict the dependent variable (consumer acceptance of innovation in payment method by credit card in business) because the p-value is more than the alpha value. The p-value for perceived risk is 0.146 and the p-value for perceived benefit is 0.104 which is more than the alpha value of 0.05. Therefore, these five variables show that there is a positive relationship between perceived risk, perceived benefit, perceived usefulness, perceived behavioral control, and subjective norm with consumer acceptance of innovation in payment method by credit card in business. Therefore, subjective norm is the most significant factor that influences the s since its p-value is 0.001 and it has the highest beta value which is 0.316.

Objective 3: To examine the factors consumers use credit cards in business.

Based on the result obtained through Coefficient Analysis, perceived risk, perceived benefit, perceived usefulness, perceived behavioral control, and subjective norm is ranked from the highest to lowest order to show the contribution that influences consumer acceptance of innovation in payment methods by credit card in business.

Based on Table 4.23, subjective norm is the highest contribution to the factors that influence consumer acceptance of innovation in payment methods by credit card in business. It is because the beta value of the standardized coefficient for this variable is 0.316 compared to other variables. Therefore, it means that the subjective norm has the highest contribution to consumer acceptance of innovation in payment methods by credit card in business.

Moreover, the second rank of the highest contribution to the dependent variable is perceived usefulness. It is because the beta value of the standardized coefficient for this variable is 0.255 compared to other variables. Therefore, it means that perceived usefulness makes the second highest contribution to explaining consumer acceptance of innovation in payment methods by credit card in business.

Then, perceived behavioral control is the variable that contributes the third rank to the variation of the dependent variable. It is because the beta value of the standardized coefficient for this variable is 0.244 compared to other variables. Therefore, it means that perceived behavioral control makes the third lowest contribution to explaining the variation in the dependent variable.

Then, perceived benefit is the variable that contributes the four ranks to the variation of the dependent variable. It is because the beta value of the standardized coefficient for this variable is 0.181 compared to other variables. Therefore, it means that perceived benefit makes the second lowest contribution to explaining the variation in the dependent variable.

Lastly, perceived risk is the variable that contributes the lowest to the variation of the dependent variable. It is because the beta value of the standardized coefficient for this variable is -0.144 compared to other variables. Therefore, it means that perceived risk makes the lowest contribution to explain the variation in the dependent variable which is factors that influence consumer acceptance of innovation in payment methods by credit card in business.

4.10 Summary

The information gathered from the questionnaire was analysed with SPSS and described in this chapter. Analysis is conducted to demonstrate the compatibility of the independent and dependent variables. In addition, in this chapter we can use Cronbach's Alpha to help us in knowing the data we collected through the respondents who have been collected as many as 150 people. In this chapter we can also find out in more detail each demographic data, independent variable and dependent variable. With descriptive statistical analysis we can also find out the mean of each independent variable and dependent variable. The data collected shows that 3 of the independent variables, namely the perception of usefulness, the perception of behavioral control and subjective norms are significant and show a positive relationship with the dependent variable while 2 of the independent variables, namely the perception of risk and the perception of benefits are not significant and show a negative relationship. among the dependent variables is consumer acceptance of innovation in payment methods through credit cards. In addition, in the discussion we can learn about the discussion for the main findings that use our objective in finding the necessary information such as using multiple regression results that have the significance value information needed to know whether our independent question is accepted or not. In addition to that, the researcher used the data contained in the multiple regression coefficients which contain the data needed for us to know the p-value, alpha value and beta value. With the availability of data from current analysts, we can also find out which beta value rules are the highest and which are the lowest

CHAPTER 5

CONCLUSION

5.1 Introduction

In this chapter, the researcher will give a few suggestions to future researchers when they want to do research related to cards that are different from credit cards. Next, with the research conducted the researcher can provide evidence and also the literature review has been stated to support the hypothesis and also help in measuring the objective of this research.

5.2 Recommendation for Future Research

Based on the results of this research, some recommendation can be made for future studies. First, considering the small sample size used in this research has limited the ability to generalize what is found in this research to credit card users and it is not sufficient to obtain the overall information of credit card users in other states as well. With this, further research can be done in other states.

In addition, this field of research can help improve the knowledge of other researchers in the future if researchers use other variables that can have more impact considering that there are already many variables used from previous studies. It is very important for researchers to provide information about other variables that can support the dependent variable to ensure that new solutions and new discoveries can be found.

Finally, researchers can also conduct research using other methods such as qualitative methods since this research method uses quantitative methods. Qualitative methods may prove useful in explaining the findings of respondents and the results associated with the relationship between consumer acceptance of innovation and payment methods through credit cards. In addition, other researchers can also search for topics related to other card payment methods such as debit cards.

5.3 Limitations of the Study

There are several factors that influence consumer behavior in using credit cards in business. But in this study, the main focus is to examine consumer acceptance of innovations in payment methods through credit cards in business. There are many theories and models that identify consumers. This research is limited to a scenario to identify consumer acceptance in making purchases with the use of credit cards in the Ayer Keroh area, Melaka.

Next, the sample size itself is quite small. To accurately assess the perception of Malaysian consumers towards consumer acceptance of innovations in payment methods through credit cards in business. In addition, there are other factor that can influence the credit card users but are not included such as product value, price, service, and trust. Therefore, this research is only limited to consumer acceptance of innovation in payment methods through credit cards in businesses in Ayer Keroh, Melaka.

5.4 Summary

In order to address the research questions and the goals of this study, this chapter concludes by discussing all of the analysis results from chapter four which helps the researcher complete a study titled consumer acceptance of innovations in payment methods through credit cards. In addition, researchers can also provide suitable and best recommendations to managers for future studies on credit card users, especially credit cards used by users to make purchases at businesses. Finally, from this study, the questionnaire that has been given by the researcher through Google form to 150 respondents and answered the objectives of the study, the results have shown that the perception of usefulness, the perception of behavioral control and subjective norms are the only factors that influence consumer acceptance of innovation. in credit card payment methods in business.

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APPENDIX

QUESTIONNAIRE FORM

CONSUMER ACCEPTANCE OF INNOVATIONS IN PAYMENT METHODS BY CREDIT CARD IN BUSINESS

Dear all, I am completing Bachelor Degree of Technology Management Major in Innovation at Universiti Teknikal Malaysia Melaka. Currently I am conducting a research study for the final year project titled "Consumer acceptance towards innovations in credit card payment methods in business'. It would mean a lot if you all could help me to participate in my survey because I need 150 more respondents to contribute in my survey.

Thank you for cooperation.

Any future enquires kindly contact

Syahrul Hafiz Bin Sarlan

Thank you.

Questionnaire Set

Section A: Demographic

1. Gender
- Male
- Female

2. Age
- 20-26 years old
- 27-34 years old
- 35-42 years old
- 43-50 years old

3. Education Level
- SPM
- STPM/DIPLOMA
- DEGREE
- MASTER

4. Race

- Malay

- Chinese

- Indian

5. Occupation

- Government Work

- Private Work

- Self Employed

- Student

- Retired

6. Do you always use a credit card to shop at a business?

- Yes

- No

Section B: Payment Methods by Credit Card

Perceived Risk

Item	Questions
Q1	I will spend extravagantly when using a credit card.
Q2	I will experience a reduction in credit score due to late payments.
Q3	Credit card fraud can occur because credit cards can duplicate my card.
Q4	High-interest costs because credit cards charge interest rates, also known as finance charges
Q5	If I make a mistake in choosing a credit card with this different charges and interest may apply.

Perceived Benefit

Item	Questions
Q1	I will get 2% cash back rewards when using credit card.
Q2	I will earn reward points for every RM in spending when using the credit card.
Q3	When I pay with a credit card can avoid losses from fraud.
Q4	Using a credit card makes it easier for me to go anywhere.
Q5	I can take advantage of the insurance that covers the credit card.

Perceived Usefulness

Item	Questions
Q1	Credit cards are not just a substitute for cash and checks, but also a source of credit.
Q2	Use credit cards to make cash withdrawals if required.
Q3	I can take advantage of the credit card in helping me as extra money.
Q4	I can use a credit card instead of cash but also as a source of revolving credit.
Q5	I can use a credit card to pay bills.

Perceived Behavioral Control

Item	Questions
Q1	I need to understand the big impact of a credit card before using it.
Q2	Credit card use is also influenced by a lack of awareness or information.
Q3	I choose credit cards because of the convenience of a simple credit card acceptance process at business locations.
Q4	When I failed in money management in the use of credit cards became the cause of credit card debt.
Q5	Being unable to control my emotions in a credit card purchase caused me to stop using it and my financial ability got the lowest rating.

Subjective Norm

Item	Questions
Q1	I chose to use a credit card because the product is popular.
Q2	Great influence (family and friends) caused me to use credit cards.
Q3	Credit card helps me in getting an item first before spending my own cash.
Q4	The media made me aware of using credit cards.
Q5	I tend to make unplanned purchases that cause me to use a credit card.

Section C: Consumer Acceptance of Innovation

Item	Questions
Q1	With an electronic payment system such as a credit card, it is easier for me to pay for purchased items.
Q2	When it comes to payment, I feel a credit cards are a suitable alternative.
Q3	With the presence of paywave near the credit card, it makes it easier for me to buy things because there is no verification of the pin number.
Q4	When I use a credit card for payment I have to repay the balance in full on the due date.
Q5	Credit cards allow me to buy things without carrying cash.

II. Gantt Chart

Gantt Chart PSM 1

Time/Task	March	April	May	June 2022
Discussion on the research topic with supervisor	■			
Finalizing and approval research title project	■			
Construct research questions and objectives	■			
Identify the variables and constructing framework		■		
Studying and finding sources of secondary data		■	■	
Determine the methodology used in the research		■	■	
Drafting research proposal		■	■	
Submission and correction the final project proposal			■	■
Prepare proposal presentation				■
Presentation				■

Gantt Chart PSM 2

Time/Task	October 2022	November 2022	December 2022	January 2023
Form draft questionnaire	■			
Pre-testing questionnaire and questionnaire correction	■			
Data gathering		■		
Analysis data using SPSS		■		
Submission on progress or draft of the report			■	
Preparation of slides and videos for presentations				■
Presentation of Final Year Project (FYP II)				■
Correction of FYP II				■
Submission of FYP II				■

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