

# Which factors influence consumers' choice of payment method when purchasing online?

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# Abstract

While researchers have studied the various payment methods for both online and in-store purchases, the available literature on factors influencing choice of online payment method needs further extension. Specifically, prior research does not indicate whether monetary value of a transaction is a key determinant of the payment method chosen. This study is aimed at contributing to the body of knowledge by developing an understanding of the key factors likely to affect the choice of payment method when customers are shopping online.

The research questions for the study were as follows:

RQ1: What are the factors that influence choice of payment method when consumers shop online?

RQ2: Do perceived usefulness, ease of use, security and risk impact on consumers' choice of either PayPal or credit card as a payment method?

RQ3: Does the choice of payment method depend on the monetary value of the product being purchased online?

To carry out this research, a quantitative research approach was adopted. The research used a scenario experiment, delivered via an online survey questionnaire as the research instrument. To analyse the information collected through the survey questionnaires, SPSS was used to produce descriptive statistics, ANOVAs and logistic regression analysis.

Findings from the analysis indicate that respondents prefer to use a credit card rather than PayPal when shopping online. It was found that the respondents considered credit cards more secure, easier to use and to understand, and flexible. Furthermore, the respondents suggested

that they tended to use the more easier to use, secure, and flexible form of payment, credit card, in making expensive purchase (branded items) but they engaged any form of payment when buying cheap items (unbranded items). This study also found that customers tended to choose a payment method which enables them to ensure a temporal separation between payment and purchase. The results indicate agreement with the literature review, that factors such as ease of use, safety and security, comprehensibility and privacy are considered important by online shoppers when deciding the method of payment. These findings indicate that consumers view these factors as determinants of their choice of payment method. If businesses could focus on these factors they would be able to positively encourage consumers to purchase online notwithstanding the value of their purchase or their choice of payment method.

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## Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person except that which appears in the citations and acknowledgements. Nor does it contain material which to a substantial extent I have submitted for the qualification for any other degree of another university or other institution of higher learning.

Name:

Nujud Alarooj

Signed:

A handwritten signature in black ink, appearing to be 'Nujud Alarooj' in Arabic script, with a stylized flourish at the end.

Date:

13/08/2019

## Ethical Approval

AUT University Ethics Committee (AUTEC) approved the ethics application for this research on 15 March 2019.

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## Dedication

I would like to dedicate my thesis to my father and my mother, who have always supported me, prayed for me, and motivated me to strive further. Very sadly, my father passed away during my studies and I wish that he were here today to witness my personal and professional growth.

# 1 Introduction

## 1.1 Background and Research Problem

With the ever-evolving modes of payments, there have been considerable changes and improvements in the way consumers pay for their shopping through online channels. Most businesses these days have adopted contemporary ways of selling their products which comprise of conventional and online platforms for presenting, marketing and selling (Fumiko & Klee, 2003). Not very long ago, paying through paper cheques used to be the norm and the reliability and convenience of this payment mode never created the need for an evolution in the payment methods. However, with the emergence of Internet and eventually online shopping, paper money or paper cheques became outdated for doing any business online. It is pertinent to mention here that these changes not only brought convenience and wide variety of options for consumers and businesses, they also presented challenges in the form of reliability, ease of use, privacy, security and many other issues (Agyapong, 2017; Baubonienė & Gulevičiūtė, 2015). Questions like “What if my payment does not go through?” or “What if someone steals my information?” or “What if I do something wrong and do not understand how to make payments online?” are some common examples of challenges consumers face when using online payment methods. It is understandable that these online payment methods are still evolving and are being made safer, securer and easy to understand and use, but a common consumer still has some reservations which force him or her to opt for conventional payment modes or if not that then opt for one out of many online payment options. The big question here is what makes consumers think that a particular method of online payment would suit their needs; ease of use, safety and security, or something else?

Researchers in the past have studied different modes of online payments, however, the existing literature on the subject is insufficient in understanding whether monetary value of an online transaction affects the factors determining choice of online payment method? The researcher has identified a research literature gap which establishes the need to explore what factors play a decisive role in determining the preferred mode of payment by online shoppers; and is there any moderating role for monetary value of the transaction in this relationship?

## 1.2 Problem Statement

While prior research studies investigated the growing importance of online payment in ecommerce markets, the majority of these studies placed particular focus on the demand-side of purchase behaviour and they did not broadly consider the number or variety of factors that are likely to affect the choice, availability, accessibility, and preference for methods of payment consumers may choose. It is important to note the availability of numerous online payment methods have transformed the marketplace and impacted on the growth of ecommerce platforms. However, it is important to appreciate that different online payment methods are accessible for different kinds of ecommerce, and online shoppers make decisions relative to the type of online payment and vice versa.

Studies report on the impact of the availability of various online banking and payment services. These online services simplify banking and payment transactions for consumers, by ensuring availability of banking services anytime and anywhere. However, a reasonably low number of online users (only 29 percent) engage in online buying activities. A special feature of online banking is the ability to create new technical infrastructures to connect different modern and traditional modes of payments. However, online payment models are new and undergoing

significant change as technology improves, as new entrants join the market, and as new needs emerge. Further, there is a dearth of research into the needs that may drive payment methods during online purchases, and how online payment methods relate to different types of brands. Global brands invest much time and resources to comprehend and meet the needs and expectations of consumers, and the increase in online brand awareness and purchases highlight marketers' need to understand the factors that influence the way brand marketers, consumers, and merchants adopt online payment methods. The issues of flexibility, data management, the security of systems, risk of losing money, privacy and confidentiality, and function of the system are seen as important factors that influence transactions through online modes of payment. However, existing studies do not reveal the way these factors affect consumers' choice in online payment methods, upon learning about the available options. Thus, this research study focuses on the way different factors influence consumer's choice of mode of payment when buying branded and unbranded items online.

### 1.3 Research Aim

Based on the overview and research problem presented in the previous section, this study aims at understanding which factors influence the method of payment choice when consumers purchase online. In other words, the study aims at exploring the factors which have a significant influence on choosing payment options by customers who are shopping online. For the purposes of this study, the researcher has taken into consideration two different scenarios, which are purchasing a higher-priced branded item online and purchasing a lower-priced unbranded item online (See Chapter 3 for details). The idea behind taking into account two different scenarios is to understand whether consumers who are shopping online have different perceptions and choice of payment options

when it comes to buying an expensive (branded) or inexpensive (unbranded) item. The monetary value of the transaction will be explored as a moderating variable.

The type of payment systems also affects the expectations of consumers. For instance, in 2008, the system of instant payments was introduced across Europe, including the United Kingdom (European Central Bank, 2019).

Instant payments are comparatively newer and different from the existing payment methods, such as credit transfers, direct debits, and cheques. On a daily basis, instant payments are cleared and settled within seconds rather than hours or days (European Central Bank, 2019). In comparison to other methods, instant payments are more convenient, faster, safer, and more secure than cheques, credit transfers, and direct debits (European Central Bank, 2019). In 2008, less than 100 million instant payments transactions were reported; however, this trend increased significantly till the end of 2017 when more than 1500 million instant payments transactions were accounted for within the United Kingdom (European Central Bank, 2019). This clearly shows and proves the vitality and recognition of new payment methods for consumers who are willing to avail and test new online payment systems.

Electronic commerce is rapidly increasing across the world, especially in the European Union. For example, in the previous twelve months, around seventy two percent of the internet users have used online methods to buy goods or services (Eurostat, 2020). This survey shows how the internet users utilize online payment methods for buying goods and services online. In the previous year, this percentage was around 68 percent, highlighting a reasonable increase of four percent in a period of one year (Eurostat, 2020).



The future of electronic commerce is highly bright for a number of reasons. In the backdrop of COVID-19, instant payments are comparatively safer than other methods, as it does not need one to visit a bank or other institution for sending or receiving money. Therefore, instant payments are showing and proving their more importance than other payment methods. Additionally, a worldpay report estimates that electronic commerce will touch the mark of \$4.6 trillion by the end of 2022, as there are more than one hundred and forty online payment methods available for online users globally (Paypers, 2019). Based on this information, it would not be incorrect to say that online methods are rapidly increasing and are becoming popular among online users for a number of reasons. Security, access, reliability, and speed are some of the major factors that attract the attention of online users.

#### 1.4 Research Objectives and Questions

Keeping in view the research aim of this study, the researcher has put forward the following research objectives:

- To review the literature pertaining to the subject of online payment choices and consumers' behaviour;
- To understand what factors influence the method of payment choice when consumers shop online; and
- To determine if consumers' choice of payment method depends on whether they are purchasing a higher-priced branded or a lower-priced unbranded item online.

These research objectives have been presented as research questions for this study as under:

*RQ1: What are the factors that influence choice of payment method when consumers shop online?*

*RQ2: Do perceived usefulness, ease of use, security and risk impact on consumers' choice of either PayPal or credit card as a payment method?*

*RQ3: Does the choice of payment method depend on the monetary value of the product being purchased online?*

#### 1.5 Significance of the Study

The significance of this research work is evident from the fact that it aims at understanding how online shoppers perceive using different payment methods, such as using PayPal and/or credit card for making payments for purchases made online. Since the researcher has presented two different scenarios to the respondents of this study (See Chapter 3), purchasing higher-priced branded item or a lower-priced unbranded item, the findings present an understanding how the choice of payment method is influenced by the monetary value of the transaction.

## 1.6 Scope of Research

The scope of the present study is limited in various ways; for instance, the researcher has only aimed at considering two of the many online payment options, which are PayPal and credit cards. The researcher has not taken into consideration other frequently used payment options and therefore the conclusions obtained from this study can only be applicable with respect to payments made through credit cards and PayPal. In addition, the researcher has narrowed down the scope of this research by presenting only two options to the respondents who participated in this study by way of filling out survey questionnaire. The respondents are only given two scenarios, which are purchasing an expensive (branded) item and purchasing an inexpensive (unbranded) item.

## 1.7 Structure of Research Report

Chapter 1 includes a background to the research problem and presents the aim and objectives of the research work. The chapter also includes significance and scope of this research work. In the literature review section of the report, the researcher has reviewed the literature pertaining to the subject of this study and includes a critical review of similar research works conducted in the past. This review allows the researcher to present a conceptual framework for the study. In the third chapter of the report, the researcher has presented the research methodology and approach adopted for the present study. The chapter also entails data collection and analysis techniques being used in this study. In the fourth chapter the researcher has put forward the findings obtained from analysis of primary information obtained through surveying a sample of respondents. Findings presented are also interpreted to understand their meaning. In the fifth chapter the researcher has discussed the findings in light of the literature reviewed and research questions presented in the first chapter. The discussion included in this chapter provides the basis for concluding the present study. Chapter 6 is the final chapter of

this research report. The researcher has presented conclusions based on the findings and discussion from chapters 4 and 5. The chapter also puts forward how conclusions reached in this study would help future researchers, managers of banks and PayPal and consumers at large. The chapter also entails recommendations for managers and future researchers based on the conclusion and limitations associated with this study.

## 2 Literature Review

### 2.1 Introduction

This chapter covers a structured literature review of the various theories and prior studies related to the impact of payment choices on consumer behaviour. For this purpose, key terms and phrases such as “online payment”, “consumer behaviour”, “spending behaviour of customers”, “outcomes of different payment methods”, and “impact of payment methods on purchase behaviour” were used to retrieve documents from reputable databases including Google Scholar, EBSCO host and ProQuest. The selection of these sources was based on the primary criterion that the sources were published in the last five years, due to the fast-changing nature of online and digital payments.

### 2.2 History and Evolution of Payment Methods

In today’s marketplace consumers have a wide range of options for making payments before, during or after purchasing services and goods. Payments methods include a wide range, from the simplest way of paying by cash and cheque, to paying by debit or credit cards, paying via online bank, electronic fund transfers and paying via mobile applications. Classical economic (Grüschow, Kemper, & Brettel, 2016) theory (Runnemark, Hedman, & Xiao, 2015) asserts that consumers choose to pay the predetermined price or negotiated amount of money for the given product or service, by rationally assessing the value of product/service versus the value of money. However, in some purchase events, increased payments or decreased payments can be demanded by suppliers, depending on the medium of payment the customer chooses, despite no change in the economic value of the given product or service (Drahoš, 2017).

In ancient times, the simplest methods such as the barter system were used. In the barter system, there was no universalized value of the particular products, or there were no regulatory authorities to set the prices of the product, and the payment of the particular goods or service was decided based on the negotiation skills of the person (Saka, 2017). In this method, there was no certain price of commodity, but things value depended on the negotiation of persons involved in barter trade.

In order to understand the collective behaviour of the people using different methods, we can refer back to the history and we can observe how the behaviour of people differed with using different payment methods. This is useful in establishing a base for this research as the very aim of this paper is: “Do consumers spend more money when using different payment methods?” Evidence from prior literature and history has come to a positive assertion on this issue. After barter trade, monetary instruments changed to coins and precious metals and these lasted for a certain long time in the history of the financial system. In the industrial and modern era, which started in the 1800s, the monetary system and central banking system were established, and currency notes and coins for a certain amount of money were made through the mint press. In the 1900s, the central banking system was established, and the fiat money was developed, and the payments through cash and cheques became the norm. In the 1950s, the concept of plastic money emerged, and that changed the behaviour of the consumers in spending and with the passage of time, new and different ways of payments were observed (Brunnermeier & Schnabel, 2015).

The estimated probability that an individual will have a credit card has changed from 0.63 in 1983 to 0.78 in 2001 (Bertola et al., 2016), and by the year 2016, this probability has matured at 0.8. It indicates that the use of the credit card has been on the rise with the passage of time, with almost 80% of the people in developing countries using credit cards as payment

method. In addition, online purchasing has recently reached a user base of 1.66 billion people, with online sales amounting to 2.3 trillion dollars in 2017. This trend is projected to reach 4.48 trillion USD in online sales by 2021 (Statista, 2018).

The use of different card-based methods and online payment methods are on the rise with the passage of time. The main providers of credit and debit cards are currently VISA, Master Card and American Express - the most prominent global credit and debit card brands and they are accepted all over the world. These electronic fund access cards' usability is almost universally accepted when making purchases and transactions (Colangelo & Maggiolino, 2017).

### 2.3 Payment Methods

The different modes of payments affect the buying behaviour of customers (Ferrao & Ansari, 2015), and payment methods also has an impact the profitability of the firm. Further, substantial innovation in the payment technology is occurring on an ongoing basis (Avni, 2015) and these significant changes coincide with changes in consumers' paying habits. According to Grüşchow, Kemper, and Brettel (2016), consumers are in search of payment methods that are convenient and will be of the lowest cost to them personally (Grüşchow et al., 2016).

If a certain product or good has a certain price, payments can be made through check, and this will include the transaction costs such as annual charges, the cost of the check book and monthly subscription charges of receiving notifications and the annual account statements. Whereas in the credit card, a certain amount of fee is charged to customers and they have to disburse the amount owed to a certain date, if the date is missed, the customer is charged with

interest and in case of missed payments; penalties are charged to the payments (Montjoye et al., 2015).

| <b>Payment method</b> | <b>Benefits</b>   | <b>Disadvantages</b>   | <b>Role as Key Variable</b>  | <b>Researcher</b>  |
|-----------------------|---|--|--|--|
| Cash                  | Economic principle of value of money remains valid; less spending           | Security, bulkiness  | As a Cash on Delivery (COD) option, it has encouraged online purchasing. It gives both the buyer and the seller additional security and validates the transaction, making it similar to in-store purchasing. | Bagnall et al., 2014                                       |
| Debit Card            | Customer can spend only the amount deposited by consumer                    | Spending more than economic value                            | Eliminates the need for actual cash. A dominant form of payment as a substitute for cash. More convenient. Serves as a mode for behavioral restraint among online shoppers.                                  | Chen et al., 2017  |
| Credit card           | Customer can purchase more than money, allows time for payment disbursement | Impulsive buying, unnecessary buying, lack of budget control | Helps customers improve their social standing and self-esteem. Increases bank loyalty among customers. Increases financial flows.  | Hernandez et al., 2017                                     |
| Mobile payments       | Instant banking transactions, user friendly, timely                         | Cyber security issues  | Ease of use, encrypted transactions, more efficient, enables easy online payments and transactions on the go, especially for small scale payments.   | Liébana-Cabanillas, Sánchez-Fernández, & Muñoz-Leiva, 2014 |

In the literature, credit card pricing has been discussed on determinants of interest rates. However, these determinants also include credit card penalty fees such as late fees and over-limit fees, issues of penalty on credit card payments has become a publicly debated issue, the legislative authorities have put regulation into place on such transactions and fees as they were



abusive. In contrast, banks consider these are to compensate the bank for the risk of providing credit to credit card users (Carbo-Valverde et al., 2014).

Online payments are just equivalent to those that were made through paying by check because they are similar. For online payments, consumers pay following various steps and these create temporal separation between consumer and the payment being made. These separations are caused in online banking through tasks such as asking for the transaction PIN, Transaction PIN and further validations (Kooti et al., 2016).

The very nature of a credit card is compelling to the consumer, because it allows the facility to consumer to purchase goods and services that are not restricted by a budget or intentions of the particular consumer, and the consumer can pay this amount via credit card although he or she may not have that amount of money directly available in their bank (savings, cheque or access) account. The monthly payments usually exceed the amount of money that is present in the account of the consumer, and the dues are carried forward to the next month, and the consumer becomes bound to pay (Gabler, 2016).

Whether the payment method is perceived as expensive or cheap depends on the cognitive perception about the payment methods, as well as rational assessment by users/consumers. The topic is narrowly researched in the present time, and thus has much needed future research implications. Scholars from the fields of economics and psychology are looking forward to understanding how payment contexts affect the buying behaviour (Runnemark et al., 2015). This contextual impact also challenges economic theory related to consumers' evaluation of products and services is independent of how money is represented, which means that the choice of payment instrument affects spending. This study supports the research question of this study, as it partly answers the question as to whether consumers pay

more using the certain methods. It is clear from past literature, that payment instruments affect consumer/buyer spending (Runnemark et al., 2015).

There are behavioural and psychological reasons behind this that have identified in various researches. In the USA, almost 80% of the payments are non-cash payments, which means that people are adopting new technologies and they are using different methods of payments that involves online payment, card payment, mobile payment methods, and even cryptocurrencies (Huang, 2017). The psychological reasons less stress and more convenience when using non-cash methods as human prefer convenience.

From an emotional point of view, the card payments are more inert (Thomas, Desai, & Seenivasan, 2011) as compared to cash payments (Soman, 2003). The very role of money is emotional rather than instrumental (Ball, 2017) statement. Further, it has been found that the pleasure of saving regulates the behaviour of spending and this is based on the emotional association with notes and coins as physical representation of monetary value, and emotions intensify the transactional information using senses such as sight and touch that is translated into immediate experience of a consumer (Khan, Belk, & Craig-Lees, 2015). Further, card-based payment modes decouple the positive emotional association as one does not see the inflow and outflow of money. The positive emotions such as relaxation, confidence, security, and assurance should be aroused because of mental pain of parting with money (Khan, Belk, & Craig-Lees, 2015). Further card usage dulls the acuteness of emotional sensitivity.

## 2.4 Payment Method Characteristics

According to Schuh and Stavins (2011), the perceived characteristics of payment methods are vital to their adoption. Each method carries a number of exclusive attributes which are key in choosing the method of payment in each particular instance (Koulayev et al. 2016; Schuh and Stavins 2011).

#### 2.4.1 Transaction speed

The time it takes for a customer to make a payment transaction is called the transaction speed. Borzekowski et al. (2006) found that speed was one of the most desirable features making a single mode of payment the most desirable. For instance, the choice of debit card versus credit card depends on the amount of time needed to figure out the amount available for use in a customer's account and the credit limit on the customer's credit card.

#### 2.4.2 Cost

In terms of payment methods, the cost includes the service fees, penalties, interest paid, materials or subscriptions associated with the mode of payment. These costs decide the mode of payment being used, how this mode of payment can be used to enable an online transaction and the size of the purchase being made with regards to certain fees such as per-transaction costs and monthly, term or annual fees, depending on the terms of each bank or payment method. Add to this the regulations associated with the use of credit cards, where customers need to pay their balance prior to the due date before interest starts accruing. This can mean that cost is significant in the adoption of bank cards, as there is also a concern with regard to vendors that choose to add a percentage charge on the use of credit card as payment, effectively derailing its use in certain instances (Borzekowski, 2006; Butaru et al., 2016; Schuh & Stavins, 2011).

#### 2.4.3 Convenience

According to Schuh and Stavins (2011), whether consumers can save time, are able to keep or store credit, or need to make an effort to carry the line of credit is termed the convenience

associated with the payment method. This can be seen as the main benefit of credit cards (Borzekowski et al., 2006).

#### 2.4.4 Security

Security is defined as “Security against permanent financial loss or unwanted disclosure of personal information when a payment method has been stolen, misused or accessed without the owner’s permission.” (Schuh and Stavins, 2011). Thus, improvements in security are seen to have played an important role in the recent growth in the number of debit card users (Wakamori & Welte 2017; Zinman, 2009). People would much prefer the use of payment methods, especially in terms of payment size that can aid in the prevention of theft, loss, or fraud. The security concern regarding payment size becomes all the more concerning while dealing with large payment amounts (de Bruijn & Janssen, 2017). The increase in cybercrimes makes the need for security in online transactions all the more necessary, making this area vital when it comes to understanding consumer behavior when using online payments.

#### 2.4.5 Restraint and Record Keeping

Payment card adoption was also affected by restraint, which is a desire to limit and control overspending, and record-keeping which is the capacity to track and record purchases (Borzekowski et al., 2006; Schuh & Stavins, 2011). The use of debit and credit card statements, in conjunction with mobile purchases makes it easier for customers to track their expenditure and the expenses they have made in a certain period of time, allowing them to restrain themselves from impulse purchasing. Overspending, is a common downside given the convenience associated with online purchasing, people find it easy to lose track of their expenditure which leads to personal economic instability (Anesbury et al., 2016). Thus, having access to multiple modes of payment especially online, also helps with controlling the level of expenditure which also has an impact on the choice of payment instrument.

#### 2.4.6 Acceptance

Schuh and Stavins (2011) defined acceptance as “how likely each payment method is to be accepted for payment by stores, companies, online merchants, and other people or organizations.” Given the level of acceptance in online purchasing with regard to the instruments of payment, customers today have many options available to them, regardless of the size of the purchase being made. Acceptance may be a barrier in countries that still use cash as a primary mode of payment. However, online transactions generally enable all modes of virtual payments which make them more convenient for customers to look through more items prior to making an impulsive or carefree purchase. Thus, in the online sphere of purchasing, the high level of acceptance is key to higher card usage (Anesbury et al. 2016).

### 2.5 Technology Acceptance Model

The technology acceptance model (TAM) is a framework which defines how the use of innovative technology increases. According to TAM, technology acceptance is influenced by two important factors; ease of use and usefulness. Usefulness is perceived by the consumer on the basis it will enhance personal efficiency and effectiveness, whereas the ease of use means to what extent the person will be free from effort (Trutsch, 2017).

Perceived usefulness and ease of use help users make the decision to use a technology. Multiple studies sought to find the link between innovative payment methods and perceived usefulness and ease of use (Liebana-Cabanillas et al., 2014). It has been found by Liebana-Cabanillas et al. (2014) that enhanced facility of making payment, reduced transaction costs and better record keeping are the important determinants of the perceived usefulness. The technology acceptance model is at the root of adopting different payment methods by the consumers in the contemporary time.

It has been observed by Marangunić and Granić (2015) that technology is ever-changing and new technology comes, for example, there was a time when the barter system was used, which was replaced with the invention of coins and precious metals, then the fiat money was developed and in the present time, with the fiat money the plastic money is also being used (Marangunić & Granić, 2015).

The consumers and organizations also adapt themselves to the changing technology, and these changing technologies have different impacts on different users. Various technologies also cause changes in attitudes and behaviours. A very good example of this is the use of debit card and credit cards, where it has been found by Ferrao and Ansari (2015) that when consumers use these cards, they spend more money on purchases.

These trends affect overall spending patterns, and different payments methods have different attributes associated with the different payment instruments (Bisht et al., 2015). Some instruments are likely to be responsible for excessive and impulsive buying, and this trend has steadily increased as the available modes of payment have changed from traditional ways of cash and savings payments to various modern means of payments (including credit cards).

## 2.6 Consumer Behaviour and Payment Methods

The study of consumer behaviour is at the centre of determining consumer spending patterns and understanding the phenomena of how buying behaviour differs when consumers use different payment methods. Therefore, to understand consumers' behaviour it is necessary to establish the factors likely to affect consumers' buying patterns. Understanding consumer behaviour involves understanding the set of decisions (what, why, whether, how, when how much, where and how often) individuals or groups of consumers makes over time about the acquisition, use or disposition of services, goods, ideas, and another offerings; because the psychological core exerts considerable influence on consumer behaviour (Hoyer et al., 2016).

Consumer behaviour is also affected by the cultural norms and ideas of a particular group, since consumers belong to many groups and share common cultural beliefs and values and these include household and social class, individual values, personality and lifestyle (Hoyer et al., 2016).

Many studies note that the people are willing to pay more with the credit card and it is based on two reasons: there is a temporal separation between payment and consumption and second is the representation of money itself (Cheng & Chen, 2016). Therefore, it poses a question that whether for the identical products, the customer will pay more or less using a debit/credit card and cash and other methods. The question raised in this research has been answered that the spending behaviour does differ with different types of payment methods and the very example of this is the credit card. It has been noted that customers can pay more for the given products, when using different modes of payments (Avni, 2015).

Consumer behaviour includes certain patterns through which consumers move as they go through various steps and stages while purchasing products/goods/services. It is necessary to firstly study consumers' behaviour to investigate the variation in behaviour, based on different modes of payments. For example, consumer behaviour in the developing countries as compared to the developed countries could possibly be different. In the developing countries, there is a tendency to use cash as a mode of payment, whereas people belonging to the upper class and upper middle-class use debit cards. The use of the credit card in the developing countries is very low as compared to the developed countries. Therefore, their spending behaviour will differ (Slade, Dwivedi, Piercy, & Williams, 2015).

Furthermore, to establish whether the spending behaviour varies with different payment methods needs to include consideration that a study on the behaviour of more affluent

consumers in a developed country may not apply to people in developing countries that belong to the middle or lower middle class (Slade, Dwivedi, Piercy, & Williams, 2015). It again asserts case-specific considerations, which are bound in terms of time, space, and location and the people from different locations and categories can exhibit different behaviours because of differing contexts. However, the overall implications of the credit card use and the debit card use that leads to higher spending and the payment amount differ with the different spending tools is universal (Trung, 2015).

The consumer behaviour is refers to all of the activities of individuals, groups or organizations, for purchasing, using and assessing services and products that include the mental, emotional and behavioural response that precedes and determine these activities (Trung, 2015). Exceeding the credit limit by credit card users in the case of overspending is not realized first time by them when they first exceed the credit limit. However, because of the penalties imposed, the retraining behaviour is reinforced in the mind of the consumer for the next time, and the person takes care of excessive buying (Bertola et al., 2016).

Regarding the usability of the plastic cards or plastic money, it is reported that credit cards replaced debit cards as the most preferred payment method for the first time in 2016 in USA (TSYS, 2016). Whereas in the UK, people use debit card more than credit cards (The UK Cards Association, 2017). The tight bonding between the payment and consumption means that when a person makes the purchase, the money is immediately paid, and this occurs in the case of cash paid. The physical representation of the cash has mental connotations associated with the pain of paying the cash (Bagnall et al., 2014).

The problem of paying cash is associated with the costs that a person bears, and this is the reason that the spending by a person in case of cash payments can be less as compared to the debit card and the credit card. There is a tight bonding between the consumption and the



payment, and this is one of the likely sources that could affect the spending behaviours. It is understood in the debit card that the spending cannot increase by the amount that has been deposited by the customer (Chen et al., 2017). On the other hand, in the case of a credit card, this amount can be exceeded.

Credit cards are one of the most studied payment methods. In credit cards, the card primes the consumer to think about the payments whereas the cash activates the mind in terms of cost considerations. In the debit card, the customer can use only the amount that has been loaded or disbursed into the account associated with the credit card and the amount that can be spent by a debit card user is limited to the amount deposited (Doyle et al., 2017).

Usually, the employed class uses the credit card more in the developed countries because these people receive their remuneration on a monthly basis (Crujisen et al., 2017). These people incur their monthly expenses that can exceed their salary of the month. However, this is facilitated by the credit card and when they are in need of more money that they do not have, they can borrow the money from the credit card provider and pay certain fee for the amount exceeding the amount that they have deposited and sometimes they have to pay the penalties (Nadarajan, 2017).

The penalties that are imposed on credit cards are not present in the case of debit cards, because of their very nature (debit is money available in the holders' account) there is no credit involved in debit cards. From a demographic point of view, the salaried class is much more likely to engage in the consumption of credit card payment methods, because the amount of money they spend and the amount of money they receive in the form of remuneration is periodic in nature, therefore, their budget constraint is limited to the number of remunerations they receive (Durkin et al., 2015). These salaried class persons can often come to a situation where the expenses they budget exceed the amount of the salary they are receiving (have earned

up to that point). However, a credit card provides them the facility to purchase the things that are out of (over and above) their budget constraints and budget limitations for a specific period of time (Hernandez et al., 2017).

Cash and cheques have been the most common modes of payments in the early and the second half of 1900s (Runnemark et al., 2015). With the emergence of the internet in the 1990s, e-commerce came to rise, and internet banks and internet payments emerged. With this changing trend, it was a prediction that cash would sooner or later die. However, cash payments are used for untraceability and anonymity. Online payment methods came with the emergence of online payment methods. In the past, the payment on e-commerce was made through the plastic cards, however the online banks have also established that facilitates the risk-free online payments for example PayPal. PayPal is much safer and it is also very useful in preventing fraudulent online activities and has provided an ideal solution for the people who are engaged in e-commerce.

Mobile payments have also been termed as a next-generation payment method, and it is probable that it can replace the conventional methods. Another important method that is gaining popularity is the mobile commerce, and these are the payments that are made through the mobile, and it is getting increasing attention in the present time (Chen, 2008). The total mobile subscriptions in the world have reached almost six billion, and mobile payments are also being used for online purchases, whereas other methods such as prepaid cards, PayPal and mobile payments are also highly common (Liébana-Cabanillas, Sánchez-Fernández, & Muñoz-Leiva, 2014).

Mobile payments provide additional convenience to consumers. When compared to the online payments, in the mobile payments, the consumer does not have to log in to the banking portal using a PC, but this can be done by using a mobile application. Making payments through mobile are much safer as compared to the online banking. However, in case of lost or stolen mobile, this mode of payment can be very risky (Kooti et al., 2016). These modes of payments have different implications on the spending behaviour of consumers. Consumers are increasingly moving towards the online payment methods. Consumers usually spend more time buying expensive things from mobile applications just like they buy from the physical stores. However, the impulsive behaviour can also be found among the online purchasers. Notwithstanding, they do spend a significant time in evaluating and making a purchase decision (Kooti et al., 2016).

## 2.7 Effects on Rational Choice

Credit card spending has been associated with higher spending levels than cash, and this trend can be seen in spending on luxuries and unhealthy food. Credit cards are also associated with impulse buying; buying in an unplanned and hedonistically complex way which is linked with plastic money payment methods. Impulse buying has increased with the emergence of e-commerce, and it is estimated that almost 40% of online consumer expenditure is attributable to impulse buying (Chan, Cheung & Lee, 2017).

Impulse buying is carried out in an environment which is free from constraints. Impulse buying is characterized as an immediate and sudden purchase. Impulse buying is the process in which the customer purchases a thing that he or she has not budgeted for, but has in mind that he or she has a credit facility, and is lead to think that he or she can afford more and pay later (Hernandez et al., 2017).

On the one hand, in terms of cash, consumers usually go shopping with a limited amount of cash, which is called a budgetary constraint, and it is the limit up to which purchasing products or services can be made (Hernandez et al., 2017). Therefore, the budgetary constraint of cash limits the spending behaviour of customers. In contrast, budget constraints do not seem to be present in the case of credit card payments.

With credit cards, customers have the choice to spend more than their current budget, although money spent will need to be paid back in the future. This lack of budgetary constraint affects the state of mind of consumers (Trutsch, 2017). The budget constraint is an important economic term that has been useful in the modeling of consumption behaviour and classical economics; it explains the spending behaviour of customers with respect to the budget line or the budget constraint which means that with the given amount of income, a person can obtain a certain mix of different products and services and cannot exceed that limit (Hernandez et al., 2017). Therefore, up to now rationalizing consumer spending patterns is directly attributable to budget constraints. However, the emergence of plastic money, particularly credit cards, has diluted the concept of budget constraint, with an extended budget constraint being present in the case of credit cards, which is the credit limit of a credit card, rather than the actual income of a person.

## 2.8 Factors Affecting Online Payment Methods

The 21<sup>st</sup> century has witnessed the emergence of various disruptive, innovation-based changes and the most important is the fourth industrial revolution, which is the advent of the internet and social media (Peters & Panayi, 2016). The advent of these technological revolutions has required new ways of trading between different parties and new payment methods (Peters & Panayi, 2016).

Rapid development has been made in e-payments, which include payment processes without any paper instrument, such as debit card, credit card, electronic funds transfer (Laudon & Traver, 2016), e-banking, online banking, mobile banking (Tella, 2014), e-wallet, e-cash, e-check, online storage value, digital accumulating balance and wireless payments (Junadi, 2015).

The proportion of total cash flow for each payment form is about 12%, and 97% of enterprises accept payment via funds transfer, 16% payment cards, and 4% e-wallet. Although 45% of the population use the internet, revenue from e-payments has only reached 5% of total revenues because of the various risks customers perceive (Laudon & Traver, 2016).

Traditional monetary methods had certain security risks, not being able to keep money secure from theft was one such, and this was one of the reasons that banks came into being, and this system prevailed into the 20<sup>th</sup> century. Cheques used to represent cash were one of the most convenient methods of carrying and paying money safely without the risks involved in carrying cash (Peters & Panayi, 2016).

Shopping from online stores is becoming more and more popular in developed/developing countries. However, in developing countries, people are not used to buying products without physically touching and testing them (Abu-Shamaa, 2015). Socio-cultural factors such as these and technology-related factors as well affect the acceptance of online shopping. There are also other factors that affect the uptake of online shopping; barriers in logistics and delivery, limited options for payment, a lack of technology infrastructure and a lack of trust in the internet; particularly in developing countries.

The main model behind the adoption of the new online payment methods is the Technology Acceptance Model (TAM) proposed by Fred Davis (1985), which defines the

various drivers and motivations behind adopting different systems and technologies, emphasizing usefulness and ease of use (Abu-Shamaa, 2015).

The most significant factor in the acceptance of a new technology, according to Abu-Shamaa (2015) is trust. Due to the lack of trust, most consumers avoid paying with credit/debit cards and prefer the cash on delivery method for payment. Security and trust issues affected people in the 1990s in developed countries in the same way that is now affecting the behaviour of consumers in developing countries (Abu-Shamaa, 2015).

The study by SivaKumar and Gunasekaran (2017) shows that four factors affect purchasing behaviour these being; perceived benefits, the risk associated with payment methods, the consumer's tendency towards innovativeness, and the consumer's intention and attitude. These have also been the main factors in choosing traditional online payment methods, which is credit card payment over the internet.

While using e-cash and e-wallet through smart mobile devices are common practice these days, the acceptance of mobile payment depends on the provision of mobile networks of consumers and retailers (Tatjana, Jan, & Niklas, 2016). Payment through mobile was identified as the most popular way to pay in the 2000s among American consumers, and later became more popular in Europe, the US and some regions in Asia as well (Taylor, 2016). While mobile payment options seem like an increasingly popular choice, research in this field is in its infancy (Groß, 2015).

A vast amount of literature is looking into the benefits of mobile payments, but the risks related to it are not being researched (Raina, 2014). Mobile payment is an important payment media that has the potential to attract customers, and therefore merchants, mobile phone manufacturers, software developers, bank decision makers, government agencies, should look at their marketing strategy in relation to it (Tan & Ooi, 2014).

One of the most important factors that supports the significance of mobile phone based payments is the increasing penetration of smartphones (Shaikh & Karjaluoto, 2015). German company PayBox first introduced mobile banking in the 1990s in collaboration with Deutsche Bank making it available in European countries such as Spain, Austria, Germany, and the UK, whereas, in developing countries, Kenya was the first country to adopt a mobile banking system called M-Pesa in 2007 (Shaikh & Karjaluoto, 2015).

The Nigerian's MTN was an attempt to reduce poverty and provide supplementary income and microfinance to people so that they may escape poverty, making this passive adoption rather than active adoption (Shaikh & Karjaluoto, 2015).

The meta-analysis of literature on mobile payments from 2005 to 2014 shows that there are fifty-five relevant publications, 13% of which were conference publications on mobile payment (Shaikh & Karjaluoto, 2015).

Interestingly, consumers are also making their payments via smartphones, even when they are in a physical store, which means that consumers do not only consider mobile phone based methods for online purchases, but they also consider these methods in brick-and-mortar settings. This disengages the concept of ease of use in the TAM for online purchases (Abu-Shamaa, 2015) as customers are also making online payments when purchasing products in a traditional setting such as a store. It implies that there is more perceived value in online payments for online shopping, but these methods can be used for traditional shopping as well.

Two of the most important reasons for the development of these payment technologies were the necessity for ease and security (Peters & Panayi, 2016). However the same security risks are now being posed to the new technologies by various fraudulent techniques (Ozcan & Santos, 2014).

### 2.8.1 Perceived Risk

One of the major perceived risks includes the risk of going to an unsafe website entering one's credit card details and having the card used fraudulently. It is one of the major risks as internet consumers find it difficult to select the reliable websites which are very few. Online security is one of the major factors, since there were still few websites lacking authentication that will secure the e-payment system (Swick, 2018). Users' negative experiences are likely to lead to changes in their behaviour due to the impact of perceptions of future risk – known as “perceived risk” (Featherman & Pavlou, 2016).

The perceived risk related to online payments methods includes a combination of uncertainty and the seriousness of the outcome involved (Bauer, 2015). The perceived risk can be divided into two dimensions, the risk associated with online financial transactions and the perceived risk with a product or service obtained through online shopping (Park, Lee, & Ahn, 2014). The payment method is a source of anxiety and can impact consumer purchasing behavior; in addition, it is difficult for customers to figure out whether a website is credible (Park et al., 2014).

Customers might be using a dishonest website or the website itself is honest but the security and authentication systems are weak, leading to the customer's personal information being subject to misuse (Park et al., 2014). An example of this is hacking of debit card, and credit card numbers online, which can be accessed in the case of a breach in a website with a weak security system.

There is also uncertainty about the products and services bought online as no physical experience is available and consumers cannot assess the quality and features of the product or



services in person, or they lack a way of assessing the reliability of the products or services (Park et al., 2014).

### 2.8.2 Trust

Trust is an important factor affecting the choice of payment method, and it is a critical challenge to e-payment systems as it is a subjective belief that a party will fulfil its obligations according to the expectations of the stakeholders (Lu, Yang, Chau, & Cao, 2014). Trust is built from reputation, and it is a defining feature of major economic and social interactions where uncertainty is present.

Trust is the most important element in the adoption of e-payments and when comparing e-payment and traditional payment methods, more consumers use e-payments methods as its convenience and the perceived level of trust increases, as risks are reduced (Yaokumah, Kumah, & Okai, 2017).

### 2.8.3 Ease of Payments, Time Saving, and Risk

Another important factor that affects the decision to use an online payment method is the ease of making payments. Making an electronic payment is much easier when compared to cash because a person does not need to carry bulky cash at all times and issuing cheques that need ID verification. Instead, a debit card or credit card can be used. Electronic payments also save time for both consumers and companies (Hamid & Cheng, 2014). Some payments made electronically are almost immediately transferred to the account of the company or individual, whereas cheques, still extensively used in businesses transactions and purchases, have clearing times of up to two days.

## 2.9 Summary

Upon reviewing the existing literature on the subject, online payment methods have evolved over time and is becoming increasingly more popular (Grüschow, Kemper, & Brettel, 2016; Runnemark, Hedman, & Xiao, 2015). There are some major factors which consumers consider when choosing their preferred method of online payment (Liébana-Cabanillas, Sánchez-Fernández, & Muñoz-Leiva, 2014; Thomas, Desai, & Seenivasan, 2011; Soman, 2003; Khan, Belk, & Craig-Lees, 2015). The technology acceptance model (TAM) has been developed to understand consumer behavior and this model, applies well to this research problem, due to the technology involved in online payments (Avni, 2015; Ferrao & Ansari, 2015). TAM states that if a consumer believes that a certain technology is easy to use he or she will accept using it and adopt it as accepted or preferred method/product (Marangunić & Granić, 2015). Numerous studies have been carried out which have focused on understanding how people chose their payment method while shopping online; and significant attention has been paid to the consumers' behaviour and cognitive patterns in order to understand what factors determine the choice of a particular payment method. This review of past studies tells us that perceived risk, trust, ease of use, time-saving, and security are the major determinants affecting the choice of an online payment method (Slade, Dwivedi, Piercy, & Williams, 2015).

### 3 Methodology

Research method refers to the systematic framework used to conduct research. Researchers have identified a number of research methods, such as qualitative, quantitative and mixed-methods research, and these can involve experiments, surveys, interviews, observation, and case study (Verma, 2012). This chapter presents an overview of the research methodology used in this study covering the collection of data, the research method, research questions, survey development, data collection, data analysis, and ethical considerations.

#### 3.1 Research Method

Qualitative research methods are used to explore a topic in detail with a focus on events, experiences, and situations. On the other hand, quantitative research methods are based on the categorization of features, calculation and development of statistical models with the aim of testing the hypotheses and generating inferences (McCusker & Gunaydin, 2015). The mixed method methodology logically combines qualitative and quantitative methods. This method overcomes the weaknesses of both methods and optimizes their advantages (Walliman, 2017). For this study, a quantitative research method was used and the reasons for this choice are outlined below in Section 3.2. A quantitative method was used to form inferences based on quantitative data and logical answers to the questions with the help of statistical tools (Bernard, 2017). The research questions to be answered by this method are identified below.

#### 3.2 Justification for the Methodology

For this study, as indicated above, a quantitative research method was used. This study aims to identify the factors that influence consumers to adopt one of two online payment options (PayPal or Credit Card). This is a relationship between a dependent and an independent

variable. So, as per the study conducted by Musa, Khan, and Al Share (2015), a quantitative method was seen as appropriate for this reason. The author used a quantitative research method developing a survey questionnaire in order to collect data. According to Howell (2012), this is a positivist approach, which uses quantifiable data for statistical evaluation. The role of the researcher in a quantitative method is to collect data and make objective interpretations. The main reason for choosing this method was to work with a larger sample size, infer conclusions which can be generalized to a wider population. The results will be reliable as they are based on statistical evidence. This is a practicable method when there is a need to make systematic and standardized comparisons. However, the method's limitations include a lack of exploration of the topic in detail, and no inclusion of events and experiences, i.e., there is no subjective perspective from the individual research participant (Bless, Higson-Smith & Kagee, 2006).

### 3.3 Research Questions

This study attempts to understand the factors that affect choice of method of payment by consumers. *Research Question 1: What are the factors that influence choice of payment method when consumers shop online?* Researchers have different opinions about the adoption of mobile and online payment systems. For example, according to Daştan and Gürler (2016), perceived trust and mobility have a positive impact on consumer choice in regard to mobile and online payment systems such as PayPal and credit cards. However, perceived usefulness and ease of use do not incline consumers to make payments using online or mobile payment systems. On the other hand, Lai (2016) found that factors such as, design, security, perceived usefulness and ease of use inclined consumers to use credit cards or other e-payments methods. Therefore, the study specifically examined the role of perceived usefulness, ease of use, security and risk. *Research Question 2; Do perceived usefulness, ease of use, security and risk impact on consumers' choice of either PayPal or credit card as a payment method?* The

research also examined the role of monetary value of the transaction. *Research Question 3: Does the choice of payment method depend on the expensiveness of the product being purchased online?*

### 3.4 Data Collection (Primary and Secondary Data)

There are two main methods of data collection, primary data and secondary data collection. Primary data are data which are raw and that are collected from various sources (Lee, Lee & Lee, 2000). Examples of primary data collection include personal investigation via experiment/survey, through investigators and via questionnaires, telephone interviews, and internet. A survey is an accurate and reliable method of data collection. It is highly practical for smaller sample sizes or field experiments (Gratton & Jones, 2010). The questionnaire method also has benefits, for example, it is less expensive and time-consuming as the questionnaire can be sent via email or mail to obtain the data (Lee et al. 2000). For this study, the questionnaire method was used to collect first-hand data from a sample of consumers.

Secondary data are data which is readily available research that researchers have already analyzed and inferred for results (Bernard, 2017). The secondary data in this study were collected through books, journals, reports, and websites.

### 3.5 Research Instrument (Survey Development)

The survey questionnaire for this research was developed using the online tool, Qualtrics ([www.qualtrics.com](http://www.qualtrics.com)). The software enables researchers to develop the questionnaire with the help of a self-explanatory wizard interface (Guttmacher, Kelly & Ruiz-Janecko, 2010). The questionnaire included close-ended questions related to factors, such as ease of use, perceived usefulness, security and the risks of using online payment methods.

The choice of these survey questions was informed by the research methodologies employed in previous studies conducted by Davis (1989), Berteau (2010), and Forsythe et al. (2006). Firstly, Davis (1989) sought to study the user acceptance of computers based on their perceived usefulness and their perceived ease of use. In the current study, the researcher employed a similar approach seeking to determine the user acceptance of various online payment methods by asking them if the choice of a method was informed by the perceived ease of use or the perceived usefulness. Arguably, these two variables, as suggested by Davis (1989) can help determine why consumers prefer a specific online payment method over another.

Similarly, Berteau (2010) performed a meta-analysis of various studies that explored perceived risk in e-commerce. Importantly, Berteau (2010) identified trust, privacy, security, and cost of online companies as important factors that consumers consider before choosing an online company to transact with. Therefore, in the current survey, the researcher included question items containing these factors because of their significance in informing the consumer's decision (Arango, Huynh & Sabetti, 2015).

Forsythe et al. (2006) also had a similar approach in their bid to develop a scale to measure the perceived risks and benefits of online shopping. In their study, the authors claim that financial risk is one of the most significant factors that consumers consider before they transact online. Xu & Riedl (2011) agree that the security of the credit card, the privacy of sensitive personal details, and the trustworthiness of the company specifically define the financial risk that consumers consider before transacting with an online company. Therefore, the researcher found it important to include these variables in the survey to help understand the choice of online payment methods by consumers when they shop online.

The structure of the survey questionnaire was based on the 5-point Likert scale. This scale was used because it is an ordinal psychometric evaluation of behaviors. The respondents of the

questionnaire are asked to reply according to their level of agreements or disagreement. The key advantages of this scale include comprehensibility, quantifiable response and that the results can be analyzed mathematically (Madu, 2003).

### 3.6 Population and Sample Size

The population for the study included all New Zealanders who participate in online shopping. The sample of the study was  $n=228$  New Zealanders (See Section 3.7 for sampling method), but after careful assessment the sample came to  $n=202$  participants. The selected participants were between the ages of 22 and 65 years, included both male and female participants, all of whom have made online purchases (using PayPal and/or Credit Cards).

### 3.7 Sampling Method

The sample of 228 New Zealanders ( $n=202$  after cleaning and deletion), was drawn from an online panel. Panel recruitment of respondents is usually based on simple random sampling or stratified sampling. Random sampling is the process of selecting participants randomly to reduce bias and error and to offer an equal chance to every participant to take part in the study (De Leeuw, Hox & Dillman, 2012).

### 3.8 Data Collection Process

The recruitment of the participants for the main survey was conducted through the CINT Panel. Those selected were invited to take part and given a period of one week to decide whether they wanted to participate or not. The invitation also included a participant information sheet (see Appendix B) and a means of assuring respondents about their privacy and the security of their data.

Following recruitment, the participants were asked to follow an online link, which entailed visual stimuli. The participants were provided with brief details about the study in which they

had agreed to participate. They were informed about the significance of the topic, given an introductory overview of the study, and other important information.

The next step was to fill out the questionnaire and they were requested to do this based on their own opinion and behaviors. The survey questionnaire (see Appendix C) included ten closed-ended questions, from which Question 1 and 2 were about the choice of paying for a branded (expensive) coat via credit card or PayPal or an unbranded coat using PayPal or credit card. Questions 3 and Question 4 were 5-point Likert scale items about the perceived usefulness, ease of use, risk, and security of the method. Questions 5 to 10 were about the demographics of the participants.

### 3.8.1 Branded Items vs Unbranded Items

The survey questionnaire presented respondents with one of two scenarios for either a higher-priced branded coat or a lower-priced unbranded coat (Table 3.1) in order to discover whether there is a difference in respondents' choice of payment methods when it comes to paying for items which are of higher or lower monetary value. In the literature researchers have discussed the idea that customers tend to choose their online payment method by considering the monetary value of the transaction. In this research the branded/unbranded questions were used to determine which factors influence the choice of payment method when consumers are buying an expensive or an inexpensive item online. As noted earlier, researchers in the past have noted that when higher amounts of money are being paid for online transactions, customers tend to choose a payment option which is perceived as more secure and safe to use.



Table 3.1 Branded/unbranded shopping scenarios

| Scenarios  |   |
|--|---|
| <p>You have been shopping online for some time to find a suitable coat for yourself. You have just identified two coats that you consider suitable for your needs. They are perfect for you in style, size and price. Although you also like an unbranded coat, selling at \$1,155 at another online store, you prefer the branded Gucci coat at \$2,700 in the company's online store. <b>You decide to select the branded Gucci coat at \$2,700.</b> After selecting the Gucci coat and selecting your preferred colour, you need to pay. Among the many payment options provided by the Gucci online store, are the two payment methods you consider: PayPal and Credit Card (Visa or Master Card).</p> | <p>You have been shopping online for some time to find a suitable coat for yourself. You have just identified two coats that you consider suitable for your needs. They are perfect for you in style, size and price. Although you like a branded Gucci coat, selling at \$2,700 in the company's online store, you prefer an unbranded coat at \$1,155 at another online store. <b>You decide to select the unbranded coat at \$1,155.</b> After selecting the unbranded coat and selecting your preferred colour, you need to pay. Among the many payment options provided by the unbranded online store, are the two payment methods you consider: PayPal and Credit Card (Visa or Master Card).</p> |

### 3.9 Data Analysis

Upon the completion and receipt of the questionnaire data, the data from the participants of the study were organized and sorted in order to perform data analysis. The data were analyzed with the help of SPSS software, which provides advanced level statistical analysis (Antonius, 2012). The data were entered into the software and descriptive statistical tools were used to perform

the analysis. The descriptive statistics included frequency distribution, charts, mean, median, and standard deviation.

### 3.9.1 ANOVA and Logistic Regression

ANOVA analysis, which is analysis of variance, has also been carried out in this study in order to understand whether there is a significant difference in the mean values of the responses given with respect to branded and unbranded items. This was undertaken to distinguish any differences in customers' views when the monetary value of the item being purchased online is higher or lower.

Logistic regression analysis was carried out between the variables being tested in this study to determine which of the independent variables had the greatest impact on the dependent variable.

### 3.10 Limitations

The study has some limitations in terms of methodology. For example, this study only used a quantitative research method, i.e., subjective opinions are not included in the study. The sample was small due to time and budget constraints. Further, the sample included only New Zealand online or retail store shoppers from the CINT panel. The results cannot be generalized to other populations.

### 3.11 Ethical Considerations

Ethical considerations were part of the study as the respondents needed to be assured that their privacy and the confidentiality of their data were guaranteed. Respondents were free to leave the study at any time and to decline to answer any question they were not comfortable answering. Ethical approval to proceed with the research was obtained from the AUT Ethics Committee (see Appendix A).

### 3.12 Summary

This research used a quantitative research method to collect primary data via a survey questionnaire. The sample of the study was 228 New Zealanders who shop online or through stores and pay via PayPal and/or credit card. The final sample was n=202 participants after deletion of incomplete responses. The sampling method was random sampling. The survey questionnaire included 57point Likert scale questions and close-ended questions. The collected data were analyzed using SPSS software, descriptive statistics, ANOVA and logistic regression.

## 4 Findings

### 4.1 Introduction

This chapter presents the results of the analyses of the primary data collected through the survey. As mentioned in the previous chapter, the researcher obtained primary data using Qualtrics surveys involving a sample of 228 individuals (n=202 after cleaning and deletion). The responses obtained are discussed further in this chapter, guided by the structured literature review. The validity of the hypotheses resulting from the literature review was tested using the primary data collected for this study via CINT.

### 4.2 Findings

The findings presented in this section include descriptive statistics and ANOVA (Analysis of Variance).

#### 4.2.1 Descriptive Statistics

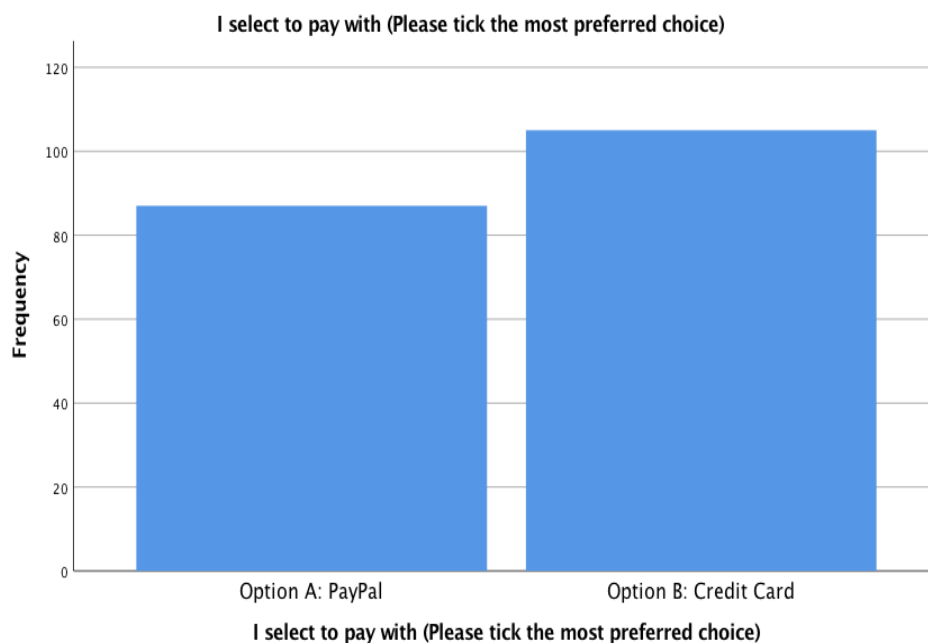
This section presents diagrammatic illustrations of the descriptive findings obtained from the analysis.

In Figure 4.1 below, we can see the majority (95%) of the respondents had purchased something online during the previous six months, leaving only 5% not having made such a purchase.



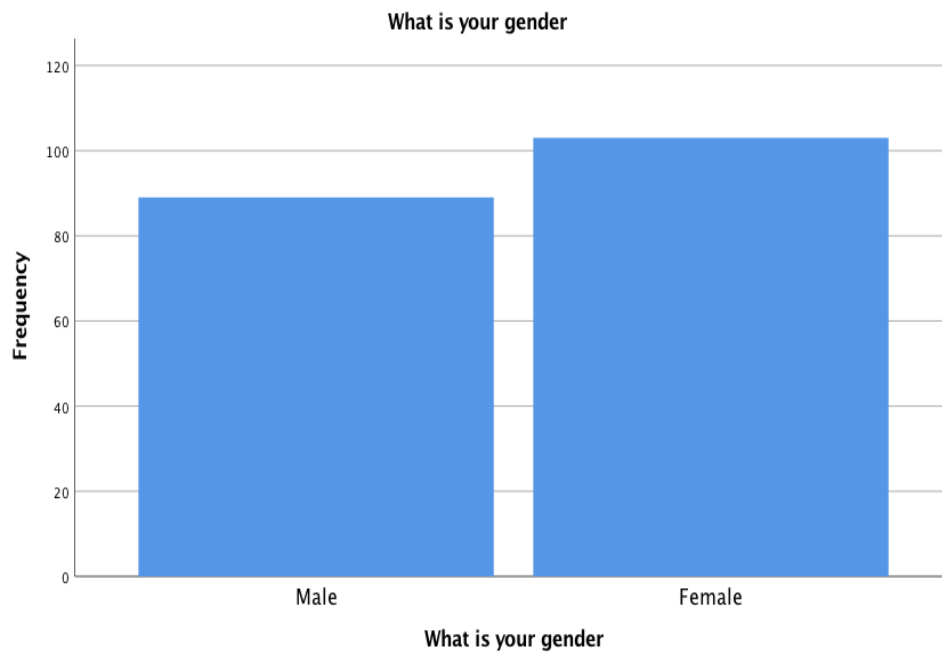
**Figure 4.1 Recency of online purchases**

Figure 4.2 shows that a small majority (56.9%) of the respondents preferred to pay for online purchases using their credit card, while 43.1 % of respondents preferred paying with PayPal.



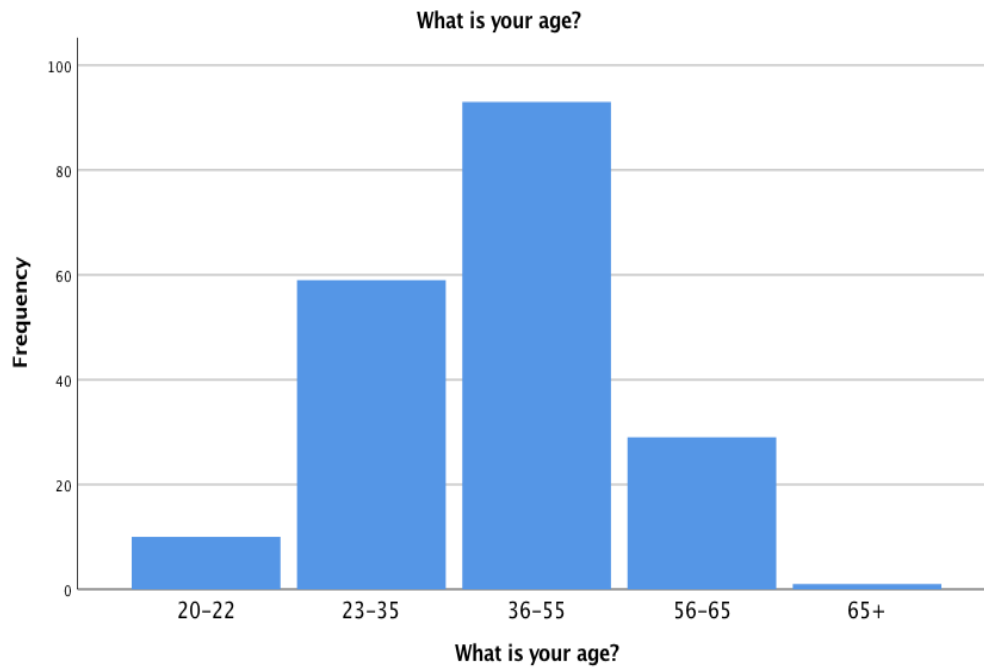
**Figure 4.2 Preferred payment method**

As for demographics, a majority of the respondents were female (Figure 4.3).



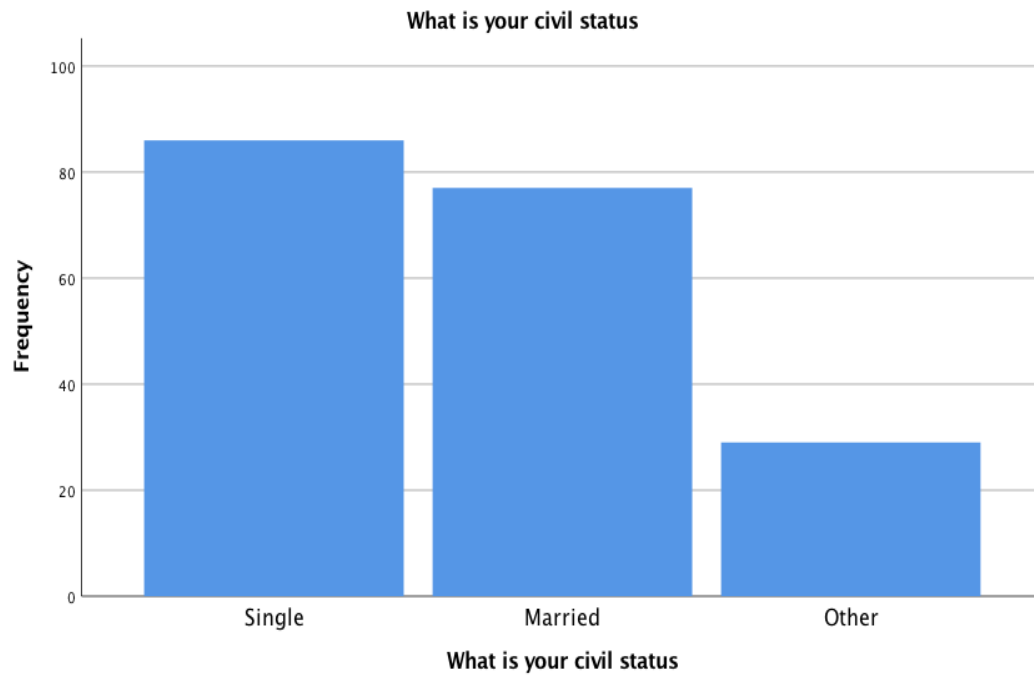
**Figure 4.3 Demographic Indicators - Gender**

Figure 4.4 shows that most respondents were below 55 years of age. The highest number of the respondents was of those aged between 36 and 55 years.



**Figure 4.4 Demographic indicators - Age group**

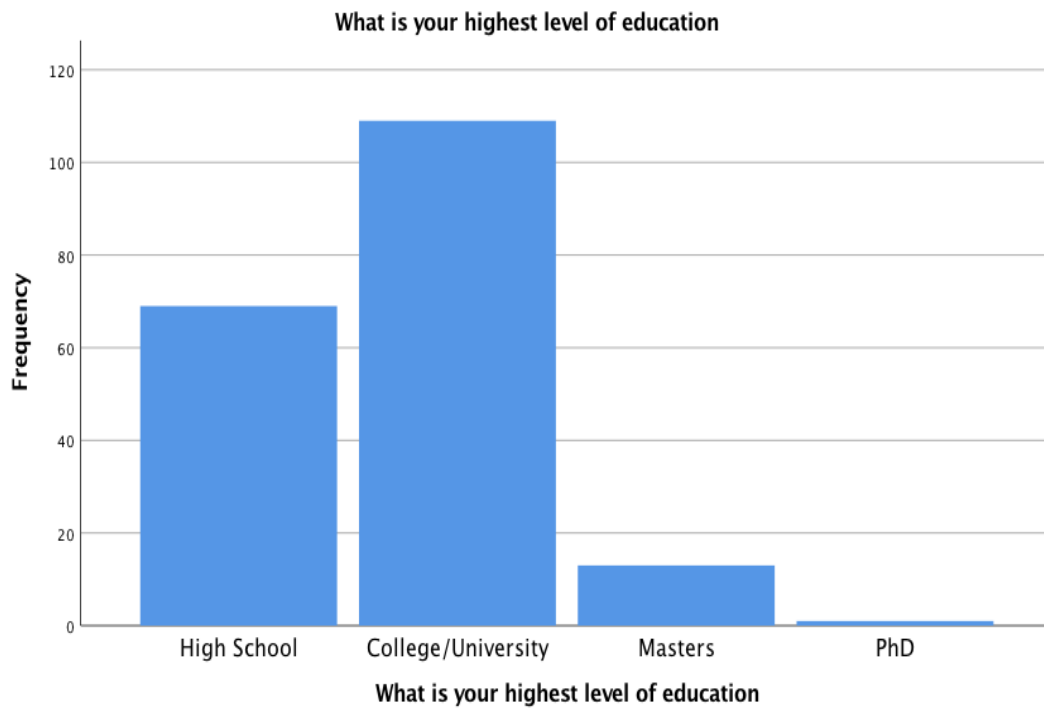
Most of the respondents (44.8%) were single (Figure 4.5). The number of married respondents is slightly lower than that of the single respondents.



**Figure 4.5 Demographic indicators - Civil status**

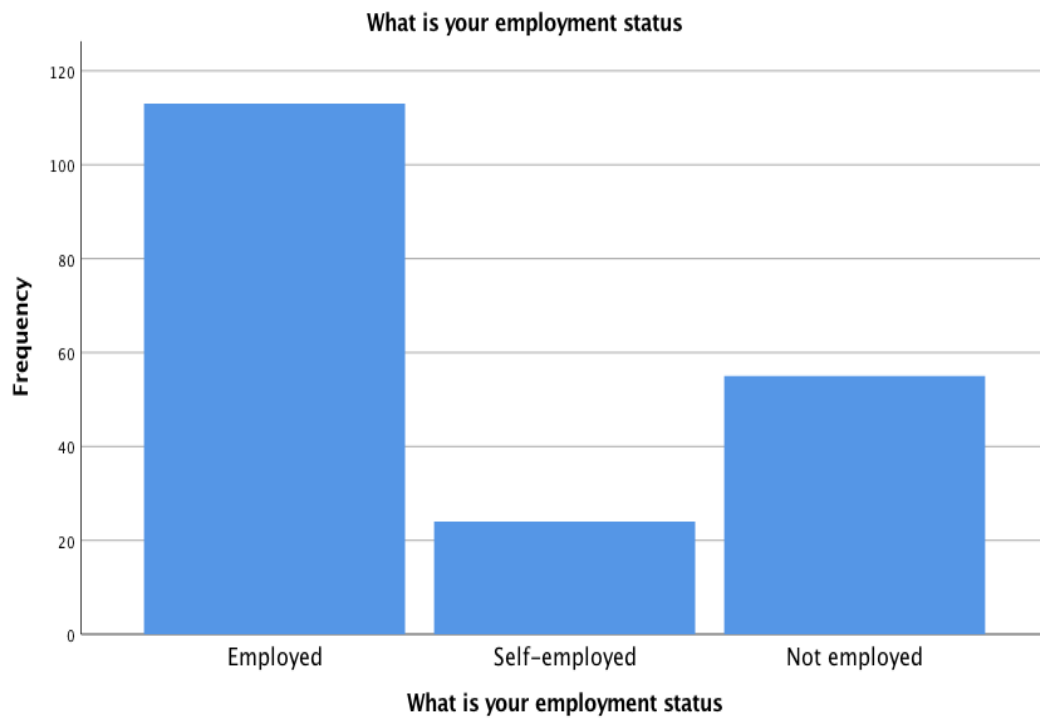
The highest level of education for the majority of respondents is an undergraduate qualification (Figure 4.6). Only 0.5 % of these respondents had a PhD as highest qualification.





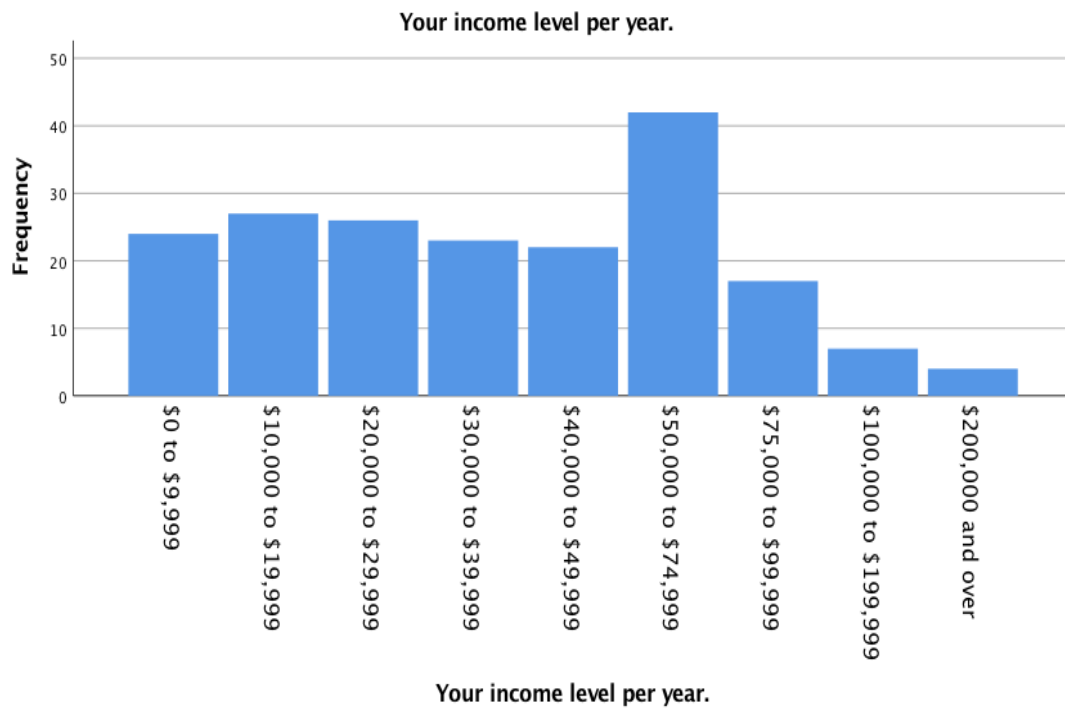
*Figure 4.6 Demographic indicator - Level of education*

Of the 202 respondents, the majority (113) was employed (Figure 5.7). Only 11.9% of the respondents were self-employed, and 27.2 % were not in paid employment.



*Figure 4.7 Demographic indicators - Employment status*

Figure 4.8 on income shows that biggest income bracket is an annual income between \$50,000 and \$74, 999. However, overall, the majority of people earn an annual income of less than \$50,000.



*Figure 4.8 Demographic indicator - Annual income*

The next set of figures look at how the respondents felt about using PayPal. The majority of respondents in the sample thought that learning to operate PayPal would be easy (Figure 4.9).

The mean rating is 5.87.

When you use PayPal to purchase the coat, to what extent do you agree with each of following statements about using PayPal - Learning to operate PayPal would be easy for me



Figure 4.9 Ease of learning to use PayPal

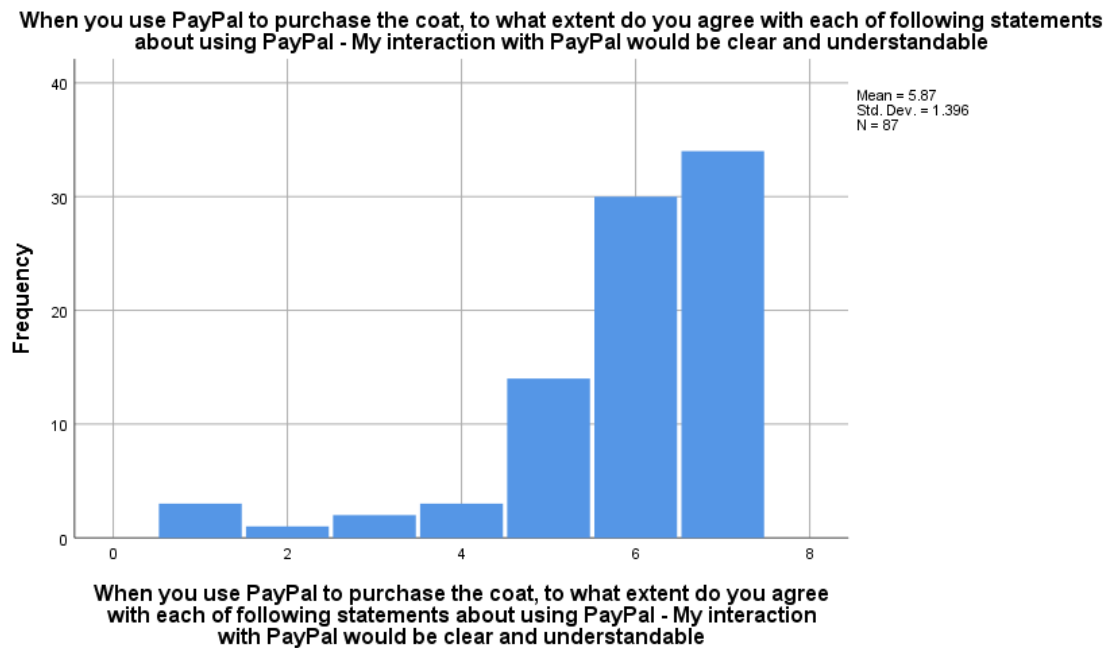
Figure 4.10 shows how easy respondents thought it would be to get PayPal to do what they wanted, with a mean value of 5.86 on a 7-point scale, a majority of the respondents found it easy to get PayPal to do what they wanted it to.

When you use PayPal to purchase the coat, to what extent do you agree with each of following statements about using PayPal - I would find it easy to get PayPal to do what I want it to do



Figure 4.10 PayPal tractability

A clear majority of respondents described their interactions with PayPal as clear and understandable (Figure 4.11).



*Figure 4.11 Interactions with PayPal are clear and comprehensible*

With a mean of 5.7, most of the respondents expressed comfort with PayPal's level of flexibility (Figure 4.12).

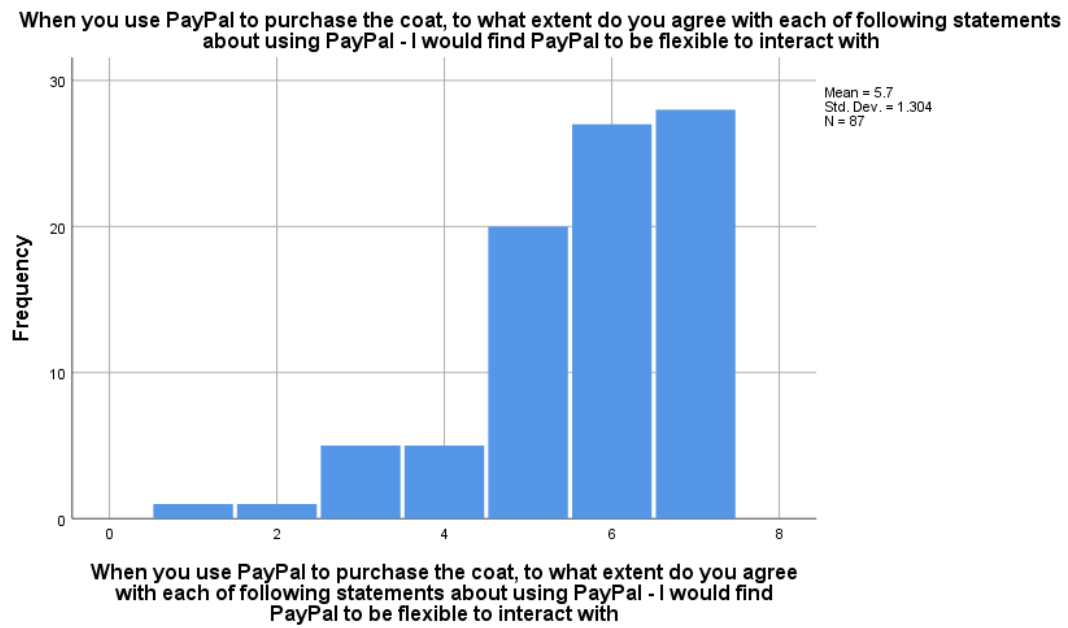


Figure 4.12 Flexibility of PayPal

With a 5.98 mean, a majority of the respondents express agreement in regard to becoming skillful at using PayPal (Figure 4.13).

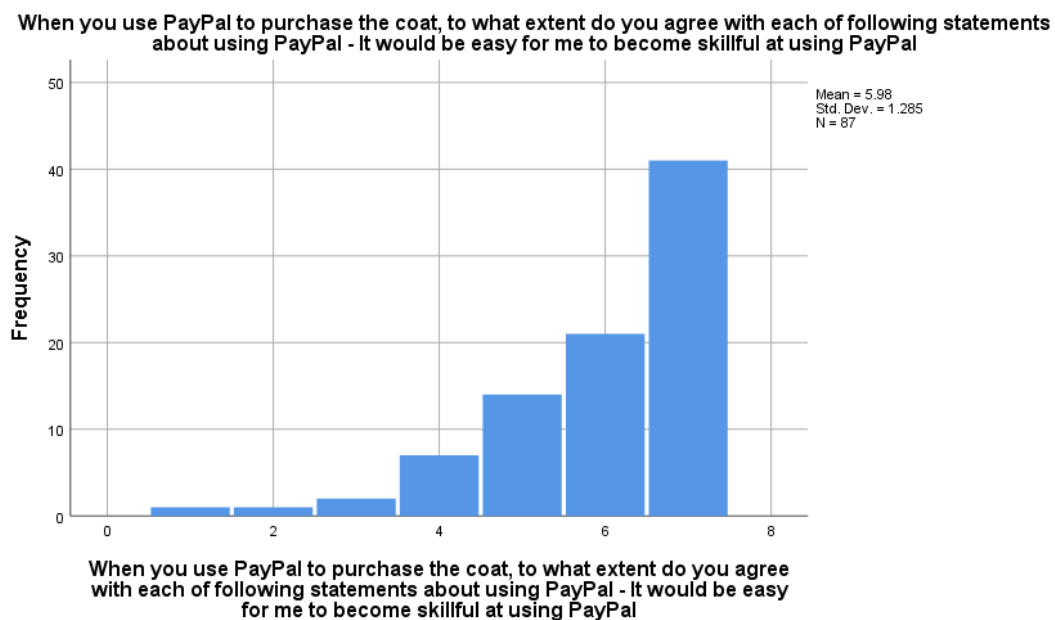


Figure 4.13 Ease of learning PayPal

PayPal's ease of use scored a mean of 6.06; as a large majority of the sample found PayPal easy to use (Figure 4.14).

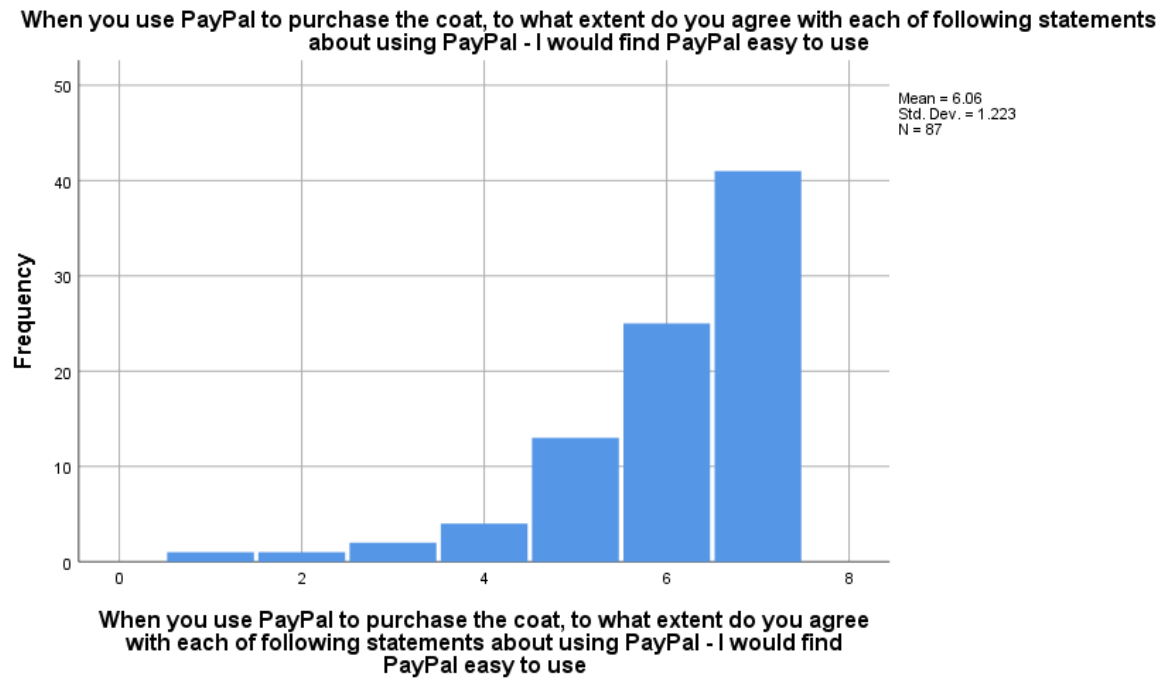


Figure 4.14 PayPal's perceived ease of use

Most of the respondents expressed a high level of trust in using PayPal services. When asked if they did not trust PayPal, the mean was only 3.09 (Figure 4.15).

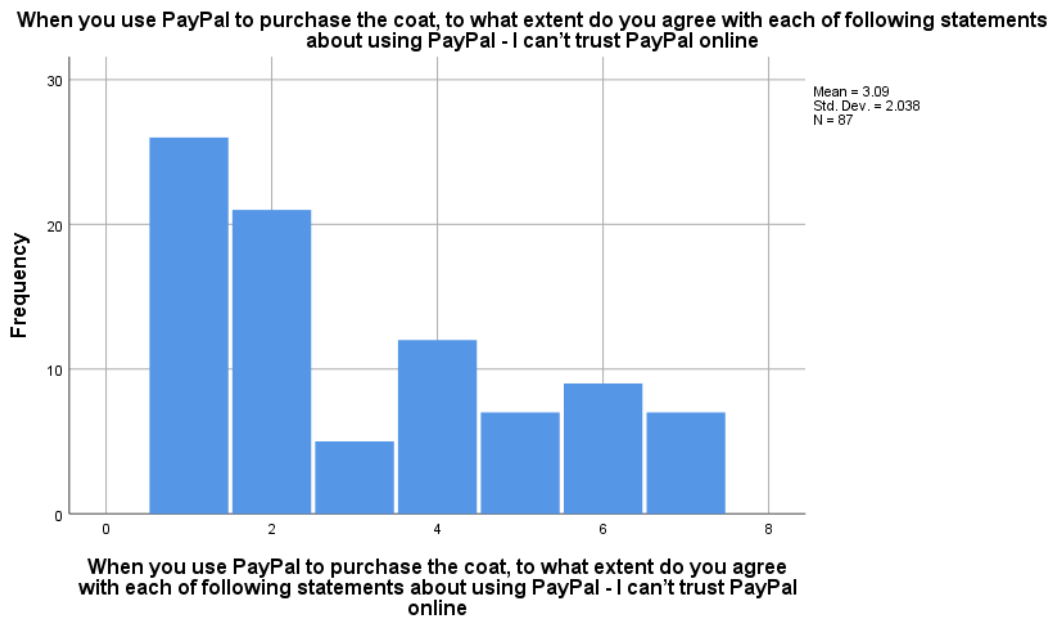


Figure 4.15 PayPal cannot be trusted online

With respect to the statement “My personal information may not be kept private”, no particular pattern was found, there being a spread of opinions across the range (Figure 4.16). The mean rating is 3.62.

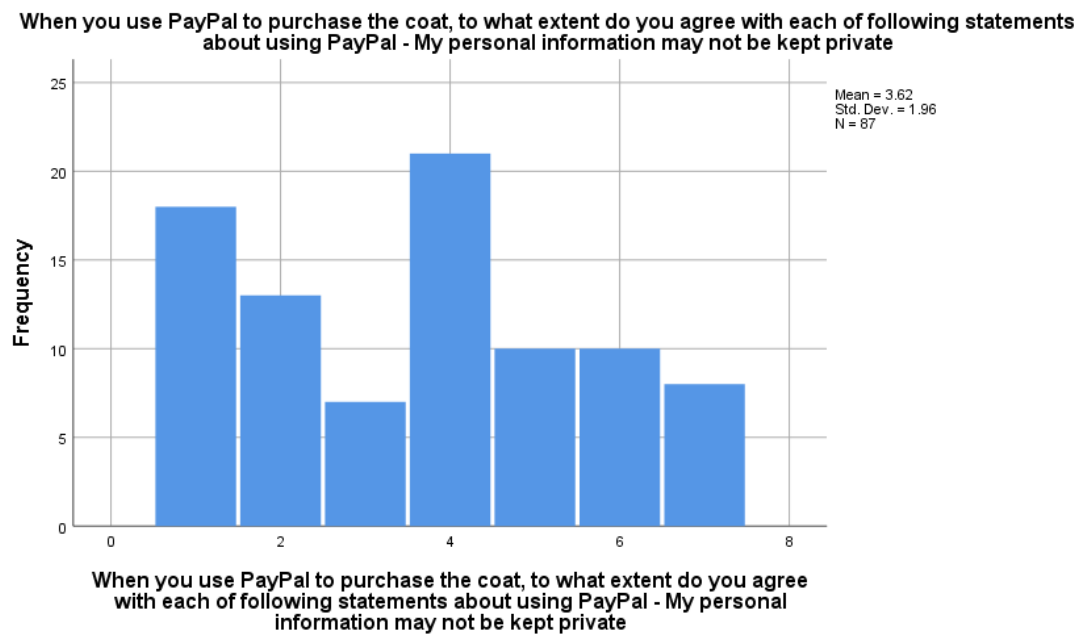


Figure 4.16 PayPal may not keep personal information private



On the other hand, with a mean of 2.99, most of respondents expressed confidence in the PayPal's security measures when asked if PayPal were not secure (Figure 4.17). However, a small percentage of respondents expressed concerns.

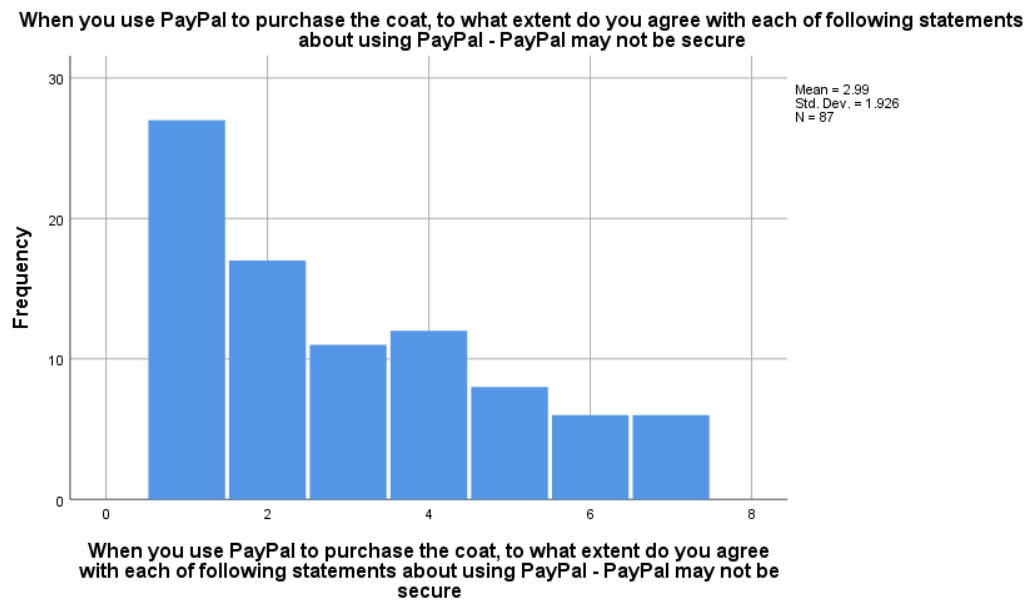


Figure 4.17 PayPal may not be secure

The next questions were pertaining to the use of credit cards. With a mean of 6.31, most respondents found it easy to learn to operate credit cards (Figure 4.18).

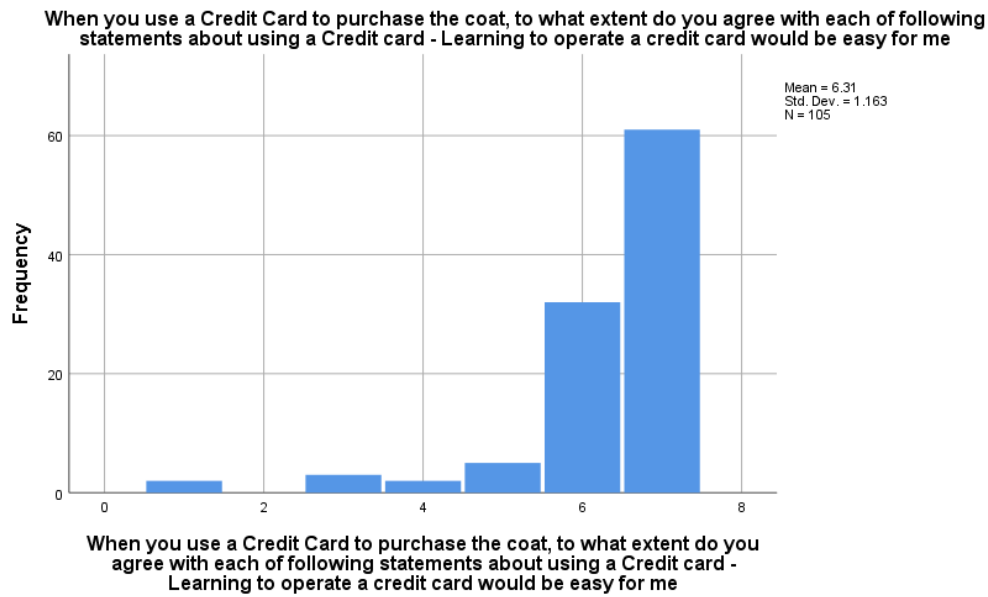


Figure 4.18 Credit cards - ease of operation

Most of the respondents believed it was easy to get a credit card to do what they wanted, the mean for this statement was 6.2 (Figure 4.19).

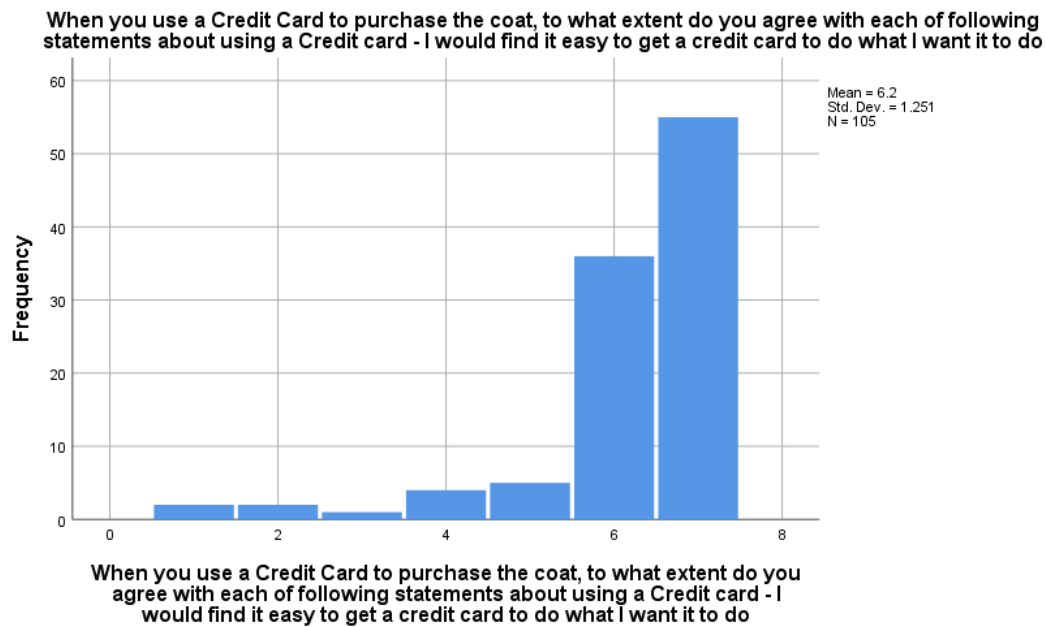
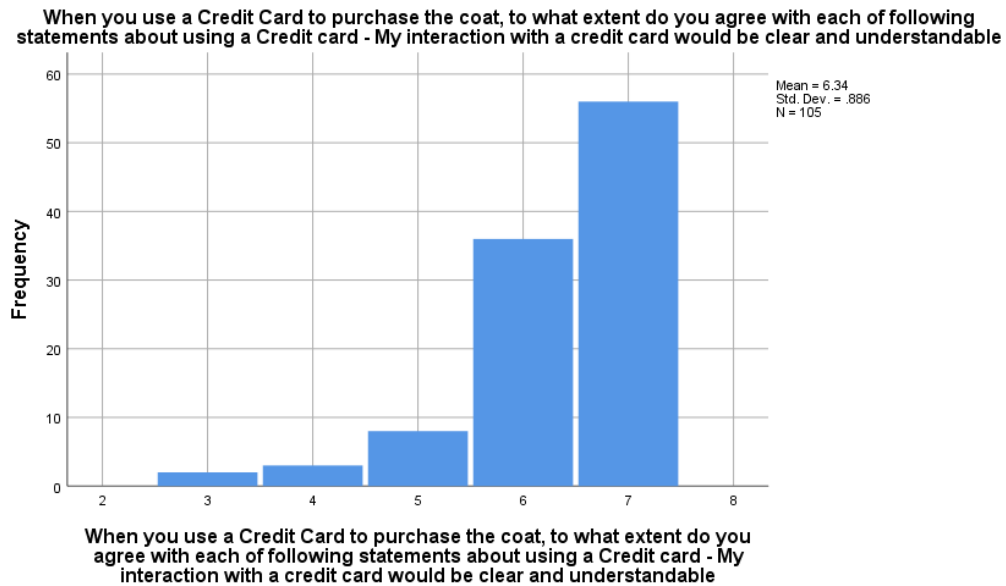


Figure 4.19 Credit card tractability

Figure 4.20, below, clearly shows that the majority of the respondents found their interactions with credit cards to be clear and understandable.



*Figure 4.20 Interactions with credit cards are clear and understandable*

With a mean of 6.1, most of the respondents thought of credit cards as a flexible tool with which to interact (Figure 4.21).

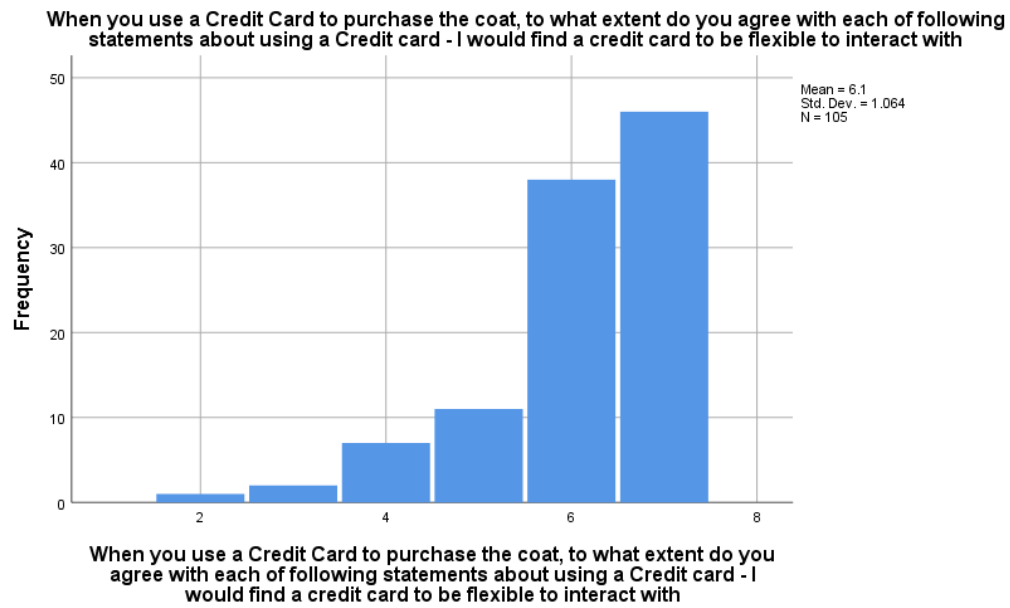


Figure 4.21 Credit card flexibility

In Figure 4.22 below we can see that, with a mean of 6.28, most respondents felt that it would be easy for them to gain skills in using a credit card.

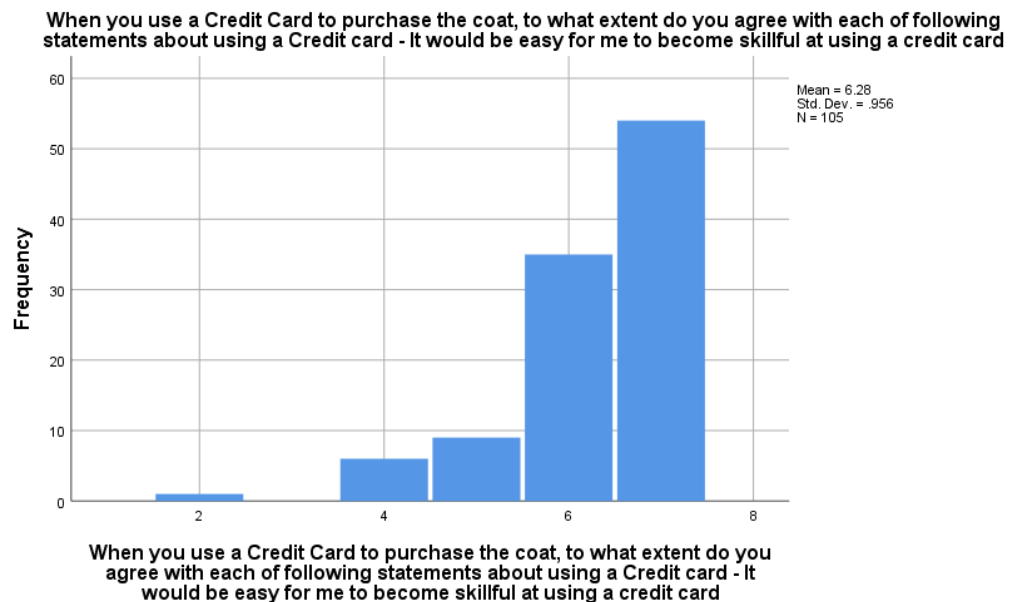
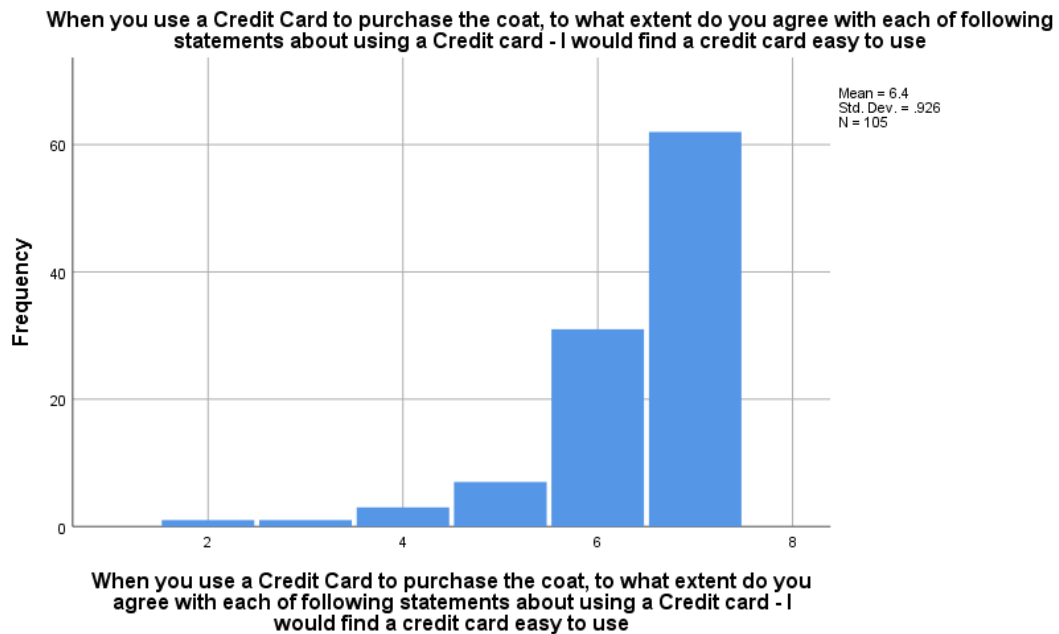


Figure 4.22 Ease of becoming skillful at using credit cards

Most of the respondents find credit cards easy to use, the mean of this statement being 6.4 (Figure 4.23).



*Figure 4.23 Credit card ease of use*

With respect to the statement, “I can’t trust a credit card online”, opinions among the respondents was mixed and no particular trend in the responses can be noted (Figure 4.24).

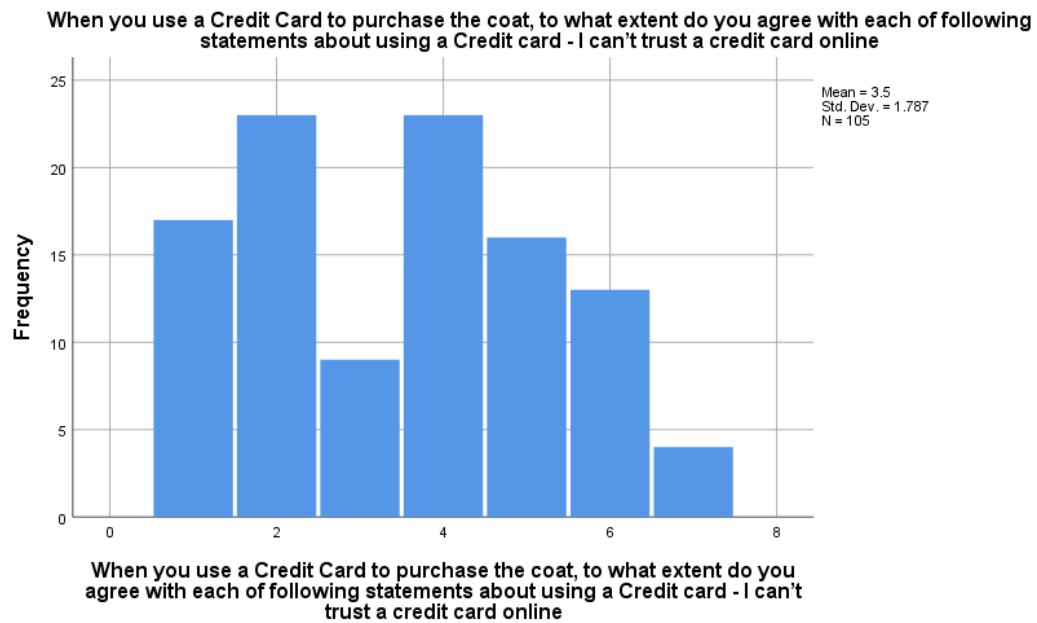


Figure 4.24 Level of trust in credit cards

Most of the respondents were not sure credit card companies would keep their personal information private; the mean was only 3.92 for this statement (Figure 4.25).

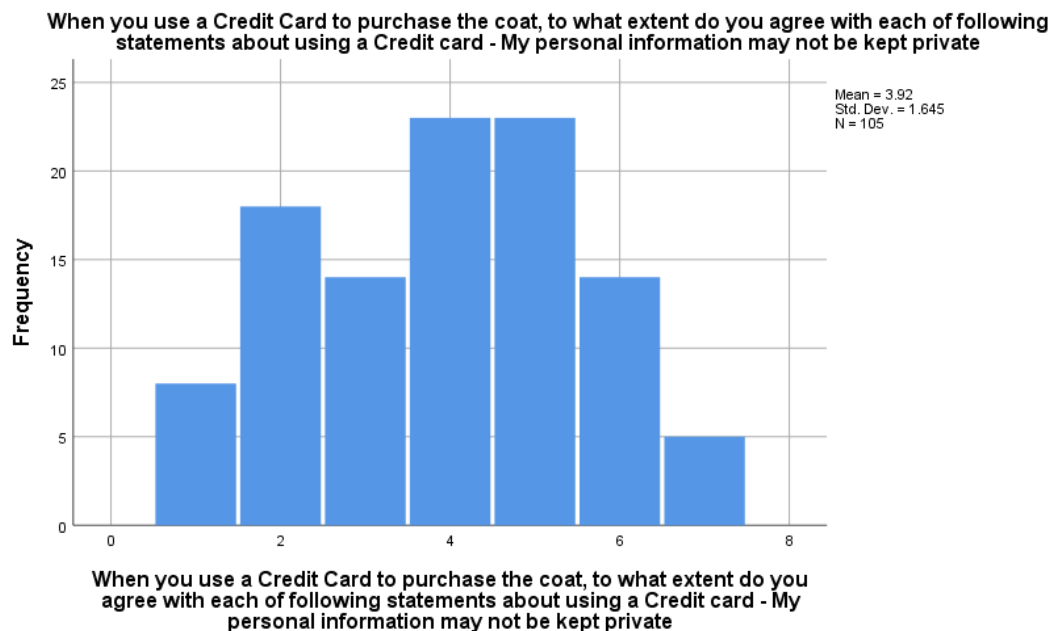


Figure 4.25 Privacy of personal information with credit cards

A majority of the respondents were unsure about the security of their credit card number when purchasing online, the mean being only 3.82 (Figure 4.26).

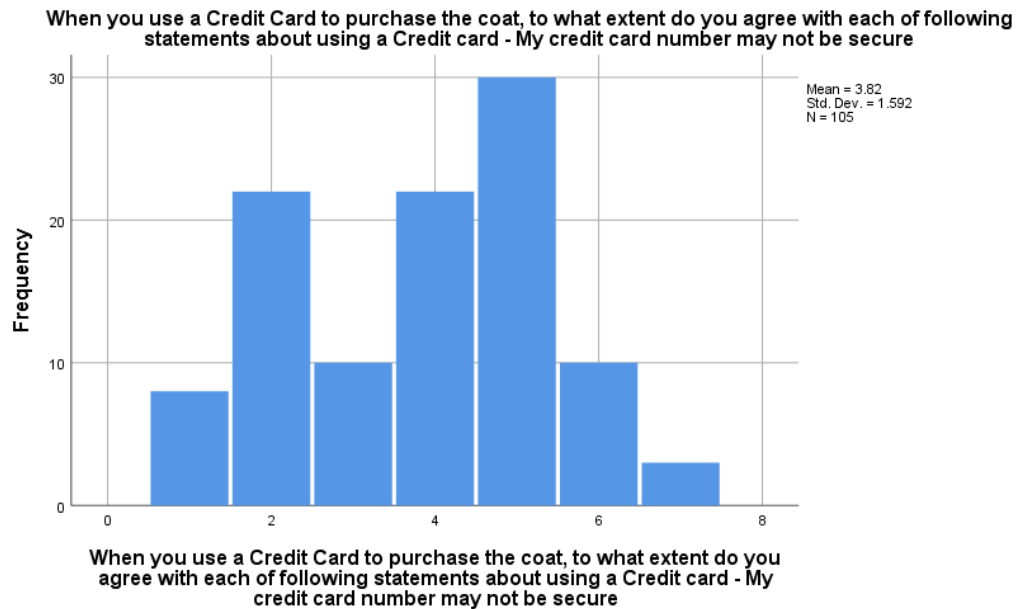


Figure 4.26 Security of credit card number during online shopping

#### 4.2.2 Differences between PayPal and Credit Cards

Of the 193 respondents 87 chose to pay with PayPal, 106 chose to pay with a credit card. When rating the statement, “Learning to operate [PayPal/credit card] would be easy for me”, there was a statistically significant difference between PayPal and credit card:  $F(1, 191) = 5.234$ ,  $p = .023$  (Table 4.1). Credit cards (mean=6.32) were rated higher than PayPal (mean=5.87).

Table 4.1 Comparison of PayPal and credit cards on the 9 rating scale items

| Statement   | Payment Method | N   | Mean | F     | p    |
|---|----------------|-----|------|-------|------|
| Learning to operate PayPal/credit card would be easy for me | PayPal         | 87  | 5.87 | 5.234 | .023 |
|   | Credit card    | 106 | 6.32 |       |      |
| I would find it easy to get PayPal/credit card to do what I | PayPal         | 87  | 5.86 | 3.206 | .075 |

| <b>Statement</b>  | <b>Payment Method</b> | <b>N</b> | <b>Mean</b> | <b>F</b> | <b>p</b> |
|---|-----------------------|----------|-------------|----------|----------|
| want it to do/ I would find it easy to get a credit card to do what I want it to do   | Credit card           | 106      | 6.21        |          |          |
| My interaction with PayPal/credit card would be clear and understandable/ My interaction with a credit card would be clear and understandable | PayPal                | 87       | 5.87        | 8.264    | .005     |
|   | Credit card           | 106      | 6.53        |          |          |
| I would find PayPal/credit card to be flexible to interact with/ I would find a credit card to be flexible to interact with                   | PayPal                | 87       | 5.70        | 5.850    | .017     |
|   | Credit card           | 106      | 6.11        |          |          |
| It would be easy for me to become skillful at using PayPal/credit card It would be easy for me to become skillful at using a credit card      | PayPal                | 87       | 5.98        | 3.599    | .059     |
|   | Credit card           | 106      | 6.28        |          |          |
| I would find PayPal/credit card easy to use/ I would find a credit card easy to use   | PayPal                | 87       | 6.06        | 5.069    | .025     |
|   | Credit card           | 106      | 6.41        |          |          |
| I can't trust PayPal/credit card online/ I can't trust a credit card online   | PayPal                | 87       | 3.02        | 3.503    | .063     |
|   | Credit card           | 106      | 3.54        |          |          |
| My personal information may not be kept private   | PayPal                | 87       | 3.57        | 2.139    | .145     |
|   | Credit card           | 106      | 3.95        |          |          |
| PayPal may not be secure/ My credit card number may not be secure   | PayPal                | 87       | 2.93        | 13.326   | .000     |
|   | Credit card           | 106      | 3.85        |          |          |



The respondents agreed that their interactions with both methods of payment would be clear and understandable. However, credit card method has a significantly higher mean, 6.53, while PayPal was 5.87, ( $F=8.264$ ,  $p=.005$ ). Both methods of payment were found to have a significant level of flexibility ( $F=5.850$ ,  $p=.017$ ). The means for credit card and PayPal were 6.11 and 5.7 respectively. In this instance, the credit card method was still rated higher by a majority of the respondents. The ease of use factor was also similar for the two methods, there being only a narrow, small difference in the means, 0.35 ( $F=3.599$ ,  $p=.059$ ). Finally, security was also an aspect where the two methods were nearly equal, the credit card recording a mean of 3.85 against PayPal's 2.93 ( $F=13.326$ ,  $p=.000$ ). Overall, from all nine statements, the credit card method consistently recorded higher means than PayPal. This supports the credit card method of payment being the choice of most of the respondents when compared with PayPal.

### 4.2.3 Descriptive Statistics

This table provides descriptive statistics to help clarify the difference between PayPal and Credit Cards in the Gucci coat scenario:

Table 4.2 Descriptive statistics for Gucci coat scenario

| Statement   | Option                | N  | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Minimum | Maximum |
|---|-----------------------|----|------|----------------|------------|----------------------------------|-------------|---------|---------|
|   |                       |    |      |                |            | Lower Bound                      | Upper Bound |         |         |
| Learning to operate PayPal/credit card would be easy for me               | Option A: PayPal      | 39 | 6.10 | 1.314          | .210       | 5.68                             | 6.53        | 1       | 7       |
|   | Option B: Credit Card | 56 | 6.20 | 1.381          | .184       | 5.83                             | 6.57        | 1       | 7       |
|   | Total                 | 95 | 6.16 | 1.347          | .138       | 5.88                             | 6.43        | 1       | 7       |
| I would find it easy to get PayPal/credit card to do what I want it to do | Option A: PayPal      | 39 | 6.03 | 1.246          | .199       | 5.62                             | 6.43        | 2       | 7       |
|   | Option B: Credit Card | 56 | 6.05 | 1.420          | .190       | 5.67                             | 6.43        | 1       | 7       |
|   | Total                 | 95 | 6.04 | 1.344          | .138       | 5.77                             | 6.32        | 1       | 7       |
|   | Option A: PayPal      | 39 | 6.10 | 1.119          | .179       | 5.74                             | 6.47        | 2       | 7       |

| Statement  | Option                | N  | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Minimum | Maximum |
|--|-----------------------|----|------|----------------|------------|----------------------------------|-------------|---------|---------|
|  |                       |    |      |                |            | Lower Bound                      | Upper Bound |         |         |
| My interaction with PayPal/credit card would be clear and understandable | Option B: Credit Card | 56 | 6.29 | 1.022          | .137       | 6.01                             | 6.56        | 3       | 7       |
|  | Total                 | 95 | 6.21 | 1.061          | .109       | 5.99                             | 6.43        | 2       | 7       |
| I would find PayPal/credit card to be flexible to interact with          | Option A: PayPal      | 39 | 5.77 | 1.224          | .196       | 5.37                             | 6.17        | 3       | 7       |
|  | Option B: Credit Card | 56 | 6.20 | 1.086          | .145       | 5.91                             | 6.49        | 3       | 7       |
|  | Total                 | 95 | 6.02 | 1.158          | .119       | 5.79                             | 6.26        | 3       | 7       |
| It would be easy for me to become skillful at using PayPal/credit card   | Option A: PayPal      | 39 | 5.92 | 1.156          | .185       | 5.55                             | 6.30        | 3       | 7       |
|  | Option B: Credit Card | 56 | 6.25 | 1.066          | .142       | 5.96                             | 6.54        | 2       | 7       |
|  | Total                 | 95 | 6.12 | 1.110          | .114       | 5.89                             | 6.34        | 2       | 7       |
| I would find PayPal/credit card easy to use                              | Option A: PayPal      | 39 | 6.13 | 1.005          | .161       | 5.80                             | 6.45        | 3       | 7       |
|  | Option B: Credit Card | 56 | 6.34 | .978           | .131       | 6.08                             | 6.60        | 3       | 7       |
|  | Total                 | 95 | 6.25 | .989           | .101       | 6.05                             | 6.45        | 3       | 7       |

| Statement                                       | Option                | N  | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Minimum | Maximum |
|---|-----------------------|----|------|----------------|------------|----------------------------------|-------------|---------|---------|
|   |                       |    |      |                |            | Lower Bound                      | Upper Bound |         |         |
| I can't trust PayPal/credit card online         | Option A: PayPal      | 39 | 2.69 | 1.749          | .280       | 2.13                             | 3.26        | 1       | 7       |
|   | Option B: Credit Card | 56 | 3.41 | 1.766          | .236       | 2.94                             | 3.88        | 1       | 7       |
|   | Total                 | 95 | 3.12 | 1.786          | .183       | 2.75                             | 3.48        | 1       | 7       |
| My personal information may not be kept private | Option A: PayPal      | 39 | 3.26 | 1.712          | .274       | 2.70                             | 3.81        | 1       | 6       |
|   | Option B: Credit Card | 56 | 3.95 | 1.623          | .217       | 3.51                             | 4.38        | 1       | 7       |
|   | Total                 | 95 | 3.66 | 1.686          | .173       | 3.32                             | 4.01        | 1       | 7       |
| PayPal/credit card may not be secure            | Option A: PayPal      | 39 | 2.69 | 1.454          | .233       | 2.22                             | 3.16        | 1       | 6       |
|   | Option B: Credit Card | 56 | 3.75 | 1.575          | .211       | 3.33                             | 4.17        | 1       | 7       |
|   | Total                 | 95 | 3.32 | 1.606          | .165       | 2.99                             | 3.64        | 1       | 7       |

#### 4.2.4 Differences between PayPal and credit cards for the Gucci Scenario (ANOVA)

ANOVA enables a comparison of means between groups and within groups (PayPal/ credit cards) for the high-priced, branded (Gucci) scenario. Table 4.3 presented below shows findings from the one-way ANOVAs. The table shows if the difference between responses is significant or not. In this regard, if the *p* value (sig) is less than 0.05 then the difference between PayPal and credit cards is significant. Findings from analysis of variance in this case show a considerable difference compared to the previous ANOVA findings. In this case, except for statements 4, 5, 7 and 8, the *p* values show a significant difference in the mean values of the groups being analyzed.

Table 4.3 ANOVA analysis of Gucci scenario

| Statements  |                | Sum of Squares | df | Mean Square | F     | Sig. |
|---|----------------|----------------|----|-------------|-------|------|
| Learning to operate PayPal/credit card would be easy for me               | Between Groups | 14.614         | 1  | 14.614      | 8.122 | .005 |
|   | Within Groups  | 172.733        | 96 | 1.799       |       |      |
|   | Total          | 187.347        | 97 |             |       |      |
| I would find it easy to get PayPal/credit card to do what I want it to do | Between Groups | 10.373         | 1  | 10.373      | 6.026 | .016 |
|   | Within Groups  | 165.259        | 96 | 1.721       |       |      |
|   | Total          | 175.633        | 97 |             |       |      |
| My interaction with PayPal/credit card                                    | Between Groups | 13.140         | 1  | 13.140      | 8.979 | .003 |

| Statements   |                | Sum of Squares | df | Mean Square | F     | Sig. |
|--|----------------|----------------|----|-------------|-------|------|
| would be clear and understandable                                      | Within Groups  | 140.493        | 96 | 1.463       |       |      |
|  | Total          | 153.633        | 97 |             |       |      |
| I would find PayPal/credit card to be flexible to interact with        | Between Groups | 3.429          | 1  | 3.429       | 2.319 | .131 |
|  | Within Groups  | 141.959        | 96 | 1.479       |       |      |
|  | Total          | 145.388        | 97 |             |       |      |
| It would be easy for me to become skillful at using PayPal/credit card | Between Groups | 2.192          | 1  | 2.192       | 1.699 | .196 |
|  | Within Groups  | 123.859        | 96 | 1.290       |       |      |
|  | Total          | 126.051        | 97 |             |       |      |
| -I would find PayPal/credit card easy to use                           | Between Groups | 5.642          | 1  | 5.642       | 4.283 | .041 |
|  | Within Groups  | 126.480        | 96 | 1.318       |       |      |
|  | Total          | 132.122        | 97 |             |       |      |
| I can't trust PayPal/credit card online                                | Between Groups | 3.693          | 1  | 3.693       | .903  | .344 |
|  | Within Groups  | 392.797        | 96 | 4.092       |       |      |
|  | Total          | 396.490        | 97 |             |       |      |

| Statements                                      |                | Sum of Squares | df | Mean Square | F     | Sig. |
|---|----------------|----------------|----|-------------|-------|------|
| My personal information may not Be kept private | Between Groups | .393           | 1  | .393        | .109  | .742 |
|   | Within Groups  | 346.587        | 96 | 3.610       |       |      |
|   | Total          | 346.980        | 97 |             |       |      |
| PayPal/credit card may not be secure            | Between Groups | 17.075         | 1  | 17.075      | 4.615 | .034 |
|   | Within Groups  | 355.170        | 96 | 3.700       |       |      |
|   | Total          | 372.245        | 97 |             |       |      |

#### 4.2.5 Descriptive statistics for the unbranded coat scenario

This table provides descriptive statistics to understand the difference between PayPal and credit cards, for the unbranded coat scenario:

Table 4.4 Descriptive statistics for the unbranded coat scenario

| Statement and options   |                  | N  | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Minimum | Maximum |
|---|------------------|----|------|----------------|------------|----------------------------------|-------------|---------|---------|
|   |                  |    |      |                |            | Lower Bound                      | Upper Bound |         |         |
| Learning to operate PayPal/credit card would be easy for me.              | Option A: PayPal | 48 | 5.69 | 1.715          | .248       | 5.19                             | 6.19        | 1       | 7       |
|   | Option B: Credit | 50 | 6.46 | .838           | .119       | 6.22                             | 6.70        | 3       | 7       |
|   | Total            | 98 | 6.08 | 1.390          | .140       | 5.80                             | 6.36        | 1       | 7       |
| I would find it easy to get PayPal/credit card to do what I want it to do | Option A: PayPal | 48 | 5.73 | 1.567          | .226       | 5.27                             | 6.18        | 1       | 7       |
|   | Option B: Credit | 50 | 6.38 | 1.008          | .143       | 6.09                             | 6.67        | 1       | 7       |
|   | Total            | 98 | 6.06 | 1.346          | .136       | 5.79                             | 6.33        | 1       | 7       |
| My interaction with PayPal/credit card would be clear and understandable  | Option A: PayPal | 48 | 5.69 | 1.573          | .227       | 5.23                             | 6.14        | 1       | 7       |
|   | Option B: Credit | 50 | 6.42 | .702           | .099       | 6.22                             | 6.62        | 4       | 7       |
|   | Total            | 98 | 6.06 | 1.259          | .127       | 5.81                             | 6.31        | 1       | 7       |



| Statement<br>and options  |                             | N  | Mean | Std. Deviation | Std. Error | 95%<br>Confidence<br>Interval for<br>Mean |                | Minimum | Maximum |
|---|-----------------------------|----|------|----------------|------------|---|----------------|---------|---------|
|   |                             |    |      |                |            | Lower<br>Bound                            | Upper<br>Bound |         |         |
| I would find<br>PayPal/credit<br>card to be<br>flexible to<br>interact with           | Option A:<br>PayPal         | 48 | 5.65 | 1.376          | .199       | 5.25                                      | 6.05           | 1       | 7       |
|   | Option B:<br>Credit<br>Card | 50 | 6.02 | 1.040          | .147       | 5.72                                      | 6.32           | 2       | 7       |
|   | Total                       | 98 | 5.84 | 1.224          | .124       | 5.59                                      | 6.08           | 1       | 7       |
| It would be<br>easy for me to<br>become skillful<br>at using<br>PayPal/credit<br>card | Option A:<br>PayPal         | 48 | 6.02 | 1.391          | .201       | 5.62                                      | 6.42           | 1       | 7       |
|   | Option B:<br>Credit<br>Card | 50 | 6.32 | .819           | .116       | 6.09                                      | 6.55           | 4       | 7       |
|   | Total                       | 98 | 6.17 | 1.140          | .115       | 5.94                                      | 6.40           | 1       | 7       |
| I would find<br>PayPal/credit<br>card easy to use                                     | Option A:<br>PayPal         | 48 | 6.00 | 1.384          | .200       | 5.60                                      | 6.40           | 1       | 7       |
|   | Option B:<br>Credit<br>Card | 50 | 6.48 | .863           | .122       | 6.23                                      | 6.73           | 2       | 7       |

| Statement<br>and options                                 |                     | N  | Mean | Std. Deviation | Std. Error | 95%<br>Confidence<br>Interval for<br>Mean |                | Minimum | Maximum |
|--|---------------------|----|------|----------------|------------|---|----------------|---------|---------|
|  |                     |    |      |                |            | Lower<br>Bound                            | Upper<br>Bound |         |         |
|  | Total               | 98 | 6.24 | 1.167          | .118       | 6.01                                      | 6.48           | 1       | 7       |
| I can't trust<br>PayPal/credit<br>card online            | Option A:<br>PayPal | 48 | 3.29 | 2.173          | .314       | 2.66                                      | 3.92           | 1       | 7       |
|  | Option B:<br>Credit | 50 | 3.68 | 1.867          | .264       | 3.15                                      | 4.21           | 1       | 7       |
|  | Total               | 98 | 3.49 | 2.022          | .204       | 3.08                                      | 3.90           | 1       | 7       |
| My personal<br>information<br>may not be kept<br>private | Option A:<br>PayPal | 48 | 3.83 | 2.066          | .298       | 3.23                                      | 4.43           | 1       | 7       |
|  | Option B:<br>Credit | 50 | 3.96 | 1.726          | .244       | 3.47                                      | 4.45           | 1       | 7       |
|  | Total               | 98 | 3.90 | 1.891          | .191       | 3.52                                      | 4.28           | 1       | 7       |
| PayPal/credit<br>card may not be<br>secure               | Option A:<br>PayPal | 48 | 3.13 | 2.160          | .312       | 2.50                                      | 3.75           | 1       | 7       |
|  | Option B:<br>Credit | 50 | 3.96 | 1.665          | .236       | 3.49                                      | 4.43           | 1       | 7       |
|  | Total               | 98 | 3.55 | 1.959          | .198       | 3.16                                      | 3.94           | 1       | 7       |

#### 4.2.6 Differences between PayPal and credit cards for the unbranded scenario (ANOVA)

Applying the same rule, as in the previous section, the significance of the difference between mean values of the two groups (PayPal/ credit cards) can be understood in the case of purchasing the unbranded coat. Apart from the last two statements, there is no significant difference between the mean values of responses from the two groups.

Table 4.5 ANOVA analyses of unbranded coat scenario

| <b>Statement</b>  |                | <b>Sum of Squares</b> | <b>df</b> | <b>Mean Square</b> | <b>F</b> | <b>Sig.</b> |
|---|----------------|-----------------------|-----------|--------------------|----------|-------------|
| Learning to operate PayPal/credit card would be easy for me               | Between Groups | .203                  | 1         | .203               | .111     | .740        |
|   | Within Groups  | 170.429               | 93        | 1.833              |          |             |
|   | Total          | 170.632               | 94        |                    |          |             |
| I would find it easy to get PayPal/credit card to do what I want it to do | Between Groups | .018                  | 1         | .018               | .010     | .921        |
|   | Within Groups  | 169.814               | 93        | 1.826              |          |             |
|   | Total          | 169.832               | 94        |                    |          |             |
| My interaction with PayPal/credit card would be clear and understandable  | Between Groups | .771                  | 1         | .771               | .683     | .411        |
|   | Within Groups  | 105.018               | 93        | 1.129              |          |             |
|   | Total          | 105.789               | 94        |                    |          |             |
| I would find PayPal/credit card to  | Between Groups | 4.196                 | 1         | 4.196              | 3.204    | .077        |

| Statement  |                | Sum of Squares | df | Mean Square | F     | Sig. |
|--|----------------|----------------|----|-------------|-------|------|
| be flexible to interact with   | Within Groups  | 121.762        | 93 | 1.309       |       |      |
|  | Total          | 125.958        | 94 |             |       |      |
| It would be easy for me to become skillful at using PayPal/credit card | Between Groups | 2.457          | 1  | 2.457       | 2.017 | .159 |
|  | Within Groups  | 113.269        | 93 | 1.218       |       |      |
|  | Total          | 115.726        | 94 |             |       |      |
| I would find PayPal/credit card easy to use                            | Between Groups | 1.024          | 1  | 1.024       | 1.048 | .309 |
|  | Within Groups  | 90.913         | 93 | .978        |       |      |
|  | Total          | 91.937         | 94 |             |       |      |
| I can't trust PayPal /credit card online                               | Between Groups | 11.865         | 1  | 11.865      | 3.833 | .053 |
|  | Within Groups  | 287.861        | 93 | 3.095       |       |      |
|  | Total          | 299.726        | 94 |             |       |      |
| My personal information may not be kept private                        | Between Groups | 10.946         | 1  | 10.946      | 3.972 | .049 |
|  | Within Groups  | 256.275        | 93 | 2.756       |       |      |
|  | Total          | 267.221        | 94 |             |       |      |

| Statement                            |                | Sum of Squares | df | Mean Square | F      | Sig. |
|--------------------------------------|----------------|----------------|----|-------------|--------|------|
| PayPal/credit card may not be secure | Between Groups | 25.719         | 1  | 25.719      | 11.032 | .001 |
|                                      | Within Groups  | 216.808        | 93 | 2.331       |        |      |
|                                      | Total          | 242.526        | 94 |             |        |      |

#### 4.2.7 Comparison between branded and unbranded scenarios

Table 4.6 Comparison of branded and unbranded scenarios on the 9 rating scale statements

| Statement   | Scenario  | F     | p    |
|---|-----------|-------|------|
| Learning to operate PayPal would be easy for me/ Learning to operate a credit card would be easy for me                             | Gucci     | 8.122 | .005 |
|   | Unbranded | .111  | .740 |
| I would find it easy to get PayPal to do what I want it to do/ I would find it easy to get a credit card to do what I want it to do | Gucci     | 6.026 | .016 |
|   | Unbranded | .010  | .921 |
| My interaction with PayPal would be clear and understandable/ My interaction with a credit card would be clear and understandable   | Gucci     | 8.979 | .003 |
|   | Unbranded | .638  | .411 |
| I would find PayPal to be flexible to interact with/ I would find a credit card to be flexible to interact with                     | Gucci     | 2.319 | .131 |
|   | Unbranded | 3.204 | .077 |
| It would be easy for me to become skillful at using PayPal/ It would be easy for me to become skillful at using a credit card       | Gucci     | 1.699 | .196 |
|   | Unbranded | 2.017 | .159 |
| I would find PayPal easy to use/ I would find a credit card easy to use   | Gucci     | 4.283 | .041 |
|   | Unbranded | 1.048 | .309 |

| <b>Statement</b>   | <b>Scenario</b> | <b>F</b> | <b>p</b> |
|--|-----------------|----------|----------|
| I can't trust PayPal online/ I can't trust a credit card online                                  | Gucci           | .903     | .344     |
|  | Unbranded       | 3.833    | .053     |
| My personal information may not be kept private/ My personal information may not be kept private | Gucci           | .109     | .742     |
|  | Unbranded       | 3.972    | .049     |
| PayPal may not be secure/<br>My credit card number may not be secure                             | Gucci           | 4.615    | .034     |
|  | Unbranded       | 11.032   | .001     |

Table 4.6 shows that the significant difference between rating of Paypal and credit card largely relates to the high-priced, branded Gucci coat scenario.

#### 4.2.8 Demographic differences in choice of payment method

Table 4.7 Analysis of payment choice by demographic indicator

| <b>Demographic identifier</b> | <b>Chi-square</b> | <b>df</b> | <b>p</b> |
|-------------------------------|-------------------|-----------|----------|
| Age                           | 3.354             | 4         | .500     |
| Social status                 | 3.364             | 2         | .186     |
| Education                     | 3.395             | 3         | .335     |
| Employment                    | .448              | 2         | .799     |
| Income                        | 13.225            | 8         | .104     |
| Gender                        | 8.223             | 1         | .004     |

Cross tabulations with chi-square tests were run to investigate whether demographic variables could predict the choice of PayPal versus credit card. Out of all the demographic variables

examined, only gender presented a significant difference in regard to the choice between PayPal and credit card with chi-square =8.223, df=1, p=.004. This translates to men being more likely to select PayPal whereas women are more likely to choose credit card.

#### 4.2.9 Factors which most strongly predict choice of payment method

Logistic regression was undertaken to see which factors (e.g. ease of payment, security) most strongly predicted choice of payment method.

Table 4.9 reminds us about the sample of respondents and their preferred method of payment. Out of the 202 respondents in the research, 106 of them preferred using credit card over PayPal. Credit card users represent 53 % of total respondents compared to 47 % who prefer PayPal.

Table 4.8 Preferences for payment method

|           |   |                       | I select to pay with<br>(Please tick the most preferred choice) |                          |                           |
|-----------|---|-----------------------|---|--------------------------|---------------------------|
|           |   |                       | Option A:<br>PayPal   | Option B:<br>Credit Card | Percent<br>age<br>Correct |
| Step<br>0 | I select to pay with<br>(Please tick the most preferred choice) | Option A: PayPal      | 0   | 87                       | .0                        |
|           |   | Option B: Credit Card | 0   | 106                      | 100.0                     |
|           | Overall Percentage  |                       |   |                          | 54.9                      |

Table 4.10 shows the results of the logistic regression. Using information on the various factors that might predict choice of payment method, a logistic regression is built (in two steps) that successfully predicts 67.9 percent of cases.

Table 4.9 Results of the logistic regression (1)

| Observed |  | Predicted   |                          | Percentage Correct |      |
|----------|--|---|--------------------------|--------------------|------|
|          |  | I select to pay with<br>(Please tick the most preferred choice) |                          |                    |      |
|          |  | Option A:<br>PayPal   | Option B:<br>Credit Card |                    |      |
| Step 1   | I select to pay with (Please tick the most preferred choice) | Option A:<br>PayPal   | 45                       | 42                 | 51.7 |
|          |  | Option B:<br>Credit Card  | 30                       | 76                 | 71.7 |
|          | Overall Percentage   |   |                          |                    | 62.7 |
| Step 2   | I select to pay with (Please tick the most preferred choice) | Option A:<br>PayPal   | 54                       | 33                 | 62.1 |
|          |  | Option B:<br>Credit Card  | 29                       | 77                 | 72.6 |
|          | Overall Percentage   |   |                          |                    | 67.9 |

Table 4.11 shows two factors are responsible for this high prediction rate – firstly “My interaction with PayPal/credit card would be clear and understandable” and secondly “PayPal/credit card may not be secure”.



Table 4.10 Results of the logistic regression (2)

**Equation variables**

|        |  | <b>B</b> | <b>S.E.</b> | <b>Wald</b> | <b>df</b> | <b>Sig</b> | <b>Exp (B)</b> |
|--------|--|----------|-------------|-------------|-----------|------------|----------------|
| Step 1 | –PayPal/credit card may not be secure                                    | .301     | .087        | 12.057      | 1         | .001       | 1.351          |
|        | Constant   | -.821    | .325        | 6.387       | 1         | .011       | .440           |
| Step 2 | My interaction with PayPal/credit card would be clear and understandable | .628     | .175        | 12.910      | 1         | .000       | 1.875          |
|        | –PayPal/credit card may not be secure                                    | .429     | .100        | 18.445      | 1         | .000       | 1.536          |
|        | Constant   | -5.115   | 1.265       | 16.348      | 1         | .000       | .006           |

## 5 Discussion

After presenting the findings from analysis of the primary data, it is now possible to discuss these findings in line with the research questions, literature reviewed and research hypotheses. First of all, it is pertinent to note in the findings that a considerable number of respondents indicated that they do make purchases through online means - using credit card or PayPal for making payments for online purchases. When these findings are reviewed in light of the literature reviewed, it can be noted that payment methods and consumers' buying trends have evolved over time. As noted by Brunnermeier & Schnabel (2015), payment methods have evolved from barter to currency-based transactions, and then to plastic money which gives consumers greater access to global markets.

### 5.1 Online shopping occurrence

The findings obtained in the survey also indicate that people generally prefer using online payment methods, irrespective of the online payment method being used. These findings are in line with what Bertola et al., (2016) mentioned in their work, they estimated that the probability that an individual will have a credit card has increased from 0.63 in 1983 to 0.78 in 2001, and by the year 2016, this probability has matured at 0.8. This indicates that the use of credit cards has continually risen, with almost 80 % of people in developed countries having and using credit cards as a payment method. A similar trend has been noted by Bertola et al. (2016) that online purchasing has also been consistently increasing and has reached a user base of 1.66 billion people with online sales amounting to US\$2.3 trillion in 2017, and this trend suggests a projection that by 2021 online sales will reach US\$4.48 trillion (Statista, 2018). These statements complement the findings obtained in this study as users have shown a strong

inclination towards online payment methods while shopping. Online payment methods are manifestations of ease of use and usefulness perceptions. These perceptions are part of the Technology Acceptance Framework or TAM. The use of online payment while shopping is an indication that online customers are satisfied with online banking because of the quality of the service and its efficacy.

The first question in the survey was an inquiry about online purchasing, and it asked “*Have you purchased anything online during the previous 6 months?*” The responses to this question indicated that 95 percent of the respondents shopped online. This shows a considerably high percentage of the sample selected for this study shopping online.

The questionnaire asked the respondents about the ease of use with respect to credit card and a majority of respondents regarded credit card as an easy payment option and one that is easy to learn how to use. A very high mean value of 6.3 was determined implying credit cards being perceived as easy to use. In addition around 57 percent of respondents said they preferred to use credit cards over PayPal. Results have shown that women prefer credit cards over Paypal, which may mean that they do not fully trust the modern online payment system when it is compared to credit cards. Paypal has a complex system that has many requirements. Those who are employed have easier access to Paypal. Some women, such as stay-at-home mothers may not have all the requirements needed to set up a Paypal account, which is why they prefer the more traditional modes of payment. In this regard, there is a need for online payment systems, such as Paypal to make their services accessible for both genders. They could start with amending their logo which is very masculine. They could also adapt the system to make it more user-friendly and less intimidating. By taking such steps, they could make their services align to the Technology Acceptance Model.

There is another interesting finding noted in this regard, which was that most of the respondents in the survey were employed with only 11.9 percent self-employed and 27.2 percent unemployed. The significance of this can be realized when linked with the literature reviewed. As noted in Chapter 2, Cruijssen et al., (2017) reported that it is usually the employed that uses credit cards more in developed countries as they receive their remuneration on a monthly basis. As employed people have month to month budgeting of their income and expenditure, their expenses can exceed their monthly salary. With the credit card facility they can cover these payments. This suggests that people who are employed are more likely to opt for credit cards than any other payment methods.

## 5.2 Shopping scenarios

After the first question, the researcher presented two different scenarios to the respondents:

Upon reviewing the overall responses, only 43 percent of respondents preferred paying through PayPal, whilst 57 percent of respondents chose credit card payment. These findings are not enough to draw conclusion as to which factors influenced the majority of respondents to prefer making payment through credit card (as opposed to PayPal). To understand the reasons behind these choices, the next section covered the responses to statements (in Questions 3 and 4) in light of the literature review.

## 5.3 Determinants for payment method choice

In order to further understand why respondents select PayPal or credit card as their preferred mode of payment while shopping online, 9 different determinants were given as a basis for their choice of payment method. The following table shows how respondents answered each of the statements in Questions 3 and 4.

Table 5.1 Answers to Questions 3 and 4

|   | PayPal  |      |                    | Credit Card  |      |                    |
|---|---|------|--------------------|--|------|--------------------|
|   | Statement   | Mean | Standard Deviation | Statement  | Mean | Standard Deviation |
| 1 | Learning to operate PayPal would be easy for me               | 6.10 | 1.314              | Learning to operate a credit card would be easy for me               | 6.20 | 1.381              |
| 2 | I would find it easy to get PayPal to do what I want it to do | 6.03 | 1.246              | I would find it easy to get a credit card to do what I want it to do | 6.05 | 1.420              |
| 3 | My interaction with PayPal would be clear and understandable  | 6.10 | 1.119              | My interaction with a credit card would be clear and understandable  | 6.29 | 1.022              |
| 4 | I would find PayPal to be flexible to interact with           | 5.77 | 1.224              | I would find a credit card to be flexible to interact with           | 6.20 | 1.086              |
| 5 | It would be easy for me to become skillful at using PayPal    | 5.92 | 1.156              | It would be easy for me to become skillful at using a credit card    | 6.25 | 1.066              |
| 6 | I would find PayPal easy to use                               | 6.13 | 1.005              | I would find a credit card easy to use                               | 6.34 | 0.978              |
| 7 | I can't trust PayPal online                                   | 2.69 | 1.749              | I can't trust a credit card online                                   | 3.41 | 1.766              |
| 8 | My personal information may not be kept private               | 3.26 | 1.712              | My personal information may not be kept private                      | 3.95 | 1.623              |
| 9 | PayPal may not be secure                                      | 2.69 | 1.454              | My credit card number may not be secure                              | 3.75 | 1.575              |

The table **Error! Reference source not found.** above shows the mean and standard deviation values in relation to each of the statements presented in Questions 3 and 4 of the survey

questionnaire. It is pertinent to note here that respondents have shown a greater extent of agreement or likelihood towards statements pertaining to the use of credit card as a payment method. This implies that they have more confidence in making payments through credit cards for online purchases. When comparing the mean values from the two columns, it can be noted that in most cases respondents have responded with higher values on average for credit cards as compared to PayPal. Specifically, flexibility of use, ease of learning, ease of use, clarity and understanding, becoming skillful at using, trust, privacy and security, all have considerable differences in mean values. Women feel more confident in using traditional credit cards because they think they are more flexible, easy to understand, easier to use, and clearer. Thus, if women prefer this method, online payment marketers such as those at Paypal may need to add features that allow housewives and stay-at-home mothers as well as elder women access without very complicated requirements.

The analysis of variance is helpful in gaining an understanding as to the significance of the differences in the mean values of responses attributable to PayPal and credit card. This further enables coming to a conclusion about which factors show significant difference in the mean values and can be deemed as the determinants of the choice of payment methods for customers shopping online.

The table presented below shows which factors have a significantly different mean values and which factors show an insignificant difference.

Table 5.2 Mean and Significance of Difference

|   | Statement   | Mean | Statement  | Mean | Significance of Difference   |
|---|---|------|--|------|--|
| 1 | Learning to operate PayPal would be easy for me               | 6.10 | Learning to operate a credit card would be easy for me               | 6.20 | P value = 0.005, which is < 0.05<br>Mean difference is Significant     |
| 2 | I would find it easy to get PayPal to do what I want it to do | 6.03 | I would find it easy to get a credit card to do what I want it to do | 6.05 | P value = 0.016, which is < 0.05<br>Mean difference is Significant     |
| 3 | My interaction with PayPal would be clear and understandable  | 6.10 | My interaction with a credit card would be clear and understandable  | 6.29 | P value = 0.003, which is < 0.05<br>Mean difference is Significant     |
| 4 | I would find PayPal to be flexible to interact with           | 5.77 | I would find a credit card to be flexible to interact with           | 6.20 | P value = 0.131, which is < 0.05<br>Mean difference is Significant     |
| 5 | It would be easy for me to become skillful at using PayPal    | 5.92 | It would be easy for me to become skillful at using a credit card    | 6.25 | P value = 0.196, which is > 0.05<br>Mean difference is not Significant |
| 6 | I would find PayPal easy to use                               | 6.13 | I would find a credit card easy to use                               | 6.34 | P value = 0.041, which is < 0.05<br>Mean difference is Significant     |
| 7 | I can't trust PayPal online                                   | 2.69 | I can't trust a credit card online                                   | 3.41 | P value = 0.344, which is > 0.05<br>Mean difference is not Significant |
| 8 | My personal information may not be kept private               | 3.26 | My personal information may not be kept private                      | 3.95 | P value = 0.742, which is > 0.05<br>Mean difference is not Significant |

|   | Statement                | Mean | Statement                               | Mean | Significance of Difference   |
|---|--------------------------|------|---|------|--|
| 9 | PayPal may not be secure | 2.69 | My credit card number may not be secure | 3.75 | P value = 0.034, which is < 0.05<br>Mean difference is Significant |

Referring to the results presented above, it can be noted that there is a significant difference in the mean values of the responses for statements pertaining to PayPal and credit card preferences respectively. Respondents view credit cards as significantly better than PayPal as a payment method for online shopping, due to ease of use, ease of learning, operation, clarity and understanding, flexibility and security.

In other words, these findings suggest that customers who are shopping online would prefer making their payments through a payment mode which is easy to use, flexible, easy to learn and adopt, clear and easy to understand, and secure. These factors can be related back to the literature reviewed.

The researcher discussed the Technology Acceptance Model (TAM) (Trutsch, 2017) in the literature review which provides a framework with which the increasing use of different and innovative technologies can be defined. The TAM is guided by two important factors: ease of use and usefulness. Usefulness is perceived by the consumer on the basis that a technology will enhance the personal efficiency and effectiveness, whereas the ease of use implies the extent to which a person will be free from effort (Trutsch, 2017). This shows that findings in this study comply with the model's framework. Moreover, Liebana-Cabanillas et al. (2014) noted in their work that enhanced payment facility, reduced transaction costs and better record keeping are important determinants of perceived usefulness. This is in line with the results of



this research work where the researcher found that ease of use, flexibility and security are among the key determinants in choosing payment methods for online shopping.

In addition to these factors, another important observation can be made regarding consumers' behaviour and choice of payment method. Referring back to the literature review, it has been noted in many studies that people are willing to pay more with a credit card and this is for two reasons: there is a temporal separation between payment and consumption, and second is the way money is being represented (Cheng & Chen, 2016). This means where a mental separation exists between payment and the money itself, consumers are inclined to opt for the same. This holds true for credit cards, as a PayPal user must allocate funds to his or her PayPal account before making a purchase. Therefore, another factor which is identified in determining the choice of online payment method for customers is a temporal separation between payment and consumption. This is another reason why women prefer credit cards to Paypal. Users need to allocate funds into their Paypal account before they can purchase, but for some women who are not working, this would be difficult for them. Women should be properly communicated with when they are purchasing online. Meaning that they should be prioritized as a target market. One way to do this is to provide postpaid credits for them . For instance, Paypal may add a feature in which customers can still purchase products even without allocating funds into their account prior to the purchase. They may "borrow" a limited amount from Paypal to purchase online, but once they have exceeded the credits, they need to pay first before they can purchase another one. Online advertisements are quite attractive to women which could entice them to use Paypal services. This could be tied to online retailers, who could ensure their products or services are not gender biased – from advertising to making purchases. The 'Add to Cart' and payment method features should have more customer-friendly options, especially

for women. For example, if they choose Paypal as their payment method, they could receive discounts.

By comparing branded and unbranded scenarios, it is clear that the branded, in that case expensive purchase has more statistical significant differences in the use of PayPal and credit card compared to the unbranded, less expensive purchase. This implies that consumers are more reserved to engage online payment for the cases they are likely to lose more money than the cases they may lose lesser. Another issue was that of demographic effects on the choices of use of different methods of payment (PayPal versus credit card). The study reveals gender as the only identifiable demographic factor that caused difference in the choice between PayPal and credit card. It reveals that men are likely to engage PayPal as their preferred mode of payment than women. On the other hand, women are likely to use credit card than men as their mode of online payment. In this revelation, credit card, a conservative approach to payment, reveal women are less reluctant to adopt new methods of payment. On the other hand, PayPal, a modern way of payment, shows that men are more accepting of the emerging online methods of payment. Finally, in the logistic regression analysis, the factors that lead to the adoption of different online payment methods are clear. For instance, clear and understandable interaction with the mode of payment and security of the mode of payment are the factors making the consumers to choose PayPal and credit card on different occasions. For the method with ease in understanding and high security, consumers tend to trust it with the purchase even of high amount than the method with unclear and complicated processes or lesser security to its features.

#### 5.4 Chapter Summary

As mentioned in the Chapter 1, this study aims to understand the factors that affect the choice of payment method and those factors which influence the method of payment choice when consumers purchase online or in retail stores. The researcher has put forward findings obtained through the analysis of primary data obtained by surveying a sample of respondents for this purpose. The findings have been discussed in light of the research aim and have been linked back to the literature review. The majority of the respondents have indicated that they prefer making online payments with credit cards over payments made through PayPal. In addition, the findings in this research work suggest that customers who are shopping online would prefer a payment method which is easy to use, flexible, easy to learn and adopt, clear and easy to understand and secure. Another factor identified in determining customers' choice of online payment method, is a temporal separation between payment and consumption.

## 6 Conclusion and Recommendations

The conclusion presented in this chapter combines the findings from the data analysis, discussion of findings in light of the research questions and literature review and results obtained thereby. The chapter also includes recommendations for managers and future researchers based on the conclusions and limitations associated with this study.

### 6.1 Limitations of the Research

The following are the limitations of this study:

- Only two methods of online payment, PayPal and credit cards, were used, therefore consumers' perceptions related to other payment methods could not be evaluated or understood.
- As only respondents from New Zealand were included, so the respondents were of a particular cultural and demographic type. Conducting similar research with respondents from different cultural backgrounds would allow future researchers to understand whether cultural background plays a role in determining the factors affecting online payment method choice.
- Lastly, the respondents to the questionnaire had experience with online shopping. In future, it would be interesting to carry out a similar study with respondents who had never shopped online and thereby add a new dimension to this research area.

### 6.2 Addressing the Research Objectives

After reviewing the literature on this subject, the researcher was able to identify a literature gap and aimed at determining factors which affect the choice of payment method for online purchases made by consumers. The researcher also aimed to find if the monetary value of a

transaction has an effect on payment method choice. The general aim of the study was broken into various objectives, and it is useful to reiterate them here:

- To review the literature pertaining to the subject of online payment method choice and consumers behaviour;
- To understand which factors influence payment method choice when consumers shop online; and
- To determine whether consumers' choice of payment method depends on whether they are purchasing a branded (more expensive) or unbranded (less expensive) item online.

All these objectives have been met in this study.

The literature review suggested that there are various determinants in choosing the payment method for online payments. In this regard, previous researchers have argued that ease of use, security, privacy, comprehensibility, and other factors influence the choice of payment method. These observations helped the researcher develop a conceptual framework for the study and the primary research conducted was based on this framework.

As far as the findings of this research have indicated, consumers perceive ease of use, security, privacy and understability of the payment method as the primary factors in determining whether a payment method suits them. The researcher was also able to establish that, when it comes to paying for expensive items online, consumers tend to rely on relatively safer and more secure options. This implies that when it comes the monetary value of the transaction, consumers are more likely to choose what they perceive as a safer and more secure option of payment. In this regard, consumers rated credit cards as a more safe and secure option when compared to to PayPal.

This research has found that a majority of the respondents indicated that they prefer making online payments through credit cards over payments made through PayPal. In line with the literature review, the findings of this research suggest that customers who shop online prefer to make their payments through a payment method which is easy to use, flexible, easy to learn and adopt, clear and easy to understand, and secure. Lastly, another factor, which was identified as determining the choice of online payment method for customers, is a temporal separation between payment and consumption.

### 6.3 Answers to the Research Questions

*RQ1: What are the factors that influence choice of payment method when consumers shop online?*

Factors that affect choice of payment when consumers are buying online are based on the choice, availability, accessibility, and preference among others of the mode of payment consumers adopt. They include flexibility, issues with data management, security of system, risk of losing money, privacy and confidentiality, and function of the system are seen as important factors that influence transaction through online modes of payment.

*RQ2: Do perceived usefulness, ease of use, security and risk impact on consumers' choice of either PayPal or credit card as a payment method?*

Consumers tend to prefer the method of payment easy and clear to comprehend and use, with high level of security, and lower their risk of losing money.

*RQ3: Does the choice of payment method depend on the monetary value of the product being purchased online?*

The choice of the payment depend on the monetary value of the product being bought. The study reveal higher statistical significance in the way consumers bought branded items,

expensive ones, than the ways they bought unbranded ones, less expensive. However, gender influence the mode of payment in that women tend to act risk averse (adopt the lesser risky payment methods) while men are risk takers in new methods of payment.

#### 6.4 Recommendations

The recommendations section entails suggestions and recommendations for management and future researchers based on the conclusions of this study and limitations faced by the researcher.

#### 6.5 Recommendations for Management/Businesses

Before presenting recommendations, it is important to mention that 'recommendations for management/businesses' means suggestions for those who manage or operate online payment methods. The recommendations presented here would help them understand how they can better serve their customers. The most important point is that consumers view certain factors as determinants of their choice of payment method. These factors include; ease of use, comprehensibility of the payment method, security and privacy. By focusing on these factors, businesses would be able to promote their products and positively influence consumers' perceptions.

#### 6.6 Recommendations for Future Researchers

The researcher of this study has following suggestions:

- The researcher considered a mediating variable while looking to understand which factors influence consumers' choice of payment method when shopping online. The monetary value of online transactions was considered as a mediating variable in this study. The researcher aimed to discover whether customers have a specific perception of using certain payment methods over others when the monetary value of the

transaction was higher. There is another area which could be tested as a mediating variable, the emotional value of the transaction.

- In addition, researchers in future could explore the same research problem but with a larger sample size and therefore obtain results which are more representative of the population. Moreover, sampling from a different geographic population would also add a new dimension to the research.
- Researchers in future could also include respondents from varying cultural backgrounds to understand how this affects the choice of payment method when shopping online.
- Moreover, researchers in future could also include respondents from varying cultural backgrounds to understand how it affects the choice of payment methods when shopping online.

## 6.7 Benefits to Managers / Bankers / Marketers

The conclusions reached in this study are beneficial for various stakeholders, such as banks, and managers and marketers for online payment services such as PayPal. This study contributes towards a better understanding of online shoppers' perceptions of payment methods for online shopping. Businesses and banks who operate such payment methods should consider improving the ease of use, reliability, security and comprehensibility of their products and services as these are what are considered important by their customers.



## 6.8 Benefits for Future Researchers

Future researchers can benefit from this research's findings and limitations, and to improve their research methodology which would ultimately lead to new understanding of this research area.

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# Appendices

## Appendix A. Ethical Approval and Information Sheet



### Auckland University of Technology Ethics Committee (AUTECH)

Auckland University of Technology

D-88, Private Bag 92006, Auckland 1142, NZ

T: +64 9 921 9999 ext. 8316

E: [ethics@aut.ac.nz](mailto:ethics@aut.ac.nz)

[www.aut.ac.nz/researchethics](http://www.aut.ac.nz/researchethics)

15

March 2019

Rouxelle

de Villiers

Faculty

of Business Economics and Law

Dear

Rouxelle

Re Ethics Application: **19/67 Which factors influence the method of payment choice when consumers purchase online or in retail stores**

Thank you for providing evidence as requested, which satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTECH).

Your

ethics application has been approved for three years until 15 March 2022.

1. Alteration of the validation process to a 'consultation' process, ensuring that any personal information obtained is not used to produce the findings of the research.

Non-standard conditions must be completed before commencing your study. Non-standard conditions do not need to be submitted to or reviewed by AUTECH before commencing your study

**Standard**

### Conditions of Approval

1. A progress report is due annually on the anniversary of the approval date, using form EA2, which is available online through <http://www.aut.ac.nz/research/researchethics>.

2. A final report is due at the expiration of the approval period, or, upon completion of project, using form EA3, which is available online through <http://www.aut.ac.nz/research/researchethics>.
3. Any amendments to the project must be approved by AUTECH prior to being implemented. Amendments can be requested using the EA2 form: <http://www.aut.ac.nz/research/researchethics>.
4. Any serious or unexpected adverse events must be reported to AUTECH Secretariat as a matter of priority.
5. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTECH Secretariat as a matter of priority.

Please quote the application number and title on all future correspondence related to this project.

AUTECH

grants ethical approval only. If you require management approval for access for your research from another institution or organisation, then you are responsible for obtaining it. If the research is undertaken outside New Zealand, you need to meet all locality legal and ethical obligations and requirements. You are reminded that it is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard.

For any enquiries,

please contact [ethics@aut.ac.nz](mailto:ethics@aut.ac.nz)

Yours sincerely,



Kate O'Connor

Executive Manager

**Auckland University of Technology Ethics Committee**

Cc: [vvb7764@autuni.ac.nz](mailto:vvb7764@autuni.ac.nz); Ken Hyde

Appendix B. Participant Information Sheet

**AUT**

TE WĀNANGA ARONUI  
O TĀMAKI MAKAU RAU

# Participant Information Sheet

Date Information Sheet Produced:

10-02-2019

Project Title

Which factors influence the method of payment choice when consumers purchase online or in retail stores?

## **An Invitation**

Dear Sir/Madam,

You are invited to participate in a research project which is interested in factors influence the method of payment choice when consumers purchase online or in retail stores.

This research will be conducted by Nujud Alarooj, a student from the Department of Marketing, AUT Business School within the Faculty of Business, Economics & Law at Auckland University of Technology.

We are therefore inviting you to participate in an online survey.

## What is the purpose of this research?

The purpose of this study is to understand the factors that affect the choice of mode of payment.

## What will happen in this research?

You will complete an online questionnaire. The survey will include a brief scenario followed by questions. You will be asked to read a scenario and answer the questions that follow.



## How was I identified and why am I being invited to participate in this research?

You are an anonymous member of a CINT research panel. Your participation is entirely voluntary.

## How do I agree to participate in this research?

Filling out the questionnaire will be taken as consent to partake in the research.

## What are the discomforts and risks?

There will be no discomforts or any risks to you. In fact, you can withdraw at any time you wish to do so.

## How will these discomforts and risks be alleviated?

N/A

## What are the benefits?

The primary researcher, Nujud Alarooj, will benefit from this research as it allows her to fulfil the required criteria to achieve her Master of Business from Auckland University of Technology. You will benefit by learning about their decision-making for choice of payment method. Practitioners and marketers will benefit from the gained knowledge of the impact of payment methods on consumers' decisions and preferred payment methods for large or small purchase

## What compensation is available for injury or negligence?

N/A

## How will my privacy be protected?

No individual names or contact details will be recorded or reported. All this information will be analysed and reported at an aggregate level that does not identify the individual responses of participants.

## What are the costs of participating in this research?

There will be an online survey to complete. This will take about 15 minutes as a maximum. This time will include the reading of an introductory page and filling out the survey.

## What opportunity do I have to consider this invitation?

You have one week to consider this invitation and participate in the survey.

*How will feedback on or a summary of the research findings be disseminated to participants (individuals or groups)?*

**Through the participant information sheet, the participants will be notified of a link they may check to view a summary of the findings**  
**Participants can email the researcher to request a summary of the findings**

## Will I receive feedback on the results of this research?

You may email the researcher (Nujud Alarooj) for a summary of the research findings. (Researcher's email:

[vvb7764@autuni.ac.nz](mailto:vvb7764@autuni.ac.nz))

You may view for a synopsis of the results by visiting the following URL: \_\_\_\_\_

## What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor,

Dr. Rouxelle De Villiers email [rozel.devilliers@aut.ac.nz](mailto:rozel.devilliers@aut.ac.nz)

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTECH, Kate O'Connor, [ethics@aut.ac.nz](mailto:ethics@aut.ac.nz), 921 9999 ext 6038.

## Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

### Researcher Contact Details:

Nujud Alarooj, email: [vvb7764@autuni.ac.nz](mailto:vvb7764@autuni.ac.nz)

### Project Supervisor Contact Details:

Dr. Rouxelle De Villier email [rozel.devilliers@aut.ac.nz](mailto:rozel.devilliers@aut.ac.nz)

Approved by the Auckland University of Technology Ethics Committee on *type the date final ethics approval was granted*, AUTC

Reference number *type the reference number*.

## Appendix C. Survey

Q0



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**Q1 Project Title** Which factors influence the method of payment choice when consumers purchase online or in retail stores? **An Invitation** You are invited to participate in a research project which is interested in factors influence the method of payment choice when consumers purchase online or in retail stores. This research will be conducted by Nujud Alarooj, a student from the Department of Marketing, AUT Business School within the Faculty of Business, Economics & Law at Auckland University of Technology. We are therefore inviting you to participate in an online survey. **What is the purpose of this research?** The purpose of this study is to understand the factors that affect the choice of mode of payment. **What will happen in this research?** You will complete an online questionnaire. The survey will include a brief

scenario followed by questions. You will be asked to read a scenario and answer the questions that follow. **How was I identified and why am I being invited to participate in this research?** You are an anonymous member of a CINT research panel. Your participation is entirely voluntary. **How do I agree to participate in this research?** Filling out the questionnaire will be taken as consent to partake in the research. **What are the discomforts and risks?** There will be no discomforts or any risks to you. In fact, you can withdraw at any time you wish to do so. **What are the benefits?** The primary researcher, Nujud Alarooj, will benefit from this research as it allows her to fulfil the required criteria to achieve her Master of Business from Auckland University of Technology. You will benefit by learning about their decision-making for choice of payment method. Practitioners and marketers will benefit from the gained knowledge of the impact of payment methods on consumers' decisions and preferred payment methods for large or small purchase **How will my privacy be protected?** No individual names or contact details will be recorded or reported. All this information will be analysed and reported at an aggregate level that does not identify the individual responses of participants. **What are the costs of participating in this research?** There will be an online survey to complete. This will take about 5 minutes as a maximum. This time will include the reading of an introductory page and filling out the survey. **What opportunity do I have to consider this invitation?** You have one week to consider this invitation and participate in the survey. **How will feedback on or a summary of the research findings be disseminated to participants (individuals or groups)?** Participants can email the researcher to request a summary of the findings **Will I receive feedback on the results of this research?** You may email the researcher (Nujud Alarooj) for a summary of the research findings. (Researcher's email: vvb7764@autuni.ac.nz) **What do I do if I have concerns about this research?** Any concerns regarding the nature of this project should be notified in the first instance to the

Project Supervisor, Dr. Rouxelle De Villiers email rozel.devilliers@aut.ac.nz Concerns regarding the conduct of the research should be notified to the Executive Secretary of ATEC, Kate O'Connor, *ethics@aut.ac.nz*, 921 9999 ext 6038. Researcher Contact Details: Nujud Alarooj, email: vvb7764@autuni.ac.nz Project Supervisor Contact Details: Dr. Rouxelle De Villier email rozel.devilliers@aut.ac.nz

End of Block: Introduction

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Start of Block: Screening

Q1 Have you purchased anything online during the previous 6 months?

☐ Yes (1)

☐ No (2)

End of Block: Screening

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Start of Block: First Condition

**SCENARIO SCENARIO FOR GUCCI COAT:**<sup>[L]</sup><sub>[SEP]</sub> You have been shopping online for some time to find a suitable coat for yourself. You have just identified two coats that you consider suitable for your needs. They are perfect for you in style, size and price. Although you also like an unbranded coat, selling at \$1,155 at another online store, you prefer the branded Gucci coat at \$2,700 in the company's online store. You decide to select the branded Gucci coat at \$2,700.

After selecting the Gucci coat and selecting your preferred color, you need to pay. Among the many payment options provided by the Gucci online store, are the two payment methods you consider: PayPal and Credit Card (Visa or Master Card). The online store elaborates on the working of each payment method, as set out below.

**PayPal :** 1. Click PayPal option 2. Click enter. This option will redirect you to the PayPal sign up page to register an account. 3. Enter your details. At this step you are required to enter your details including the country of residence, first and second names, email, and create a password. Once you have entered all the required information, click on next. 4. Link your PayPal account to your Credit card. 5. Click Wallet at the top of your PayPal account and then click link card. A form will open allowing you to enter your card information. 6. Fund the PayPal account using your Credit card. Here you should transfer the amount of money that you want to pay from your bank account to the PayPal account. 7. Make the payment. In the case of the Gucci coat, you will transfer money to the Gucci PayPal (email) account. The company will acknowledge your payment if it is successful. 8. Timing: The entire process will take about 7 to 10 minutes. 9. Fee: For the Gucci coat, will be \$78.30 (2.9%) of the product value. 10. Risk: The rate of annual PayPal fraud is approximately 3 in 1000

**Credit Card :** 1. Click Visa or Master Card option 2. Enter your 16 digit Credit card number 3. Enter expiration date 4. Enter CVV of the credit card that is written on the back of the card 5. Click submit 6. Wait for approximately 3 seconds. The company will acknowledge your payment if it is successful. 7. Timing: The process takes about 3 to 4 minutes. 8. Cost: For the Gucci coat, will be \$75.60 (2.8%) of the product value. 9. Risk: The rate of annual credit card fraud is approximately 1 in 1000



### End of Block: First Condition

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### Start of Block: Second Condition

PayPal : **SCENARIO FOR UNBRANDED COAT:** You have been shopping online for some time to find a suitable coat for yourself. You have just identified two coats that you consider suitable for your needs. They are perfect for you in style, size and price. Although you like a branded Guicci coat, selling at \$2,700 in the company's online store, you prefer an unbranded coat at \$1,155 at another online store. You decide to select the unbranded coat at \$1,155. After selecting the unbranded coat and selecting your preferred color, you need to pay. Among the many payment options provided by the unbranded online store, are the two payment methods you consider: PayPal and Credit Card (Visa or Master Card). The online store elaborates on the working of each payment method, as set out below

PayPal :

1. Click PayPal option
2. Click enter. This option will redirect you to the PayPal sign up page to register an account.
3. Enter your details. At this step you are required to enter your details including the country of residence, first and second names, email, and create a password. Once you have entered all the required information, click on next.
4. Link your PayPal account to your Credit card.
5. Click Wallet at the top of your PayPal account and then click link card. A form will open allowing you to enter your card information.
6. Fund the PayPal account using your Credit card. Here you should transfer the amount of money that you want to pay from your bank account to the PayPal account.
7. Make the payment. In the case of the Gucci coat, you will transfer money to the Gucci PayPal (email) account. The company will acknowledge your payment if it is successful.
8. Timing: The entire process will take about 7 to 10 minutes.
9. Fee: For the Unbranded coat, will be of \$33.49 (2.9%) of the product value.
10. Risk: The

rate of annual PayPal fraud is approximately 3 in 1000    Credit Card : 1. Click Visa or Master Card option 2. Enter your 16 digit Credit card number 3. Enter expiration date 4. Enter CVV of the credit card that is written on the back of the card 5. Click submit 6. Wait for approximately 3 seconds. The company will acknowledge your payment if it is successful. 7. Timing: The process takes about 3 to 4 minutes. 8. Cost: For the Unbranded coat, will be of \$32.34 (2.8%) of the product value. 9. Risk: The rate of annual credit card fraud is approximately 1 in 1000

End of Block: Second Condition

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Start of Block: Payment Type

**Q2    I    select    to    pay    with** (Please    tick    the    most    preferred    choice)

☐ Option A: PayPal (1)

☐ Option B: Credit Card (2)

End of Block: Payment Type

---

Start of Block: Paypal Payment



Q3 When you use PayPal to purchase the coat, to what extent do you agree with each of following statements about using PayPal

|   | extremely<br>unlikely<br>(1) | unlikely<br>(2)       | slightly<br>unlikely<br>(3) | neither<br>(4)        | slightly<br>likely<br>(5) | likely<br>(6)         | extremely<br>likely (7) |
|---|------------------------------|-----------------------|-----------------------------|-----------------------|---------------------------|-----------------------|-------------------------|
| Learning to operate PayPal would be easy for me (1)               | <input type="radio"/>        | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>   |
| I would find it easy to get PayPal to do what I want it to do (2) | <input type="radio"/>        | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>   |
| My interaction with PayPal would be clear and understandable (3)  | <input type="radio"/>        | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>   |
| I would find PayPal to be flexible to interact with (4)           | <input type="radio"/>        | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>   |
| It would be easy for me to become skillful at using PayPal (5)    | <input type="radio"/>        | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>   |
| I would find PayPal easy to use (6)                               | <input type="radio"/>        | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>   |
| I can't trust PayPal online (7)                                   | <input type="radio"/>        | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>   |

My personal  
information  
may not be  
kept private  
(8)



PayPal may  
not be secure  
(9)



End of Block: Paypal Payment

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Start of Block: Credit Card Payment



Q4 When you use a Credit Card to purchase the coat, to what extent do you agree with each of following statements about using a Credit card

|  | extremely<br>unlikely<br>(1) | unlikely<br>(2)       | slightly<br>unlikely<br>(3) | neither<br>(4)        | slightly<br>likely<br>(5) | likely<br>(6)         | extremely<br>likely (7) |
|--|------------------------------|-----------------------|-----------------------------|-----------------------|---------------------------|-----------------------|-------------------------|
| Learning to operate a credit card would be easy for me (1)               | <input type="radio"/>        | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>   |
| I would find it easy to get a credit card to do what I want it to do (2) | <input type="radio"/>        | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>   |
| My interaction with a credit card would be clear and understandable (3)  | <input type="radio"/>        | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>   |
| I would find a credit card to be flexible to interact with (4)           | <input type="radio"/>        | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>   |
| It would be easy for me to become skillful at using a credit card (5)    | <input type="radio"/>        | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>   |
| I would find a credit card easy to use (6)                               | <input type="radio"/>        | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>   |
| I can't trust a credit card online (7)                                   | <input type="radio"/>        | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>   |

My personal  
information  
may not be  
kept private  
(8)

☐☐☐☐☐☐☐

My credit card  
number may  
not be secure  
(10)

☐☐☐☐☐☐☐

End of Block: Credit Card Payment

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Start of Block: Demographic



Q5 What is your gender

☐ Male (1)

☐ Female (2)



Q6 What is your age?

☐ 20-22 (1)

☐ 23-35 (2)

☐ 36-55 (3)

☐ 56-65 (4)

☐ 65+ (5)

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Q7 What is your civil status

☐ Single (1)

☐ Married (2)

☐ Other (3)

---

Q8 What is your highest level of education

- ☐ High School (1)
  - ☐ College/University (2)
  - ☐ Masters (3)
  - ☐ PhD (4)
- 

Q9 What is your employment status

- ☐ Employed (1)
  - ☐ Self-employed (2)
  - ☐ Not employed (3)
-

Q10 Your income level per year.

- ☐ \$0 to \$9,999 (1)
- ☐ \$10,000 to \$19,999 (2)
- ☐ \$20,000 to \$29,999 (3)
- ☐ \$30,000 to \$39,999 (4)
- ☐ \$40,000 to \$49,999 (5)
- ☐ \$50,000 to \$74,999 (6)
- ☐ \$75,000 to \$99,999 (7)
- ☐ \$100,000 to \$199,999 (8)
- ☐ \$200,000 and over (9)

End of Block: Demographic

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