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CREDIT CARD PROGRAMMES:

Attributes of credit cards that lead to customer acquisition in South Africa

A research report submitted by

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A research report submitted to the Faculty of Commerce, Law and Management , University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Business Administration.

Wits Business School, Johannesburg

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Credit Card Programmes: Attributes of credit cards that lead to customer acquisition

Abstract

Purpose of the study - The purpose of the study was to identify what the attributes of a credit card were that consumers found desirable and that led to acquisition of a particular credit card. Further analysis was conducted to identify whether there were any differences or preferences for these attributes according to certain demographics of the consumer.

Design / Methodology – Conjoint Analysis was used to allow members to identify what product bundle they preferred. This was done using hypothetical credit cards that consumers were asked to rate on a scale of 0 – 10. This rating was done during 150 face to face interviews. The data from these interviews was then analysed using Sawtooth market simulator which makes it possible to identify which attributes and utilities were the most attractive to the consumer. Further studies using One way ANOVA and a Two sample T –test was used to identify demographics differences.

Findings – On average, consumers found the source of the card to be the most important factor when choosing a credit card, and the financial components of a credit card were more important on average than the value added benefits. Preference for these attributes and utilities was significantly influenced by household income with marital status and age showing less influence in the preference of certain attributes and utilities. Interestingly, the way people pay their cards, whether they were revolvers or convenience users, has shown to have very little impact on the attributes that they prefer in a credit card.

Value – Despite the growth of credit cards in the South African market in recent years, there seems to be little research in South Africa about why consumers would choose a particular credit card. Introduction of the National Credit Act (no 34 of 2005) has also caused people to become more discerning about the credit that they choose to carry, meaning that the credit card issuer needs to ensure that their cards are appealing and attractive to the market that they are trying at reach. This study intends to close that gap.

Declaration

I, Karen Johnson, declare that this research is my own, unaided work. It is submitted in partial fulfilment of the requirements of the degree of Masters of Business Administration at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Signed: _____

Name: _____

Date: _____

Dedication

I dedicate this degree to my father, Rollo Johnson.

Acknowledgements

I would like to thank the following people without whom the completion of the research would not have been possible:

- My supervisor, Louise Whittaker, who continually supported me and guided me through the research process ensuring that I finally delivered my research
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- Sharon Snyman from Q & A Research who used her researchers to perform the interviews on all of the respondents in this study. This ensured that the collection and capture of this data was professionally done and of a high standard and. I really appreciate her kindness.
- My employer, Discovery Health, and my boss, Alan Pollard who have supported me through this process.
- My father, Rollo Johnson, who walked the MBA road with me, by continually supporting, encouraging me, guiding and mentoring me in every aspect of the program and life. Without him completion of this degree would not have been possible
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Credit Card Programmes: Attributes of credit cards that lead to customer acquisition

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CREDIT CARD PROGRAMMES: ATTRIBUTES OF CREDIT CARDS THAT LEAD TO CUSTOMER ACQUISITION

1 INTRODUCTION

1.1 Purpose of study

The purpose of this study was to identify the factors that influence consumers to acquire a particular credit card. Legislation in the form of the National Credit, No 34 Act 2005 (RSA 2005) limits the amount of credit individuals are able to take, thus causing the consumer to be more discerning as to the credit that they choose. As such, it will be in the interests of the credit card issuers to develop products that meet the wants and the needs of their chosen market. Furthermore, as the National Credit Act limits certain marketing activities the credit cards should be developed with a greater pull factor, increasing the likelihood that a particular card will be chosen. It will also enable credit card issuers to more appropriately market the products that they already have.

1.2 Context of study

The credit card industry in South Africa has changed enormously over the last four years, with many new entrants into this market offering co-branded credit cards (Gunnion 2006), and credit cards in the raw form have largely become commodities requiring differentiation, both in South Africa and the world over (Kleynhans 2006). Types of credit cards include a general purpose credit card offered by a financial institution, a co-branded credit card which is usually a partnership between an existing financial institution and a credit card issuing organisation, and alternatively, a private label credit card which is a store credit card offering credit at a defined number of stores only. Companies who have a strong customer base may choose to partner with a financial institution to offer co-branded credit cards, as it allows them to increase revenues, increase brand awareness and maximise the value of their customer in purchasing terms. Recent entrants into the South African market include the DiscoveryCard, a partnership between Discovery Health and First National Bank (FNB), who entered the market in October 2004 and since then, other companies such as Virgin Money (in partnership with Absa), Kulula.com (in partnership with FNB), SAA Voyager (in partnership with Nedbank), Edgars (in partnership with Standard Bank), Clicks (in partnership with FNB), Vodacom (FNB) and MTN (Standard Bank)

have also entered this space; all companies offering varying benefits and rewards (see Appendix A).

Euromonitor (2008) report that co-branded cards have now become hugely popular, and in 2007 alone 30 new products were introduced into the market.

1.3 Problem statement

1.3.1 *Main problem*

There are many credit cards currently available to the consumer, both through financial institutions and as co-branded credit cards. The purpose of this research was to determine what consumers look for in a credit card, thus driving the consumer to acquire a particular credit card.

1.3.2 *Sub-problems*

The first sub-problem was to identify what would drive consumers to acquire a particular credit card.

The second sub-problem was to understand whether there were any differences in preferences based on additional demographic information about the consumer.

1.4 Significance of study

This study fills a gap in that it attempts to identify what consumers perceived as value in a credit card in South Africa. A greater understanding of this will enable credit card issuers to tailor their products to their appropriate target markets. Goyal (2004) remarks that understanding consumer behaviour in the context of supplementary services or value added features for credit cards, such as free insurance, is still poorly developed. Further, little empirical work has been done to analyse why consumers choose one type of credit card over another (Carow and Staten 2002).

This study will provide guidance to any financial institution or other company wishing to enter the credit card or co-branded credit card market, or to any credit card issuer looking to increase their market share. This will allow companies to better understand the benefits that are sought in their particular target market. Fock et al (2005) make

reference to Adler (1966) who says that when two independent organisations join together they can multiply their strengths and increase market potential for each of them. They refer to this as "symbiotic marketing" (Fock et al 2005). Understanding the perception of value by the consumers could lead the credit card issuers and financial institutions to seek partners that the consumers deem to be desirable.

Credit cards are also big business for the banks and earnings from credit cards contribute 15% to the retail bank earnings and 6,5% to the banks' overall earnings, and are thus considered to be an important earnings contributor (Potgieter 2007). This would suggest that banks will pursue this source of revenue in the future and in this increasingly competitive environment would need to ensure that the products that they develop are most suitable for the market that they are trying to attract. As there are only six banks with a license to issue credit cards, the new co-branded markets is also good business for the banks, and it is likely that the banks will all pursue new companies to partner with, so that they can to offer a co-branded credit card to this existing base.

Furthermore, the National Credit Act, No 34 of 2005 (RSA, 2005) was introduced on the 1st June 2007 by the South African Government, and its aim was to provide fair and non discriminatory access to credit, to provide general regulation of consumer credit, and to promote responsible credit granting. As this makes the issuing and marketing of credit, and particularly credit cards, more difficult, it is essential that credit card issuers are better able to understand the requirements of their target markets, so that they increase the likelihood of their particular cards being adopted.

1.5 Delimitations

- This study considers personal credit cards only and does not include other types of payment cards such as debit cards or garage cards. Nor did it consider other forms of credit such a home loans, personal loans or hire purchase.
- This study considers personal credit cards only, and does not consider corporate or business cards.
- This study was conducted on consumers in South Africa, with a view to understanding the consumer in the South African credit card market.
- This study was done from a customer perspective, and included individuals who

either already have at least one credit card or new entrants into the market who do not yet have a credit card. This study focused on what the customer in South Africa perceives as value in a credit card.

- This study did not focus on the activation or ongoing use of the credit card.

1.6 Definition of terms

The following definitions are relevant to this research:

'Affinity Cards' are typically developed in conjunction with a non profit organisation, such as sporting teams, cultural entities or charitable organisations, where a percentage of the spend accrues to the organisation rather than the individual card holder (Morris 1995, Euromonitor, 2006)

'Annual fee' is a bank charge that is levied to the cardholder each year or month. Some credit card providers may choose not to have an annual card fee (Euromonitor 2006).

'Charge card' is a travel or entertainment card. This is similar to a credit card, but it is usually a short term loan with the full amount of the loan being required to be paid off within a certain number of days from the billing date or statement dates. There are usually no interest charges, no upper limit for spending and high annual card fees (Euromonitor 2006). Examples of charge cards in South Africa are Diners Club and American Express.

'Co-branded cards' are credit cards which are affiliated to merchants such as airlines and retailers, and use rewards programs and special offers – including rebates, discounts and gift certificates - to attract new customers, generate loyalty amongst existing customers and ultimately spur card usage. David Morris, research analyst for Packaged Facts, a market research publisher, asserts that co-branded cards are usually developed in conjunction with a for profit organisation (Ramsaran 2005). These co-branded cards often allow a more extensive range of benefits to be offered (Euromonitor 2006)

'Convenience users' are those consumers who pay the full amount due each month and do not revolve their credit card. These consumers primarily incur transaction costs (Carow and Staten 2002). This is also known as non revolving credit usage (Brown and

Plache 2006).

'Credit card' can be defined as a general purpose card which can be used to obtain cash, goods or services up to a stipulated credit limit. The credit granted can either be settled in full by the end of a specified period without incurring any interest, or may be settled in instalments with the balance taken as extended revolving credit. (Euromonitor 2008)

'Credit constrained consumers' refer to consumers who rarely make full payments on their credit cards and incur both borrowing and transaction costs (Carow and Staten 2002). This is also known as revolving credit usage (Brown and Plache 2006).

'Loyalty' is described as an attitude that should lead to a positive relationship with the brand (Uncles et al 2003).

'Loyalty programs' are described as schemes offering delayed and accumulating economic benefits for consumers who behave in the prescribed way. There is usually an accumulation of points that can be exchanged for gifts, free products or aspirational rewards such as air miles (Uncles et al. 2003).

'Living Standards Measure' or LSM is a widely used tool in the South African research market, used to segment the South African market. It is segmented from 1 to 10, with 10 being the highest LSM group. 13 variables are reviewed to categorise the markets. These include owning a television, washing machine or having a domestic worker. It is important to note that LSM is a wealth measure, and does not consider income at all. (South African Advertising Research Foundation).

'Private Label credit cards' or proprietary credit cards are cards that may be used in a predetermined number of stores only. These cards are also usually offered in conjunction with a financial institution (Ferguson n.d.).

'Supplementary services' refer to the additional benefits or value added features, such as accident services, that consumers have access to when acquiring a credit card, and

such benefits may actually drive behaviour when selecting a credit card (Goyal 2004).

'Value' is defined as being the perceived tangible and intangible benefits and rewards to customers. This is typically a combination of quality, service and price (Kotler and Keller 2006).

1.7 Assumptions

There were no assumptions that influenced the outcome of this research.

2 LITERATURE REVIEW

2.1 Introduction

The purpose of a literature review is to examine scholarly articles and a wide range of other sources relevant to the area of research to provide a more complete view on the subject under discussion. It is a summary of previous research on the topic in question. The literature review will provide the basis of the research and is an essential part of any academic project (Webster and Watson 2002).

This literature review will seek to explore the various factors of a credit card that may influence a consumer's acquisition of a particular credit card. This will be used as the basis of the research and will be used to determine the attributes and levels required in the study. Credit cards are typically financial instruments, but consumers are also likely to acquire a credit card according to the supplementary services offered (Goyal 2004), or what they perceive as of value to them.

2.2 Background Discussion

Credit cards have become an important revenue source for credit card providers and associated financials institutions. They are also an important way for a consumer to conduct a financial transaction, as carrying a card is safer and allows the consumer to better track their finances. The purpose of this research is to determine what drives the consumer to acquire a particular credit card.

Credit cards providers, and co-branded credit card providers in particular, consider acquisition to be an essential part of the credit card cycle (Morris 1995). Morris (1995) also refers to activation and retention of customers in his report. Acquisition speaks of acquiring new card holders. In the case of co-branded cards, the co-brander, or non-bank partner, usually has a community of customers that they perceive to be loyal, allowing them easier access to this market. Activation refers to ensuring that customers are using their cards, and that the cards are not merely lying dormant in the wallet. Retaining customers refers to ensuring that customers do not cancel their cards or start using other cards where the benefits are perceived to be more attractive (Morris 1995). The issues of activation and retention will not be covered by this research.

2.3 Evolution of the Credit Card

Brown and Plache (2006) propose that credit cards and other payment cards have transformed the way that people live by providing a secure, safe and convenient alternative to cash and cheques. They further equate this innovation to that of the personal computer or cell phone (Brown and Plache 2006). The credit card industry first started in New York, with Diners Club in 1951 where the card was used to make payments to restaurants in the area. American Express followed in 1958 (Worthington 2001). Over a period of time, credit cards were largely the domain of financial institutions and the cards themselves eventually became commoditised, competing on card fees and the credit offered. In an effort to create product differentiation, rewards and benefits were then linked to credit cards. The introduction of co-branded credit cards in the United States (US) market is contributing to the banks' and merchants' bottom lines (Ramsaran 2005). VISA (http://usa.visa.com) advises that these cards can increase revenues, grow market share, build customer loyalty and increase brand awareness.

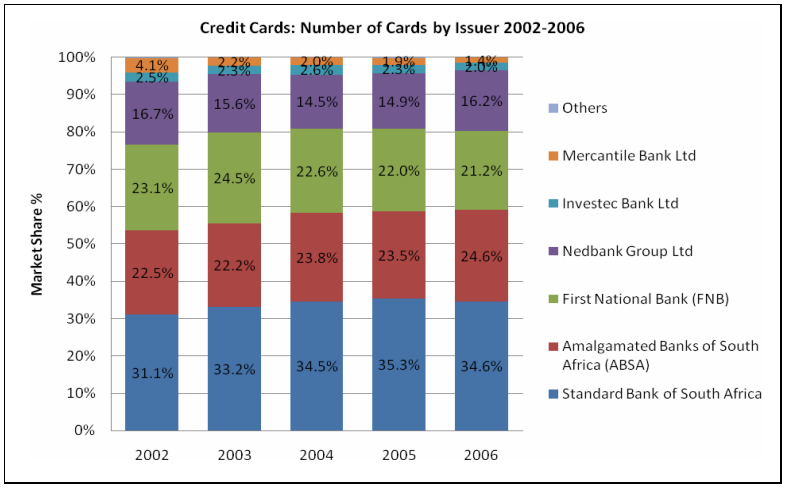
Private label credit cards (Ferguson n.d.) are typically retail or store credit cards. However, the rise in popularity of co-branded, general purpose credit cards has led many retailers to a co-branded card strategy alongside their private label credit cards (Ferguson n.d.). In South Africa organisations such as Edgars and Woolworths are moving away from their private label credit cards in favour of the general purpose co-branded card.

2.4 The Credit Card Industry in South Africa

There are four major retail banks in South African, namely Amalgamated Banks of South Africa (ABSA), First National Bank (FNB), Nedbank and Standard Bank of South Africa, and only six registered credit card issuers in the country. These are ABSA, FNB, Standard Bank, Nedbank, Investec Bank and Mercantile Bank (Euromonitor, 2008) Euromonitor (2008) reports that credit cards have recorded good growth in 2007, with a 13% increase in value and a 12% increase in the number of transactions. Personal credit cards also performed well and showed similar growth patterns.

The market share by the different banks can be seen in Figure 1 over page:

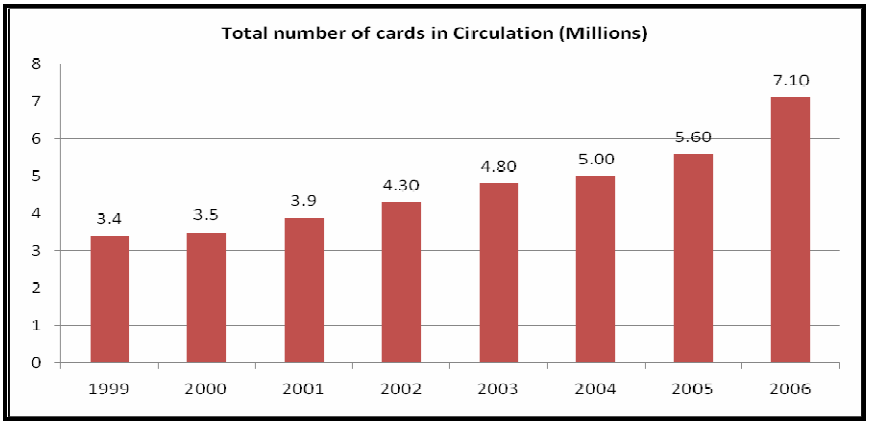
Figure 1: Market Share of SA Credit Card Issuers



(Source: Euromonitor 2008)

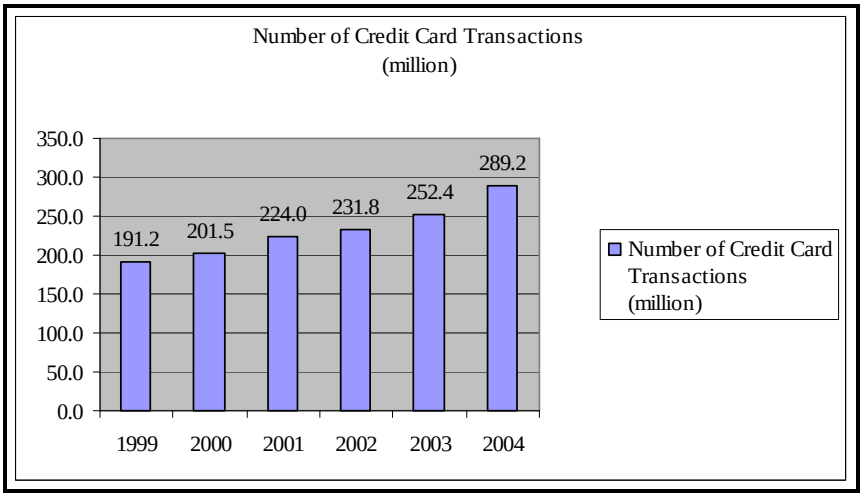
While there has been good growth in both the number of transactions and value of credit cards over the last eight years (see Figure 2 below), there has been much activity in this industry recently with 40 new card products entering the market from mid 2005 to October 2006 (Conradie 2006). Cards in circulation rose from three million in 1999 to five million by the end of 2004 (Euromonitor 2006) and eight million to the end of 2006 (Potgieter, S., 2007).

Figure 2: Financial Cards: Number of Credit Card Transactions 1999 – 2004



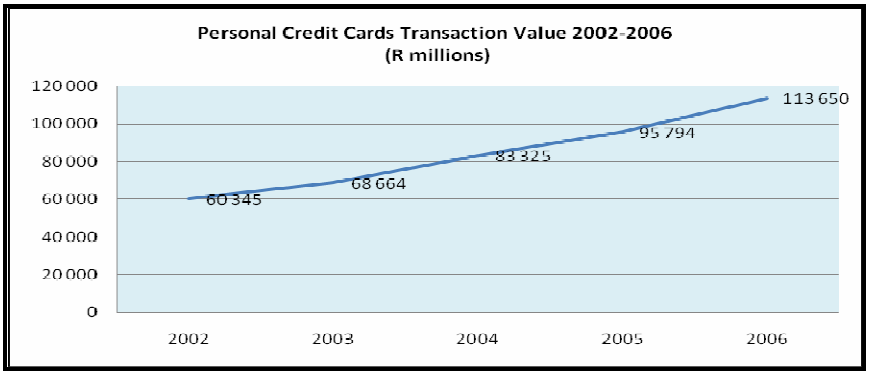
(Source: Euromonitor International 2006 & 2008)

Figure 3: Financial Cards: Number of Credit Card Transactions 1999 – 2004



(Source: Euromonitor International 2006)

Figure 4: Financial Cards: Rand Value in Millions



(Source: Euromonitor International 2008)

A UBS Investment Bank investment research report (2007) describes credit cards as a lucrative business line, which contributes more than 15% of retail bank earnings in South Africa, and it is estimated that the card earnings pool is more than R1.5 billion per year (Potgieter 2007).

Banks, per se, typically compete in terms of price, service standards, delivery channels, advertising, innovation and the range of product and services offered, relationship management and product differentiation (Falkena et al. 2004). This competition also applies to credit cards, and ongoing competition is encouraging the banks to offer a wider range of rewards, benefits and transaction costs in an effort to beat the race to the

customer (Euromonitor 2006). This race has been further intensified by the introduction of the National Credit Act in June 2007, as banks try and differentiate themselves one from another.

Credit cards, and using them to gain entry into new markets, are also attractive to the banks as this allows them an opportunity to cross sell their other products (Euromonitor 2006). This is confirmed by JP Morgan who say this cross selling is also common in international markets (Cuffe and Naidoo 2007)

There has been a large influx into the market of new co-branded credit cards or joint ventures with various non bank players. These non bank players include airlines, medical schemes, and retailers. There are only six companies that have a license to operate a credit card. These are ABSA, FNB, Nedbank, Standard Bank, Investec Bank and Mercantile Bank. All of the co-branded credit cards available in the South African market are linked with one of these banks, and are typically competing for different market segments and different LSMs (see Appendix D).

Investec offers a unique product in the industry called One Account aimed at high net worth individuals. This product combines a current account, credit card and overdraft facility in one account and enables customers to consolidate their financial affairs into one account. (www.investecprivatebank.co.za).

The increased number of players in the market and the increased number of differing credit cards on offer are making this an extremely competitive industry to be in, and one that provides a lot of choice for the customer. This research assists in identifying what components of the cards the consumer, or different segments of the market, find more attractive.

2.5 The National Credit Act

The National Credit Act, (No. 34 of 2005), was introduced on the 1 June 2007, and is a significant piece of legislation that regulates consumer credit (Euromonitor 2007).

The Government Gazette (National Credit Act, 2005) explains that the purpose of this

act is:

- To provide a fair and non discriminatory market place for access to consumer credit
- To provide for the general regulation of consumer credit and improved standards of consumer information
- To promote black empowerment and ownership within the credit card industry
- To prohibit unfair credit and credit marketing practices
- To prevent over indebtedness of the individual, by prohibiting reckless credit granting
- To provide for debt re-organisation in the case of over indebtedness
- To provide for registration of credit bureaux, credit providers and debt counsellors

The National Credit Act 2005 also provides direction as to the cost of credit and sets out the maximum interest rates and transaction fees that may be charged. The National Credit Act replaced the Usury Act of 1968 (Cuffe and Naidoo 2007). It also replaced two other pieces of legislation; the Exemption Notice (to the Usury Act) and the Credit Agreements Act (Clayton, 2008).

The National Credit Act has a number of implications for the credit card issuers. The first is that the Act places much greater responsibility on credit providers to extend credit responsibly, and extend only as much credit as their client can afford. At the time of application, the onus is on the bank to ensure that they adequately assess the potential for over indebtedness of the client by performing an adequate assessment of the client, which will include a view of their assets and liabilities, and knowledge of the propensity that the client has to repay the loan requested. Should this not be adequately performed, and the client is unable to repay the loan, the court may instruct the credit provider to offer relief of this over indebtedness.

Furthermore, the NCA prohibits the credit card issuers from engaging in direct marketing practices and inducing a person to enter into a credit agreement. These practices include unsolicited telemarketing or the sending of unsolicited credit cards to potential clients. This inhibits the way many of the new co-branded cards can be offered into the market.

Credit card companies are strictly guided as to how the credit limit of their clients may be increased. The client must specifically request this increase or must approve of the additional credit. Once again, the credit card provider must ensure that the client has the ability to repay this additional loan. In addition, penalties for early settlement of loans are no longer allowed.

Since the introduction of the Act, there has been a slow down in all aspects of credit including mortgages and car sales (Planting and Radebe, 2008). Gabriel Davel, head of the National Credit Regulator, has commented that if the issue of consumer indebtedness is going to be solved, consumers must reconcile their accounts and not just "rack up more credit". This is aided by the National Credit Act 2005.

This rationing of credit has also had an impact on the credit card industry, and consumers are becoming more discerning and selective in the credit that they accept.

Davel further comments that consumers have already accumulated mortgage and vehicle debt and this is likely to be largely unaffected, but "it is rather in the area of credit cards and store cards that the biggest fallout is likely to occur" (Candy, 2008). This is supported by the Euromonitor (2008) report that says that not only will consumers be unable to spend as much on a credit card, they will be less likely to obtain new ones.

Depending on the credit worthiness of the customer, they may also need to shut down one line of credit, or close a credit card, in order to be able to take out another. This is something that has not previously been necessary. Assuming that the Act is properly implemented, growth in the credit card industry will definitely slow (Euromonitor, 2008).

In light of this legislation, this research, again, is very relevant for organisations issuing credit cards.

2.6 Future outlook for the Credit Card Industry

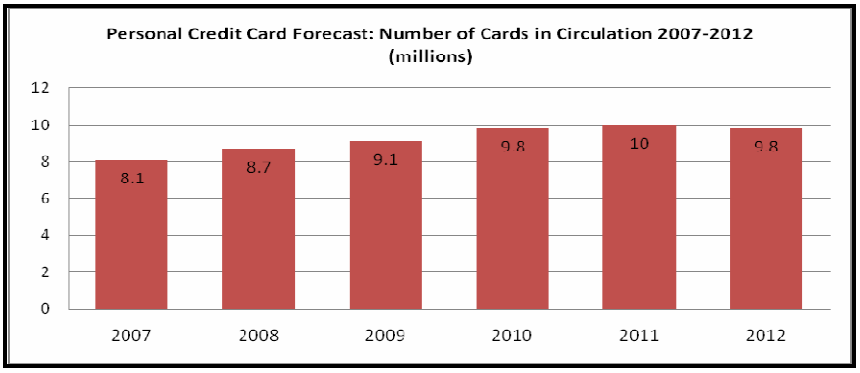
Euromonitor (2008) reports that just prior to the introduction of the National Credit Act

No 34 of 2005, many new cards, and particularly co-branded cards entered the market, and financial cards recorded enormous growth as credit card issuers “took a last opportunity to tempt consumers with enticing products”(Euromonitor 2008). While direct marketing has been seriously curtailed after the introduction of this Act, JP Morgan believes that the credit card business is still in its infancy, and growth and profitability in this industry remains attractive.

Euromonitor supports this, and comments that even with the existing increase in the number of cardholders, with one credit card for every ten adult consumers (2004), there does seem to be opportunity for continued credit card growth in South Africa. Potgieter of UBS Investment Research concurs, and they believe that by global standards, the credit card penetration in South Africa is low. They estimate that there is room in the South African market for another 2.5 million credit cards over the next two to three years given the normalisation of the unsecured market under the National Credit Act. 2005 (Potgieter 2007). Potgieter (2007) further asserts that rather than the market and the growth within the credit card market being limited by the National Credit Act, it will be buoyed by making it possible for the banks to return to unsecured credit, and by being able to issue credit to much lower LSMs or income groups.

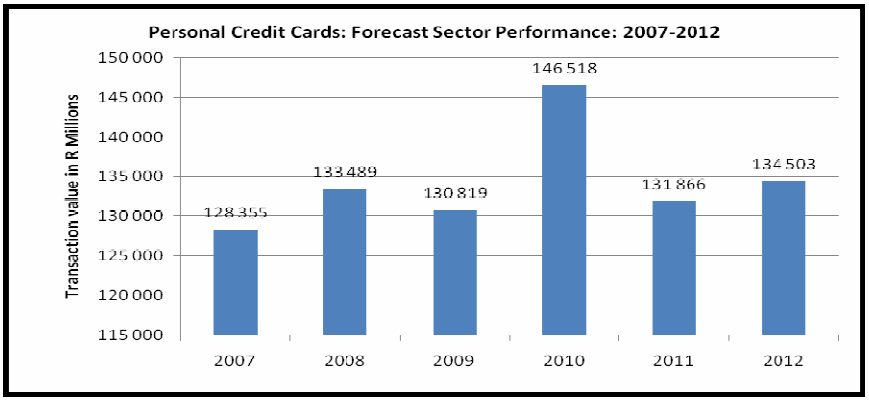
Euromonitor (2008) has predicted good growth in the credit card industry as seen in their forecast below, although a drop off can be seen from 2011 to 2012. No comment has been made by Euromonitor as to the reasons for this decline in expectations. A peak in both spend and the number of transactions can be seen in 2010, the year that the Soccer World cup will be hosted in South Africa.

Figure 5: Personal Credit Card Forecast: Number of Cards in Circulation 2007 - 2012



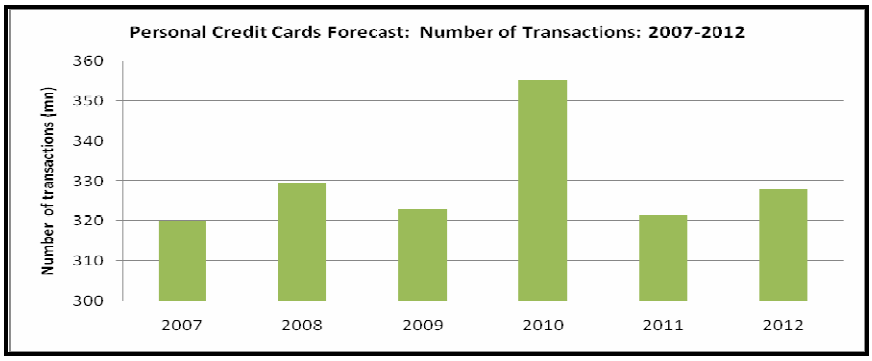
(Source: Euromonitor International 2008)

Figure 6: Personal Credit Card Forecast: Transaction Value: 2007-2012



(Source: Euromonitor International 2008)

Figure 7: Personal Credit Cards Forecast: Number of Cards in Circulation 2007 - 2012



(Source: Euromonitor International 2008)

This predicted growth in the credit card market, and ongoing competition between the financial institutions and non bank players, further strengthens the need for research into why consumers would adopt a particular credit card.

2.7 Addressing sub-problem 1 – Why do customers acquire a particular credit card?

Having understood the industry and legislation regarding credit, in order to understand why a consumer acquires a particular credit card, a number of additional issues needed to be examined.

The first was to understand what the customer perceived as good value. This was because when the potential customer evaluates the card, they acquire the one that they perceive as having the highest value or greatest return on transaction value (ROTV) (Conradie, 2006). Conradie (2005) coined the term "return of Transaction Value" (ROTV) as a way of applying a monetary value to each of the loyalty points earned on credit card transactions. The ROTV is then expressed as a percentage of the credit card spend. This method provides a useful way of comparing cards with differing benefits and rewards to one another.

The second issue that needed examining was that of loyalty programs, as many of the co-branded cards have a loyalty program attached to them, and may be the reason that certain customers are choosing these cards. Understanding what drives the choice of these loyalty programs also provides guidance to the credit card issuers in the development of their card products.

A third issue was that of loyalty to the consumers own bank or financial institution, and whether the consumer will be willing to adopt a credit card from another credit card provider.

Finally, the literature review provided insight into the attributes that currently exist in the majority of credit cards, which of these are the most common across all the credit cards, and which of these attributes needed to form the basis of the research. These attributes are discussed in this section.

This sub-problem addresses the issue of the acquisition of new customers as discussed by Morris (1995) previously, and attempts to identify what it is that makes a consumer accept a particular credit card. Many of the credit card issuers are chasing the same low risk people (Day 2003). Therefore, in order to attract these members, the rewards should be differentiated so as to stand out from other credit card offerings.

2.7.1 *What consumers perceive as value*

This section examined the concept of value, with a view to understanding how the customer's perception of value can attract new customers to a product, or in this case a credit card, as in order for a consumer to take a particular credit card, they need to be attracted to something in that card.

Value is described by Kotler (2006) as perceived tangible and intangible benefits to a consumer, and is usually a combination of quality, service and price. Kotler (2006) further asserts that the value proposition consists of a cluster of benefits that the company promises to deliver, which is more than the core positioning of the offering. Perception is the individual's way of selecting and interpreting information so that they may form a view of the world. This depends on conditions that are specific to that individual meaning that perceptions can vary widely amongst individuals when exposed to similar realities (Kotler and Keller 2006). Value then, is likely to mean different things to different people based on their perception of the reward or benefit that the organisation is offering. This research attempted to identify what it was that people consider to be so valuable that it caused them to make their initial acquisition of a credit card, and then as they continue to use their card and develop perceptions of the comparable and competitive benefits available from other credit cards, what would cause them to switch from one credit card to another.

Goyal (2004) offers the term 'supplementary services' in which she describes services, other than the core product, that are offered to customers to give additional value to their product, or to encourage loyalty. An example of this may be travel insurance which is a standard supplementary service offered on most South African credit cards (Conradie 2005). Goyal (2005) further comments that these services may influence

customer decisions when they are choosing a product that offers very similar basic services.

In order for co-branded cards to compete, they must give real value to the consumer (Morris 1995). His report identifies the value being provided by the co-branded card as the most important criteria to the consumer, and is usually in the form of a rebate. Price, namely the interest rates and card fees, are also considered to be important issues, but it does seem that, over the last decade in the US, co-branded cards have become the consumers' choice for making retail purchases (Carow and Staten 2002).

The strategy of co-branded cards outside of the United States is very new, and has yet to be adopted fully elsewhere in the world (Morris 1995). South Africa, however, has seen an explosion of these co-branded cards, particularly over the last few years. Jan Kleynhans, previous head of FNB Card Division stated that "The realm of card competition is moving into what's in it for customers – and away from pure commoditised pricing considerations. The new generation of credit card is meeting a specific need around lifestyle" (Stoven-Bradford 2006). Kleynhans continued that consumers are feeling the need to be selective about the credit cards they choose, rationalising the cards that they have in their wallets to the one or two or more cards that suit them best. This further solidifies the need to understand what would drive a consumer to select which of these one or more cards to use in a transaction.

The risk to the credit card and loyalty providing organisations is that if the value proposition in the card is not perceived to be high enough or is not visible enough, customers will not select the card, despite high marketing costs. This is demonstrated in the Starbucks credit card where this card offers coffee rebates to its consumers who are not typically price sensitive (Duffy 2005). Duffy further comments that if consumers ask "What are they thinking?" the individuals' long term relationship with the brand begins to erode.

2.7.2 *Loyalty Programs associated with Credit cards*

Attracting customers and retaining them is an important part of many programs, including credit cards. To maximise this, loyalty programmes or frequency reward

programmes have become key marketing activities (Meyer-Waarden, 2008). For co-branded or private label credit cards it is essential that there is a loyalty program attached to the credit card (Ferguson n.d). Ferguson advises that twenty years of loyalty marketing have conditioned consumers to expect some kind of reward when signing up for a credit card program (Ferguson n.d). Ferguson further quotes Grossman who says that the added card benefits are a cost of doing business. He states that MasterCard and Visa are giving away benefits that have become very powerful with consumers over the last five to ten years, and they're also typically offering a lower interest rate.

It is, however, loyalty programs and the perceived loyalty of consumers to an organisation that have given rise to the co-branded credit card industry as the credit card providers who are not financial institutions believe that they have an existing loyal market, and this market will trust them enough to take out their credit card for which they believe they will see value.

There are many loyalty programs attached to credit cards, and according to cardweb.com (Capizzi and Ferguson, 2005) 40% of US credit cards are attached to a loyalty program. The start of loyalty programs began in the early 1980's in the US with the advent of frequent flyer programs (Duffy 2005). These were then attached to a credit card. However, as a result of the proliferation of the loyalty programs, consumers have become more difficult to please, and additional rewards and benefits need to be offered to attract and retain customers. Another goal of loyalty programmes is to create barriers to exit, making it harder for consumers to switch to alternate credit cards (Nunes and Dreze 2006).

Butscher (2002) says that loyalty programs can be described as schemes offering delayed economic benefits to consumers who buy the brand. This usually takes the form of an accumulation of points that can be exchanged for free products, gifts or air miles. Affinity programs are designed to increase the emotional bond between consumer and brand, with no direct economic benefit being returned to the consumer (Uncles et al. 2003).

Hanifin (2001) reports that some of the salient features of loyalty programmes should be

the high visibility of the program, and the simplicity and ease of understanding of the program, with the small print being kept to the minimum. The reward and recognition must establish value in the customer's mind, motivating the acquisition. Finally the consumer must feel that they can trust the loyalty program (Hanifin 2001).

Hanifin's research is supported by research conducted by Maritz Loyalty Marketing (Sneed 2004) who found that rewards are key pull factors when consumers are evaluating a credit card. The rewards that Sneed (2004) considered to be the most valuable and the most likely reason for customers to redeem rewards were:

- Cash backs
- Free travel
- Free merchandise
- Gift certificates
- Special member only offers
- Special or exclusive benefits or upgrades
- Free tickets to events

These findings were supported by O'Brien and Jones who are cited as suggesting that the following five elements combine to determine a programme's value (Dowling and Uncles 1997). These are:

- The cash value of the rewards.
- The range of choice of the rewards.
- The aspirational value of the rewards.
- The perceived likelihood of achievement of these rewards
- The programme's ease of use.
- The time in which these rewards become available to the consumer.

Dowling and Uncles (1997) suggest that for a program to be attractive to potential customers there should be fairly immediate rewards. This provides customers with a feeling of belonging, a feeling of participation and the anticipation of future rewards.

McIlroy and Barnett (2000) comment that a risk exists that, as a competitor offers better value or a wider range of value, a customer may simply defect or switch

products. Companies should also therefore continually innovate and develop products or services that evolve with their customer's needs. This will go some way in preventing these clients being lured away by other credit card offerings (Reichheld 1993).

It is important to note that the cost of these rewards and benefits is huge, with the cost of managing these programs also being very high. As such, some retailers, such as Safeway, have chosen to terminate their loyalty programs (Meyer-Waarden, 2008). It is critical therefore, that any company offering such benefits or rewards considers whether their consumers find these rewards valuable.

2.7.3 *Source of Credit Card*

As more and more companies work together to offer co-branded cards it is important to question whether there is any loyalty to a traditional financial institution or whether consumers are happy to accept credit cards from new and more unusual credit card issuers.

Cleaver (2005) discusses the Canadian experience and comments that the bank brand remains a determining factor in adoption of credit cards, and people who have a relationship with their bank over many years, have a fuller relationship with these institutions.

However, banks are at risk of loosing this market share, as credit cards are the only banking product that is so susceptible to customer switching as there is no hassle factor, other than National Credit Act requirements, involved with switching a card – a card holder simply starts using a new card (Sales Source Market Research, 2007).

2.7.4 *Financial Offerings*

Research by Javelin Strategy and Research (2006) showed that low interest rates drive consumer selection of credit cards more than any other feature. They report that 70% of the consumers report a low interest rate as the reason for choosing a card and 50% of these consumers would use this interest rate as a driver when choosing which card in their wallet to use.

Cleaver (2005) argues that in Canada, low and no annual fees still make a difference, and that the bank brand is still a determining factor for a full and positive relationship. The Packaged Fact report (Morris 1995) supports this theory and reports that consumer research shows that fees and interest rates remain a very important aspect of the credit card.

Therefore, developing a credit card programme that includes some or all of the rewards mentioned previously, but ignoring the hygiene factors such as annual card fees and interest rates, is likely to have a marked impact on the attractiveness of the product, and thus the acquisition of new consumers.

2.7.5 *Status of Cards*

Some debate still exists around the different categories of credit card such as gold or platinum cards. Nunes and Dreze (2006) are cited as reporting that ten or fifteen years ago having a gold card made someone feel really special, but this is not necessarily the case any longer. More and more customers have been demanding status, so in order to be a cut above everyone else it has become necessary to have a platinum card (http://knowledge.wharton.upenn.edu). Speer (1996) concurs, and says that while the concept holds some appeal, these statuses have been so over-promoted that they no longer have the elevated position that they used to.

It is unclear, and little research has been found to guide the credit card issuing organisations, as to whether these status categories are still valid.

2.7.6 *Air miles / Reward points*

Reward points are cited as a popular reason for consumers both choosing a credit card, and for using a particular credit card (Cundiff, 2006), and is the third most favoured attribute in Cundiff's research. In South Africa, Sales Source Market research (2007) reported that reward programs are offered by most credit card issuers as part of their loyalty programs. They refer to the redemption of these points as a concern, as the redemption of these rewards lie with the card holder, and the card holder is often poorly informed about the fact that they have points or how to redeem them.

These reward points can be assumed to also mean air miles as a type of reward points, and many of the credit cards are linked to either Voyager (SAA) miles program or the British Airways miles program (Sales Source Market Research, 2007).

2.7.7 *Affinity Cards*

Affinity cards are cards that are developed in conjunction with a not-for-profit organisation, such as football clubs, political parties and charities. Worthington (2001) has classified the affinity cards as the three C's of affinity cards - causes, charities and clubs. The affinity cards differ from the co-branded cards in that the benefit of the affinity cards is typically accrued to the charity organisation, but the benefit of the co-branded card accrues to the card holder (Shegelmilch and Woodruffe, 1995). These cards were first started in the USA by American Express as a way of targeting news markets. Shegelmilch and Woodruffe (1995) believe that these cards are used to differentiate one credit card from another.

Cardholders advise that they would choose an affinity card as this is an easy way to donate money to charity, and they can identify with the charity and the cause. Interestingly, higher levels of loyalty are seen with smaller charities than the larger charities (Shegelmilch and Woodruffe, 1995). Worthington and Horne (1998) suggest that affinity cards are often seen as "quasi-membership" cards providing an ongoing relationship with the "not for profit" group (Mekonnen et al 2006).

Mekonnen et al (2006) make reference to Mindel (2004) who comments that the take up of affinity cards had decreased over the previous six years, as have the transaction levels.

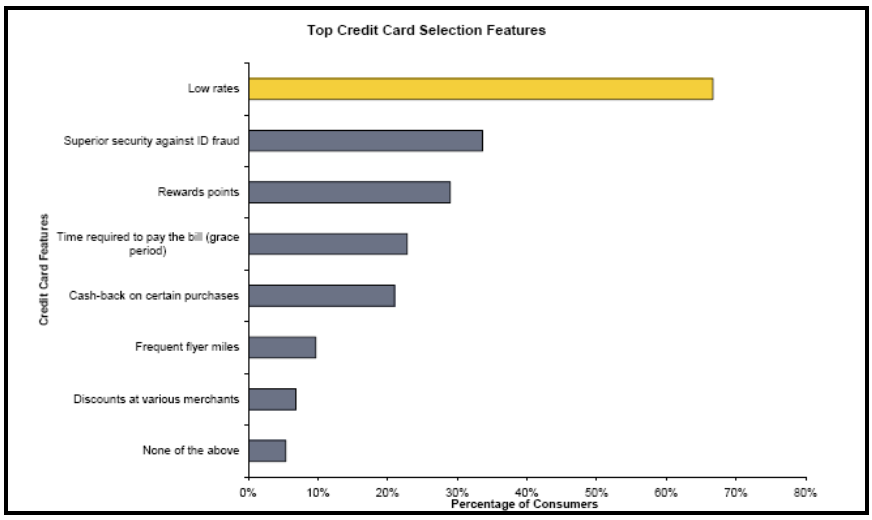
Interestingly, Shegelmilch and Woodruffe (1995) cite the World Wildlife Fund (WWF) as a successful affinity card who offer attractive additional benefits to members, such as low annual fees, longer grace periods and lower interest rates. This may explain the high take up of this card.

2.7.8 *Additional Attributes*

Research completed by Javelin Strategy and Research (Cundiff, 2006) as to which features resonate most with consumer when selecting a credit card identified a number of additional attributes when selecting a credit card.

These can bee seen in the figure over page.

Figure 8: Top Credit Card Selection Features



(Source: Javelin Strategy and Research 2006)

2.8. Addressing sub-problem two – Differences in preference according to demographic data from the consumer

Understanding preferences according to demographic data will allow credit card providing companies to introduce or improve products that are best suited to the market they are trying to target. Segmenting the market in this way is valuable to the market or product developer, and Green and Krigger (1991) describe some of the basic principles of market segmentation. These are that:

- Market segmentation assumes that there are different buying preferences and choices amongst consumers for products and services.
- These preferences can be related to a person's variables e.g. demographic characteristics, psychographic characteristics, product usage or brand loyalties
- Companies can react to these preferences by modifying product and service offerings, modifying their distribution methods and altering their advertising and promotion strategies.

This section of the literature review has been used to identify the relevant demographic profiles that may affect credit card usage.

2.8.1 *General Demographic information*

Kotler et al. (2006) further remark that this consumer choice is influenced by many factors, such as cultural, social and personal factors.

Kara et al (1994) cite Martell and Fitts (1981) who comment that many studies have tried to identify markets through the analysis of demographics, socio economic and other means. Kara et al also cited Kinsey (1981) and Slocum and Mathews (1970) who comment that other studies have found age, sex and marital status to be determinants of credit card selection and usage. Speer (1996) asserts that to succeed in the marketing of credit cards, the credit card issuers need to have an intimate knowledge of the credit card users, in this case Americans. This includes knowing where they live, what they do and how they use their credit cards.

Hirschman (1979) identified that the choice of alternate credit card payment systems (namely which card to use when making a payment) may be influenced by five different factors:

- The characteristics of the individual such as income, age, life stage and life cycle
- The characteristics of the credit card system such as interest rates etc
- The characteristics of the item being purchased particularly price and size of the product
- The policies of the place of purchase (some vendors may not accept American Express for example)
- The characteristics of the situation when the transaction takes place eg size of existing debt on the credit card.

Wells (1975) also comments that while the usual demographics such as age, education and income are important, to have a more in depth view of the client profile it may be worth considering other psychographic descriptions of the consumer. For the purposes of this research only individual characteristics will be examined.

2.8.2 *Age*

There are definite differences according to different age groups, and this is borne out in the Euromonitor report (2008). The report states that the 18 – 24 year old group is more

interested in brand name and the actual aesthetics of the card rather than the fee structures and benefits. Consumers between the ages of 35 and 50 are showing greater preference for airline and medical schemes cards. The belief is that may be because this is the existing member base that was targeted.

Peterson (1977) makes the assumption that "the 20 – 45 segment of the population is positively associated with card use, as people in that age group are more likely to acquire debt than individuals in other stages of their life cycle".

2.8.3 *Gender*

Gender is also thought to be a determinant in choosing a particular credit card. Hirschman (1979) reports that her research showed that men are more likely to possess travel and entertainment cards, and women are more likely to accept cards that have been issued by retail stores.

2.8.4 *Number of Personal Credit Cards*

The number of personal credit cards that an individual has may impact on their desire for another credit card. It has been said that because of the characteristics identified by Hirschman above, consumers may choose to carry more than one card in their wallet so that they are appropriately equipped for any credit card payment requirement. An example of this is if the consumer has a problem using VISA or Amex, their MasterCard credit card may make the payment. Additionally, if a card holder has used up their credit limit allowance of one card, they may use another credit card for payment. In these cases, credit cards would be complementary rather than competitive (Hirschman, 1979)

Kinsey (1981) examined what determinants would cause a personal to have multiple credit cards. Her findings can be summarised as follows:

- The number of credit cards increases with educational and occupational status.
- The probability of holding credit cards increased with age until the age of 50 years, and then decreased with age after that.
- Having cheque and savings accounts increases the probability of having multiple credit cards.

- Living in a rural area decreases the probability of having more than one credit card.
- People with higher debt loads have higher numbers of credit cards.
- Households in the highest income were estimated to hold 8.06 cards with the lowest income groups estimated to hold 1.13 credit cards. Household income was deemed to be the most important determinant for increasing the number of credit cards.

This research serves only to examine whether the number of personal cards has an impact in the take up of a credit card rather than to examine why the South African consumer would have more than one credit card.

2.8.5 *Household Income*

Conradie (2006) advises that different people, with different income levels, may look for different things in a credit card. While a no or low annual fee card may be attractive to some people, for people who can afford this, the Return On Transaction Value (ROTV) may far outweigh the cost of the annual fee.

2.8.6 *Profiling Payment Patterns*

One way of segmenting these markets may also be by profiling the payment patterns of the individual cardholders.

Paden and McAlister (1996) propose that there are two contrasting patterns of credit card usage. They refer to Canner and Cyrnak (1985) who speak of convenience usage and revolving credit usage. This is supported by Carow and Staten (2002) who suggest that credit constrained consumers and convenience consumers look for different attributes in a product. Paden and McAlister (1996) describe convenience usage as people who use credit cards as it is the simplest way of making and paying for a transaction. They do not carry a balance forward each month. Canner (1998) noted that in the US, convenience consumers usually charge greater dollar amounts to their credit cards per month than credit consumers. The literature also describes additional types of credit card users; prefunders and savers and points to each group requiring differing benefits (Conradie, 2006). Finally the last type of credit card holder is the non active

card holder (Hamilton and Khan, 2001); a person who has a card in their wallet, but does not use it.

Ferguson (n.d.) finds that if the consumers do not need the credit they are more likely to go for the card with the points and perks.

The DiscoveryCard is a co branded credit card, or joint venture between Discovery Vitality and First National Bank (FNB). A review of the data of the 330 000 card holders indicates that profiling by payment patterns is not so well defined. The data shows that 40.2% of the cardholders were revolvers i.e. were using their cards for credit and 17.3% of cardholders typically paid their cards off each month. The majority, however, 42.5% of members, did neither, and were inconsistent in their payment patterns. This analysis did not consider consumers who were using their cards as savings vehicles where both the savers and prefunders would have appeared as non-revolvers.

The literature does not advise exactly what distinguishes the parameters when comparing revolvers or non revolvers, so for the purpose of analysing the DiscoveryCard data, the parameters were defined as follows:

- A group were considered to be revolvers if they paid less than 60% of their total balance outstanding at least 75% of the time
- The non-revolvers or convenience users were deemed to be so if they paid off at least 90% of their outstanding balance at least 75% of the time.
- The inconsistent group were the people who fell into neither of these categories.

This may imply that while the literature may point to certain benefits being favoured by particular groups of people, the reality is that this is not so clear cut, and further research is necessary to understand what benefits consumers are looking for.

As far as credit card customers are concerned, people who do not pay off the full balance every month, and carry balances, thus incurring interest charges are actually more profitable than customers to pay their balances in full each month. In addition to this, people using their cards regularly, generating interchange fees, are also more profitable clients. (Speer, 1996)

Matthews and Slocum (1969) completed some research many years ago, and concluded that social class is an important determinant in purchasing behaviour. They concluded that people in the lower classes tend to use their credit cards for credit, where as the higher classes where typically convenience users.

Interestingly, revolvers will also often seek out stores that honour or have offers for their particular credit card (Matthews and Slocum, 1969).

2.8.7 *Credit Card spend per month*

Following on from above, Matthews and Slocum (1969) further comment that people, typically the lower classes, who are more likely to pay instalments on their credit card, rather than pay the full amount, are also likely to spend more on their credit cards each month. These people also have typically higher absolute balances and higher average balances than convenience users.

2.9 Conclusion

The literature suggests that when considering activation or adoption of a credit card, if the credit card providers want their card to be attractive to potential customers they should ensure that the credit card offers sufficient perceived value to the consumers. This value must be in the form of aspirational benefits such as cash backs and travel benefits, but should not ignore basic card benefits such as low card fees and competitive interest rates. To encourage switching, some of these rewards should be immediately available to the card holder.

The literature appears divided about whether consumers would prefer a card with all the “bells and whistles”, but it is clear that the basic financial benefits of the credit card cannot be ignored. In order for a credit card issuing organisations to gain market share in this increasingly competitive industry, the organisations need to have a very clear understanding as to what the customer actually perceives as good value, and what will cause a customer to choose or switch to a particular credit card.

In addition, the literature supports the fact that there are differences in what a consumer

would look for according to certain demographics. Developing credit card products that are appropriate to a particular group would allow the credit card issuer to market and sell more relevant products.

2.10 Research Questions

2.10.1 *Addressing Sub problem 1 through the Research question 1:*

The literature that was examined in the preceding review addresses the issues on what the factors are that a consumer would be looking for when selecting a particular credit card. A summary of the references to these attributes are as follows:

- Consumers expect some kind of reward when using a credit card (Ferguson n.d.)
- The assessment value of a programmes' value is determined by the cash value of the rewards, the range of choice of rewards, aspirational value, perceived likelihood of achievement, ease of use and the time by which the rewards become available (Dowles, Uncle, 1997)
- The following components are considered to be the most valuable: Cash backs, free travel, free merchandise, gift certificates, exclusive member offers and free tickets to events (Sneed, 2004)
- The program should be visible and easy to use (Hanifin 2001)
- The rewards should be fairly immediate (Dowling and Uncles 1997)
- There may be economic, dialogue or affinity drivers (Ferguson Undated)
- Return on Transaction Value (Conradie, 2006)
- Fees and interest rates are still an important factor (Morris, 1995)
- Brand loyalty to the financial institution may influence acquisition (Cleaver 2003)
- Status cards remain important (The lowdown on customer loyalty programs)

Identifying the consumer preference of each attribute relative to the other is therefore the key to identifying which of these components to add to any product suite.

Therefore **Research Question 1** is:

What are the preferred attributes and levels that influence consumers to acquire a new credit card?

2.10.2 *Addressing Sub problem 2:*

The literature shows that consumer preference may vary according to either the demographic profiles of the consumer (see Appendix B for the demographic questionnaire), such as by the way that the consumer manages their payment. Some of the salient points that reflect this are summarised below:

- Consumer choice is influenced by cultural, social and personal factors (Kotler and Keller 2006)
- Consumer behaviour is different in different markets (Falkena et al 2004)
- Credit constrained consumers and convenience consumers look for different attributes in a product (Carow and Staten. 2002).
- Consumers with different income levels may look for different things in a credit card (Conradie 2006)

Therefore **Research Question 2** is:

- **Is this preference unique to a particular customer demographic or payment profile?**

3. RESEARCH METHODOLOGY

This chapter describes the methodology that was used to answer the research questions posed in the previous section, and includes the advantages and limitations of this methodology. Included in this chapter is a discussion of the processes that will be used for the collection of the data and the analysis and interpretation of said data. Finally this section will conclude with comments on the validity and reliability of the research method.

This research was intended to understand what consumers would look for in a credit card, namely, the higher level attributes called importances, and then the levels of each of these. To create a greater understanding of these preferences, the research then further examined these preferences by certain demographic categories.

3.1 Research Methods

Research methods are the types of tools that are used to collect data. The most appropriate method should be selected for any particular research (Dawson 2006), and a quantitative rather than qualitative research method has been selected. Quantitative research can be defined as "a systematic attempt to define, measure, and report on the relationships between various elements" (*Glossary*)

The research problem previously stated requires an understanding as to what would cause a consumer to select a particular credit card. As credit cards are a bundle of products and services that the member would have to trade off against each other and choose, the most appropriate research method for this research was Conjoint Analysis.

3.2 Research Design

3.2.1 *Conjoint Analysis*

Conjoint Analysis was first used in the 1970's, and has since become one of the most widely used quantitative tools in marketing research (Orme 1996) When used properly, this tool provides reliable and useful results.

When asked to accurately determine their attribute preferences of a product, relative

to each other, many consumers are likely to battle to do this. Conjoint Analysis describes how a consumer will respond to a combination of product components. Dobney.com (2008) mentions that "conjoint analysis is concerned with how people make choices between products and services, or a combination of products and services, so that businesses can design new products or services that better meet customers underlying needs." Curry (1996) describes three steps in the process of conjoint analysis – these are collecting the trade-offs, estimating buyer value systems and making choice predictions. Conjoint analysis also tests the willingness of a customer to pay, and shows how much value a consumer will place on a good or service (Orme 2006).

A further definition by Kotler states that "conjoint analysis is a method for deriving the utility values that consumers attach to varying levels of a product attribute" (North and de Vos n.d.). Conjoint analysis therefore, implies a study of the jointed effects of components of a product, or as referred to in the Introduction to CVA (www.sawtooth.com), "features that are CONsidered JOINTly".

This research classified features of a credit card, and allowed the respondents to view the attributes in combinations, making it look more like a real product. The consumer then chose preferences relative to each of the other components.

While the respondent may think that all the attributes are important to them, it is important that they trade-off one attribute against the other. This trade-off based modelling resembles a real life scenario much closer than many other models (Bhaskaran 2007). As the consumer makes these difficult trade-offs, it is possible to identify what is truly valued by the consumer.

The attributes reviewed will then be considered jointly and will provide a better result than if each attribute was measured on its own.

The objective was to measure and analyse these trade offs using a questionnaire. This methodology is very useful as it assists the researcher to understand the demand side (the cardholder) of the equation. The credit card issuers will then be able to ascertain

what benefits are preferred by which target group, and whether they will be able to offer them in a cost effective manner.

Credit cards and particularly the more recently introduced co-branded cards consist of a number of different elements and components such as brand, rewards, interest rates and credit limits. This analysis will determine how the customer values the product bundle, and which attribute they prefer over any other.

3.2.2 *Conjoint Analysis Questionnaire design*

In the development of the questionnaire, the products or services need to be consistent in terms of attributes and levels, in order to see what is being traded off against each other. Dobney.com describes an attribute as a general feature of a product or service. Each attribute, also known as factors, is then made up of different levels. An example in the credit card research is an attribute being interest rate, with the levels being made up of range of interest rates varying between 18% and 24%. In order for the research to be meaningful, it is essential that the attributes and levels are properly defined.

In creating the attribute list the following rules were applied:

- The attributes were independent of each other
- Each attribute had varying degrees
- Each level was mutually exclusive of the others – there was only ever one level of each attribute
- The levels had a unique and unambiguous meaning
- There were no more than 3 – 5 levels per attribute, and the variances were spread over fewer, more measured levels
- The levels of attributes were able to be combined freely with one another without resulting in impossible combinations. To ensure that the study results were more accurate, the following combinations were removed for implausibility:
    - No annual fee with a gold card
    - No annual fee with a platinum card
    - R100.00 fee with a platinum card
    - R1600.00 annual fee with a normal card

The literature review helped to identify the variables that consumers would consider to be important when selecting a credit card. The questionnaire was composed of 11 different attributes with varying levels for each of these attributes respectively. The attributes and their levels are as follows:

Table 1: Attributes and attribute levels

Attribute	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
Affinity Card	Card donates 1% to charity each month	No automatic donation to charity			
Source of Credit Card	Credit card provided by a bank	Credit card provided by a retail company	Credit Card provided by an airline company	Credit card provided by a medical aid administrator	Credit card provided by a cell phone company
Card Status	Normal card	Gold Card	Platinum Card		
Interest rate on debit balances	18%	20%	22%	24%	
Annual fees	R100.00 annual fee	R600.00 annual fee	No annual fees.	R250.00 annual fee	R1600.00 annual fee
Credit limit	R5000.00	R15 000.00	R50 000.00		
Consolidated financial services	Stand alone credit card	Credit card integrated with current account and home loan			

Travel Benefits	No free travel	25% discount on air travel	Free companion air ticket for spend in excess of R80 000.00 spend per annum		
Cash backs	No cash back	10% cash back on credit card spend	20% cash back on credit card spend		
Air Miles	No air miles	1 Mile for every R6.00 spent	1 mile for every R12.50 spent		
Supplementary Benefits	Access to airport lounges	AA or other motor assistance	No supplementary benefits		

From the table of attributes and levels, and excluding the impossible combinations mentioned above, a total of 36 hypothetical card combinations were created. A single concept presentation commonly known as card sort was used. The respondents were shown one card at a time, and asked to rate each card on a scale of 0 – 10 based on how likely they would be to adopt a particular credit card, 0 being that the respondent would definitely NOT adopt that particular credit card, and 10 meaning that the respondent definitely WOULD adopt that particular credit card. Based on this rating, a numerical value is attached to the level which is known as the utility (dobney.com, 2008) or part-worth (sawtooth.com). The utility can also be described as the unique value of the attribute level. This utility value shows strength of preference. The higher the utility value, the greater the importance of that utility. It is important to note that a negative utility value does not mean that that utility is unattractive, but rather it is unattractive only relative to the other levels. It is not possible to compare utility values between attributes, but instead utilities in each importance can be compared. (See Appendix E

for individual card combinations.)

3.2.3 *Advantages of Conjoint Analysis*

- This analysis is very useful tool for product design and pricing issues
- Alternatives may be studied without burdening respondents (Frendberg n.d.)
- Pencil and paper studies can be performed
- Conjoint analysis can be used with small samples (*Introduction to Traditional Conjoint Analysis*)
- This type of research mimics the "real world" more reasonably. Dynamic market models allow the testing of consumer behaviour
- Allows sellers to maximise profits by minimizing the costs of the features offered
- Preferences are measured at the individual level
- This tool estimates the trade-offs that consumers make when evaluating several attributes together
- Conjoint Analysis reduces the risk of making bad decisions (Frendberg n.d.)

3.2.4 *Disadvantages of Conjoint Analysis*

- The information gathering stage is complex
- If there are too many questions, there is a risk that the respondent will become overloaded and the data collected may be poor (sawtooth.com)
- It is preferable not to have more than 6 attributes, but some forms have conjoint analysis have allowed for up to 30 attributes and 15 levels to be measured (Orme 2007)

3.2.5 *Statistical models used to analyse the conjoint analysis*

Conjoint Analysis is a term that is used to both collect and analyse data (Frendberg n.d.).

The models that were employed for the analysis of this data were:

- An ordinary least Squares Regression was performed using the Sawtooth Market Simulator, and through this the importances were identified. Smith (n.d.) cites that the attractiveness of the Ordinary Least Squares (OLS) is its ability to scale respondents' choices using rating scales. It is also possible to use this

method to cope with larger number of attributes and levels. Smith further comments that the purpose of the OLS conjoint analysis is to produce the part worth utilities that identify the respondents' preference for each level of a set of product attributes.

- The part worth model, which is a measurement of preferences that can be measured by using a part worth model. This model defines a different utility value for each level of an attribute.
- The ANOVA Rank correlation coefficient analysis was used for the analysis of all the other demographic constructs.
- A Two – sample T-Test analysis was used to identify significant differences for the gender demographics.
- Analysis of the data against demographic profiles using analytical software called Cognos.

3.3 Population and Sampling

3.3.1 *Population*

The population was a study of any male or female over the age of 21 years old, and a convenience sample of 150 people was used. The sample was from the Greater Johannesburg area. All people interviewed fell into the LSM categories of 7, 8, 9 and 10 as defined by the South African Advertising Research Foundation.

As the payment profile of customers, and their card preferences, featured strongly in the literature, the sample was made up of 50 people who pay their credit cards in full every month (convenience users), 50 people who carry balances (revolvers) and 50 people who do not have a credit cards at all, as they would be looking to select a new credit card in the future.

3.3.2 *Sampling*

For convenience, the respondents were selected from the Gauteng region, and a national base of respondents was not used. The respondents were selected randomly in public places, and 150 face to face interviews were conducted. The task of recruiting the respondents, and interviewing using the questionnaire designed by the researcher, was outsourced to a market research company, Q&A Research, and this was done at no charge.

3.4 Data Collection

A questionnaire was developed in conjunction with Dr A. Stacey for the collection of this information. The collection of the data was outsourced to Q & A Research as mentioned above. The researcher briefed Sharon Snyman from Q&A Research, who in turn briefed the field workers. Fourteen interviewers were used, and the collection of this data commenced at the beginning of March 2008 and continued until the end of May 2008. These interviews were done as a pencil and paper task and were captured after the interviewing process.

3.5 Data Capturing

All demographic and conjoint questionnaires were captured in a spreadsheet by data capturers at Q&A Research. One hundred and fifty (150) questionnaires were loaded into the Conjoint Analysis software, Sawtooth, and none were rejected for unreliability.

3.6 Validity and Reliability

Validity refers to the accuracy and credibility of the research project. Reliability refers to the extent that another researcher would draw the same conclusions in the same research project.

3.6.1 *External Validity*

This refers to the extent with which the results of a research study would apply to situations beyond the study itself and whether the findings will be applicable in the real world (Kahn 2006). There is unlikely to be external statistical validity, as this was not a completely random sample, but this study will enable the companies that provide credit cards to develop guidelines for products that are appropriate and attractive to the correct target market.

3.6.2 *Internal Validity*

Internal validity refers to the extent to which the design and data of a research study allows the researcher to draw accurate conclusions about cause and effect relationships within the data. Most importantly, Miles and Huberman (1994) suggest that the researcher ask whether the finding of the study make sense.

3.6.3 *Reliability*

Reliability refers to whether the process and results of the study is consistent and stable over time and across different researchers and different methods (Miles and Huberman 1994).

The questionnaires were developed looking at the literature, and examining the components of a wide range of credit cards on the market. A review of both co-branded credit cards and credit cards from financial institutions were examined. This ensured that the questionnaires were reflective of what is currently available in the South African credit card market.

In order to ensure reliability the researcher made use of Q & A Research, a company which is experienced in performing face to face interviews. In addition the key researcher was adequately briefed so that the essence of what was being researched was not lost.

Given the expertise of the team of researchers involved in this study, it is likely that another researcher would draw the same conclusions as this study.

3.7 Ethical Issues

It is important to mention the ethics of research. It is important that the participants and the information that they provide is treated with honesty and respect (Dawson 2006). Dawson (2006) suggests a code of ethics, which includes ensuring anonymity and confidentiality where appropriate. All respondents were assured of confidentiality and anonymity. (See Appendix B)

4. PRESENTATION OF RESULTS

While the requirements for the sample were described prior to the research, the make up of the sample was not known until the researchers went to field, and as such is included as part of the presentation of the results. The make up of the sample of 150 respondents is described in the paragraphs below.

The results of the statistical analysis described in the previous chapter has been described below, and can be seen in more detail in Appendix G and H.

4.1 Demographics

The respondents were asked to complete an anonymous demographic questionnaire, which identified the demographics in question for this research. The purpose of doing the demographic questionnaire was to understand if there was a pattern or a group of preferences between people with similar demographics. This would allow the credit card issuers to develop products that are more suitable for a specific target market.

The demographics selected were based on the literature review, but the actual make up of the sample was not known until the interviewers went to field.
The demographic information that was asked was:

- Age
- Gender
- Marital Status
- Household income
- If the respondent had a credit card, how many cards does did the respondent have
- If the respondent had a credit card, what was the average credit card spend per month
- If the respondent had a credit card, did they typically pay their credit cards off on a monthly basis or did they typically pay the minimum amount due. (Although this is a subjective view of the person's own payment profile, and not based on their actual payment patterns it was believed that this would give a view to the respondent's mindset.)

A summary of the demographics groupings can be seen in the tables below.

Table 2 : Demographic Categories

Response	Age	Gender	Marital Status	Household Income	No Personal Credit Cards	Average spend per month	Average spend per month
1	20-29	Male	Married	R9500-R11999	0	<R10 000	Currently no credit cards
2	30-39	Female	Single	R12000-R18999	1	R10 000-R20 000	Pay of credit card on monthly basis
3	40-49		In relationship	>R19000	2	>R20 000	Pay minimum balance due
4	50-59				3		
5	60-69						
6	70+						

Profile of Respondents

Table 3: Profile of Respondents

Demographic	Number	Percentage
Age		
20-29	29	19%
30-39	43	29%
40-49	37	25%
50-59	30	20%
60-69	9	6%
70+	2	1%
Total	**150**	
Gender		
Male	69	46%
Female	81	54%
Total	**150**	
Marital Status		
Married	85	57%
Single	45	30%
In Relationship	20	13%
Total	**150**	
Household Income		
R9500-R11999	53	35%
R12000-R18999	50	33%
>R19000	47	31%

Total	**150**	
Demographic	**Number**	**Percentage**
No of personal cards		
0	50	33%
1	62	41%
2	32	21%
3	6	4%
Total	**150**	
Av card spend per month		
<R10 000	62	62%
R10 000-R20 000	32	32%
>R20 000	6	6%
Total	**100**	
Payment Profiles		
Currently no credit cards	50	33%
Pay of credit card on monthly basis	50	33%
Pay minimum balance due	50	33%
Total	150	

Graphical Representation of Demographic Categories

Figure 9: Age Demographic

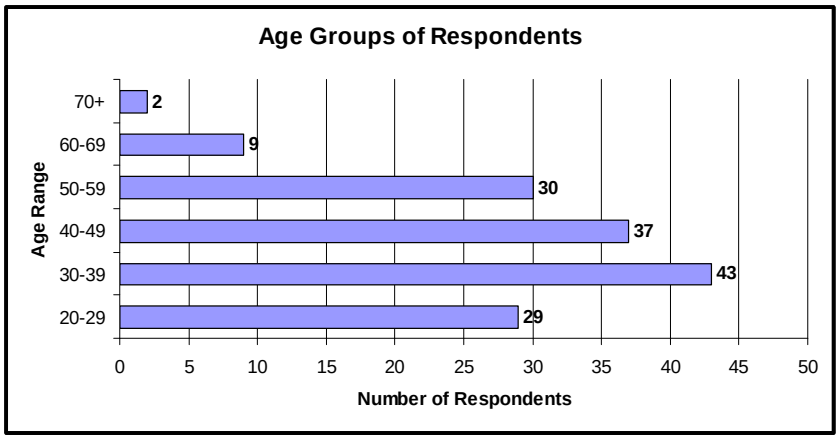


Figure 10: Gender Demographic

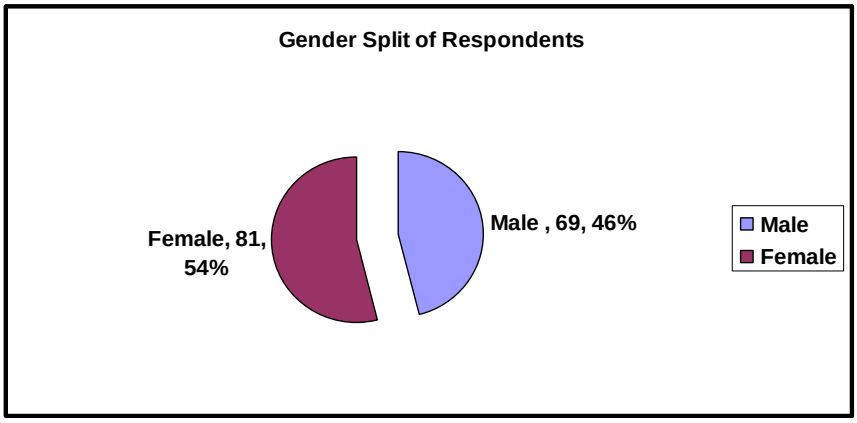


Figure 11: Marital Status Demographic

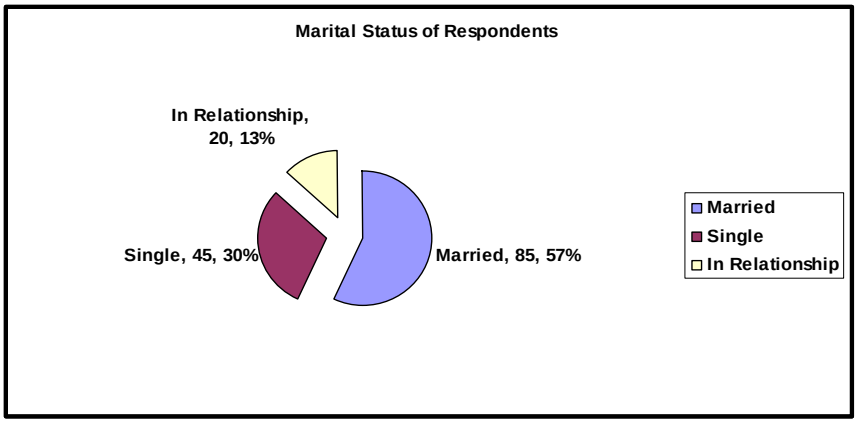


Figure 12: Household Income Demographic

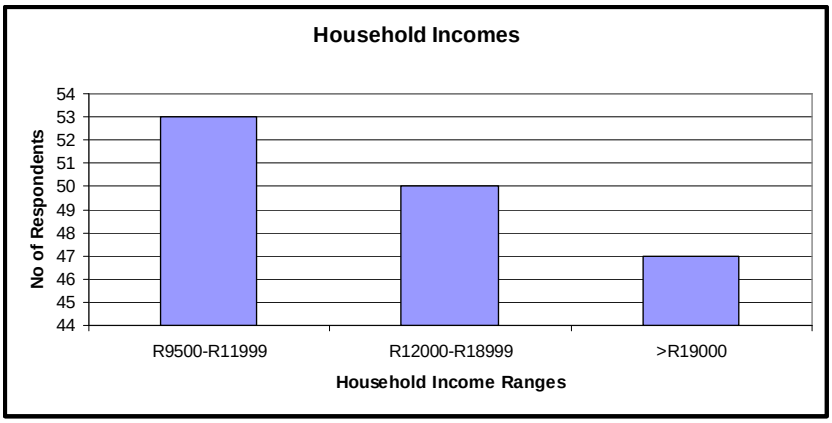


Figure 13: Number of personal credit cards demographic

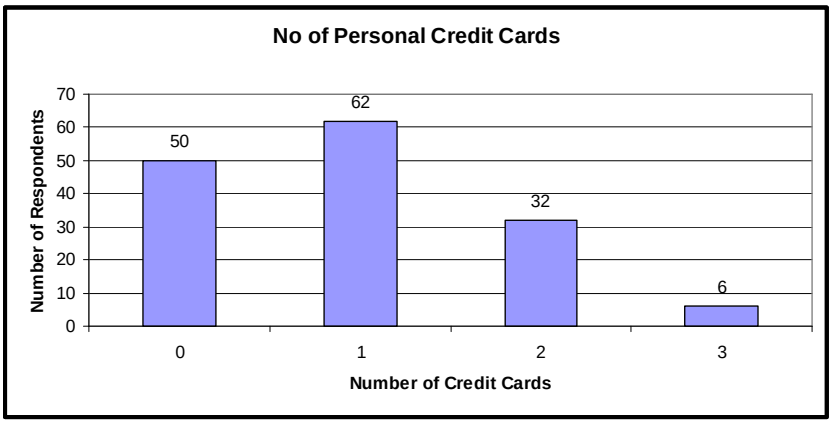


Figure 14: Average Credit Card spend per month demographic

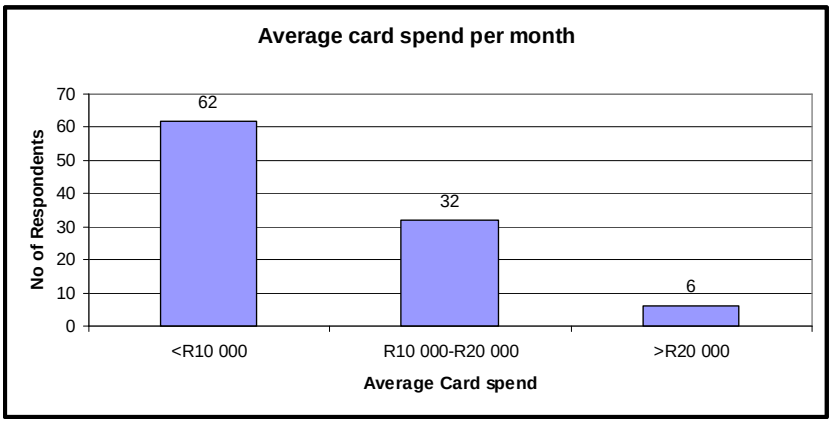
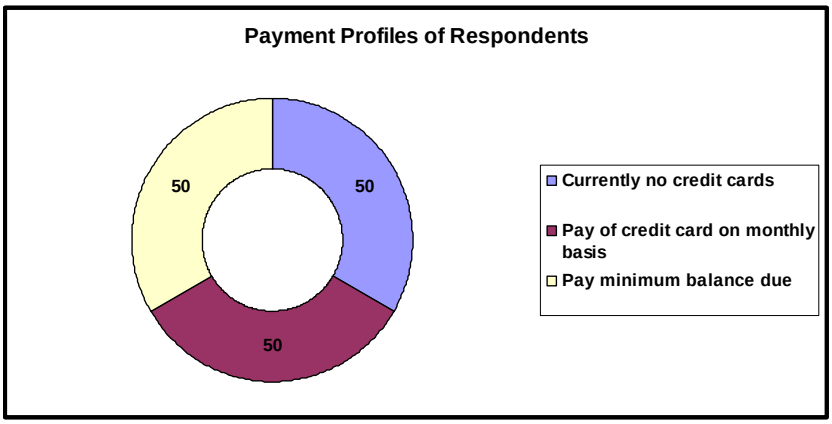


Figure 15: Payment Profile demographic

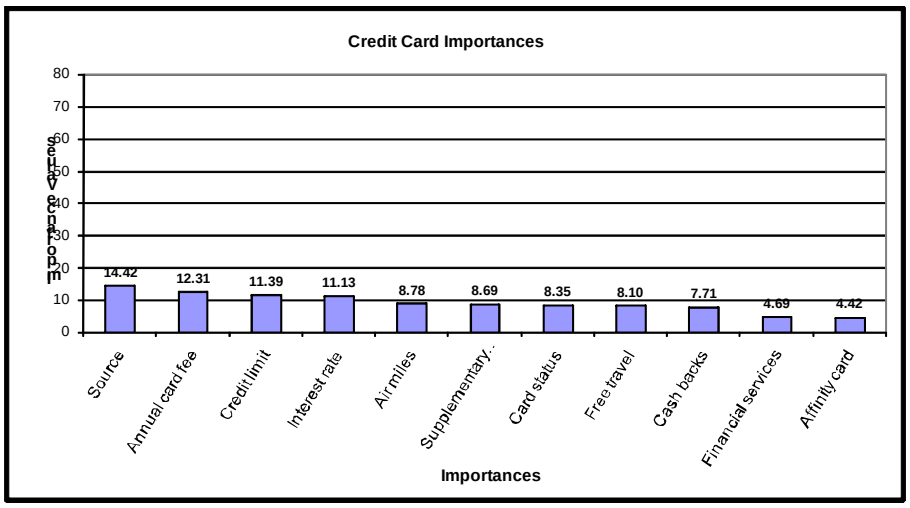


4.2 Addressing Sub problem 1 - The preferred attributes and levels that influence consumers to acquire a new credit card

Average Credit Card Importances

The raw data was run through the Sawtooth Market Simulator, and without taking any demographic differences into account, the importances and utility values of these are listed in the figure below. The results of the Sawtooth software can be seen in Appendix F.

Figure 16: Average Credit Card Importances



Ranking of levels in each importance

The utility values of each of the importances were ranked and reviewed. As mentioned previously, a negative utility value does not mean that that utility is not desired, but rather it is less desirable relative to the other levels. The higher the utility value of the level, the greater the importance of that utility.

The utility value of each importance has been presented below in descending value of preference.

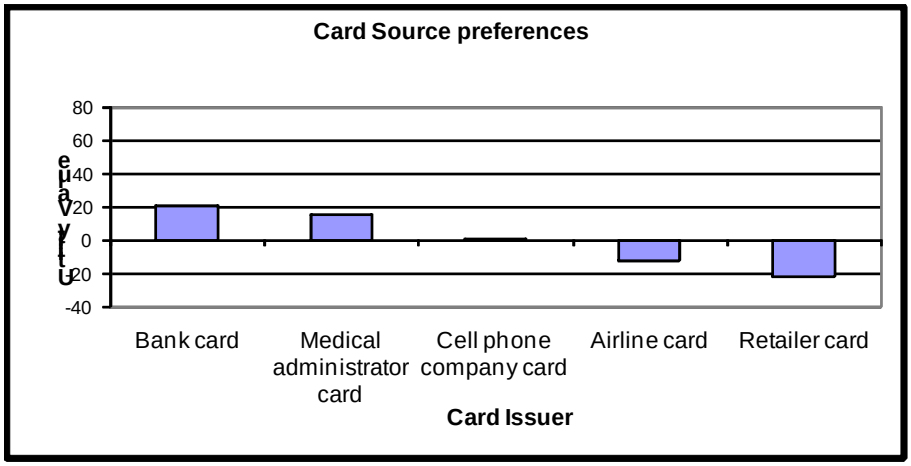
a. Source of the Credit Card Importance

The source of the credit card appeared at the most important attribute, meaning that the respondents were most concerned with who the credit card issuer was, and of these the most preferred credit card issuer was a bank, and the least preferred credit card issuer

was a retail store.

The preferred utilities of the source of the card importance are reflected in The figure below:

Figure 17: Credit Card Source Utilities

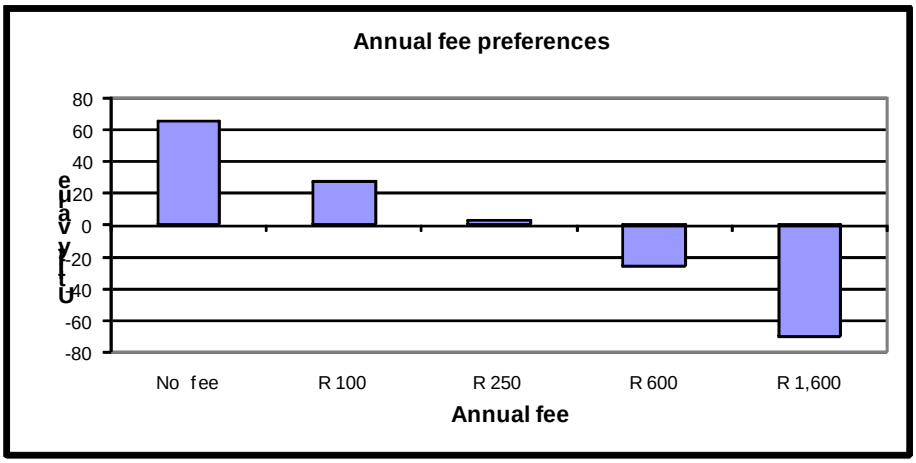


b. Annual Card Fee Importance

The annual card fee is recorded as being the second most important attribute amongst the respondents, with the levels preferred being in order of costs, ranging from "no annual fee" being the most preferred level to the highest card fee of R1600.00 being the least preferred level.

The figure over page reflects the utility values of each of these levels:

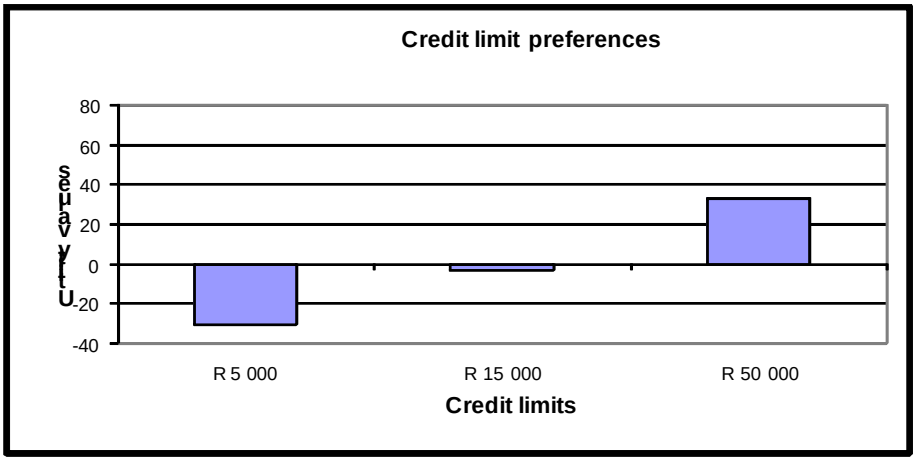
Figure 18: Annual Card fee utility preferences



c. Credit limit Importance

The credit limit available to card holders was placed as the third most important attribute with the highest credit limit being most preferred. The smallest credit limit was the least preferred level. The figure below reflects the utility values of each of these levels:

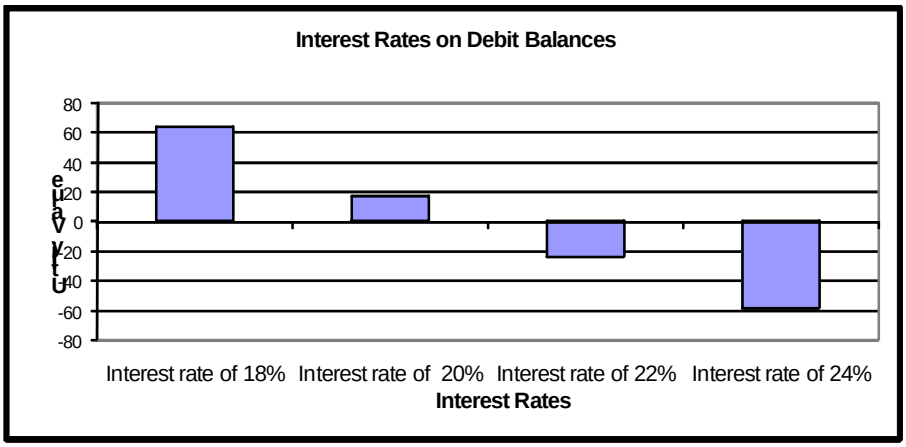
Figure 19: Credit Limit utility preferences



d. Interest Rate Importance

The Interest rate was the fourth most preferred importance selected by the respondents and yet another financial attribute. The preferred interest rates are from the lowest interest rate offered to the highest interest rate. The figure over page reflects the utility values of each of these levels.

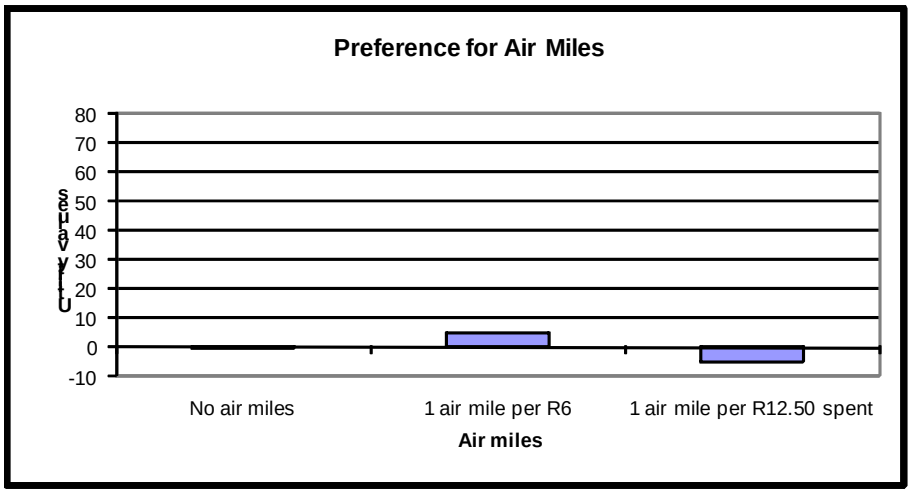
Figure 20: Interest Rate Utility Preferences



e. Air miles Importance

The air mile importance was the fifth most preferred importance, but also the first non financial attribute that was preferred. This appeared above other credit card benefits such as card status, free travel and cash backs. The figure below reflects the utility values of each of these levels.

Figure 21: Air mile utility preferences

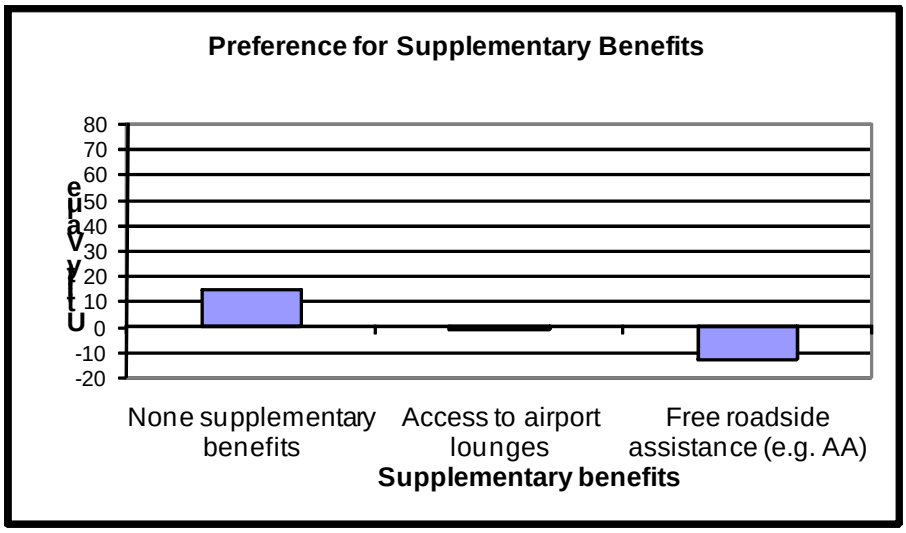


f. Supplementary Benefits

The supplementary benefit refers to the peripheral benefits that are often associated with credit cards such as travel insurance and access to airport lounges. Although this appeared as the sixth most importance attribute, the most preferred level was for "no supplementary benefit" therefore it must be assumed that this is not such a desirable benefit.

The figure below reflects the utility values of each of these levels.

Figure 22: Supplementary Benefit Utility Preferences

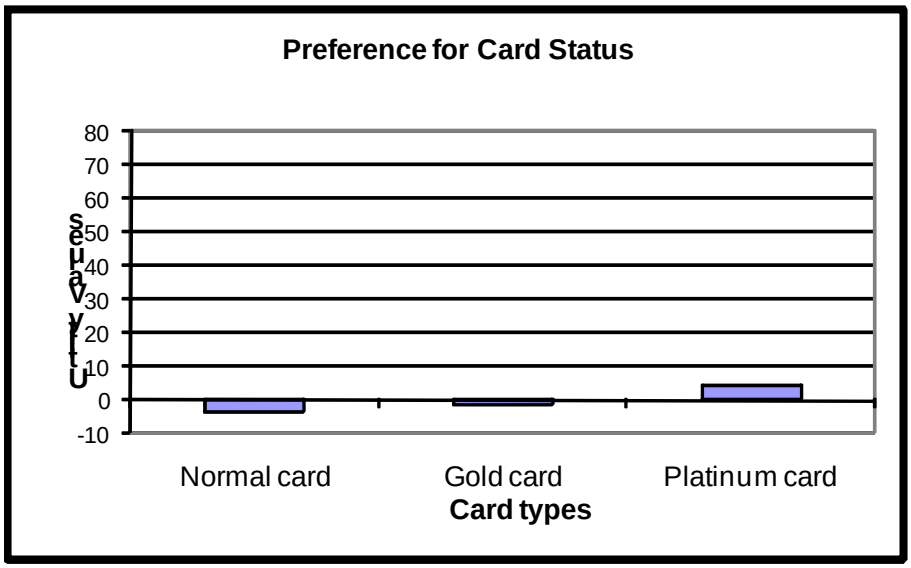


g. Card Status Importance

The card status importance refers to the prestige and status of the cards. These usually range from a blue or normal colour card to silver gold and platinum depending on the card holders income and level of credit. This attribute featured as the seventh most important attribute, and still appears above many of the other non financial features of a credit card. As the supplementary benefit importance showed that card holders actually prefer no supplementary benefits, it can be assumed that this is the second most important non financial benefit.

The figure over page reflects the utility values of each of these levels.

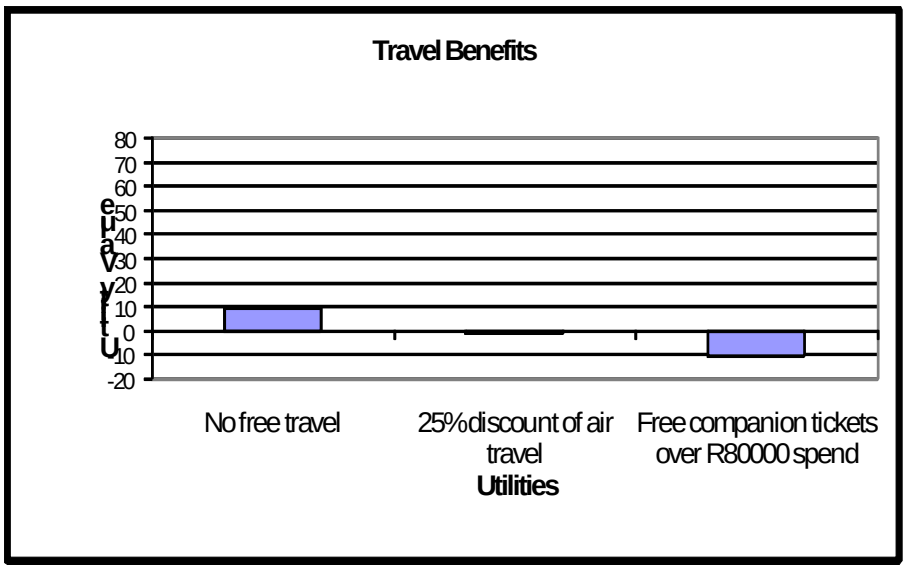
Figure 23: Card Status Utility Preferences



h. Travel Benefit Importance

Free or discounted travel is frequently included as one of the components of credit cards in South Africa, and world wide. This research showed that the free or discounted travel importance appears as the eighth most important attributes. However, once again, the most "preferred" level of this importance is "no free travel". We can therefore assume that this is lower preferred attribute. The figure below reflects the utility values of each of these levels.

Figure 24: Travel Benefits Utility Preferences

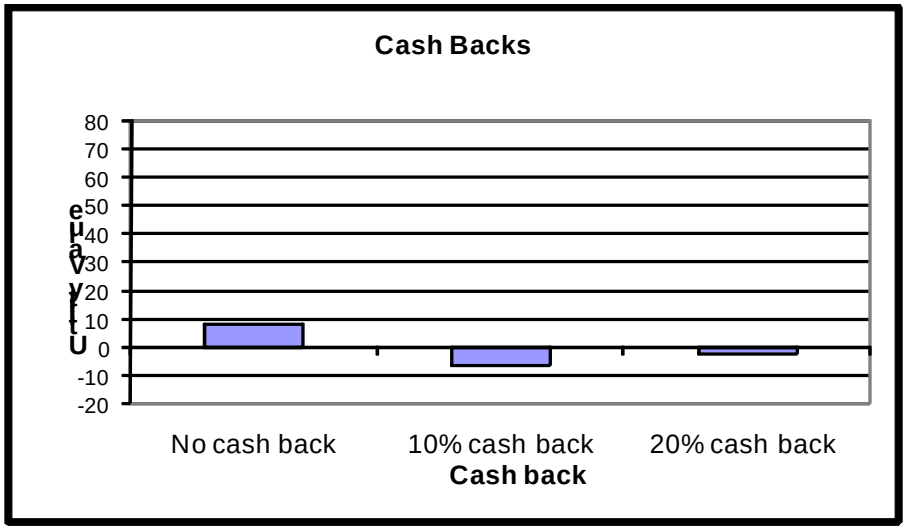


i. Cash Backs

Cash backs refer to money that is paid back to the cardholder usually for spend in a particular store. Respondents in this research rated this as a low importance, and once again, the most "preferred" level was that of no cash backs.

The figure below reflects the utility values of each of these levels.

Figure 25: Cash Back utility preference

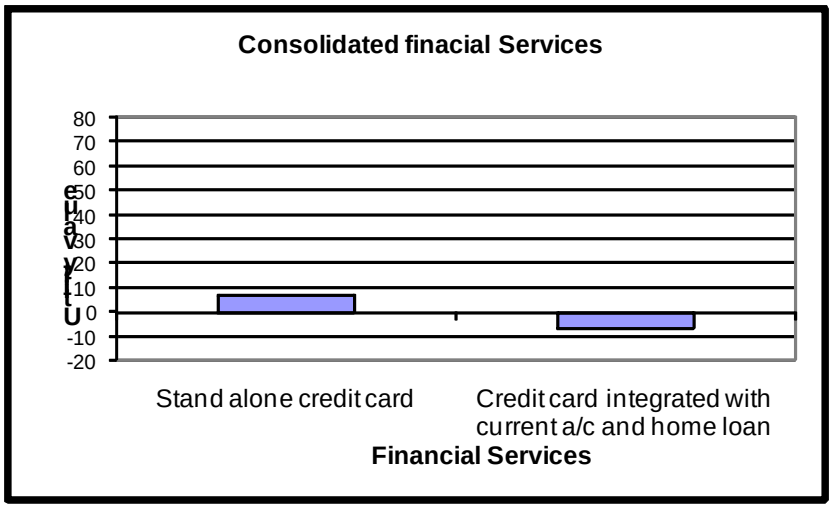


j. Consolidated Financial Services Importance

Consumers may consider that it is convenient to have all financial accounts with one institution. This was explored in this research, and it was shown that having all accounts in one account was not important to card holders and they were comfortable, and preferred the concept of a stand alone credit card.

The figure over page reflects the utility values of each of these levels.

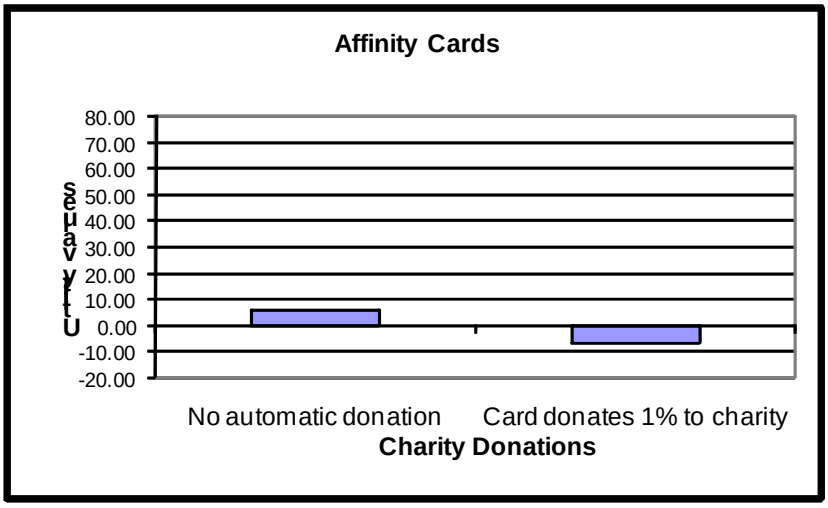
Figure 26: Consolidated financial service utility preferences



k. Affinity Card

There are many affinity cards on the market and the concept of automatically giving money to charity as part of a credit card was considered. The affinity card importance has appeared as the lowest of all preferences, with respondents preferring not to automatically give any money to charity. However, with the supplementary benefits and cash back importance, the utilities of "no supplementary benefits" and "no cash backs" were preferred, so it can be assumed that these importances were also the lowest rated with the affinity card importance. The figure below reflects the utility values of each of these levels.

Figure 27: Affinity card utility preference



A summary of the attribute and the levels can be seen in the table below

Table 16 – Summary of Group Statistics

Attribute	Importance	Level	Utility Value
Source	14.42	Bank card	20.55
		Medical administrator card	14.86
		Cell phone company card	0.12
		Airline card	-13.02
		Retailer card	-22.51
Annual card fee	12.31	No annual fee	65.21
		R100 annual fee	27.46
		R250 annual fee	2.92
		R600 annual fee	-25.33
		R1600 annual fee	-70.25
Credit limit	11.39	Credit limit of R 50 000	33.12
		Credit limit of R 15 000	-2.95
		Credit limit of R 5 000	-30.16
Interest rate	11.13	Interest rate of 18%	64.35
		Interest rate of 20%	17.71
		Interest rate of 22%	-23.92
		Interest rate of 24%	-58.14
Air miles	8.78	1 air mile per R6	5.24
		No air miles	-0.28
		1 air mile per R12.50 spent	-4.95
Supplementary benefits	8.69	None supplementary benefits	14.51
		Access to airport lounges	-1.37
		Free roadside assistance (e.g. AA)	-13.13
Card status	8.35	Platinum card	4.50
		Gold card	-1.33
		Normal card	-3.16
Free travel	8.10	No free travel	9.67
		25% discount of air travel	0.09
		Free companion tickets over R80000 spend	-9.76

Attribute	Importance	Level	Utility Value
Cash backs	7.71	No cash back	8.37
		20% cash back	-2.18
		10% cash back	-6.18
Financial services	4.69	Stand alone credit card	6.98
		Credit card integrated with current a/c and home loan	-6.98
Affinity card	4.42	No automatic donation	6.39
		Card donates 1% to charity	-6.39

4.3 Addressing sub problem 2: Unique preferences according to a particular customer demographics and payment profiles

The intention of the study was to understand how demographics influence preference of certain components of a credit card, the demographic groups of which have been mentioned previously in this document.

This data was analysed using NCSS, through ANOVA and a Two sample T-test as appropriate, and this was also analysed by the software program Cognos . These two have been used together to provide a more complete picture. There were a number of significant differences in both importances and utilities specific to the different demographic groups questioned.

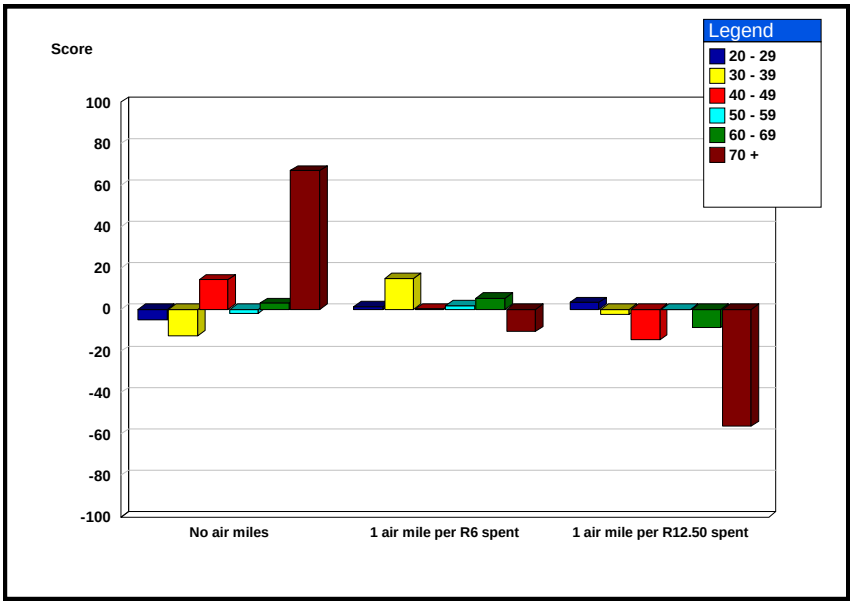
4.3.1 *Age Demographic*

a. Age and Importances

One way ANOVA and Analysis of Variance was used to analyse any preferences according to age. The only significant difference in importances according to age was in the area of air miles.

There were no other differences significant differences in age and importances. (Appendix G)

Figure 28: Age and Air Mile Importance



b. **Age and Utilities**

The one way ANOVA shows that there are significant differences in the age demographics and the following utilities:

- Airline Card (Source of Card importance)
- 22% Interest Rate (Interest Rate importance)
- No air miles (Air mile importance)

No other significant differences exist between age and utilities.

(See Appendix G)

c. Age and Airline Card (Card Source utilities)

The NCSS data shows a significant difference in the age preference with respect to an airline card with people in the age group 60 – 69 least likely to prefer an airline card as the source of their credit card.

This can be seen in the figure over page.

Figure 29: Card Source Utilities by Age

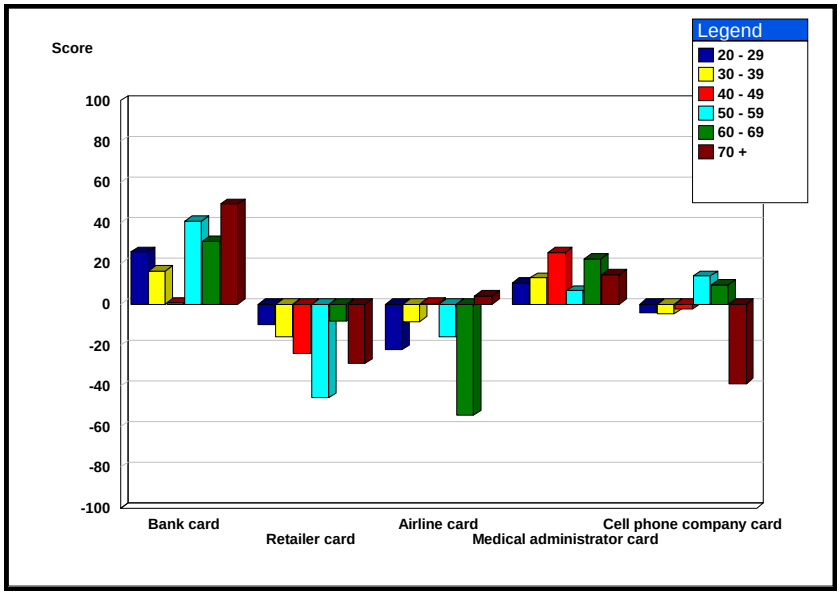
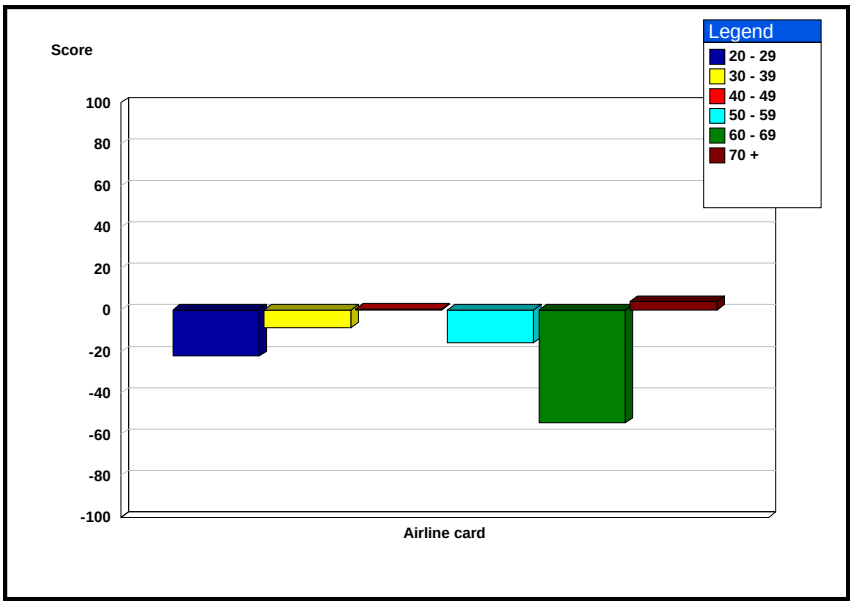


Figure 30: Age and airline card



d. Age and 22% Interest Rate

In the age demographic, the research has shown that in the 22% interest rate level there is a significant difference in both the age groups of 30 – 39, and 70+.

This can be seen in the graph over page.

Figure 31: Interest Rate Utilities by Age

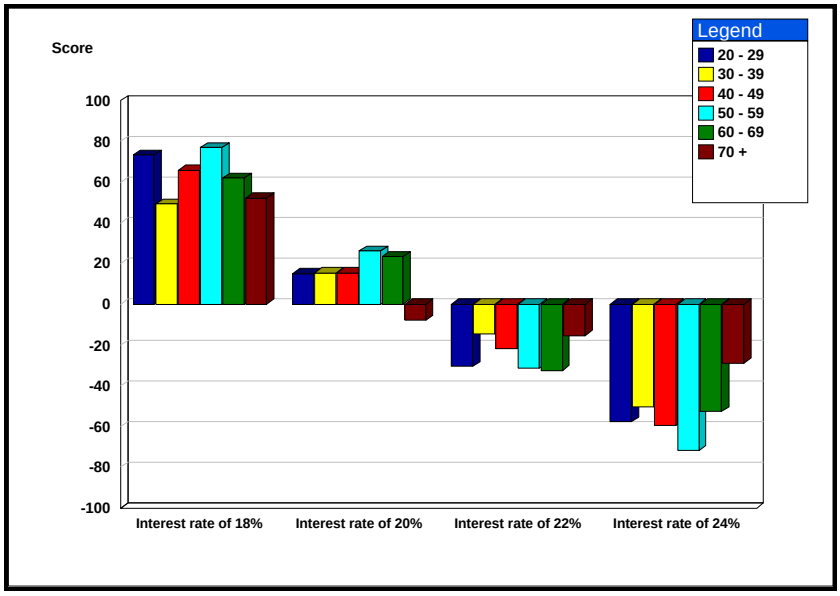
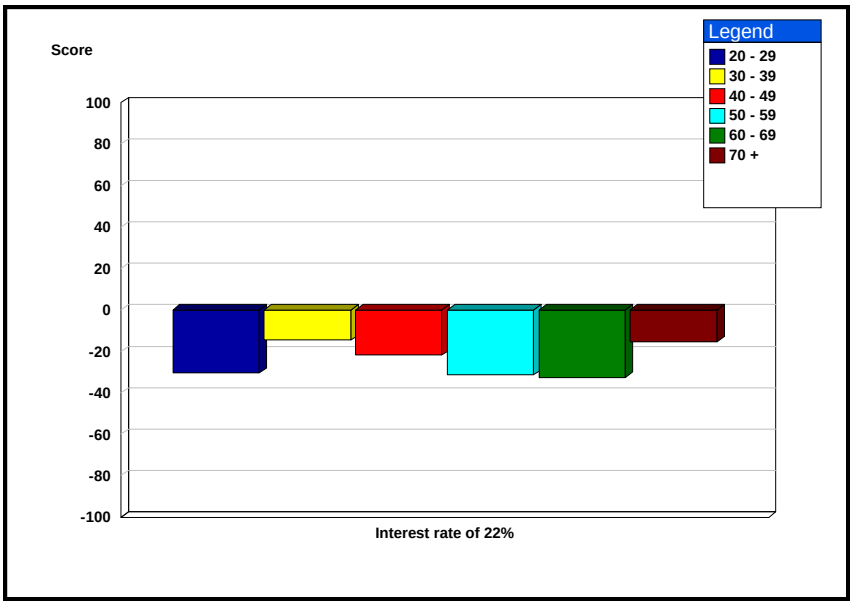


Figure 32: Age and 22% Interest Rate



e. Age and No air miles utilities

The data from this research shows that people who are in the age group of 70+ prefer no air miles on the credit card and least prefer the 1 air mile for R12.50 spent.

Figure 33: Air mile utilities by Age

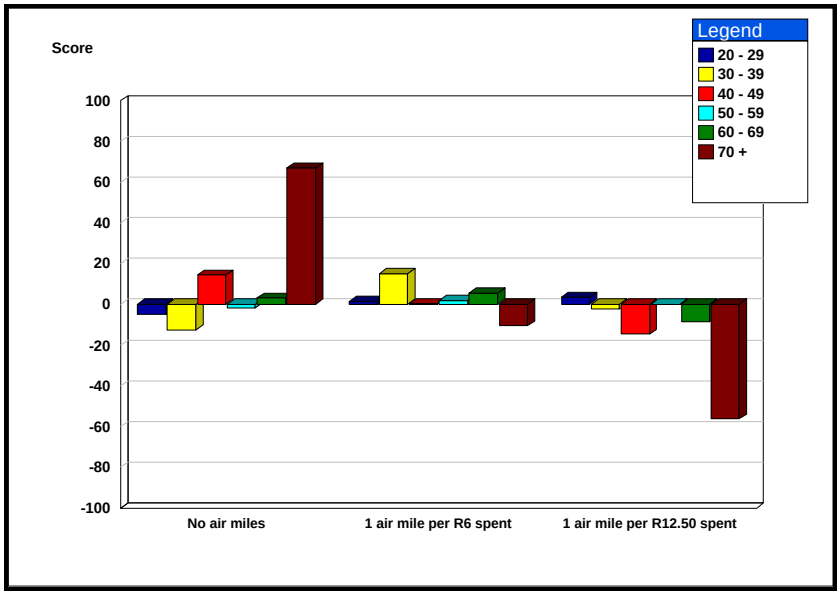


Figure 34: Age and "No air miles"

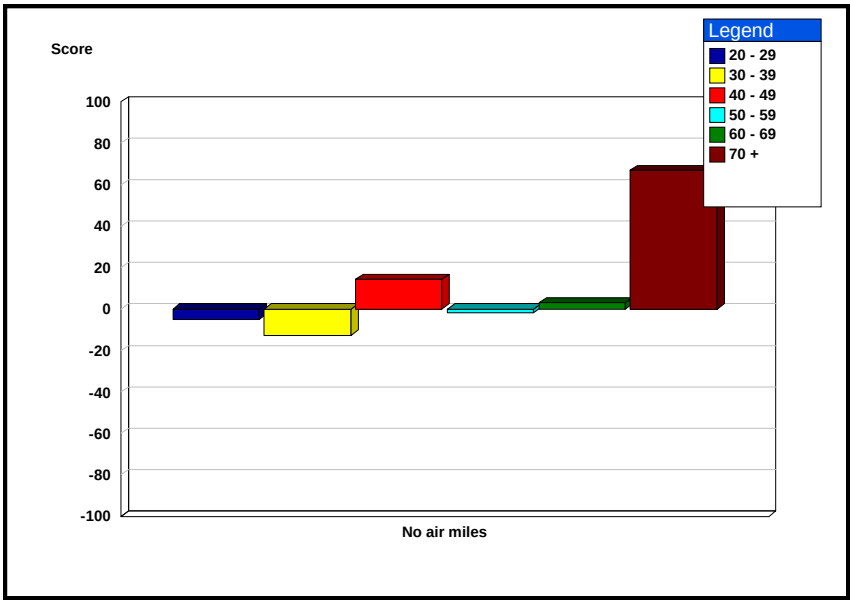
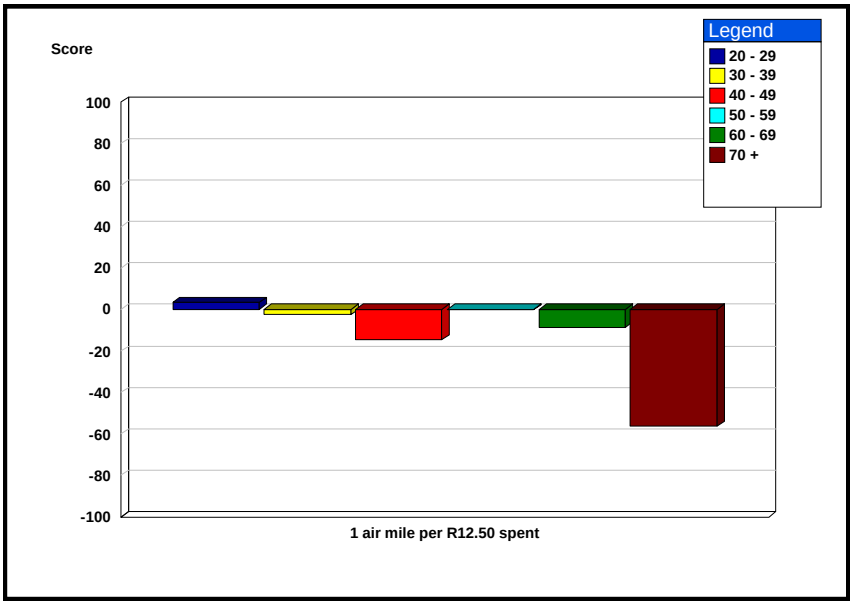


Figure 35: Age and R12.50 spend per air mile



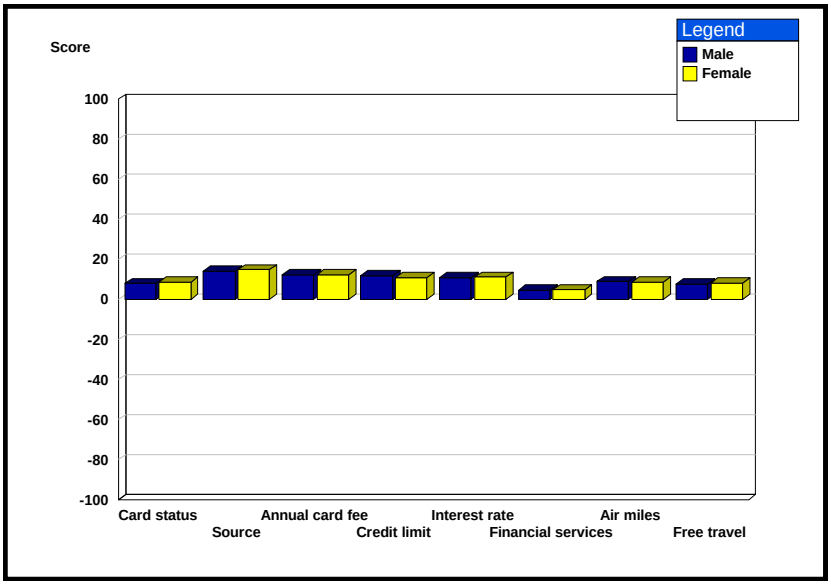
4.3.2 *Gender Demographic*

a. Gender and Importances

The gender data was analysed using a Two sample T-Test. There were no significant differences found between gender and importances.

This can be seen in the figure below.

Figure 35: Gender and Average Importances



b. Gender and Utilities

The one way ANOVA shows that there are significant differences in the gender demographics and the following utilities:

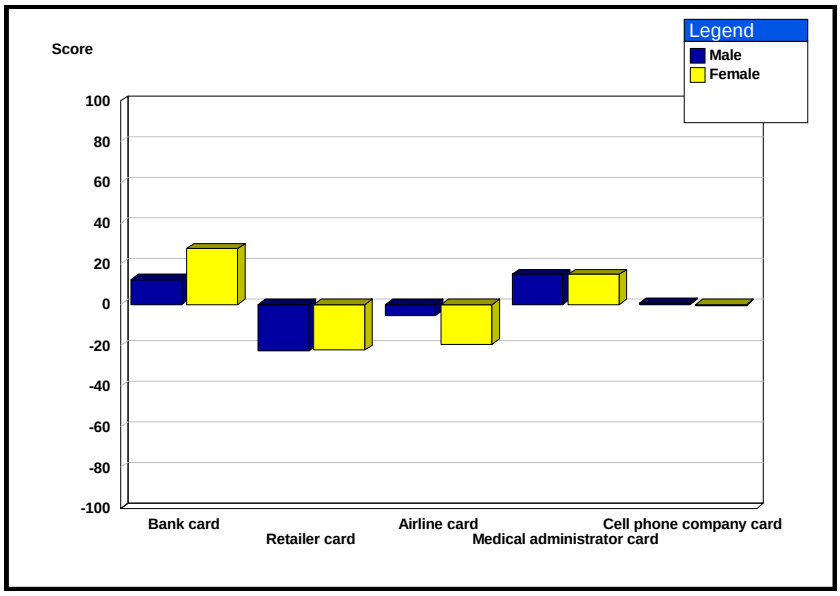
- Bank Card
- Credit limit of R15 000.00
- Interest rate of 20%
- 25% discounted travel
- Free air ticket with spend of greater than R80 000.00 per annum

(See Appendix H)

c. Gender and Bank Card (Card source importance)

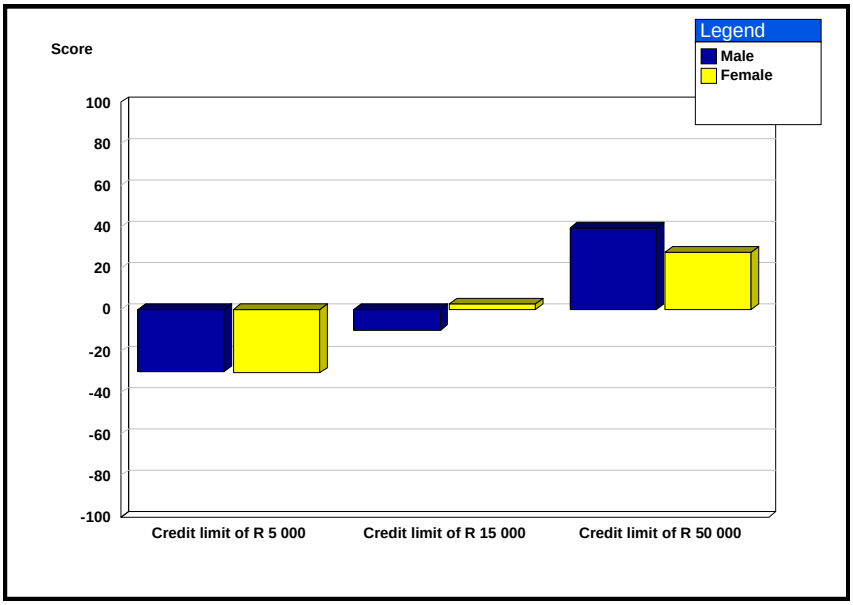
This research shows that women have a greater preference for a card that is issued by a bank than men, as seen in the figure below.

Figure 36: Card Source Utilities by Gender



d. Gender and Credit limit of R15 000.00 This research shows that there is a greater preference for a credit limit of R15 000.00 amongst females, as seen in the figure over page.

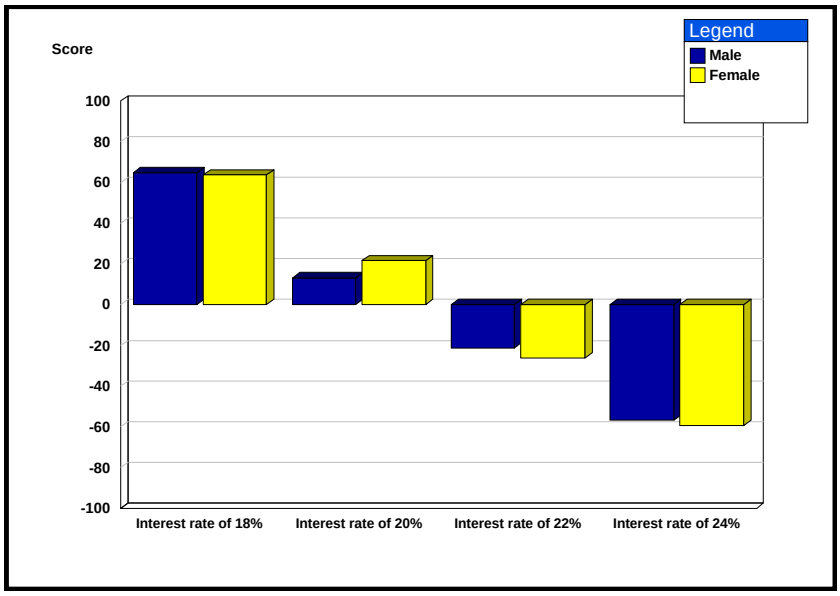
Figure 37: Credit Limit Utilities by Gender



e. Gender and Interest Rate of 20%

This research shows that there is a gender difference only in the 20% interest rate, with women preferring a 20% interest rate to men. This is shown in the figure below.

Figure 38: Interest rate utilities by gender

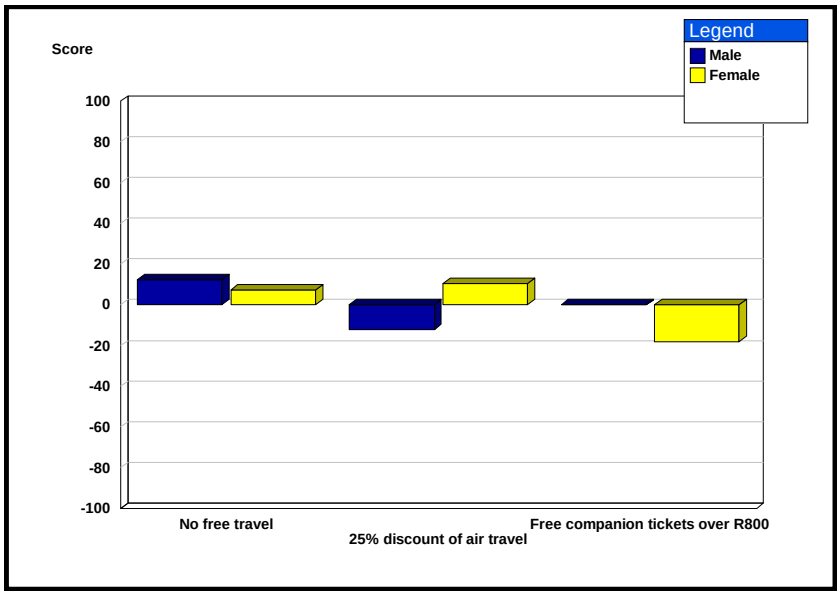


f. Gender and 25% discounted travel: Free air ticket with spend of greater than R80 000.00 per annum

There is no significant difference between men and women preferring no free travel, but men show a lower preference for a 25% discount on travel, and women show a much lower preference for the free companion ticket to me.

This can be seen in the figure below.

Figure 39: Travel Benefits Utilities by Gender



4.3.3 Marital Status

a. Marital Status and Importances

There is a significant difference between the interest rate and marital status, with those people not married, but in a relationship being different to either married or single people. No other significant differences exist.

(See Appendix G)

b. Marital Status and Utilities

The one way ANOVA shows that there are significant differences in the marital status demographic and the following utilities:

- Annual Card fee of R1600.00
- Interest Rate of 18%

- Interest Rate of 24%
- Gold Card status

There are no other significant differences. (See Appendix G)

c. Marital Status and Annual Card fee of R1600.00

There is a significant difference in the annual card fee between the people who are in a relationship, vs those who are either married or single, with the people in a relationship being less opposed to an annual card fee of R1600.00.

This can be seen in the figures below.

Figure 40: Annual Card Fee Utilities by Marital Status

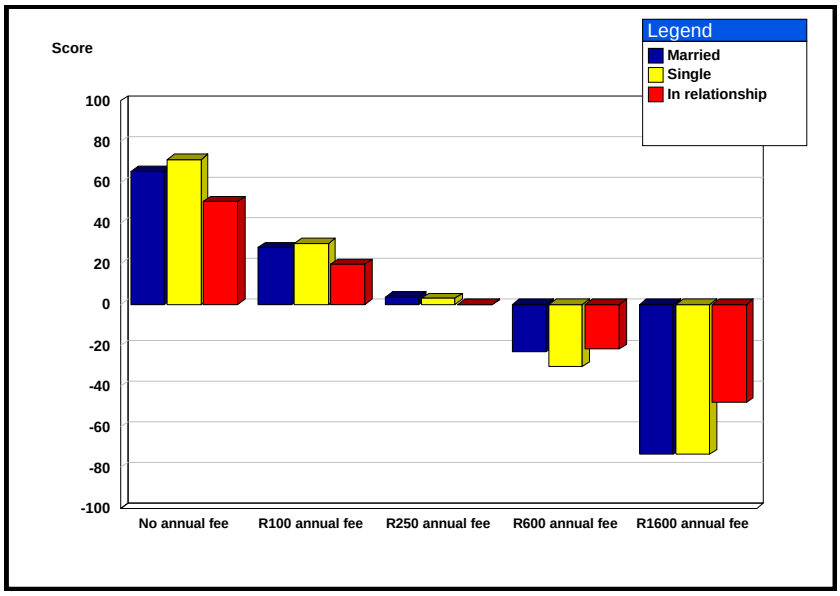
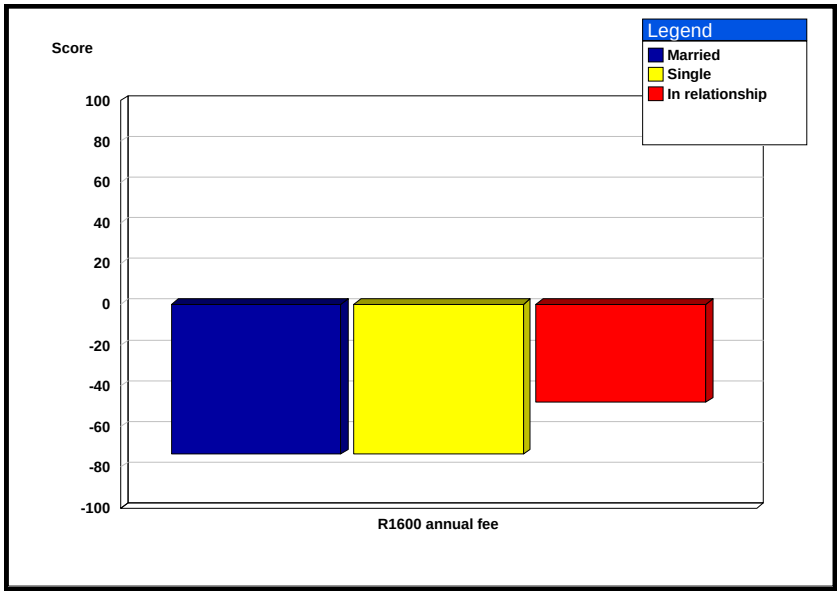


Figure 41: Marital Status and R1600.00 Annual card fee



d. Marital Status and Interest Rates of 18% and 24%

ANOVA shows that there is a significant difference in marital status and interest rates of 18 % and 24% with those people in a relationship preferring an interest rate of 18%, and the same people in a relationship least liking the interest rate of 24%.

This can be seen in the figures below.

Figure 42: Interest Rate Utilities by Marital Status

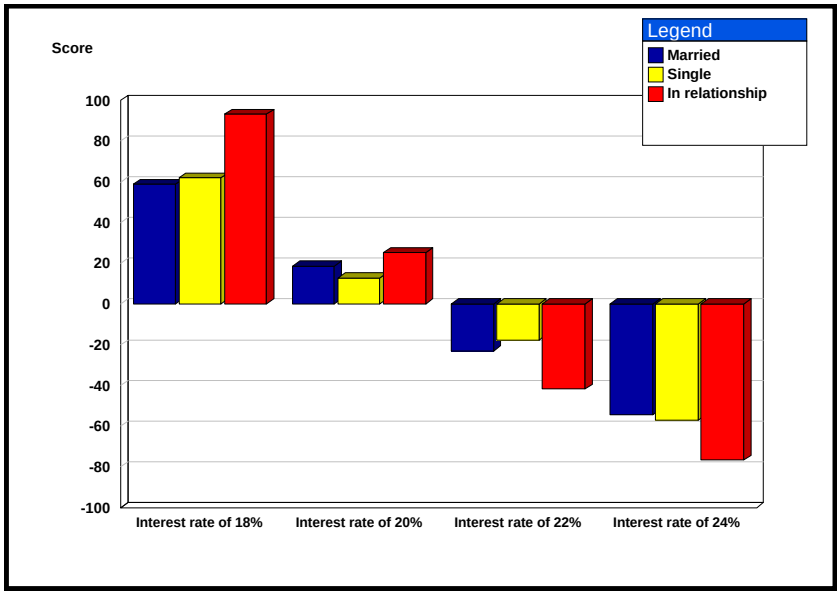


Figure 43: Marital Status and 18% interest rates

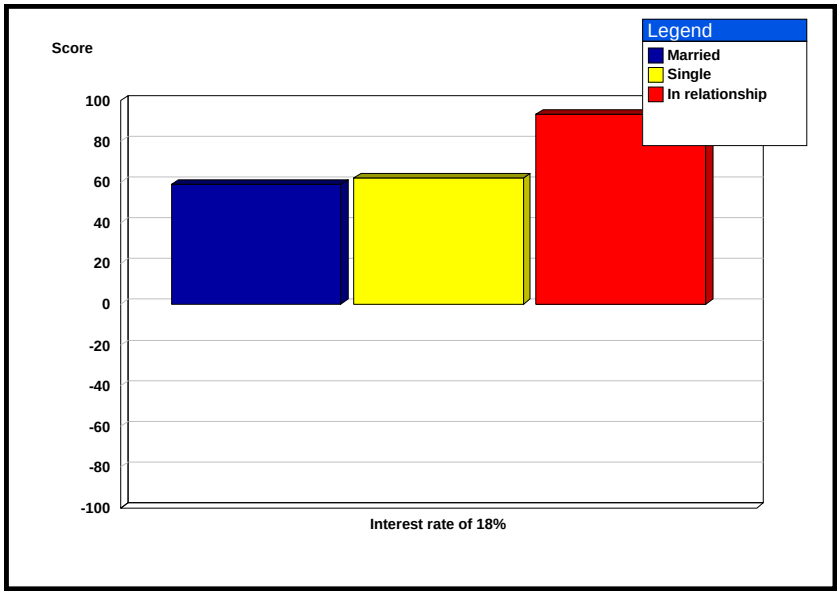
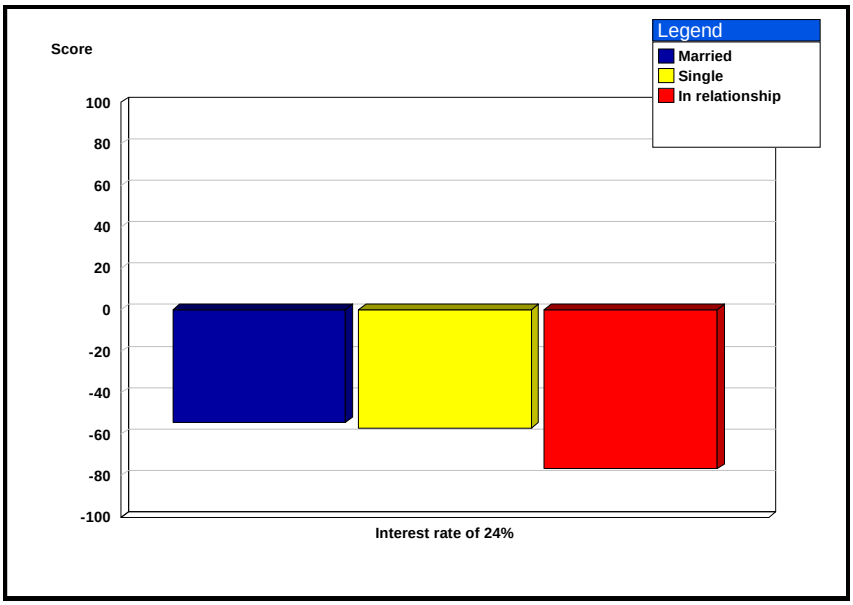


Figure 44: Marital Status and 24% interest rate



e. Marital Status and Gold Card Status

ANOVA shows that there is a significant difference in the demographic of marital status preference for a Gold Card with those who are in a relationship preferring a normal card and least preferring a Gold Card, but those who are single least preferring a normal card and most preferring a Gold card.

This can be seen in the figures below.

Figure 45: Card Status Utilities by Marital Status

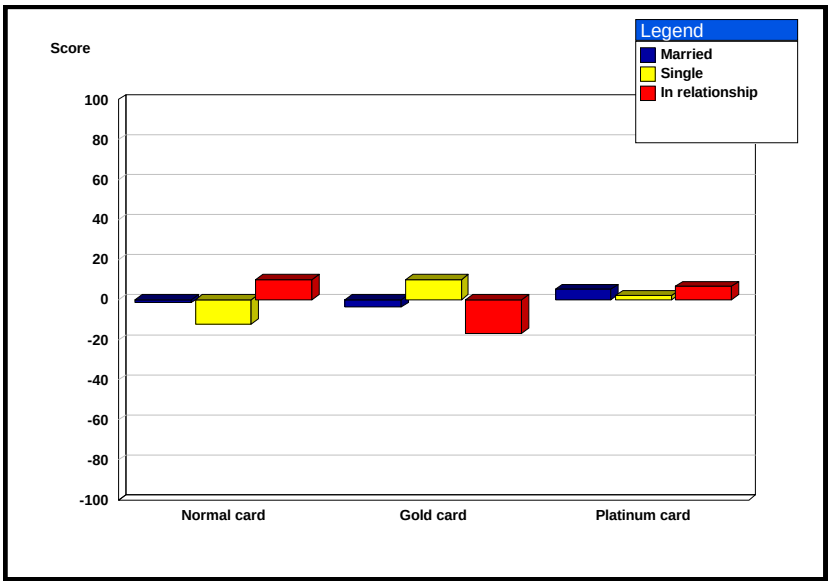
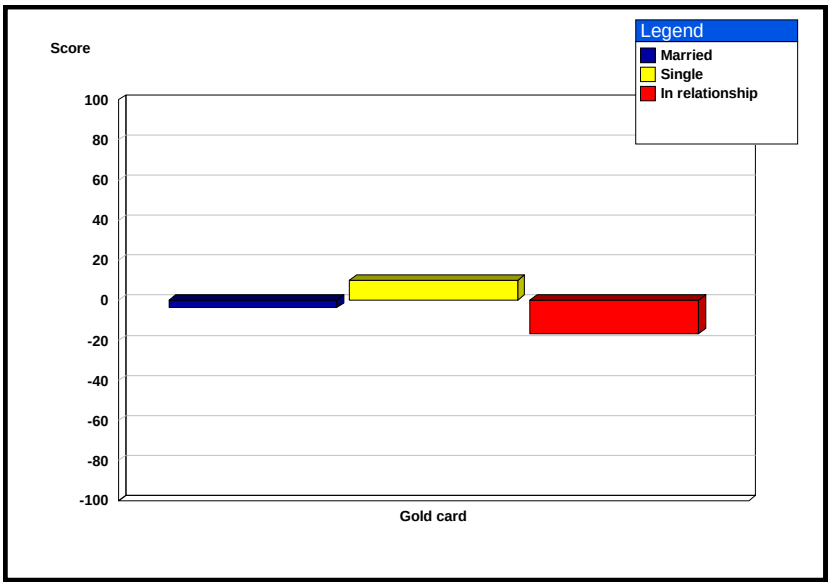


Figure 46: Marital status and gold card status



4.3.4 *Household Income*

There are a large number of significant differences in both importances and utilities for household income. The household income demographics appears to be the demographic which contains the most number of differences of all the demographics researched.

a. Household Income and Importances

The Areas of significant difference in **importances** for household income are:

- Annual card fee
    - This research shows that people who are on the lower income bracket show a significant difference in the annual card fee.
- Credit limit
    - This research shows that people who are on the lower income bracket show a significant difference in the credit limit importance.
- Interest Rate
    - This research shows that people who are in the higher income bracket show a significant difference in the interest rate importance.
- Free travel
    - This research shows that there is a significant difference in the free travel importance and the household income of the card holders.

(See Appendix G)

b. Household Income and Utilities

This research shows that there are a number of areas of significant differences in household income and **utilities.** These are:

- Cell phone Company (source of card)
- Airline company (source of card)
- Retailer (source of card)
- R100.00 annual fee
- R250.00 annual fee
- R1600.00 annual fee
- R50 000.00 credit limit
- R5 000.00 credit limit
- 18% Interest Rate

- 22% Interest Rate
- 24% Interest Rate
- Air miles – 1 mile for everyR12.50 spent
- Access to roadside assistance
- No cash backs
- 10 % cash backs
- No automatic donation to charity (affinity card)
- 1% donation to charity (affinity card)

c. Household Income and Source of Card Utilities

There are significant differences in the source of bank card, namely in the cell phone company, airline card and retail card utilities. The people earning above R19 000.00 most prefer the bank as the issuer of a credit card, and particularly dislike a credit card issued by a retailer or airline. There is also a significant difference in the cell phone card utility, with people earning between R9500.00 and R11 999.00 least liking this option.

Figure 47: Card Source Utilities by Household Income

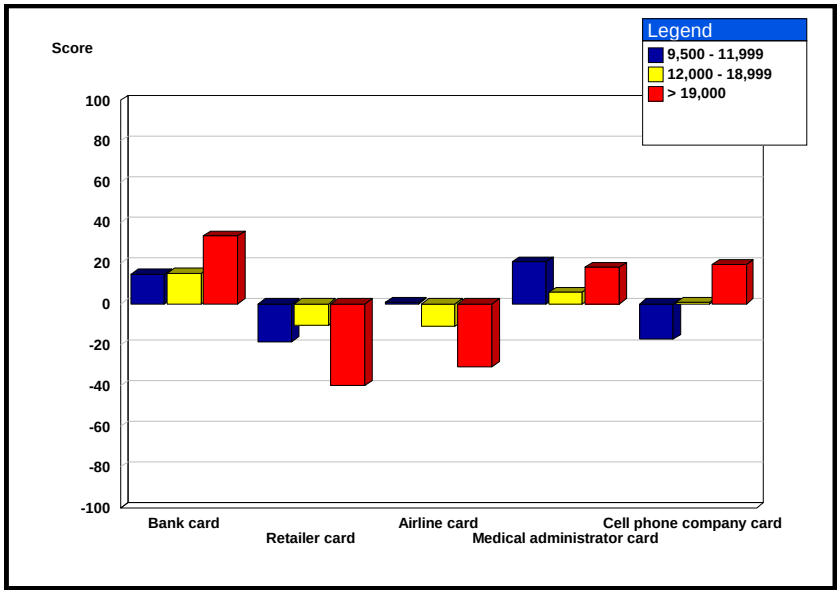


Figure 48: Household Income and credit card from a cell phone company

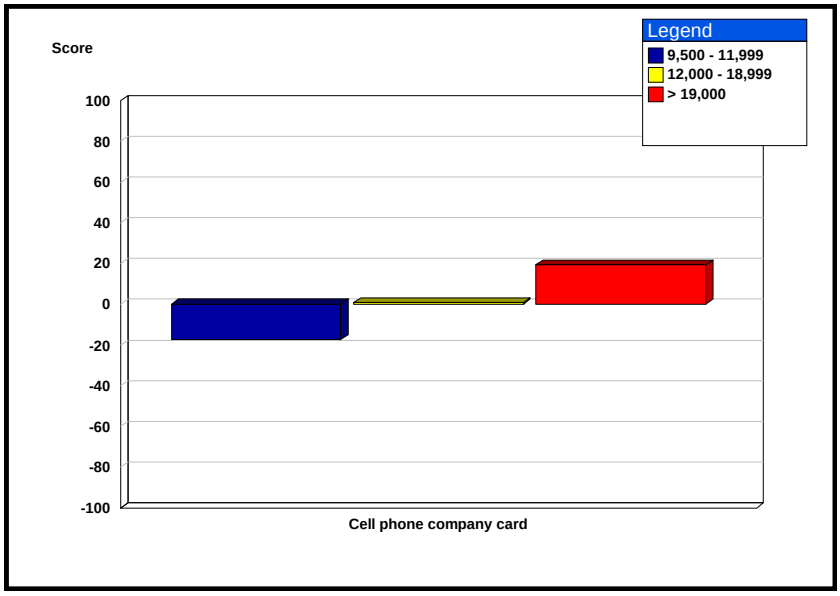


Figure 49: Household Income and credit card from a airline company

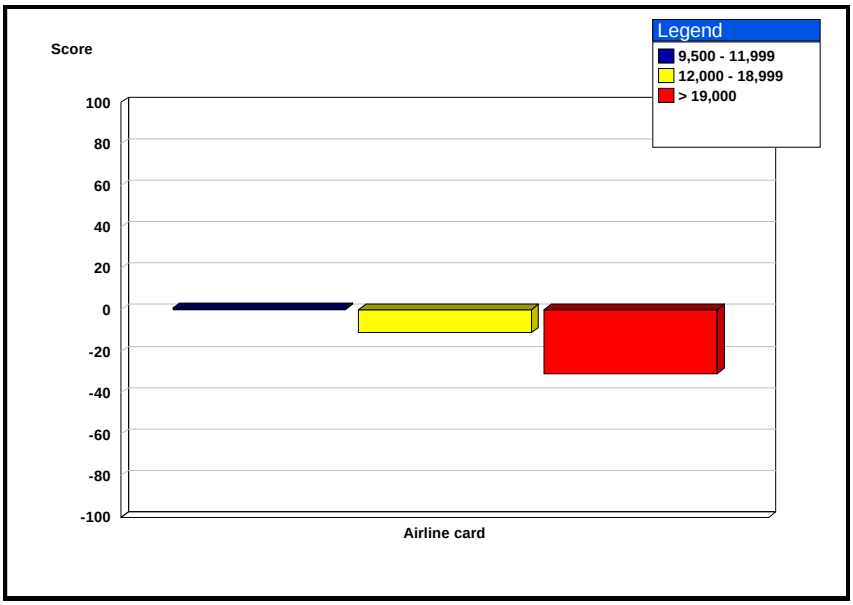
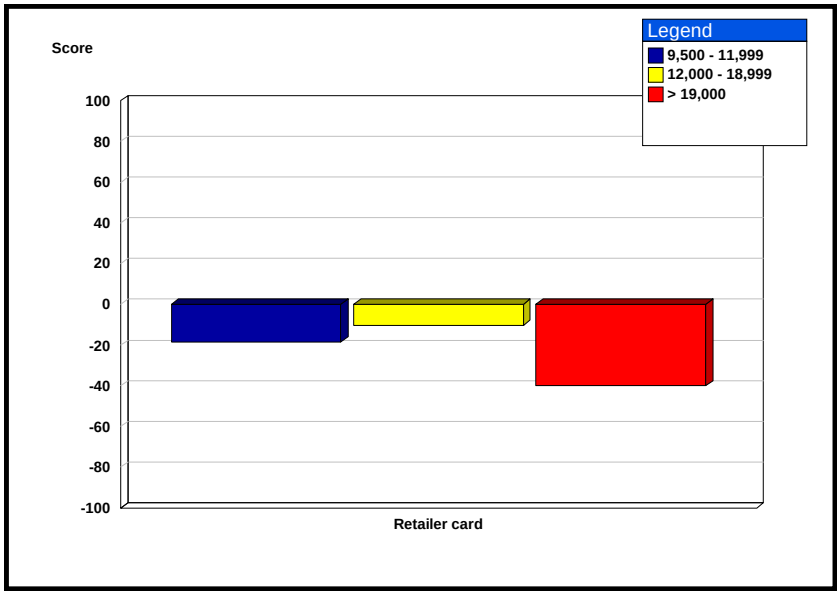


Figure 50: Household Income and credit card from a retail company



d. Household Income and Annual Card Fee Utilities

There is a significant difference in a number of the card fee utilities namely the R100.00, R250.00 and R1600.00 annual card fees. The people earning greater than R19 000.00 preferred the R100.00 card fee to the others in this demographic, and again those earning greater than R19 000.00 preferred the R250.00 card fee to the others. The annual card fee of R1600.00 was least preferred by those earning greater than R19 000.00 per month.

This can be seen in the figures over page.

Figure 51: Annual Card Fee Utilities by Household Income

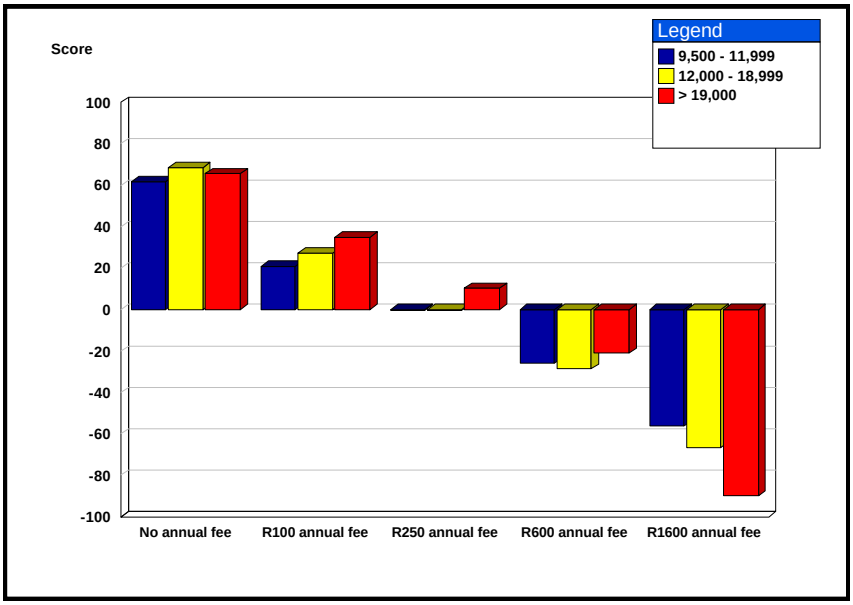


Figure 52: Household Income and R100.00 Annual Card Fee

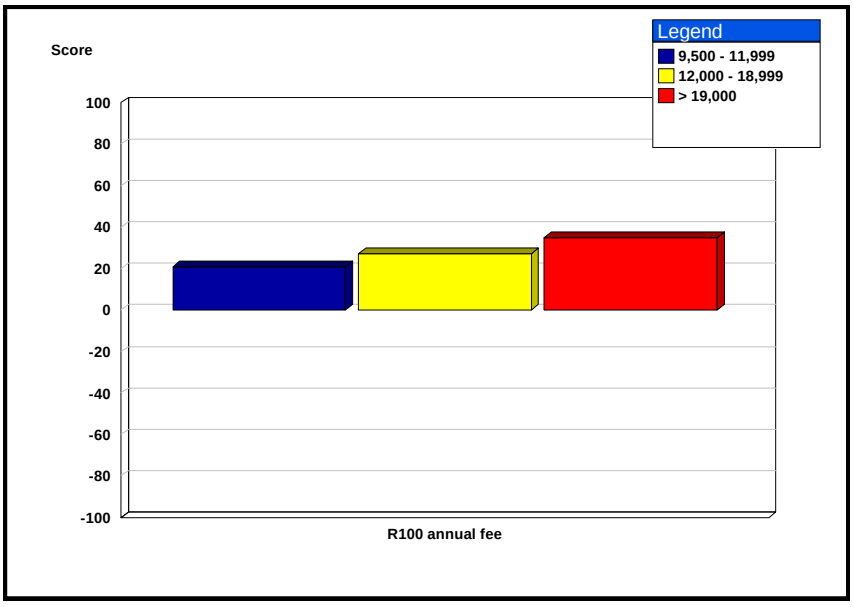


Figure 53: Household Income and R250.00 Annual Card Fee

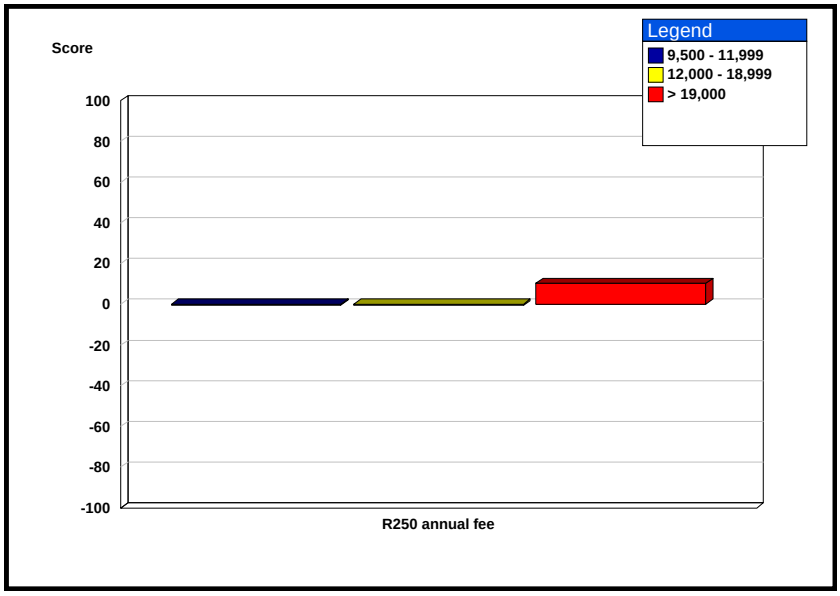
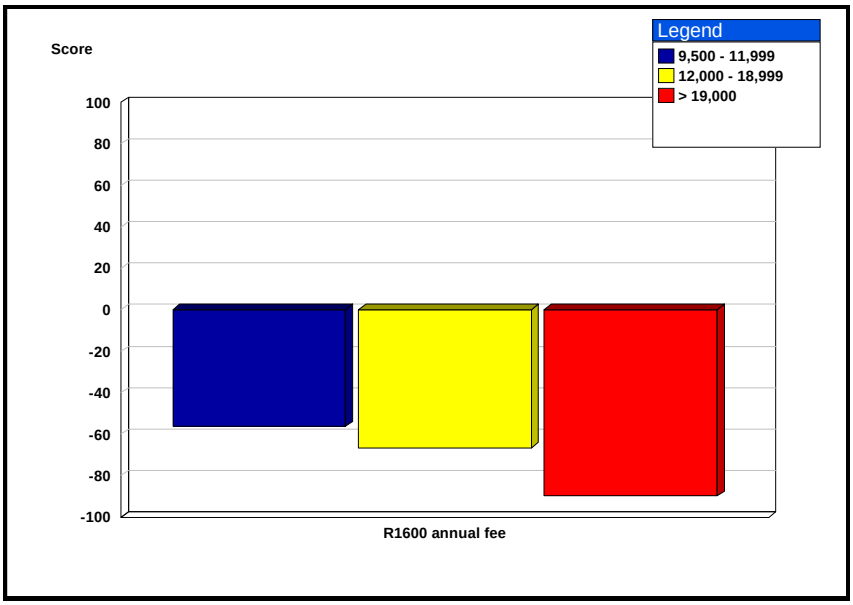


Figure 54: Household Income and R1600.00 Annual Card Fee



e. Household Income and Credit Limit Utilities

There is a significant different in the certain credit limit utilities, namely in the credit limit of R50 000.00 and R5 000.00. People who earn greater than R19 000.00 per

month least like the option of the R5 000.00, and most like the option of a R50 000.00 credit limit.

This is illustrated in the figures below.

Figure 55: Credit limit Utilities by Household Income

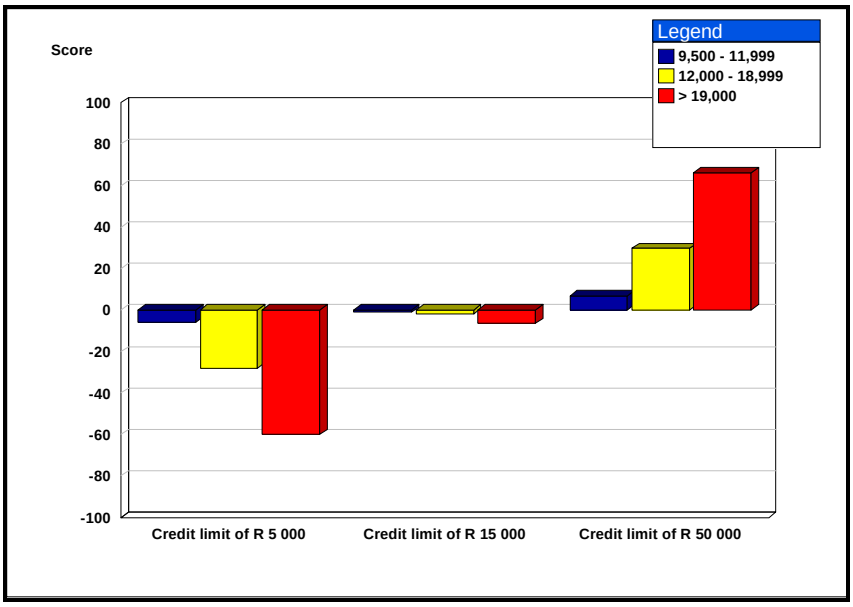


Figure 56: Household Income and R5 000.00 credit limit

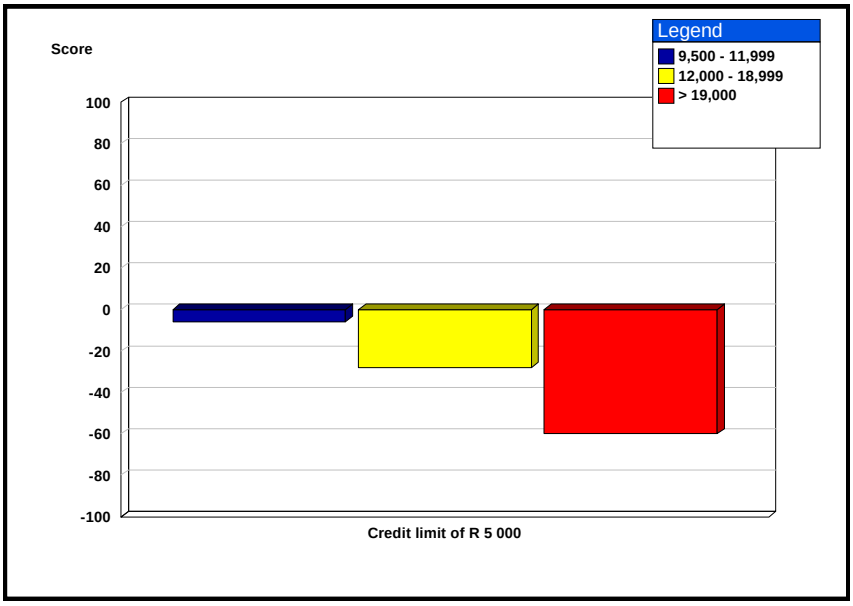
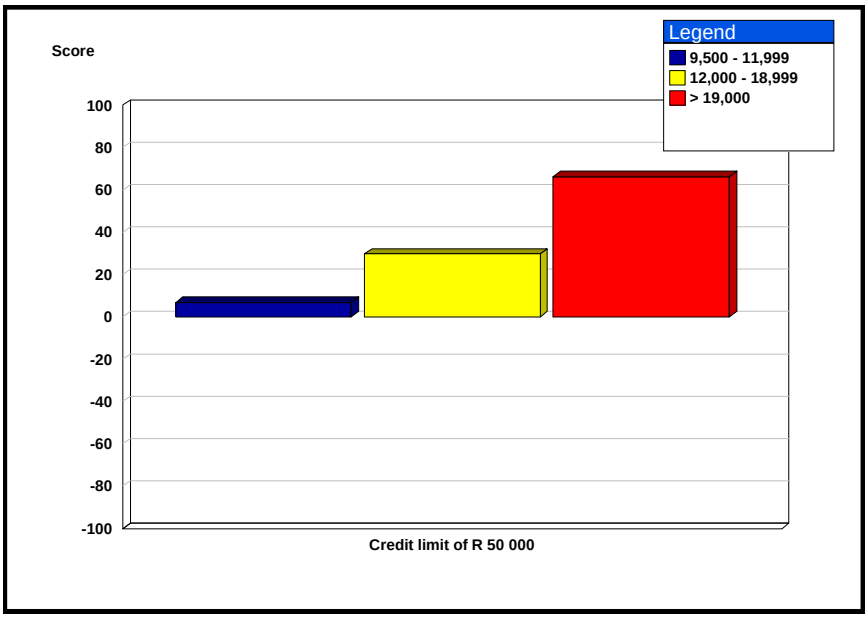


Figure 57: Household income and R50 000.00 credit limit



f. Household Income and Interest Rate Utilities

There is a significant difference in the interest rate utilities with only the 20% interest rate showing no significant difference. The 18%, 22% and 24% interest rates all showed a significant difference according to the household income. Of all the salary categories, people who earn greater than R19 000.00 per month most prefer the 18% interest, and least prefer the 22% and 24% interest rates.

This is illustrated in the figures over page.

Figure 58: Interest Rate Utilities by Household Income

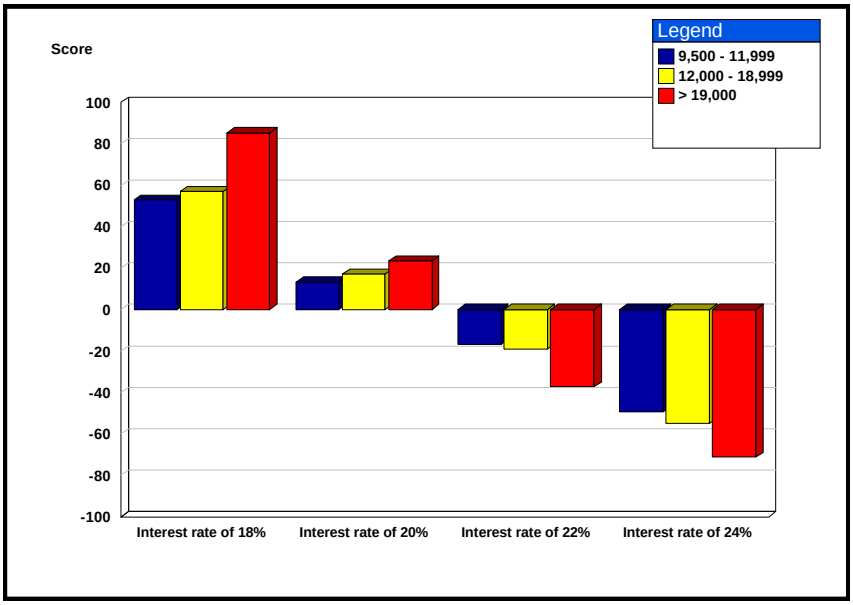


Figure 59: Household income and 18% Interest Rate

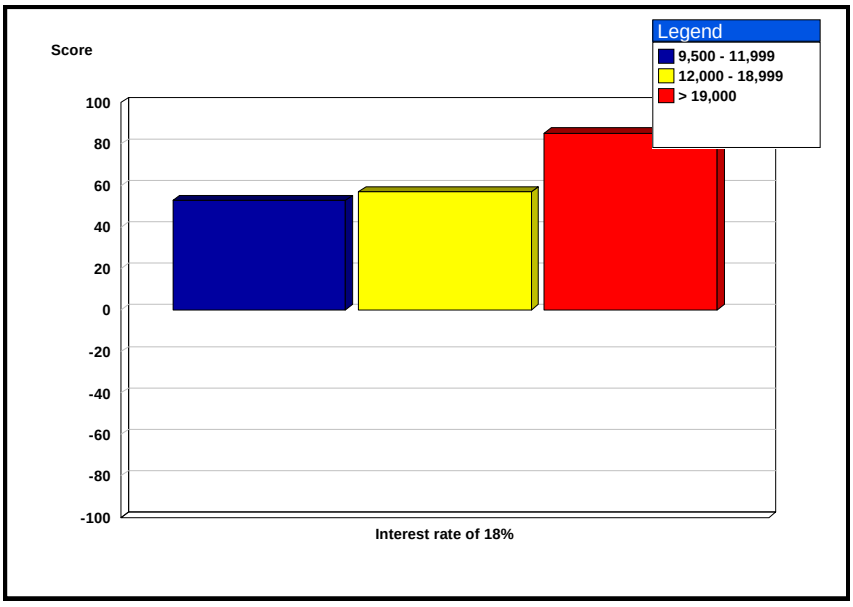


Figure 60: Household income and 22% Interest Rate

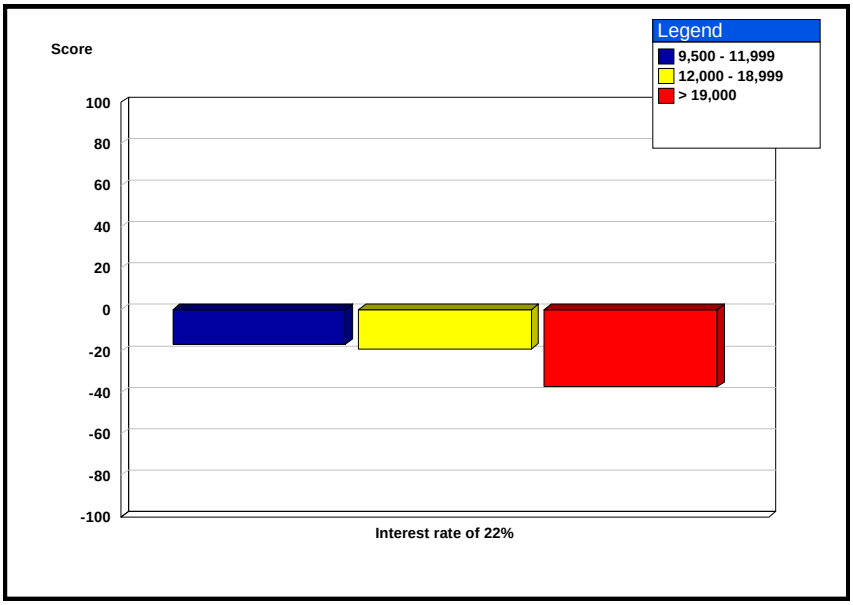
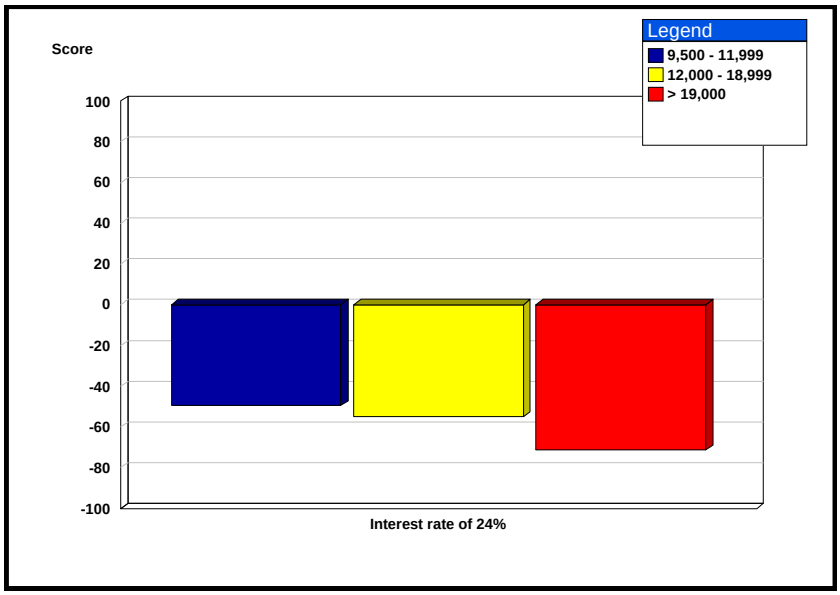


Figure 61: Household income and 24% Interest Rate



g. Household Income and Air Mile Utilities

This research showed that there is a significant difference with household income and people earning between R9500.99 and R11 999.00 prefer earning air miles at a rate on 1

mile per R12.50 spent, with people earning above R19 000.00 least preferring this utility.

This can be seen in the figures below.

Figure 62: Air mile Utilities by Household Income

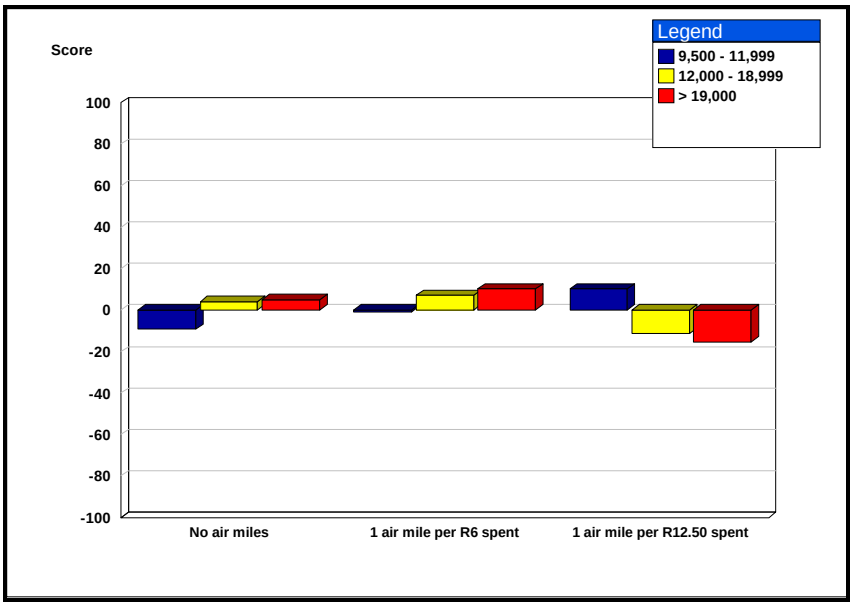
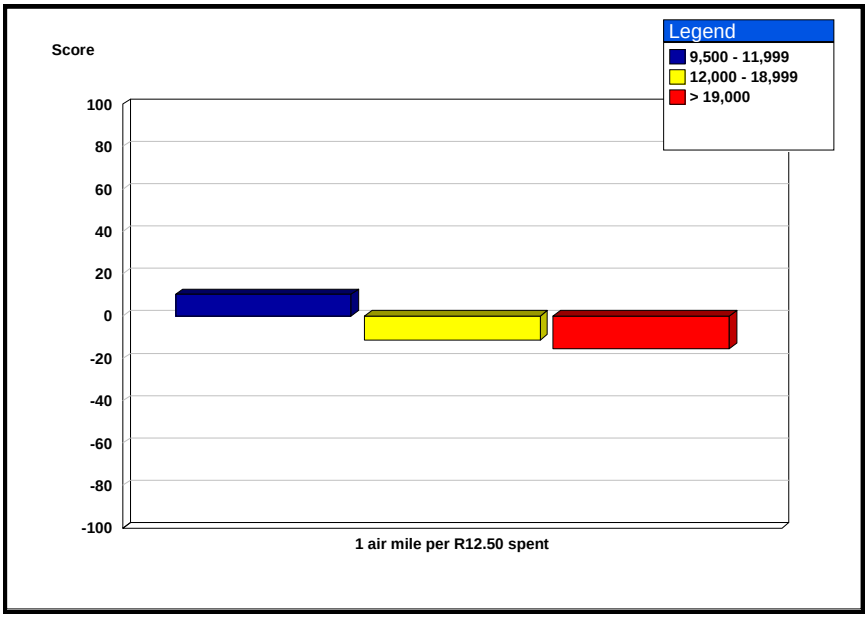


Figure 63: Household Income and R12.50 spend per air mile



h. Household Income and Access to Roadside Assistance

There is a significant difference in people who would prefer access to roadside assistance, with people earning more than R19 000.00 per month least preferring access to roadside assistance. This can be seen in the graph below.

Figure 64: Supplementary Benefit Utilities and Household Income

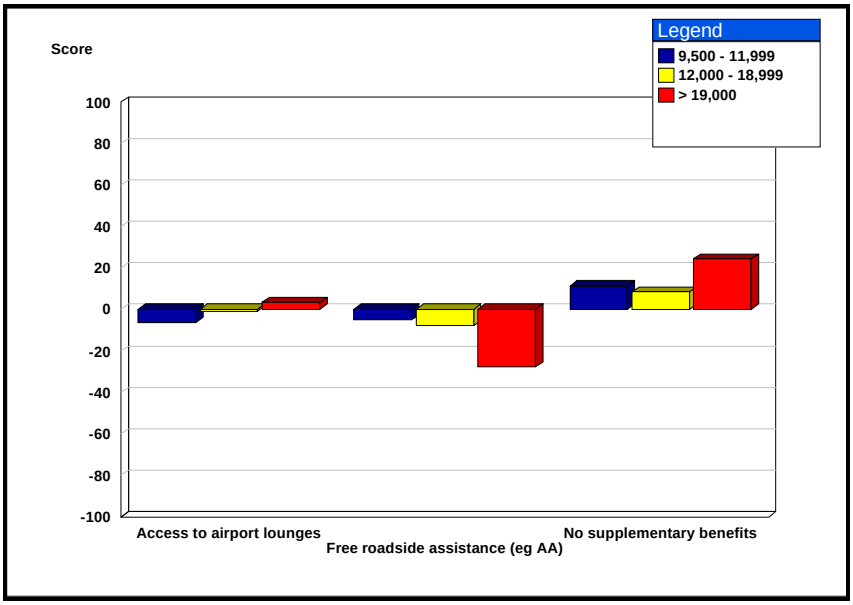
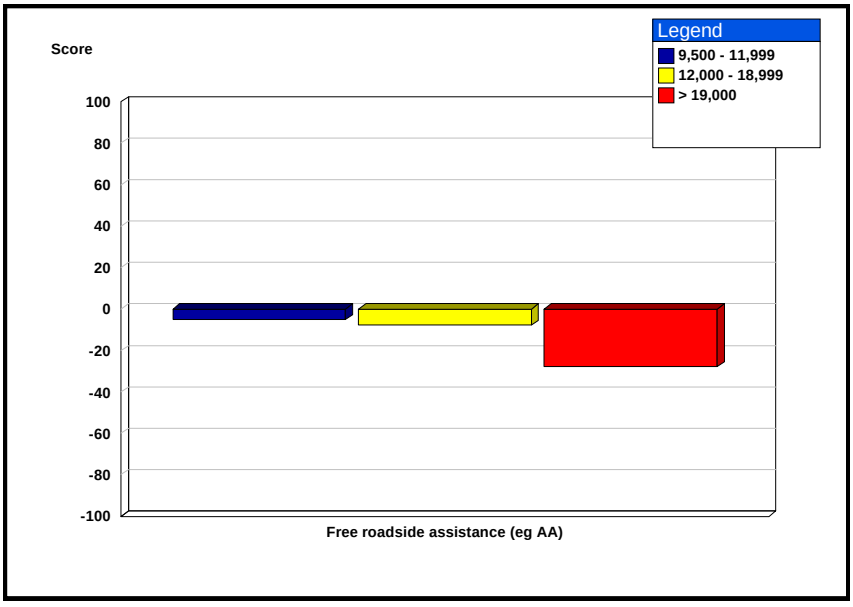


Figure 65: Household income and access to roadside assistance



i. Household Income and Cash Back Utilities

There is a significant difference in people who would prefer cash back on their credit card, with the utilities of no cash back or 10% cash backs showing up as significant. People who earn between R9500.00 and R11 999.00 least prefer the no cash back option, and most prefer the 10% cash back option. People who earn greater than R19 000.00 least prefer the 10% cash back option.

This can be seen in the figures below and over page.

Figure 66: Cash Back Utilities by Household Income

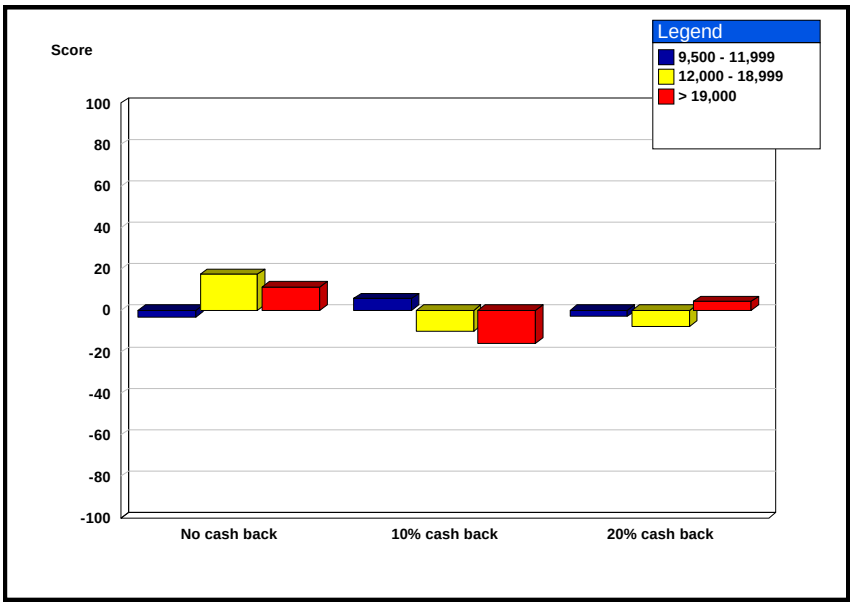


Figure 67: Household income and "no cash backs"

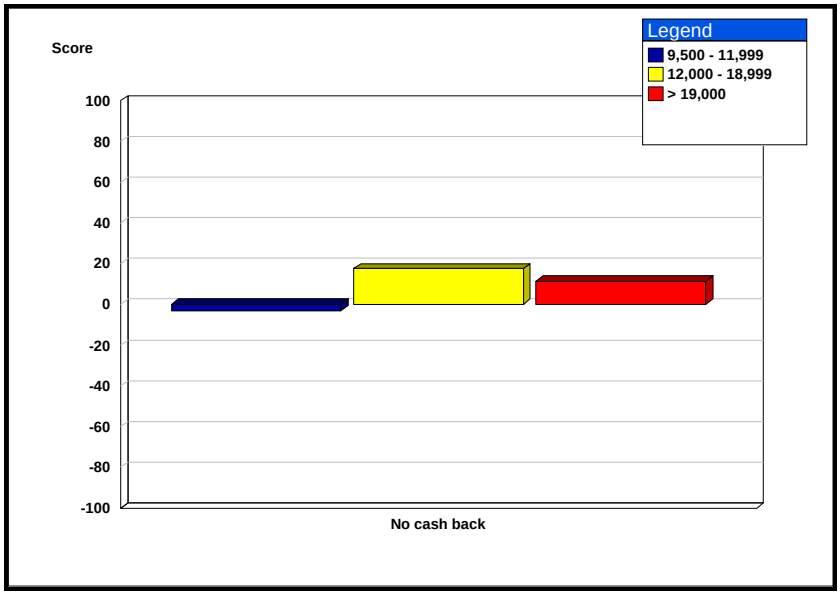
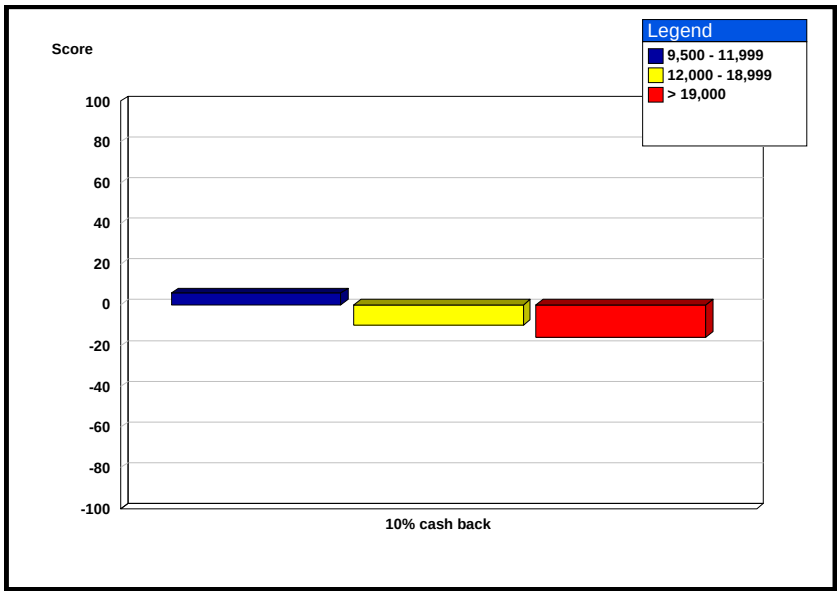


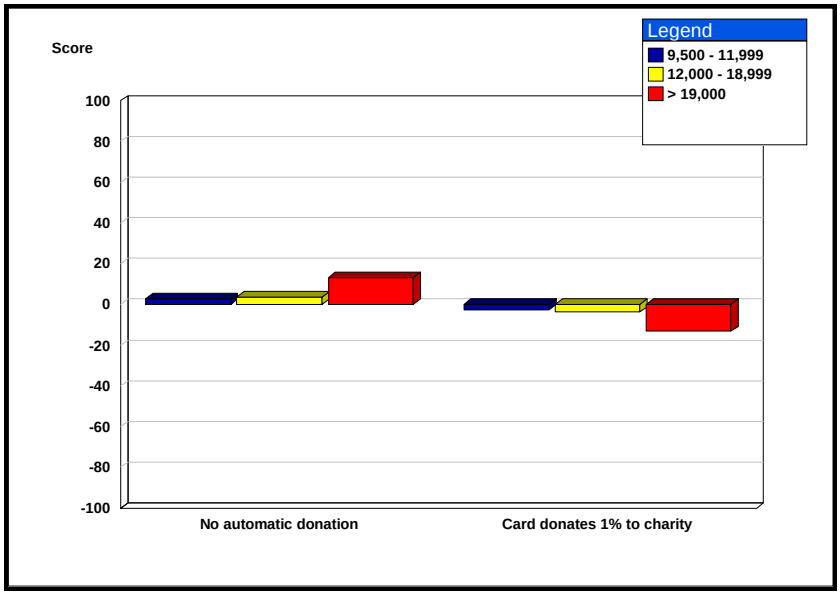
Figure 68: Household income and 10% cash backs



j. Household Income and Affinity Utilities

There is a significant difference in people who would prefer an affinity card, with people earning more than R19 000.00 per month most preferring no automatic donation to charity, and least preferring the credit card issuer to donate 1% to charity. This can be seen in the figure over page.

Figure 69: Affinity Card Utilities by Household Income



4.3.5 Number of card demographics

The number of different credit cards that a cardholder had was thought to impact on their preference for certain importances and attributes, as the types of credit cards may complement each other allowing cardholders to adopt cards with all the components that they desirable.

a. Number of Card demographics and importances

One way ANOVA and Analysis of Variance was used to analyse any preferences according to the number of personal cards held by one person. The only significant difference in importances according to the number of personal cards was in the area of the affinity card. There were no other significant differences in the number of personal cards and importances.

b. Number of Personal Cards and Utilities

The one way ANOVA shows that there are significant differences in the number of personal cards and the 22% interest rate only.

This is demonstrated in the figures over page.

Figure 70: Interest Rate Utilities by No of Cards

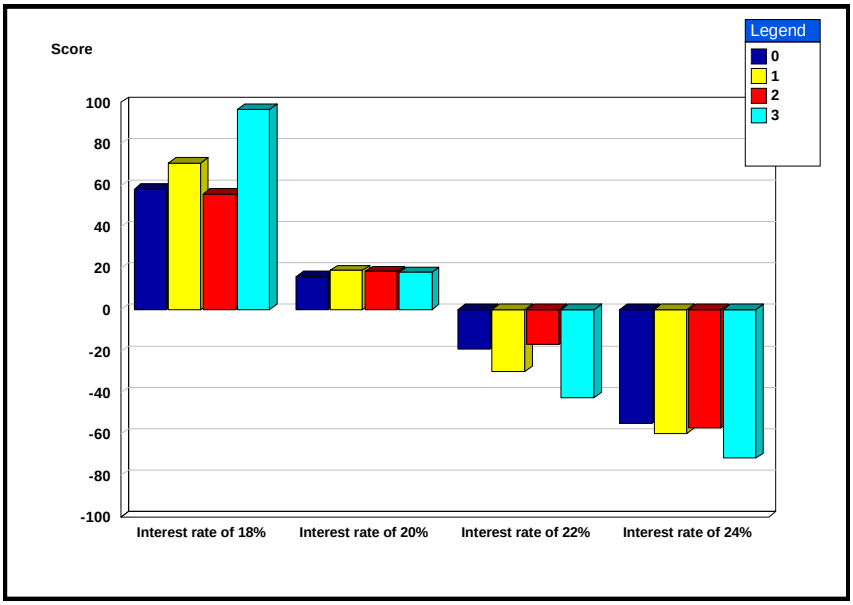
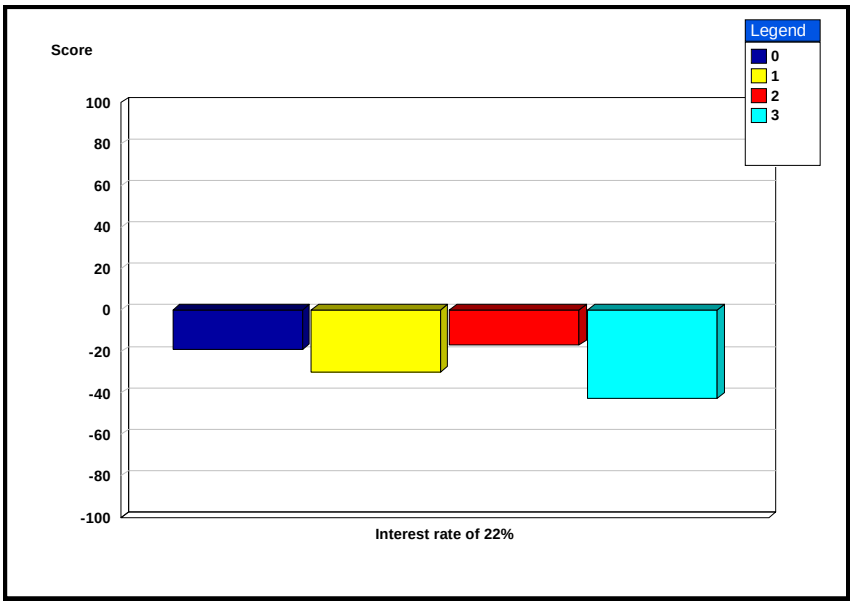


Figure 71: Number of personal credit cards and 22% interest rate



4.3.6 Average Credit Card Spend per month

It was considered that people may prefer different attributes of a credit card depending on how much they spend every month on their credit cards.

One way ANOVA and Analysis of Variance was used to analyse any preferences according to the average spend per month. There are two significant differences in importances according to the average spend per month, and this was in the area of the cash backs and consolidated financial services.

a. Average Credit Card Spend per month and Utilities

There is only one utility that has a significant difference and this is the “no cash back” utility, with people spending more than R20 000.00 per month preferring the no cash back option. This can be seen in the figures below and over page.

Figure 72: No cash back utility and average credit card spend per month

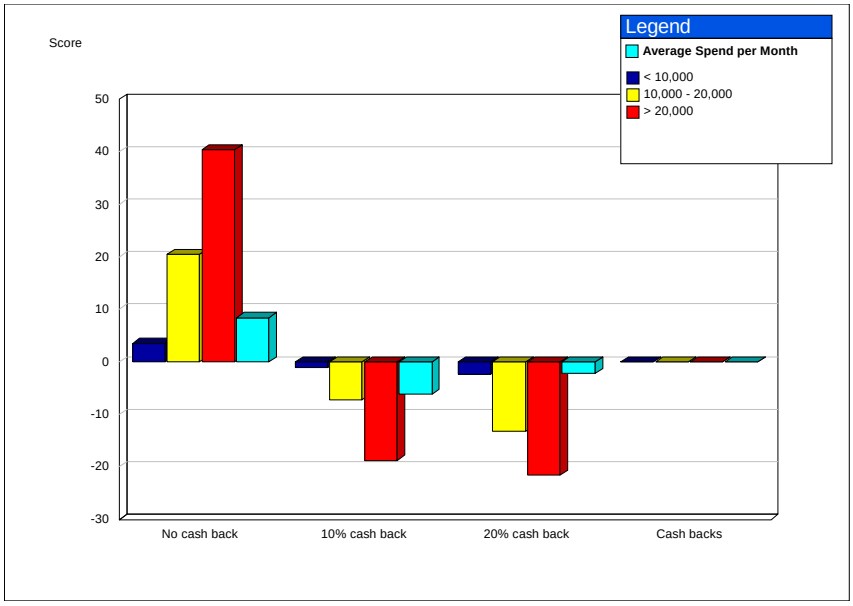
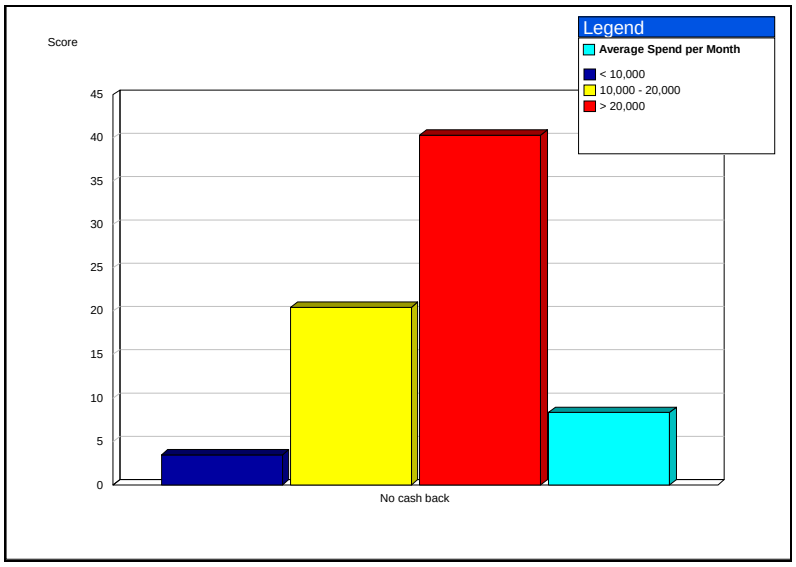


Figure 73: Average spend per month and no cash backs



4.3.7 Payment profile

The literature pointed to differences in people who paid their credit card in full every month where to those who use their cards for credit. As such the sample specifically included people who did both.

a. Payment Profile and Importances

There is only one significant difference depending on the payment profile, and this is in the affinity card importance.

b. Payment Profile and Utilities

There were no significant differences in the payment profile demographic and utilities.

4.3.8 Summary of Significant differences between demographics and importances and utilities

The significant differences between the demographics and both importances and utilities have been summarised in the tables below.

Table 17: Significant Differences between demographics and importances

Importance	Age	Gender	Marital Status	Household income	Number of cards	Ave spend per month	Payment Profile
Source of card	x	x	x	x	x	x	x
Annual card fee	x	x	x	√	x	x	x
Credit limit	x	x	x	√	x	x	x
Interest rate	x	x	√	√	x	x	x
Air miles	√	x	x	x	x	x	x
Supplementary benefits	x	x	x	x	x	x	x
Card Status	x	x	x	x	x	x	x
Free Travel	x	x	x	√	x	x	x
Cash Backs	x	x	x	x	x	√	x
Consolidated Financial Services	x	x	x	x	x	√	x
Affinity Card	x	x	x	x	√	x	√

Table 18: Significant differences between demographics and utilities

Importance	Attribute	Age	Gender	Marital Status	Household income	Number of cards	Ave spend per month	Payment Profile
Source of card	Bank Card	x	√	x	x	x	x	x
	Med Aid administrator	x	x	x	x	x	x	x
	Cell phone co	x	x	x	√	x	x	x
	Airline Card	√	x	x	√	x	x	x
	Retailer card	x	x	x	√	x	x	x
Annual card fee	No annual fee	x	x	x	x	x	x	x
	R100.00	x	x	x	√	x	x	x
	R250.00	x	x	x	√	x	x	x
	R600.00	x	x	x	x	x	x	x
	R1600.00	x	x	√	√	x	x	x
Credit limit	R50 000.00	x	x	x	√	x	x	x
	R15 000.00	x	√	x	x	x	x	x
	R5 000.00	x	x	x	√	x	x	x
Interest rate	18%	x	x	√	√	x	x	x
	20%	x	√	x	x	x	x	x
	22%	√	x	x	√	√	x	x
	24%	x	x	√	√	x	x	x
Air miles	R6.50	x	x	x	x	x	x	x

	R12.50	x	x	x	√	x	x	x
Importance	**Attribute**	**Age**	**Gender**	**Marital Status**	**Household income**	**Number of cards**	**Ave spend per month**	**Payment Profile**
	No air miles	√	x	x	x	x	x	x
Supplementary benefits	No supplementary benefits	x	x	x	x	x	x	x
	Access to airport lounges	x	x	x	x	x	x	x
	Access to roadside assistance	x	x	x	√	x	x	x
Card Status	Platinum	x	x	x	x	x	x	x
	Gold	x	x	√	x	x		x
	Normal	x	x	x	x	x	x	x
Free Travel	No free travel	x	x	x	x	x	x	x
	25% discounted travel	x	√	x	x	x	x	x
	Free ticket > R80 000.00 spend	x	√	x	x	x	x	x
Cash Backs	No cash backs	x	x	x	√	x	√	x
	10% cash backs	x	x	x	√	x	x	x
	20% cash backs	x	x	x	x	x	x	x
Consolidated Financial Service	Stand alone card	x	x	x	x	x	x	x
	Linked to other financial products	x	x	x	x	x	x	x
Affinity Card	No automatic donation to charity	x	x	x	√	x	x	x
	1% donation to charity	x	x	x	√		x	x

5. INTERPRETATION AND ANALYSIS OF RESULTS

5.1 The preferred attributes and levels that influence consumers to acquire a new credit card

The first research question was to examine and understand what consumers would prefer in a credit card, and what would make these consumers adopt a particular credit card.

This research shows that the most important attribute for consumers choosing a credit card was the source of the credit card, and the most important level of this importance are credit cards issued by a bank. This may be because consumers believe that a bank has more credibility in providing a credit card. It is unlikely to be because consumers prefer all banking accounts to be with one bank, as having consolidated financial services appeared as a least preferred attribute appearing second last. This is supported by Cleaver (2005) who believes that the bank brand remains a determining factor in choosing a credit card. The second least preferred level of this attribute was the airline card which was interesting as research by Conradie (2006) shows that the SAA card had the highest return on transaction value as a stand alone credit card.

Interestingly, even though many co-branded cards have recently entered the South African market, with all of these offer varying rewards and benefits, consumers consider all financial components of the credit card to be very important, with annual card fee, credit limit and interest rate appearing second, third and fourth as most preferred attributes. The most favourable of all these financial components were the levels that were most preferred in these attributes. This is strongly supported in the literature with Cleaver (2005), Morris (1995) and Cundiff (2006) all reporting that these financial attributes are very important to the card holder, and more so than any value added benefits. It is also interesting to note that for all the financial attributes, the levels appeared were in order from what would seem intuitively to be from the best, to the worst – e.g. for the annual fee importance, the order of preference was from no annual fee to an annual fee of R1600.00. The credit limit importance showed that the highest credit limit offered was the most and the lowest credit limit offered was the least preferred. While this would seem to be intuitive, it must be remembered that the

respondents were evaluating all of the attributes in a bundle, and these lower or better financial attributes were still preferred above what else was on offer.

Following the financial features, air miles was cited as the next most important attribute of a credit card, with respondents most preferring this as one of the non financial attributes. Loyalty programs in the USA started with frequent flyer programs which were then attached to credit cards (Duffy, 2005). This is also one of the most common non financial benefits across all credit cards in South Africa (Sales Source Market Research, 2007). The least preferred level of this attribute was where consumers earned 1 mile for every R12.50 spent. The "no miles" attribute appeared more favourable that this, and it would appear that card holders would rather not earn miles that have the miles earning ability appear unattainable. The most favoured level would be for card holders to earn miles at a rate of R6.00 spend for one mile earned.

The "Supplementary Benefit" attribute appears higher on this list of attributes, but the level that is preferred is actually "no supplementary benefits" therefore it has been assumed that this is actually one of the least desirable of all the attributes of the credit card.

There have been some questions about whether the card status is still an important attribute amongst card holders. Is a gold or platinum card really an important feature to the individual? As mentioned above the most "preferred" supplementary benefit was no supplementary benefits, therefore the card status can be considered as the second most important non financial attribute. This is therefore something that is valued by cardholders and worth having as part of the credit card offering to consumers. The introduction and adoption of the platinum card is some indication that members do see value in having a card of a higher status (Datamonitor, 2006). This research also shows that card holders would prefer a platinum card or a gold to a normal coloured card that may be on offer.

This research shows that "cash backs' is a less desirable attribute, but the level that is much preferred is the one of "no cash back". This would mean that this is not an attribute that the customer would look for. However, Sales Source Market Research

(2007), report that the Discovery Card is successful because minimal effort is required by the card holder to redeem these cash back benefits. If the cash back is substantial enough to make the consumers notice it, then this is a benefit form that may become more popular.

This research showed that card holders do not value all their accounts being in one place, and consolidating their financial services is not something that is important, and the most preferred level here was the stand alone credit card. This may be counter intuitive, considering that the most important attribute was that the credit card was provided by a bank, but this would mean that even though the bank is the preferred source of a credit card, consumers do not consider all their accounts with one bank as something that is important. This aspect of the research could also depend on the ease of switching and opening up additional credit cards (Sales Source Market Research 2007). The fact that consumers are willing to adopt a stand alone credit card is good news for the both banks and co-branded credit card issuers, as it means that these companies can look outside their existing base for new members.

Finally, also a little desired attribute in this credit card research, was the linking of the card to a charity or an affinity credit card. Most people prefer not to make an automatic donation to charity, as part of the usual credit card. However, where the credit card issuer is trying to gain access to a new market or a new group of people the affinity card may have some value. There is likely to be more successful if the card holder has an emotional attachment to the association that is linked to the credit card such as a football club or alumni group (Worthington and Horne, 1998).

5.2 The preferences unique to a particular customer demographic or payment profile

The second research question was to examine whether there were any preference on card attributes according to certain demographics. The demographics that were considered for this research were:

- Age
- Gender
- Marital Status

- Household Income
- Number of personal credit cards held by the card older
- Average spend on the credit card per month
- Payment profile.

5.2.1 *Age*

There was only one significant difference in the age demographic, and this showed up in the "air mile" attribute and this was for the age group 70+, with these people preferring no air miles. However this was a small sample of 2 individuals, and as such I do not think that this is a true reflection of this age group. The airline card appears to be least successful with people in the 60 – 69 age group, but this is again a small sample of 9 people. The interest rate of 22% also showed a significant difference according to the age group 30 – 39 years.

5.2.2 *Gender*

No significant differences were found between the male and females and the importance of a credit card.

However, there were a number of significant differences in the utilities and gender demographic, with women preferring a credit card issued by a bank card to men. Women also prefer the R15 000.00 credit limit, to the men's preference for this limit. In the importance of travel benefits, women most prefer the 25% discount off free travel to men, and men prefer a free companion air ticket to a woman's preference for the same level.

5.2.3 *Marital Status*

The type of demographics for marital status that were considered were married, single or those people in a relationship. There was only one significant difference in the importances for marital status and this was in the area of interest rates, with those people in a relationship more concerned with the interest than either married or single people.

As far as utilities are concerned, people in a relationship are less opposed to a R1600.00

annual card fee than the others. There is also a significant difference in marital status and interest rates of 18 % and 24% with those people in a relationship preferring an interest rate of 18%, and the same people in a relationship least liking the interest rate of 24%.

Another significant difference in this demographic is a preference for a Gold Card with those who are in a relationship preferring a normal card and least preferring a Gold Card, but those who are single least preferring a normal card and most preferring a Gold card.

5.2.4 *Household Income*

By far the demographic with the largest number of differences in both the importances and the utilities was in the area of household income. The areas of significant difference in importances for household income are annual card fee, credit limit, interest rate and free travel.

There are significant differences in the source of bank cards, namely in the cell phone company, airline card and retail card utilities. The people earning above R19 000.00 most prefer the bank as the issuer of a credit card, and particularly dislike a credit card issued by a retailer or airline. There is also a significant difference in the cell phone card utility, with people earning between R9500.00 and R11 999.00 least liking this option.

There was a significant different in certain credit limit utilities, namely in the credit limit of R50 000.00 and R5 000.00. People who earn greater than R19 000.00 per month least like the option of the R5 000.00, and most like the option of a R50 000.00 credit limit.

There was also a significant difference in the interest rate utilities with only the 20% interest rate showing no significant difference. The 18%, 22% and 24% interest rates all showed a significant difference according to the household income. Of all the salary categories, people who earn greater than R19 000.00 per month most prefer the 18% interest, and least prefer the 22% and 24% interest rates.

There was a significant difference in people who would prefer an affinity card, with people earning more than R9 000.00 per month most preferring no automatic donation to charity, and least preferring the credit card issuer to donate 1% to charity.

5.2.5 *Number of personal credit cards*

There was only one significant difference in importance and number of credit cards, and this is in the area of the affinity card. This is likely as the cardholder may select a second card as an affinity card.

The only significant difference in utilities and the number of personal cards was an interest rate of 22% with people having 3 or more credit cards least liking the interest rate of 22%.

5.2.6 *Average credit card spend per month*

There are two significant differences in importances and average credit card spend per month, and this is in the area of cash backs and consolidated financial services. People who spend more on the credit cards per month prefer the cash backs. This would seem to be intuitive, as these people are likely to get more cash back, however, there was a strong preference in the high spenders for the “no cash back” utility.

Interestingly, the more money that people spend on their credit cards the less they prefer the consolidation of their financial services.

5.2.7 *Payment Profiles*

Contrary to the literature this research shows that there are no differences at all in credit card attributes – either importances or levels according to whether people are convenience users or revolvers.

As the literature strongly indicated that there were differences in preferences between convenience users and revolvers, the sample specifically included a third of people who considered that they paid their credit cards off in full each month, a third who paid the minimum due, and a third of the sample had no credit cards at all. There were no significant difference in the convenience users or revolvers, and the group that had no

credit card at all, showed a preference for the affinity card importance.

Analysis of Demographics vs Importances and Utilities

Only significant findings have been shown, and where there was no notable finding, it has not been commented on.

Table 19: Summary of Significant Differences in importances and utilities against demographics

Demographics	Test Description	Significant importance and utilities	Test Result	Summarised Observations
Age	One way ANOVA, Analysis of Variance	**Importance** Air miles **Utilities** Airline card 22% Interest Rate No air miles	Kruskal-Wallis One-way Anova On Ranks, Reject H0	• 70+ prefer no air miles • 60-69 least like airline card • 30-39, 70+ least like interest rate of 22
Gender	Two sample T-test	**Utilities** Bank card R15 000.00 credit limit 20% Interest Rate 25% discounted travel Free ticket for spend > R80 000.00 per annum	Mann-Whitney U or Wilcoxon sum Test for difference in medians Equal-Variance T-Test Section Aspin Welch Unequal Variance test Section Mann-Whitney U or Wilcoxon sum Test for difference in medians Equal-Variance T-Test Section Aspin Welch Unequal Variance test Section Mann-Whitney U or Wilcoxon sum Test for difference in medians Equal-Variance T-Test Section Aspin Welch Unequal Variance test Section Mann-Whitney U or Wilcoxon sum Test for difference in medians Kolmogorov-Smirnov Test For Different Distributions Equal Variance T-Test Section Aspin Welch Unequal Variance test Section Mann-Whitney U or Wilcoxon sum Test for difference in medians Kolmogorov-Smirnov Test For Different Distributions	• Women prefer 20% interest rate • Women prefer cards issued by a bank • Woman prefer R15 000.00 credit limit to men • Women prefer 25% discount on free travel to men • Men prefer the free companion ticket to women

Marital Status	One way ANOVA, Analysis of Variance	**Importance** Interest Rate **Utilities** R1 600.00 annual fee 18% interest rate 24% interest rate Gold card	Kruskal-Wallis One-way Anova On Ranks, Reject H0	• People in relationship shows differences to interest rate • People in relationship less opposed to annual card fee of R1 600.00 • People in a relationship least like interest rate of 24% and prefer interest rate of 18%

Household Income	One way ANOVA, Analysis of Variance	**Importances** Annual Card fee Credit limit Interest Rate Free travel **Utilities** Cell phone company Airline company Retailer card R100.00 annual fee R250.00 annual fee R1 600.00 annual fee R50 000.00 credit limit R5 000.00 credit limit 18% interest rate 22% interest rate 24% interest rate R12.50 spend for 1 mile Access to roadside assistance No cash backs 10% cash backs No automatic donation to charity 1% donation to charity	Kruskal-Wallis One-way Anova On Ranks, Reject H0	• Credit limit differences for lower income group • Card fee differences in lower income group • Interest rate differences in higher income group • Travel benefits differences in higher income group • High income earners prefer bank issued card and less like card from retailer of airline company • Earners between R9 500 – R11 999 less like cell phone option • High earners prefer R100 card fee to other, and again these earners preferred the R250 card fee to the other groups • R1 600 card fee least preferred by this group • High earners less like R5 000 credit limit, and most like the R50 000 credit limit • High earner prefer 18% interest rate • High earners least prefer 22% and 24% interest rate • Lower earner prefer earning 1 air mile to R12.50, while high earner much prefer 1 mile to R6 • High earner least prefer access to roadside assistance • Low earners least prefer no cash backs and prefer the 10% cash back option • High earners least prefer 10% cash back and most prefer 20% cash back to the other people • High earners do not like the affinity option and prefer not to donate money to charity through the card
No. of personal credit cards	One way ANOVA, Analysis of Variance	**Importance** Affinity card **Utilities** 22% interest rate	Kruskal-Wallis One-way Anova On Ranks, Reject H0	• People with no or 1 card least prefer the concept of an affinity card • People with 3 or more cards least like a 22% interest rate

Average spend per month	One way ANOVA, Analysis of Variance	**Importance** Cash Backs Consolidated financial services **Utilities** No cash backs	Kruskal-Wallis One-way Anova On Ranks, Reject H0	• High spenders most prefer no cash backs • High spenders least prefer consolidating their financial services
Payment patterns	One way ANOVA, Analysis of Variance	**Importance** Affinity card	Kruskal-Wallis One-Way Anova On Ranks, Reject H0	• Only difference in group who have no cards current, and they have a higher preference for an affinity card

6. CONCLUSION AND RECOMMENDATIONS

6.1 Conclusions

This research has strongly supported the literature in that people who have or seek new credit cards are very concerned with the financial benefits of a credit card. These financial benefits cannot be ignored by credit card issuers in favour of the other benefits or rewards, as these financial factors are seen as hygiene factors. If a credit card has attractive benefits and rewards, but unattractive financial factors, such as interest rate and annual fees, the card will not be successful.

This research also showed that there were definitely some differences according to demographic profile, and the biggest difference was in the area of household income, with people earning more looking for different things in a credit card.

Contrary to what was expected this research showed that there was little difference in requirements for a credit card based on how people pay their credit cards on a monthly basis. This research showed that there is very little difference between convenience users and revolvers.

This research did not show why these demographic differences exist, and there is little empirical work to explain this. This creates an opportunity for further research.

6.2 Recommendations for credit card product developers

6.2.1 *Branding*

The source of a credit card appeared to be the most important attribute amongst consumers with the co-branded cards appearing less popular. All of the co-branded cards are managed by one of the large financial institutions or banks. In order to increase cards credibility, and the comfort that the consumer has in a credit card, the credit card provider could consider making the supporting banks identity more explicit

6.2.2 *Financial Benefits*

The financial benefits of a credit card remain of high importance to the

consumer. These could almost be considered to be hygiene factors. The credit card provider should not believe that the consumer will be prepared to pay additional interest or large additional benefits for the additional benefits. These should be considered to be value adds, and the financial components of the card should always remain competitive. Interest rates themselves could become "rewards" by offering preferential rates and fees according to certain consumer that is desirable by the credit card institution.

6.2.3 *Value Add or loyalty Programs*

Assuming that the financial components of the credit card are then similar or competitive with what is being offered in the market, what differentiates one credit card from the other is its loyalty programs or other rewards (Sales Source Market Research, 2007). If a credit card issuer wants to differentiate themselves in this way, then they should add rewards that are relevant and interesting to the market that they are trying to target and communicate these well. As the ability to earn air miles seems to be a reward that is sought after the researcher would suggest that this too has become a "hygiene factor"' for credit cards, and all credit card issuers should allow card holders the opportunity to earn to convert certain of their points to air miles.

6.2.4 *Cash Backs*

Cash backs, and particularly the automatic cash back from certain stores appears to be benefit that is being offered by more and more credit card issuers. A risk is that the consumers do not value the cash backs as pay back of many small deposits of money may go unnoticed to the card holder. It is recommended that the card issuers consolidate these cash backs, making the amount that is paid to the consumer larger. The customer could have the option of collecting or saving this money for a large payout, resulting in the perceived value of this being much higher.

6.2.5 *Redemption of rewards and benefits*

The same can be said for the redemption of the benefits of the cards. Ideally the process to redeem the benefits should require little additional effort from the card holder. One of the keys to a successful card is that a member uses the card and perceives value in this. If the customers are not using any of the benefits the consumer will have a lower perceived value of the card.

It is essential then for credit card issuers that they make the process of redemption simple so that as many members as possible benefit from the rewards, and feel inclined to continue using the card.

This is again supported by Dowling and Uncles (1997) who comment that the perceived likelihood of the achievement of rewards remains a determining factor for choosing a credit card.

6.2.6 *Supplementary Benefits*

As there was no desire in the research for supplementary benefits, it is recommended to credit card issuers that they refrain from adding this often expensive, but little used benefits to the credit card, as they appear to offer little incentive for attracting new credit card holders.

6.2.7 *Complexity of product*

Many of the co-branded credit cards are very complex in the nature of what is offered, and they are quite complex in terms of the points required, and the rewards that can be redeemed. If the product is perceived to be complex, many consumers will not engage with the card, and may elect not to use it. This is supported by the literature where Dowlings and Uncles (1997) mention that the perceived ease of use is a pull factor in members choosing a credit card.

It is recommended that the credit card issuers offer fewer large and more valuable benefits than many smaller benefits or partners that the cardholders are either unaware of or do not understand.

6.2.8 *Communication from the Card issuers to Card holders*

Communication of the benefits of the card is essential in encouraging both the acquisition and use of the card. It is important that the members understand what the benefits of the credit cards are, and how to gain access to these.

Equally important is the communication of the financial features of the credit card. As has been shown throughout the document attributes such as interest rates and fees are very important to card holders, and if the credit card has competitive financial features these should be actively communicated to the card holder base, as this will be a

determining factor in the adoption and use of a particular credit card.

6.3 Recommendations for Future Research

This study has shown what consumers prefer when choosing a credit card. This has previously been referred to as acquisition of a credit card (Morris 1995). There are many aspects to credit cards and their use, and this research has looked at only one part of this. In order to fully understand credit cards, further research into understanding the reasons for some of these findings is recommended, and also to examine what would cause a person to activate (Morris, 1995) their credit card, and what would cause the card holder to use one particular credit card as the primary card. The following areas for further research are recommended:

1. How to retain customers and prevent them from switching credit cards – referred to as retention of customers by Morris (1995)
2. Factors that will cause a consumer to use one specific card as their primary card (this has been referred to as activation by Morris). This has sometimes been referred to as getting a particular credit card "front of purse" or " front of wallet"
3. What factors increase the redemption of credit card benefits
4. As this study has focused on the preferences of people in the upper socio economic classes and LSM 10 and above, further research could be done to identify the credit card preferences of those in the lower socio economic classes
5. The use of affinity cards, and whether loyalty to a not- for – profit organisation only, is sufficient for members to adopt this kind of credit card
6. Research into additional attributes that may lead to acquisition of a credit card such as the "superior security against ID fraud" attribute as mentioned by Cundiff (2006).
7. This research looked at the individual's demographic characteristics only. Further research could examine whether there were any differences according to other psychographic factors.
8. Little empirical work has been done to understand why there are differences in credit card preferences in the different demographic profiles. Further research can be done in understanding these differences.
9. Where the member has more than one credit card, it is unclear whether one card is always a traditional bank card. This may give more indication into the

strength of the banking brand in providing credit cards to the public at large. Another interesting research topic would be to examine whether members specifically choose or hold a combination of Visa and Mastercard cards.

10. This study considered what consumers prefer in a credit card without considering which customers are more profitable tp the credit card issuer, and who they should be targeting (Speer, 1996). Further research could identify predictors for profitable credit card customers in the South African market.
11. Finally, these results have not been verified with any qualitative research either with credit card holders or credit card issuers. Further research could involve a qualitative analysis of these groups to validate the findings of this research.

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Appendix A

Example of Credit Card Rewards and Benefits

1. **Kulula Moolah** (Partnered with FNB)

Monthly spend on Kulula credit card	**Kulula Moolah earning**
R0 – R5000.00	3%
R5 000.00 – R10 000.00	2%
R10 000.00 – R20 000.00	1%

This percentage will be converted to cash value which may be redeemed against Kulula flights.

2. **SAA Voyager Credit Card** (Partnered with Nedbank)
    - Earn up to 1 mile for every R6.00 spent (may vary according to card type)
    - Earn double miles for the first 3 months i.e. 1 mile for every R3.00 spent
    - Earn bonus miles on the first SAA flight purchases
    - Free companion flight on a spend threshold of R60 000.00 or R80 000.00 depending on card type
    - No card fees for the first 3 months
    - Miles never expire
    - Receive two cards - American Express and VISA cards
    - Mile redemption on SAA flights or any SAA partners
    - Business class check in and business class lounge access on certain cards
    - International travel insurance

3. **Vodacom Credit Card** (Partnered with FNB)
    - Only available to Vodacom contract and top up users
    - No annual card fees but a monthly membership of R29.00 per month for access to discounts and rewards
    - 10% cash back at partner stores which include
        - Osiers
        - Furniture City
        - Dial-a-Bed

    - Geen & Richards
- Earn 1 Yebo back for every R10.00 spent (limited to a maximum amount)
    - Dions
    - Game
- 25% discount off Mango flights
- Conservation Corporation Specials (stay 3 nights, pay for 2)
- 20% discount on Imperial car hire (one booking per month)
- Extra months membership when taking out a Planet Fitness membership (depends on length of contract)
- Enrol on a management programme at the SBL and you'll get a free 3G HSPDA card valued at R2, 699. 00
- Unisa Graduate School of Business - Enrol for an MBA or MBL and you'll get a free laptop. Any other course will include a free 3G card

4. **Clicks Credit Card** (Partnered with FNB)
    - Double points at Clicks
    - 6% interest per annum on outstanding amount for the first six months

5. **Edgars Credit Card** (Partnered with Standard Bank)
    - No annual fees

6. **DiscoveryCard** (Partnered with FNB)
    - Earn between 10 and 15% cash backs at partner stores. Cashbacks are based on Discovery Vitality status and length of time on the scheme. Partners stores include:
        - Woolworths (until 31 Dec 2006)
        - Stuttafords (from 1 November 2006)
        - Pick n Pay (from 1 Jan 2007)
        - Look and Listen
        - Exclusive Books
        - Toys R Us
        - Baby and Co
        - Hepkers

    - @ Home
    - Cape Union Mart
    - Total Sports
- The ability to earn Voyager miles, which are boosted by 10 – 15% depending on Vitality Status
- Up to 25% discount on World Leisure Travel and Royal Caribbean tours
- Free non medical travel insurance through AIG

7. Virgin Money (Partnered with Absa)

- Interest free credit for the first 3 months
- No annual card fee
- No fee to access Virgin Money online
- No transaction fees
- Free travel insurance

8. American Express

- Concierge Services
- Airport lounge access locally and internationally
- Exclusive travel packages and discounts at selected hotels

Appendix B

Demographic Questionnaire for Conjoint Analysis Questionnaire

Thank you for agreeing to complete this questionnaire. All information provided will be kept confidential by the researchers involved in the project.

- **Age**
  - 20 – 29
  - 30 – 39
  - 40 – 49
  - 50 – 59
  - 60 – 69
  - 70 +

- **Gender**
  - Male
  - Female

- **Marital Status**
  - Married
  - Single
  - In a relationship

- **Household income – (Range LSM)**
  - R9500.00 – R11 999.00
  - R12 000.00 – R18 999.00
  - >R19 000.00

- **Do you typically pay off your card in full every month?**
  - Yes
  - No

- **How many personal credit cards do you have?**
    - 0
    - 1
    - 2
    - 3

- **Average credit card spend per month made on all credit cards combined**
    - < R10 000.00
    - R10 000.00 – R20 000.00
    - > R20 000.00

Appendix C: **Credit Card Comparison for Selected Card Products**

Company	Name	Rewards name	Entry Age	Min Income	Interest	Applied to	Interest Free days	Annual Cost	Pertol	Internet banking	2nd Card
ABSA	Absa Gold Card	Absa Rewards	21	R 120,000.00	16%	On balances greater than R10000.00	57	R 688.00	R 48.60	R 239.40	R -
ABSA	Absa Private	Absa Rewards	21	R 500,000.00	15%	On purchases and cash	57	R 929.80	R -	R 239.40	R -
ABSA	Absa Silver	Absa Rewards	21	R 48,000.00	17%	On balances greater than R10000.00	57	R 569.95	R 47.50	R 239.40	R 47.50
ABSA	Absa Superior Gold	Absa Rewards	21	R 280,000.00	17%	On balances greater than R10000.00	57	R 680.90	R 47.50	R 239.40	R 76.20
African Bank	African Bank Blue Classic Credit Card		18	R 24,000.00	23%	Flat across purchases, cash and budget	30	R 600.00	R -	R -	R -
Amex	Amex Blue Credit Card	Amex Membership Rewards	21	R 36,000.00	20%	Flat across purchases, cash and budget	55	R 723.60	R -	R 273.60	R 145.00
Amex	Amex Gold Charge Card	Amex Membership Rewards	21	R 200,000.00	19%	Flat across purchases, cash and budget	55	R 1,028.60	R -	R 273.60	R -
Amex	Amex Gold Credit Card	Amex Membership Rewards	21	R 120,000.00	20%	Flat across purchases, cash and budget	55	R 663.60	R -	R 273.60	R -
Amex	Amex Green Charge Card		21	R 120,000.00	19%	Flat across purchases, cash and budget	55	R 823.60	R -	R 273.60	R 220.00
Amex	Amex Platinum Charge Card	Amex Membership Rewards	21	R 750,000.00	19%	Flat across purchases, cash and budget	55	R 3,123.60	R -	R 273.60	R -
Barclays	BarclayCard		21	R 120,000.00	17%	On purchases and budget	55	R 420.00	R -	R -	R -
Barclays	BarclayCard Prime		21	R 500,000.00	16%	On purchases	55	R 660.00	R -	R -	R

Company	Name	Rewards name	Entry Age	Min Income	Interest	Applied to	Interest Free days	Annual Cost	Pertol	Internet banking	2nd Card
						and budget					-
British Airways	British Airways Gold	British Airways Miles	18	R 120,000.00	19%	On balances greater than R10000.00	55	R 465.00	R 90.00	R -	R -
Clicks	Clicks Credit Card	Click Club Points	21	R 24,000.00	17%	Flat across purchases, cash and budget	55	R 150.00	R -	R -	R -
Diners	Diners Club	Voyager and BA Miles	21	R 300,000.00	16%	On budget only	55	R 785.00	R -	R -	R 210.00
Discovery	Gold DiscoveryCard	Discovery Miles	21	R 140,000.00	17%	On budget only	57	R 610.00	R 95.00	R -	R 135.00
Discovery	Platinum DiscoveryCard	Discovery Miles	21	R 350,000.00	17%	On cash only	57	R 645.00	R 95.00	R -	R 135.00
Discovery	Silver DiscoveryCard	Discovery Miles	21	R 60,000.00	17%	On budget only	57	R 555.00	R 95.00	R -	R 135.00
FNB	FNB Gold	Ebucks	18	R 140,000.00	20%	Flat across purchases, cash and budget	55	R 260.00	R 105.00	R -	R -
FNB	FNB Platinum	Ebucks	18	R 350,000.00	16%	On purchases and cash	55	R 310.00	R 155.00	R -	R -
FNB	FNB Silver	Ebucks	21	R 60,000.00	20%	Flat across purchases, cash and budget	55	R 260.00	R 105.00	R -	R -
FNB	FNB Smart	Ebucks	18	R 24,000.00	20%	Flat across purchases, cash and budget	44	R 260.00	R 105.00	R -	R -
Investec	Investec	Dividends	21	R 600,000.00	12%	Flat across purchases, cash and budget	45	R 1,800.00	R -	R -	R -
Kulula	Kulula Card	Kulula Moolah	21	R 24,000.00	17%	Flat across purchases, cash and budget	55	R 150.00	R -	R -	R -
MTN	MTN Gold	MTN Rewards	21	R 42,000.00	17%	On balances greater than	55	R 180.00	R -	R -	R -

Company	Name	Rewards name	Entry Age	Min Income	Interest	Applied to	Interest Free days	Annual Cost	Petrol	Internet banking	2nd Card
						R10000.00					
MTN	MTN Titanium	MTN Rewards	21	R 24,000.00	17%	On balances greater than R10000.00	55	R 216.00	R -	R -	R -
Nedbank	Nedbank Classic	Greenbacks	21	R 36,000.00	20%	Flat across purchases, cash and budget	55	R 763.60	R 110.00	R 273.60	R 110.00
Nedbank	Nedbank Gold	Greenbacks	21	R 150,000.00	20%	Flat across purchases, cash and budget	55	R 798.60	R 110.00	R 273.60	R 110.00
Nedbank	Nedbank Platinum	Greenbacks	21	R -	17%	Flat across purchases, cash and budget	55	R 1,053.60	R 110.00	R 273.60	R 110.00
Old Mutual	Old Mutual Classic	Greenbacks	21	R 36,000.00	20%	Flat across purchases, cash and budget	55	R 763.60	R 110.00	R 273.60	R 110.00
Old Mutual	Old Mutual Gold	Greenbacks	21	R 150,000.00	20%	Flat across purchases, cash and budget	55	R 798.60	R 110.00	R 273.60	R 110.00
Old Mutual	Old Mutual ICE	Greenbacks	19	R 36,000.00	20%	Flat across purchases, cash and budget	55	R 763.60	R 110.00	R 273.60	R 110.00
Pick n Pay	Go Banking Credit Card	None	21	R 36,000.00	19%	Flat across purchases, cash and budget	55	R 144.00	R -	R 144.00	R -
RMB	RMB Private	eBucks	21	R 750,000.00	12%	On purchases and cash	55	R -	R -	R -	R -
SAA	Voyager Classic	SAA Voyager and Amex Membership	21	R 36,000.00	19%	Flat across purchases, cash and budget	55	R 573.60	R -	R 273.60	R -
SAA	Voyager Gold	SAA Voyager and Amex Membership	21	R 150,000.00	19%	Flat across purchases, cash and budget	55	R 823.60	R -	R 273.60	R

Company	Name	Rewards name	Entry Age	Min Income	Interest	Applied to	Interest Free days	Annual Cost	Pertol	Internet banking	2nd Card
SAA	Voyager Platinum	SAA Voyager and Amex Membership	21	R -	19%	Flat across purchases, cash and budget	55	R 1,923.60	R -	R 273.60	R -
Standard Bank	Blue Bean Classic	Blue Bean	21	R 48,000.00	19%	On balances greater than R10000.00	55	R 168.00	R -	R -	R -
Standard Bank	Blue Bean Classic MCE	Blue Bean	18	R 48,000.00	20%	On balances greater than R10000.00	40	R 168.00	R -	R -	R -
Standard Bank	Blue Bean Gold	Blue Bean	21	R 120,000.00	19%	Flat across purchases, cash and budget	55	R 168.00	R -	R -	R -
Standard Bank	Blue Bean Silver	Blue Bean	21	R 48,000.00	19%	On balances greater than R10000.00	55	R 168.00	R -	R -	R -
Standard Bank	Standard Bank Blue	British Airways Miles	18	R 24,000.00	19%	On balances greater than R10000.00	55	R 222.00	R 90.00	R -	R -
Standard Bank	Standard Bank Gold	British Airways Miles	18	R 120,000.00	19%	On balances greater than R10000.00	55				
Standard Bank	Standard Bank Platinum	British Airways Miles	18	R -	19%	On balances greater than R10000.00	55	R 490.00	R 90.00	R -	R -
Virgin	Virgin Money Credit Card		18	R 60,000.00	18%	Flat across purchases, cash and budget	55	R -	R -	R -	R -
Vodacom	Vodacom Credit Card	Yebo Bucks	21	R 24,000.00	19%	Flat across purchases, cash and budget	55	R 348.00	R -	R -	R -

Company	Name	Rewards name	Entry Age	Min Income	Interest	Applied to	Interest Free days	Annual Cost	Pertol	Internet banking	2nd Card
Wesbank	Wesbank Classic	Ebucks	21	R 24,000.00	20%	Flat across purchases, cash and budget	55	R 260.00	R 105.00	R -	R -
Wesbank	Wesbank Gold	Ebucks	21	R 120,000.00	20%	Flat across purchases, cash and budget	55	R 260.00	R 105.00	R -	R -
Woolworths	Woolworths Gold	W Points	18	R -	18%	Flat across purchases, cash and budget	55	R 190.00	R -	R -	R -
Woolworths	Woolworths Silver	W Points	18	R 30,000.00	20%	Flat across purchases, cash and budget	55	R 135.00	R -	R -	R -

Source: Sales Source Market Research 2007

Appendix D - Strategic positioning for target markets

	ASA	**FSR**	**MED**	**SBK**
Credit card offering (Branding strategy)	Absa; Virgin Money; Barclaycard (not implemented yet)	FNB; Clicks; Vodacom; Kulula; DiscoveryCard	Nedbank; SAA Voyager; Go Banking; Ackermans; Hub; American Express	Standard Bank; Bluebean; Edgars; Diners; MTN. SBK has a 35% stake in RCS. RCS has a personal loan offering and a white labelling credit card operations
Target markets (LSM)	Absa card (LSM 6-10); Virgin Money (LSM 7-10); Barclaycard (LSM 8-10)	FNB card (LSM 6-10); Clicks (LSM 7 -10); Vodacom (LSM 7 – 9); Kulula (LSM 7-9); DiscoveryCard (LSM 7 – 10)	LSM 6 -10 – Product offer dependent on client segmentation and choice	LSMs are not specifically targeted. Strategy revolves around risk bands (various credit card brands target clients based on the risk profile sought).
Strategy comment	Prefer to wait and assess situation (rather target post NCA) but wary of an aggressive push. Does not plan to participate below LSM 6 at this stage	Diversification of channels. Strong reward positions. Prefer to avoid areas where it considers the prospect of higher charge-offs and initial losses. Therefore it has not pushed in the mass market space.	Limit increases are part of core growth strategy as well as growth from private label books. Use American Express for selected opportunities, as well as Nedbank Greenbacks and membership rewards programmes.	Partnerships are generally part of customer acquisition strategies.

Profit-sharing arrangements with partners	Dependent on actual deal in terms of revenue sharing or profit arrangements. May take the form of an arrangement or a joint venture (JV) where parties participate in the equity of the new entity. Generally these deals are skewed in favour of the banks. IN a JV, the parties generally participate in profits after tax (post impairment) whereas in a revenue arrangement, the bank may take on all the risk or share part of the risk with the partner.			
Acquiring vs. issuing bias	Acquiring (33% market share); Issuing (25.4%)	Acquiring (26% market share); Issuing (24.8%)	Acquiring (30% (value) market share); Issuing (11.7%)	Acquiring (22% market share); Issuing (35.4%)
LSM customer bias	Debit cards (LSM 4 – 10); Credit cards (LSM 6 – 10)	Debit cards (LSM 4 – 10); Credit cards (LSM 6 – 10)	Debit cards (LSM 4 – 10); Credit cards (LSM 6 – 10)	Debit cards (LSM 4- 10); Credit cards (LSM 6 -10) predominantly, although have some LSM 4 – 5
No. of credit cards (Market share of outstanding bal)	2.4m (25.4%)	Not disclosed (24.8%)	0.9m (11.7%)	2.8m (35.4%)
Utilisation level (%)	39% overall (although dependent on which product)	35% overall (although around 50% on straight facility)	30% - 70% depending on the product and time of year	Approx. 50%
Size of credit card book (% of total advances book)	R10.3bn (2.9%)	R10.1bn (3.7%)	R4.7bn (1.8%)	R14.4bn (4.0%)

Personal loans vs. credit card proposition	Micro-lending strategy distinct from credit card strategy. Do not plan to use credit cards at lower LSMs. Will wait post–NCA before addressing any entry into the market.	Micro-lending strategy distinct from credit card strategy. Do not plan to use credit cards at lower LSMs. Will wait until post-NCA before addressing any entry into this market.	Micro-lending strategy distinct from credit card strategy. Private label cards to be used for mass market card strategy.	Credit card strategy is part of SBK's lower-end banking proposition. Personal loans were granted under the ABIL JV (since terminated). SBK will be offering personal loans after notice period expired (May 07).
% of credit card customers multi-carded	Most of top-end customers have multiple cards	Estimated at dependent on market segment between 15% (low-end) and 25% (top-end has multiple cards.	Not available, although LSM 8-10 generally have multiple cards	Estimated that approximately 25% have cards at other banks
Decline rates (avg. 2006)	26% overall (decline rate dependent on channel used)	50-55% overall (decline rate dependent on channel used)	Varies from 30% (premium portfolios) to 60% (mass market)	On branch applications, this is approx. 45%

Source: Company management, DI900s (Dec 2006)

Appendix E - Conjoint Card Profiles

Credit Cards	Source of Card	Affinity Card	Card Status	Interest Rate	Annual fees (R)	Credit Limit (R)	Consolidated financial services	Travel Benefits	Cash backs	Air miles	Supplementary benefits
1	Airline Company	1% to Charity	Normal	18%	250	5 000	Standalone	Free companion air ticket	20%	-	Free Roadside Assistance
2	Airline Company	-	Gold	24%	250	15 000	Integrated with current a/c and home loan	-	20%	1 per R6	Access to Airport Lounge
3	Bank	1% to Charity	Normal	20%	-	15 000	Standalone	Free companion air ticket	20%	-	Access to Airport Lounge
4	Retail Company	1% to Charity	Normal	22%	-	15 000	Integrated with current a/c and home loan	-	20%	1 per R12.50	Free Roadside Assistance
5	Airline Company	1% to Charity	Gold	24%	600	5 000	Integrated with current a/c and home loan	25% of air travel	-	1 per R12.50	Access to Airport Lounge
6	Retail Company	-	Gold	22%	100	15 000	Standalone	Free companion air ticket	10%	1 per R12.50	Access to Airport Lounge
7	Medical Administrator	1% to Charity	Platinum	22%	600	5 000	Integrated with current a/c and home loan	Free companion air ticket	-	1 per R6	Free Roadside Assistance
8	Medical Administrator	1% to Charity	Normal	20%	-	50 000	Integrated with current a/c and home loan	-	-	1 per R12.50	-
9	Medical Administrator	-	Gold	22%	250	5 000	Integrated with current a/c and home loan	25% Discount on air travel	10%	-	Free Roadside Assistance
10	Retail Company	-	Platinum	20%	600	5 000	Standalone	Free Companion air ticket	10%	1 per R6	Free Roadside Assistance
11	Medical Administrator	1% to Charity	Gold	20%	100	50 000	Standalone	-	20%	-	Free Roadside Assistance

Credit Cards	Source of Card	Affinity Card	Card Status	Interest Rate	Annual fees (R)	Credit Limit (R)	Consolidated financial services	Travel Benefits	Cash backs	Air miles	Supplementary benefits
12	Retail Company	-	Platinum	24%	1 600	50 000	Integrated with current a/c and home loan	Free Companion air ticket	10%	-	-
13	Cell phone Company	1% to Charity	Platinum	24%	1 600	15 000	Integrated with current a/c and home loan	25% of air travel	-	1 per R6	Free Roadside Assistance
14	Bank	1% to Charity	Gold	22%	100	15 000	Standalone	25% of air travel	-	-	-
15	Cell phone Company	-	Normal	24%	-	5 000	Standalone	-	10%	-	Access to Airport Lounge
16	Medical Administrator	-	Platinum	18%	250	50 000	Standalone	25% of air travel	-	1 per R12.50	Access to Airport Lounge
17	Cell phone Company	1% to Charity	Normal	22%	600	50 000	Standalone	-	10%	1 per R6	-
18	Airline Company	-	Gold	20%	1 600	15 000	Integrated with current a/c and home loan	Free Companion air ticket	-	-	-
19	Bank	-	Platinum	24%	600	50 000	Integrated with current a/c and home loan	Free Companion air ticket	20%	1 per R6	-
20	Medical Administrator	1% to Charity	Gold	18%	1 600	15 000	Integrated with current a/c and home loan	Free Companion air ticket	10%	1 per R6	Access to Airport Lounge
21	Airline Company	-	Normal	18%	-	5 000	Standalone	25% discount on air travel	10%	1 per R6	-
22	Cell phone Company	-	Normal	20%	100	5 000	Integrated with current a/c and home loan	25% discount on air travel	20%	-	-
23	Airline Company	-	Platinum	22%	1 600	50 000	Integrated with current a/c and home loan	25% discount on air travel	20%	-	-

Credit Cards	Source of Card	Affinity Card	Card Status	Interest Rate	Annual fees (R)	Credit Limit (R)	Consolidated financial services	Travel Benefits	Cash backs	Air miles	Supplementary benefits
24	Cell phone company	-	Gold	22%	1 600	5 000	Standalone	Free Companion air ticket	-	1 per R12.50	Access to Airport Lounge
25	Medical Administrator	1% to Charity	Normal	24%	600	5 000	Standalone	25% discount on air travel	20%	1 per R12.50	-
26	Cell phone company	1% to Charity	Platinum	18%	250	15 000	Integrated with current a/c and home loan	Free companion air ticket	10%	1 per R12.50	-
27	Bank	-	Platinum	22%	1 600	15 000	Standalone	-	20%	1 per R12.50	Free Roadside Assistance
28	Bank	-	Normal	20%	250	50 000	Integrated with current a/c and home loan	25% discount on air travel	10%	1 per R12.50	Free Roadside Assistance
29	Retail Company	-	Normal	18%	600	15 000	Integrated with current a/c and home loan	25% discount on air travel	-	-	-
30	Cell phone company	-	Gold	18%	600	5 000	Standalone	-	20%	1 per R12.50	Free Roadside Assistance
31	Bank	1% to Charity	Normal	18%	100	5 000	Integrated with current a/c and home loan	-	-	1 per R6	Access to Airport Lounge
32	Airline Company	1% to Charity	Platinum	20%	600	15 000	Standalone	-	10%	1 per R12.50	Access to Airport Lounge
33	Bank	1% to Charity	Gold	18%	250	5 000	Integrated with current a/c and home loan	-	10%	-	Free Roadside Assistance
34	Airline Company	-	Normal	24%	100	50 000	Standalone	Free Companion air ticket	-	1 per R6	Free Roadside Assistance
35	Retail Company	1% to Charity	Platinum	24%	250	5 000	Standalone	-	-	1 per R6	-
36	Retail Company	1% to Charity	Gold	20%	1 600	50 000	Standalone	25% discount on air travel	20%	1 per R6	-

Appendix F

Sawtooth Software SMRT Market Simulator

Sawtooth Software SMRT Market Simulator Copyright 1999-2007	
Utility Run:	CVA OLS Run
Total Respondents	
	Total
Total Respondents	150
Average Utility Values	
Rescaling Method:	Zero-Centered Diffs
	Total
Normal card	-3.16
Gold card	-1.33
Platinum card	4.50
Bank card	20.55
Retailer card	-22.51
Airline card	-13.02
Medical administrator card	14.86
Cell phone company card	0.12
No annual fee	65.21
R100 annual fee	27.46
R250 annual fee	2.92
R600 annual fee	-25.33
R1600 annual fee	-70.25
Credit limit of R 5 000	-30.16
Credit limit of R 15 000	-2.95
Credit limit of R 50 000	33.12
Interest rate of 18%	64.35
Interest rate of 20%	17.71
Interest rate of 22%	-23.92
Interest rate of 24%	-58.14
Stand alone credit card	6.98
Credit card integrated with current a/c and home loan	-6.98
No air miles	-0.28
1 air mile per R12.50 spent	-4.95
1 air mile per R6	5.24
No free travel	9.67
25% discount of air travel	0.09
Free companion tickets over R80000 spend	-9.76
No cash back	8.37
10% cash back	-6.18
20% cash back	-2.18
No automatic donation	6.39
Card donates 1% to charity	-6.39
None supplementary benefits	14.51
Access to airport lounges	-1.37
Free roadside assistance (e.g. AA)	-13.13

Average Importances	
	Total
Card status	8.35
Source	14.42
Annual card fee	12.31
Credit limit	11.39
Interest rate	11.13
Financial services	4.69
Air miles	8.78
Free travel	8.10
Cash backs	7.71
Affinity card	4.42
Supplementary benefits	8.69

Appendix G

ANOVA ANALYSIS OF VARIANCE

AGE IMPORTANCE

Card Status

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	7.478577	0.187410	Accept Ho
Corrected for Ties	5	7.478683	0.187404	Accept Ho

Source

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	3.154949	0.676111	Accept Ho
Corrected for Ties	5	3.154972	0.676108	Accept Ho

Annual Card Fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	6.300369	0.278079	Accept Ho
Corrected for Ties	5	6.300425	0.278074	Accept Ho

Credit Limit

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	6.835448	0.233169	Accept Ho
Corrected for Ties	5	6.835546	0.233161	Accept Ho

Interest rate

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	6.213724	0.285975	Accept Ho
Corrected for Ties	5	6.213834	0.285965	Accept Ho

Financial Services

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	9.358858	0.095579	Accept Ho
Corrected for Ties	5	9.359141	0.095569	Accept Ho

Air miles

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	12.36959	0.030060	Reject Ho
Corrected for Ties	5	12.36968	0.030059	Reject Ho

Free Travel

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	1.404202	0.923853	Accept Ho
Corrected for Ties	5	1.404229	0.923850	Accept Ho

Cash backs

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	5.326005	0.377402	Accept Ho
Corrected for Ties	5	5.326138	0.377387	Accept Ho

Affinity Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	8.088761	0.151411	Accept Ho
Corrected for Ties	5	8.08902	0.151397	Accept Ho

Supplementary Benefits

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	0.9384922	0.967373	Accept Ho
Corrected for Ties	5	0.9385122	0.967371	Accept Ho

AVERAGE SPEND PER MONTH – UTILITIES

Normal Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.9903885	0.609453	Accept Ho
Corrected for Ties	2	0.9903944	0.609451	Accept Ho

Gold Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.1550739	0.925393	Accept Ho
Corrected for Ties	2	0.1550748	0.925392	Accept Ho

Platinum Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.3880613	0.823633	Accept Ho
Corrected for Ties	2	0.3880636	0.823632	Accept Ho

Bank Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.033326	0.219443	Accept Ho
Corrected for Ties	2	3.033345	0.219441	Accept Ho

Retailer Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.048746	0.217758	Accept Ho
Corrected for Ties	2	3.048765	0.217756	Accept Ho

Airline Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	5.376185	0.068011	Accept Ho
Corrected for Ties	2	5.376217	0.068009	Accept Ho

Medical administrator Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.2692494	0.874044	Accept Ho
Corrected for Ties	2	0.269251	0.874043	Accept Ho

Cell phone company card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.4889875	0.783101	Accept Ho
Corrected for Ties	2	0.4889905	0.783100	Accept Ho

No annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.2234035	0.894311	Accept Ho
Corrected for Ties	2	0.2234048	0.894310	Accept Ho

R100 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.572324	0.455590	Accept Ho
Corrected for Ties	2	1.572333	0.455588	Accept Ho

R250 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.1685264	0.919189	Accept Ho
Corrected for Ties	2	0.1685274	0.919189	Accept Ho

R600 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.168662	0.205085	Accept Ho
Corrected for Ties	2	3.168681	0.205083	Accept Ho

R1600 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.893039	0.639851	Accept Ho
Corrected for Ties	2	0.8930444	0.639850	Accept Ho

Credit Card limit of R5 000

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	5.507027	0.063704	Accept Ho
Corrected for Ties	2	5.50706	0.063703	Accept Ho

Credit Card limit of R15 000

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.273126	0.529108	Accept Ho
Corrected for Ties	2	1.273133	0.529106	Accept Ho

Credit card limit of R50 000

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	5.954872	0.050923	Accept Ho
Corrected for Ties	2	5.954908	0.050922	Accept Ho

Interest rate of 18%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.5167123	0.772320	Accept Ho
Corrected for Ties	2	0.5167154	0.772319	Accept Ho

Interest rate of 20%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	5.26019	0.072072	Accept Ho
Corrected for Ties	2	5.260222	0.072070	Accept Ho

Interest rate of 22%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.7498327	0.687347	Accept Ho
Corrected for Ties	2	0.7498372	0.687345	Accept Ho

Interest rate of 24%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.852116	0.240254	Accept Ho
Corrected for Ties	2	2.852134	0.240252	Accept Ho

Stand Alone Credit Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.3513179	0.838904	Accept Ho
Corrected for Ties	2	0.35132	0.838903	Accept Ho

Credit card integrated with current a/c and home loan

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.3513179	0.838904	Accept Ho
Corrected for Ties	2	0.35132	0.838903	Accept Ho

No air miles

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.7625124	0.683003	Accept Ho
Corrected for Ties	2	0.762517	0.683001	Accept Ho

X1 air mile per R12.50 spent

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.16043	0.559778	Accept Ho
Corrected for Ties	2	1.160437	0.559776	Accept Ho

X1 air mile per R6 spent

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.9353817	0.626447	Accept Ho
Corrected for Ties	2	0.9353873	0.626445	Accept Ho

No free travel

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.352202	0.187102	Accept Ho
Corrected for Ties	2	3.352222	0.187100	Accept Ho

X25 discount of air travel

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.8303757	0.660216	Accept Ho
Corrected for Ties	2	0.8303807	0.660215	Accept Ho

Free companion tickets over R80 000 spend

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.6317534	0.729149	Accept Ho
Corrected for Ties	2	0.6317572	0.729148	Accept Ho

No cash back

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	7.367185	0.025133	Reject Ho
Corrected for Ties	2	7.367229	0.025132	Reject Ho

X10% cash back

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.33631	0.310940	Accept Ho
Corrected for Ties	2	2.336324	0.310938	Accept Ho

X20% cash back

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.208689	0.331428	Accept Ho
Corrected for Ties	2	2.208703	0.331426	Accept Ho

No automatic donation

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	4.175355	0.123975	Accept Ho
Corrected for Ties	2	4.17538	0.123973	Accept Ho

Card donates 1% to charity

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	4.175355	0.123975	Accept Ho
Corrected for Ties	2	4.17538	0.123973	Accept Ho

None supplementary benefits

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.2521259	0.881559	Accept Ho
Corrected for Ties	2	0.2521274	0.881559	Accept Ho

Access to airport lounges

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.3856551	0.824624	Accept Ho
Corrected for Ties	2	0.3856575	0.824623	Accept Ho

Free roadside assistance e.g. AA

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.543277E-02	0.992313	Accept Ho
Corrected for Ties	2	1.543286E-02	0.992313	Accept Ho

AVERAGE SPEND PER MONTH AND IMPORTANCE

Card Status

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.2946742	0.863003	Accept Ho
Corrected for Ties	2	0.2946795	0.863001	Accept Ho

Source

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.686744	0.430257	Accept Ho
Corrected for Ties	2	1.686775	0.430251	Accept Ho

Annual Card fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.7548662	0.685619	Accept Ho
Corrected for Ties	2	0.7548753	0.685616	Accept Ho

Credit limit

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	4.11487	0.127781	Accept Ho
Corrected for Ties	2	4.114993	0.127773	Accept Ho

Interest rate

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.656045	0.436912	Accept Ho
Corrected for Ties	2	1.656075	0.436906	Accept Ho

Financial Services

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	11.90051	0.002605	Reject Ho
Corrected for Ties	2	11.90087	0.002605	Reject Ho

Air miles

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.457561	0.177501	Accept Ho
Corrected for Ties	2	3.457624	0.177495	Accept Ho

Free travel

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.290213	0.192992	Accept Ho
Corrected for Ties	2	3.290312	0.192983	Accept Ho

Cash backs

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	6.129263	0.046671	Reject Ho
Corrected for Ties	2	6.129447	0.046667	Reject Ho

Affinity Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	4.423222	0.109524	Accept Ho
Corrected for Ties	2	4.423434	0.109512	Accept Ho

Supplementary benefits

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.0705746	0.965328	Accept Ho
Corrected for Ties	2	7.057714E-02	0.965327	Accept Ho

HOUSEHOLD INCOME AND UTILITIES

Normal Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.572137	0.276355	Accept Ho
Corrected for Ties	2	2.572146	0.276354	Accept Ho

Gold Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.233136	0.539794	Accept Ho
Corrected for Ties	2	1.23314	0.539793	Accept Ho

Platinum Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.677622	0.432224	Accept Ho
Corrected for Ties	2	1.677628	0.432223	Accept Ho

Bank card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.751424	0.153246	Accept Ho
Corrected for Ties	2	3.751437	0.153245	Accept Ho

Retailer Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	12.55468	0.001878	Reject Ho
Corrected for Ties	2	12.55473	0.001878	Reject Ho

Airline Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	9.494916	0.008674	Reject Ho
Corrected for Ties	2	9.49495	0.008674	Reject Ho

Medical administrator card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.248853	0.324839	Accept Ho
Corrected for Ties	2	2.248862	0.324837	Accept Ho

Cell phone Company Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	7.408099	0.024624	Reject Ho
Corrected for Ties	2	7.408125	0.024623	Reject Ho

No annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.155897	0.561048	Accept Ho
Corrected for Ties	2	1.155901	0.561047	Accept Ho

R100 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	10.13484	0.006299	Reject Ho
Corrected for Ties	2	10.13487	0.006299	Reject Ho

R250 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	8.490781	0.014330	Reject Ho

Corrected for Ties	2	8.49081	0.014330	Reject Ho

R600 annual fee

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	2	0.9972046	0.607379	Accept Ho
Corrected for Ties	2	0.9972082	0.607378	Accept Ho

R1 600 annual fee

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	2	14.25668	0.000802	Reject Ho
Corrected for Ties	2	14.25673	0.000802	Reject Ho

Credit card limit of R5 000

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	2	24.9812	0.000004	Reject Ho
Corrected for Ties	2	24.98129	0.000004	Reject Ho

Credit card limit of R15 000

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	2	0.2895703	0.865208	Accept Ho
Corrected for Ties	2	0.2895713	0.865208	Accept Ho

Credit card limit of R50 000

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	2	20.61472	0.000033	Reject Ho
Corrected for Ties	2	20.61479	0.000033	Reject Ho

Interest rate of 18%

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	2	15.09888	0.000526	Reject Ho

Corrected for Ties	2	15.09893	0.000526	Reject Ho

Interest rate of 20%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	4.756855	0.092696	Accept Ho
Corrected for Ties	2	4.756872	0.092695	Accept Ho

Interest rate of 22%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	13.43612	0.001209	Reject Ho
Corrected for Ties	2	13.43617	0.001209	Reject Ho

Interest rate of 24%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	8.61116	0.013493	Reject Ho
Corrected for Ties	2	8.611191	0.013493	Reject Ho

Stand alone credit card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.8380557	0.657686	Accept Ho
Corrected for Ties	2	0.8380587	0.657685	Accept Ho

Credit card integrated with current a/c and home loan

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.8380557	0.657686	Accept Ho
Corrected for Ties	2	0.8380587	0.657685	Accept Ho

No air miles

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	4.070781	0.130629	Accept Ho
Corrected for Ties	2	4.070796	0.130629	Accept Ho

X1 air mile per R12.50 spent

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	8.247225	0.016186	Reject Ho
Corrected for Ties	2	8.247254	0.016186	Reject Ho

X1 air mile per R6 spent

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.082169	0.582117	Accept Ho
Corrected for Ties	2	1.082173	0.582116	Accept Ho

No free travel

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.266704	0.195274	Accept Ho
Corrected for Ties	2	3.266716	0.195273	Accept Ho

X25 discount of air travel

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.2659707	0.875478	Accept Ho
Corrected for Ties	2	0.2659717	0.875477	Accept Ho

Free companion ticket over R80 000 spend

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	4.861064	0.087990	Accept Ho
Corrected for Ties	2	4.861081	0.087989	Accept Ho

No cash back

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	7.934791	0.018923	Reject Ho
Corrected for Ties	2	7.934819	0.018922	Reject Ho

10% cash back

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	9.516468	0.008581	Reject Ho
Corrected for Ties	2	9.516501	0.008581	Reject Ho

20% cash back

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.617618	0.445388	Accept Ho
Corrected for Ties	2	1.617624	0.445387	Accept Ho

No automatic donation

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	6.12254	0.046828	Reject Ho
Corrected for Ties	2	6.122561	0.046828	Reject Ho

Card donates 1% to charity

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	6.12254	0.046828	Reject Ho
Corrected for Ties	2	6.122561	0.046828	Reject Ho

None supplementary benefits

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.364101	0.185992	Accept Ho
Corrected for Ties	2	3.364113	0.185991	Accept Ho

Access to airport lounges

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.8319702	0.659690	Accept Ho
Corrected for Ties	2	0.8319731	0.659689	Accept Ho

Free roadside assistance e.g. AA

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	6.409848	0.040562	Reject Ho
Corrected for Ties	2	6.409871	0.040562	Reject Ho

MARITAL STATUS - UTILITIES

Normal card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.560506	0.277967	Accept Ho
Corrected for Ties	2	2.560515	0.277966	Accept Ho

Gold card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	6.469997	0.039360	Reject Ho
Corrected for Ties	2	6.47002	0.039360	Reject Ho

Platinum card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.311085E-03	0.998346	Accept Ho
Corrected for Ties	2	3.311097E-03	0.998346	Accept Ho

Bank Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.3642244	0.833508	Accept Ho
Corrected for Ties	2	0.3642257	0.833507	Accept Ho

Retailer Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	5.090893	0.078438	Accept Ho
Corrected for Ties	2	5.090911	0.078437	Accept Ho

Airline Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.295093	0.317415	Accept Ho
Corrected for Ties	2	2.295101	0.317413	Accept Ho

Medical administrator Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.035238	0.595938	Accept Ho
Corrected for Ties	2	1.035242	0.595937	Accept Ho

Cell phone company card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.399647	0.182716	Accept Ho
Corrected for Ties	2	3.399659	0.182715	Accept Ho

No annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	4.148649	0.125641	Accept Ho
Corrected for Ties	2	4.148664	0.125640	Accept Ho

R100 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.212132	0.330858	Accept Ho
Corrected for Ties	2	2.21214	0.330857	Accept Ho

R250 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.011489	0.603056	Accept Ho
Corrected for Ties	2	1.011493	0.603055	Accept Ho

R600 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.968491	0.226673	Accept Ho
Corrected for Ties	2	2.968501	0.226672	Accept Ho

R1600 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	6.35885	0.041610	Reject Ho
Corrected for Ties	2	6.358872	0.041609	Reject Ho

Credit Card limit of R5 000

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.390946	0.183512	Accept Ho
Corrected for Ties	2	3.390958	0.183511	Accept Ho

Credit Card limit of R15 000

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.6486077	0.723031	Accept Ho
Corrected for Ties	2	0.64861	0.723030	Accept Ho

Credit card limit of R50 000

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.188134	0.552077	Accept Ho

Corrected for Ties	2	1.188138	0.552076	Accept Ho

Interest rate of 18%

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	2	6.072954	0.048004	Reject Ho
Corrected for Ties	2	6.072976	0.048003	Reject Ho

Interest rate of 20%

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	2	5.096918	0.078202	Accept Ho
Corrected for Ties	2	5.096936	0.078201	Accept Ho

Interest rate of 22%

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	2	4.903616	0.086138	Accept Ho
Corrected for Ties	2	4.903634	0.086137	Accept Ho

Interest rate of 24%

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	2	6.906971	0.031635	Reject Ho
Corrected for Ties	2	6.906996	0.031635	Reject Ho

Stand Alone Credit Card

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	2	3.468496	0.176533	Accept Ho
Corrected for Ties	2	3.468508	0.176532	Accept Ho

Credit card integrated with current a/c and home loan

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	2	3.468496	0.176533	Accept Ho
Corrected for Ties	2	3.468508	0.176532	Accept Ho

No air miles

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.175776	0.336927	Accept Ho
Corrected for Ties	2	2.175783	0.336926	Accept Ho

1 air mile per R12.50 spent

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.16177	0.559403	Accept Ho
Corrected for Ties	2	1.161775	0.559402	Accept Ho

1 air mile per R6 spent

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.6498453	0.722583	Accept Ho
Corrected for Ties	2	0.6498476	0.722582	Accept Ho

No free travel

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.640004	0.162025	Accept Ho
Corrected for Ties	2	3.640018	0.162024	Accept Ho

25 discount of air travel

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.403997	0.300593	Accept Ho
Corrected for Ties	2	2.404006	0.300592	Accept Ho

Free companion tickets over R80 000 spend

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.9482663	0.622424	Accept Ho
Corrected for Ties	2	0.9482697	0.622423	Accept Ho

No cash back

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.696636	0.428134	Accept Ho
Corrected for Ties	2	1.696642	0.428133	Accept Ho

10% cash back

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.857602	0.395027	Accept Ho
Corrected for Ties	2	1.857608	0.395026	Accept Ho

20% cash back

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.6330392	0.728681	Accept Ho
Corrected for Ties	2	0.6330414	0.728680	Accept Ho

No automatic donation

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.840174	0.146594	Accept Ho
Corrected for Ties	2	3.840188	0.146593	Accept Ho

Card donates 1% to charity

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.840174	0.146594	Accept Ho
Corrected for Ties	2	3.840188	0.146593	Accept Ho

None supplementary benefits

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.024427	0.363414	Accept Ho

Corrected for Ties	2	2.024434	0.363412	Accept Ho

Access to airport lounges

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.015956	0.601711	Accept Ho
Corrected for Ties	2	1.01596	0.601710	Accept Ho

Free roadside assistance e.g. AA

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.142859	0.342519	Accept Ho
Corrected for Ties	2	2.142866	0.342517	Accept Ho

NUMBER OF CARDS – UTILITIES

Normal card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	3.327599	0.343820	Accept Ho
Corrected for Ties	3	3.327611	0.343818	Accept Ho

Gold card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	1.870141	0.599792	Accept Ho
Corrected for Ties	3	1.870148	0.599790	Accept Ho

Platinum card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	4.599547	0.203581	Accept Ho
Corrected for Ties	3	4.599564	0.203580	Accept Ho

Bank Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	2.63244	0.451831	Accept Ho

Corrected for Ties	3	2.63245	0.451829	Accept Ho

Retailer Card

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	3	2.812923	0.421377	Accept Ho
Corrected for Ties	3	2.812933	0.421375	Accept Ho

Airline Card

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	3	1.999673	0.572475	Accept Ho
Corrected for Ties	3	1.99968	0.572473	Accept Ho

Medical administrator Card

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	3	1.726274	0.631108	Accept Ho
Corrected for Ties	3	1.726281	0.631107	Accept Ho

Cell phone company card

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	3	1.934575	0.586096	Accept Ho
Corrected for Ties	3	1.934582	0.586095	Accept Ho

No annual fee

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	3	1.57802	0.664384	Accept Ho
Corrected for Ties	3	1.578025	0.664383	Accept Ho

R100 annual fee

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	3	1.39237	0.707324	Accept Ho
Corrected for Ties	3	1.392375	0.707323	Accept Ho

R250 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	1.004121	0.800255	Accept Ho
Corrected for Ties	3	1.004125	0.800254	Accept Ho

R600 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	0.4610083	0.927370	Accept Ho
Corrected for Ties	3	0.4610099	0.927370	Accept Ho

R1600 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	2.763931	0.429472	Accept Ho
Corrected for Ties	3	2.763941	0.429470	Accept Ho

Credit Card limit of R5 000

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	7.031841	0.070890	Accept Ho
Corrected for Ties	3	7.031867	0.070889	Accept Ho

Credit Card limit of R15 000

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	0.7486324	0.861710	Accept Ho
Corrected for Ties	3	0.7486351	0.861709	Accept Ho

Credit card limit of R50 000

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	3.678497	0.298339	Accept Ho
Corrected for Ties	3	3.67851	0.298337	Accept Ho

Interest rate of 18%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	4.629547	0.201022	Accept Ho
Corrected for Ties	3	4.629564	0.201021	Accept Ho

Interest rate of 20%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	0.9175333	0.821195	Accept Ho
Corrected for Ties	3	0.9175366	0.821194	Accept Ho

Interest rate of 22%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	8.670538	0.034008	Reject Ho
Corrected for Ties	3	8.670568	0.034007	Reject Ho

Interest rate of 24%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	2.196097	0.532718	Accept Ho
Corrected for Ties	3	2.196105	0.532716	Accept Ho

Stand Alone Credit Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	2.493872	0.476399	Accept Ho
Corrected for Ties	3	2.493881	0.476398	Accept Ho

Credit card integrated with current a/c and home loan

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	2.493872	0.476399	Accept Ho
Corrected for Ties	3	2.493881	0.476398	Accept Ho

No air miles

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	0.8165461	0.845505	Accept Ho
Corrected for Ties	3	0.8165491	0.845505	Accept Ho

1 air mile per R12.50 spent

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	1.740314	0.628009	Accept Ho
Corrected for Ties	3	1.74032	0.628007	Accept Ho

1 air mile per R6 spent

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	1.596159	0.660261	Accept Ho
Corrected for Ties	3	1.596165	0.660260	Accept Ho

No free travel

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	0.8032068	0.848700	Accept Ho
Corrected for Ties	3	0.8032097	0.848699	Accept Ho

25 discount of air travel

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	1.182595	0.757182	Accept Ho
Corrected for Ties	3	1.182599	0.757181	Accept Ho

Free companion tickets over R80 000 spend

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	2.551243	0.466101	Accept Ho
Corrected for Ties	3	2.551252	0.466100	Accept Ho

No cash back

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	5.541536	0.136175	Accept Ho
Corrected for Ties	3	5.541555	0.136174	Accept Ho

10% cash back

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	2.82042	0.420149	Accept Ho
Corrected for Ties	3	2.82043	0.420148	Accept Ho

20% cash back

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	6.494299	0.089888	Accept Ho
Corrected for Ties	3	6.494323	0.089887	Accept Ho

No automatic donation

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	5.356214	0.147496	Accept Ho
Corrected for Ties	3	5.356233	0.147495	Accept Ho

Card donates 1% to charity

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	5.356214	0.147496	Accept Ho
Corrected for Ties	3	5.356233	0.147495	Accept Ho

None supplementary benefits

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	2.797451	0.423920	Accept Ho
Corrected for Ties	3	2.797461	0.423918	Accept Ho

Access to airport lounges

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	0.163183	0.983302	Accept Ho
Corrected for Ties	3	0.1631836	0.983302	Accept Ho

Free roadside assistance e.g. AA

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	2.171446	0.537595	Accept Ho
Corrected for Ties	3	2.171453	0.537593	Accept Ho

NUMBER OF PERSONAL CARDS IMPORTANCE

Card Status

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	1.80665	0.613489	Accept Ho
Corrected for Ties	3	1.806676	0.613483	Accept Ho

Source

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	5.029347	0.169661	Accept Ho
Corrected for Ties	3	5.029383	0.169658	Accept Ho

Annual Card fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	2.743106	0.432951	Accept Ho
Corrected for Ties	3	2.743131	0.432947	Accept Ho

Credit limit

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	1.424943	0.699698	Accept Ho

Corrected for Ties	3	1.424964	0.699694	Accept Ho

Interest rate

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	3	3.610209	0.306747	Accept Ho
Corrected for Ties	3	3.610273	0.306739	Accept Ho

Financial Services

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	3	2.404722	0.492756	Accept Ho
Corrected for Ties	3	2.404795	0.492743	Accept Ho

Air miles

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	3	0.7967928	0.850234	Accept Ho
Corrected for Ties	3	0.7967985	0.850233	Accept Ho

Free travel

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	3	0.1607105	0.983668	Accept Ho
Corrected for Ties	3	0.1607136	0.983667	Accept Ho

Cash backs

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	3	2.281898	0.515998	Accept Ho
Corrected for Ties	3	2.281955	0.515987	Accept Ho

Affinity Card

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	3	15.66142	0.001330	Reject Ho
Corrected for Ties	3	15.66192	0.001330	Reject Ho

Supplementary benefits

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	3	4.682245	0.196599	Accept Ho
Corrected for Ties	3	4.682345	0.196591	Accept Ho

PAYMENT PATTERNS AND IMPORTANCE

Card Status

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.116413	0.210513	Accept Ho
Corrected for Ties	2	3.116457	0.210509	Accept Ho

Source

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.3872424	0.823970	Accept Ho
Corrected for Ties	2	0.3872451	0.823969	Accept Ho

Annual Card fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.1876927	0.910423	Accept Ho
Corrected for Ties	2	0.1876944	0.910422	Accept Ho

Credit limit

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.090082	0.579818	Accept Ho
Corrected for Ties	2	1.090098	0.579813	Accept Ho

Interest rate

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.154527	0.561433	Accept Ho

Corrected for Ties	2	1.154548	0.561427	Accept Ho

Financial Services

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	2	2.817605	0.244436	Accept Ho
Corrected for Ties	2	2.81769	0.244425	Accept Ho

Air miles

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	2	3.434591	0.179551	Accept Ho
Corrected for Ties	2	3.434615	0.179549	Accept Ho

Free travel

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	2	0.2355073	0.888915	Accept Ho
Corrected for Ties	2	0.2355119	0.888913	Accept Ho

Cash backs

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	2	6.555232E-02	0.967755	Accept Ho
Corrected for Ties	2	6.555395E-02	0.967754	Accept Ho

Affinity Card

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	2	9.891131	0.007115	Reject Ho
Corrected for Ties	2	9.891448	0.007114	Reject Ho

Supplementary benefits

Test Results

Method	**DF**	**Chi-Square (H)**	**Prob Level**	**Decision(0.05)**
Not Corrected for Ties	2	4.059147	0.131392	Accept Ho
Corrected for Ties	2	4.059234	0.131386	Accept Ho

PAYMENT PROFILES AND UTILITIES

Normal card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.929271	0.231162	Accept Ho
Corrected for Ties	2	2.929282	0.231161	Accept Ho

Gold card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	4.068874E-03	0.997968	Accept Ho
Corrected for Ties	2	4.068889E-03	0.997968	Accept Ho

Platinum card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.717902	0.256930	Accept Ho
Corrected for Ties	2	2.717912	0.256929	Accept Ho

Bank Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.159703	0.339646	Accept Ho
Corrected for Ties	2	2.159711	0.339645	Accept Ho

Retailer Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.2073219	0.901531	Accept Ho
Corrected for Ties	2	0.2073226	0.901531	Accept Ho

Airline Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.9598092	0.618842	Accept Ho

Corrected for Ties	2	0.9598127	0.618841	Accept Ho

Medical administrator Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.8186278	0.664106	Accept Ho
Corrected for Ties	2	0.8186308	0.664105	Accept Ho

Cell phone company card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.025356	0.598890	Accept Ho
Corrected for Ties	2	1.02536	0.598888	Accept Ho

No annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.163444E-02	0.994200	Accept Ho
Corrected for Ties	2	1.163448E-02	0.994200	Accept Ho

R100 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.32889	0.514559	Accept Ho
Corrected for Ties	2	1.328895	0.514558	Accept Ho

R250 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.985632	0.370532	Accept Ho
Corrected for Ties	2	1.985639	0.370531	Accept Ho

R600 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.3753748	0.828874	Accept Ho
Corrected for Ties	2	0.3753762	0.828873	Accept Ho

R1600 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.6426278	0.725196	Accept Ho
Corrected for Ties	2	0.6426301	0.725195	Accept Ho

Credit Card limit of R5 000

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	5.119746	0.077315	Accept Ho
Corrected for Ties	2	5.119764	0.077314	Accept Ho

Credit Card limit of R15 000

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.548991	0.460936	Accept Ho
Corrected for Ties	2	1.548996	0.460935	Accept Ho

Credit card limit of R50 000

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.111428	0.347944	Accept Ho
Corrected for Ties	2	2.111435	0.347943	Accept Ho

Interest rate of 18%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.615746	0.445805	Accept Ho
Corrected for Ties	2	1.615751	0.445804	Accept Ho

Interest rate of 20%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.786108	0.150611	Accept Ho
Corrected for Ties	2	3.786122	0.150610	Accept Ho

Interest rate of 22%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.076408	0.214766	Accept Ho
Corrected for Ties	2	3.076419	0.214765	Accept Ho

Interest rate of 24%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.6792689	0.712031	Accept Ho
Corrected for Ties	2	0.6792713	0.712030	Accept Ho

Stand Alone Credit Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.206612	0.547000	Accept Ho
Corrected for Ties	2	1.206616	0.546999	Accept Ho

Credit card integrated with current a/c and home loan

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.206612	0.547000	Accept Ho
Corrected for Ties	2	1.206616	0.546999	Accept Ho

No air miles

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.862167	0.394126	Accept Ho
Corrected for Ties	2	1.862174	0.394125	Accept Ho

1 air mile per R12.50 spent

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.081324	0.582362	Accept Ho
Corrected for Ties	2	1.081328	0.582361	Accept Ho

1 air mile per R6 spent

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	4.811846	0.090182	Accept Ho
Corrected for Ties	2	4.811863	0.090181	Accept Ho

No free travel

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.439809	0.486799	Accept Ho
Corrected for Ties	2	1.439814	0.486797	Accept Ho

25 discount of air travel

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.228567	0.541028	Accept Ho
Corrected for Ties	2	1.228571	0.541027	Accept Ho

Free companion tickets over R80 000 spend

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.733107	0.420398	Accept Ho
Corrected for Ties	2	1.733113	0.420397	Accept Ho

No cash back

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.548355	0.461083	Accept Ho
Corrected for Ties	2	1.54836	0.461082	Accept Ho

10% cash back

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.9043285	0.636250	Accept Ho

Corrected for Ties	2	0.9043317	0.636249	Accept Ho

20% cash back

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	4.857155	0.088162	Accept Ho
Corrected for Ties	2	4.857172	0.088161	Accept Ho

No automatic donation

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	5.388461	0.067594	Accept Ho
Corrected for Ties	2	5.38848	0.067594	Accept Ho

Card donates 1% to charity

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	5.388461	0.067594	Accept Ho
Corrected for Ties	2	5.38848	0.067594	Accept Ho

None supplementary benefits

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.343491	0.187919	Accept Ho
Corrected for Ties	2	3.343503	0.187918	Accept Ho

Access to airport lounges

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.827009	0.401116	Accept Ho
Corrected for Ties	2	1.827016	0.401115	Accept Ho

Free roadside assistance e.g. AA

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.648996	0.438455	Accept Ho

Corrected for Ties	2	1.649002	0.438454	Accept Ho

AGE UTILITIES

Normal card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	0.9959946	0.962888	Accept Ho
Corrected for Ties	5	0.9959981	0.962888	Accept Ho

Gold card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	7.941481	0.159490	Accept Ho
Corrected for Ties	5	7.941509	0.159489	Accept Ho

Platinum card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	3.254988	0.660740	Accept Ho
Corrected for Ties	5	3.255	0.660738	Accept Ho

Bank Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	7.736136	0.171390	Accept Ho
Corrected for Ties	5	7.736164	0.171388	Accept Ho

Retailer Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	9.571413	0.088331	Accept Ho
Corrected for Ties	5	9.571446	0.088330	Accept Ho

Airline Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	11.17696	0.047982	Reject Ho
Corrected for Ties	5	11.177	0.047981	Reject Ho

Medical administrator Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	0.9082727	0.969620	Accept Ho
Corrected for Ties	5	0.9082759	0.969620	Accept Ho

Cell phone company card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	2.842477	0.724256	Accept Ho
Corrected for Ties	5	2.842487	0.724254	Accept Ho

No annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	6.132198	0.293567	Accept Ho
Corrected for Ties	5	6.13222	0.293565	Accept Ho

R100 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	10.19997	0.069764	Accept Ho
Corrected for Ties	5	10.2	0.069763	Accept Ho

R250 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	10.52608	0.061630	Accept Ho
Corrected for Ties	5	10.52611	0.061629	Accept Ho

R600 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	2.893297	0.716432	Accept Ho
Corrected for Ties	5	2.893307	0.716431	Accept Ho

R1600 annual fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	9.812688	0.080720	Accept Ho
Corrected for Ties	5	9.812723	0.080719	Accept Ho

Credit Card limit of R5 000

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	6.077424	0.298758	Accept Ho
Corrected for Ties	5	6.077445	0.298756	Accept Ho

Credit Card limit of R15 000

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	4.010629	0.547887	Accept Ho
Corrected for Ties	5	4.010643	0.547885	Accept Ho

Credit card limit of R50 000

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	3.384318	0.640959	Accept Ho
Corrected for Ties	5	3.38433	0.640958	Accept Ho

Interest rate of 18%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	7.785979	0.168432	Accept Ho
Corrected for Ties	5	7.786007	0.168430	Accept Ho

Interest rate of 20%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	10.60223	0.059863	Accept Ho
Corrected for Ties	5	10.60226	0.059862	Accept Ho

Interest rate of 22%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	12.39997	0.029700	Reject Ho
Corrected for Ties	5	12.40001	0.029699	Reject Ho

Interest rate of 24%

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	5.264175	0.384498	Accept Ho
Corrected for Ties	5	5.264194	0.384496	Accept Ho

Stand Alone Credit Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	1.275203	0.937462	Accept Ho
Corrected for Ties	5	1.275208	0.937462	Accept Ho

Credit card integrated with current a/c and home loan

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	1.275203	0.937462	Accept Ho
Corrected for Ties	5	1.275208	0.937462	Accept Ho

No air miles

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	12.81759	0.025149	Reject Ho
Corrected for Ties	5	12.81764	0.025149	Reject Ho

1 air mile per R12.50 spent

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	6.220832	0.285320	Accept Ho
Corrected for Ties	5	6.220854	0.285318	Accept Ho

1 air mile per R6 spent

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	2.94129	0.709037	Accept Ho
Corrected for Ties	5	2.9413	0.709035	Accept Ho

No free travel

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	7.315731	0.198198	Accept Ho
Corrected for Ties	5	7.315757	0.198196	Accept Ho

25 discount of air travel

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	2.801419	0.730569	Accept Ho
Corrected for Ties	5	2.801429	0.730567	Accept Ho

Free companion tickets over R80 000 spend

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	8.674823	0.122759	Accept Ho
Corrected for Ties	5	8.674854	0.122757	Accept Ho

No cash back

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	2.872395	0.719651	Accept Ho
Corrected for Ties	5	2.872405	0.719649	Accept Ho

10% cash back

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	7.809286	0.167064	Accept Ho
Corrected for Ties	5	7.809314	0.167063	Accept Ho

20% cash back

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	1.83077	0.872030	Accept Ho
Corrected for Ties	5	1.830777	0.872030	Accept Ho

No automatic donation

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	6.250763	0.282578	Accept Ho
Corrected for Ties	5	6.250786	0.282576	Accept Ho

Card donates 1% to charity

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	6.250763	0.282578	Accept Ho
Corrected for Ties	5	6.250786	0.282576	Accept Ho

None supplementary benefits

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	3.116189	0.682078	Accept Ho
Corrected for Ties	5	3.1162	0.682077	Accept Ho

Access to airport lounges

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	2.239582	0.815098	Accept Ho
Corrected for Ties	5	2.23959	0.815097	Accept Ho

Free roadside assistance e.g. AA

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	8.881179	0.113898	Accept Ho
Corrected for Ties	5	8.88121	0.113897	Accept Ho

AGE IMPORTANCE

Card Status

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	7.478577	0.187410	Accept Ho
Corrected for Ties	5	7.478683	0.187404	Accept Ho

Source

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	3.154949	0.676111	Accept Ho
Corrected for Ties	5	3.154972	0.676108	Accept Ho

Annual Card fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	6.300369	0.278079	Accept Ho
Corrected for Ties	5	6.300425	0.278074	Accept Ho

Credit limit

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	6.835448	0.233169	Accept Ho
Corrected for Ties	5	6.835546	0.233161	Accept Ho

Interest rate

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	6.213724	0.285975	Accept Ho
Corrected for Ties	5	6.213834	0.285965	Accept Ho

Financial Services

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	9.358858	0.095579	Accept Ho
Corrected for Ties	5	9.359141	0.095569	Accept Ho

Air miles

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	12.36959	0.030060	Reject Ho
Corrected for Ties	5	12.36968	0.030059	Reject Ho

Free travel

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	1.404202	0.923853	Accept Ho
Corrected for Ties	5	1.404229	0.923850	Accept Ho

Cash backs

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	5.326005	0.377402	Accept Ho
Corrected for Ties	5	5.326138	0.377387	Accept Ho

Affinity Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	8.088761	0.151411	Accept Ho
Corrected for Ties	5	8.08902	0.151397	Accept Ho

Supplementary benefits

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	5	0.9384922	0.967373	Accept Ho
Corrected for Ties	5	0.9385122	0.967371	Accept Ho

HOUSEHOLD INCOME IMPORTANCE

Card Status

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	4.779021	0.091675	Accept Ho
Corrected for Ties	2	4.779089	0.091671	Accept Ho

Source

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.733156	0.154652	Accept Ho
Corrected for Ties	2	3.733183	0.154650	Accept Ho

Annual Card fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	6.276164	0.043366	Reject Ho
Corrected for Ties	2	6.27622	0.043365	Reject Ho

Credit limit

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	8.023211	0.018104	Reject Ho
Corrected for Ties	2	8.023326	0.018103	Reject Ho

Interest rate

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	12.55479	0.001878	Reject Ho
Corrected for Ties	2	12.55501	0.001878	Reject Ho

Financial Services

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	4.21286	0.121672	Accept Ho
Corrected for Ties	2	4.212987	0.121664	Accept Ho

Air miles

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	4.938659	0.084642	Accept Ho
Corrected for Ties	2	4.938694	0.084640	Accept Ho

Free travel

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	7.472097	0.023848	Reject Ho
Corrected for Ties	2	7.472243	0.023846	Reject Ho

Cash backs

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.007956	0.604123	Accept Ho
Corrected for Ties	2	1.007981	0.604115	Accept Ho

Affinity Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.473314	0.290353	Accept Ho
Corrected for Ties	2	2.473393	0.290342	Accept Ho

Supplementary benefits

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.9159539	0.632562	Accept Ho
Corrected for Ties	2	0.9159734	0.632556	Accept Ho

MARTIAL STATUS

Card Status

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.274947E-02	0.988690	Accept Ho
Corrected for Ties	2	2.274979E-02	0.988690	Accept Ho

Source

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.1191111	0.942183	Accept Ho
Corrected for Ties	2	0.119112	0.942183	Accept Ho

Annual Card fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	5.272101	0.071644	Accept Ho
Corrected for Ties	2	5.272149	0.071642	Accept Ho

Credit limit

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.088339	0.351984	Accept Ho
Corrected for Ties	2	2.088368	0.351979	Accept Ho

Interest rate

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	7.136478	0.028205	Reject Ho
Corrected for Ties	2	7.136605	0.028204	Reject Ho

Financial Services

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.169735	0.557180	Accept Ho
Corrected for Ties	2	1.16977	0.557170	Accept Ho

Air miles

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	7.765485E-02	0.961917	Accept Ho
Corrected for Ties	2	0.0776554	0.961916	Accept Ho

Free travel

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.9062053	0.635653	Accept Ho
Corrected for Ties	2	0.906223	0.635647	Accept Ho

Cash backs

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.374609	0.502930	Accept Ho
Corrected for Ties	2	1.374643	0.502921	Accept Ho

Affinity Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.824575	0.147742	Accept Ho
Corrected for Ties	2	3.824698	0.147733	Accept Ho

Supplementary benefits

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.1623237	0.922044	Accept Ho
Corrected for Ties	2	0.1623272	0.922043	Accept Ho

MARTIAL STATUS IMPORTANCE

Card Status

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.274947E-02	0.988690	Accept Ho
Corrected for Ties	2	2.274979E-02	0.988690	Accept Ho

Source

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.1191111	0.942183	Accept Ho
Corrected for Ties	2	0.119112	0.942183	Accept Ho

Annual Card fee

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	5.272101	0.071644	Accept Ho
Corrected for Ties	2	5.272149	0.071642	Accept Ho

Credit limit

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	2.088339	0.351984	Accept Ho
Corrected for Ties	2	2.088368	0.351979	Accept Ho

Interest rate

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	7.136478	0.028205	Reject Ho
Corrected for Ties	2	7.136605	0.028204	Reject Ho

Financial Services

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.169735	0.557180	Accept Ho
Corrected for Ties	2	1.16977	0.557170	Accept Ho

Air miles

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	7.765485E-02	0.961917	Accept Ho
Corrected for Ties	2	0.0776554	0.961916	Accept Ho

Free travel

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.9062053	0.635653	Accept Ho
Corrected for Ties	2	0.906223	0.635647	Accept Ho

Cash backs

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	1.374609	0.502930	Accept Ho
Corrected for Ties	2	1.374643	0.502921	Accept Ho

Affinity Card

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	3.824575	0.147742	Accept Ho
Corrected for Ties	2	3.824698	0.147733	Accept Ho

Supplementary benefits

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	2	0.1623237	0.922044	Accept Ho
Corrected for Ties	2	0.1623272	0.922043	Accept Ho

Appendix H
Gender Differences

Bank Card

Mann-Whitney U or Wilcoxon Rank-Sum Test for Difference in Medians

Variable	Mann Whitney U	W Sum Ranks	Mean of W	Std Dev of W
Gender=1	2352	4767	5209.5	265.1943
Gender=2	3237	6558	6115.5	265.1943

Number Sets of Ties = 2, Multiplicity Factor = 12

Alternative Hypothesis	Exact Probability Prob Level	Decision (5%)	Approximation Z-Value	Approximation Prob Level	Without Correction Decision (5%)	Approximation With Correction Z-Value	Approximation With Correction Prob Level
Diff<>0		Accept Ho	-1.6686	0.095199	Accept Ho	-1.6667	0.095574
Diff<0		Reject Ho	-1.6686	0.047600	Reject Ho	-1.6667	0.047787
Diff>0		Accept Ho	-1.6686	0.952400	Accept Ho	-1.6705	0.952587

Credit limit of R15 000

Equal-Variance T-Test Section

Alternative Hypothesis	Power T-Value (Alpha=.01)	Prob Level	Decision (5%)	Power (Alpha=.05)
Difference <> 0	-1.8118	0.072042	Accept Ho	0.436561
	0.216447			
Difference < 0	-1.8118	0.036021	Reject Ho	0.563035
	0.297683			
Difference > 0	-1.8118	0.963979	Accept Ho	0.000282
	0.000019			

Difference: (Gender=1)-(Gender=2)

Aspin-Welch Unequal-Variance Test Section

Alternative Hypothesis	Power T-Value	Prob Level	Decision (5%)	Power (Alpha=.05)

	(Alpha=.01)			
Difference <> 0	-1.8072	0.072835	Accept Ho	0.434593
	0.214897			
Difference < 0	-1.8072	0.036417	Reject Ho	0.561111
	0.295895			
Difference > 0	-1.8072	0.963583	Accept Ho	0.000287
	0.000019			

Difference: (Gender=1)-(Gender=2)

Mann-Whitney U or Wilcoxon Rank-Sum Test for Difference in Medians

Variable	**Mann Whitney U**	**W Sum Ranks**	**Mean of W**	**Std Dev of W**
Gender=1	2269	4684	5209.5	265.1943
Gender=2	3320	6641	6115.5	265.1943

Number Sets of Ties = 2, Multiplicity Factor = 12

Alternative Hypothesis	**Exact Probability Prob Level**	**Decision (5%)**	**Approximation Z-Value**	**Approximation Prob Level**	**Without Correction Decision (5%)**	**Approximation With Correction Z-Value**	**Prob Level**
Diff<>0		Reject Ho	-1.9816	0.047528	Reject Ho	-1.9797	0.047739
Diff<0		Reject Ho	-1.9816	0.023764	Reject Ho	-1.9797	0.023870
Diff>0		Accept Ho	-1.9816	0.976236	Accept Ho	-1.9835	0.976341

Interest rate of 20%

Equal-Variance T-Test Section

Alternative Hypothesis	**Power T-Value (Alpha=.01)**	**Prob Level**	**Decision (5%)**	**Power (Alpha=.05)**
Difference <> 0	-2.4955	0.013674	Reject Ho	0.698248
	0.456902			
Difference < 0	-2.4955	0.006837	Reject Ho	0.799336
	0.558184			
Difference > 0	-2.4955	0.993163	Accept Ho	0.000018
	0.000001			

Difference: (Gender=1)-(Gender=2)

Aspin-Welch Unequal-Variance Test Section

Alternative Hypothesis	Power T-Value (Alpha=.01)	Prob Level	Decision (5%)	Power (Alpha=.05)
Difference <> 0	-2.5168 0.465201	0.012913	Reject Ho	0.705542
Difference < 0	-2.5168 0.566445	0.006456	Reject Ho	0.805202
Difference > 0	-2.5168 0.000001	0.993544	Accept Ho	0.000017

Difference: (Gender=1)-(Gender=2)

Mann-Whitney U or Wilcoxon Rank-Sum Test for Difference in Medians

Variable	Mann Whitney U	W Sum Ranks	Mean of W	Std Dev of W
Gender=1	2096	4511	5209.5	265.1943
Gender=2	3493	6814	6115.5	265.1943

Number Sets of Ties = 2, Multiplicity Factor = 12

Alternative Hypothesis	Exact Probability Prob Level	Decision (5%)	Approximation Z-Value	Approximation With Correction Prob Level	Without Correction Decision (5%)	Without Correction Z-Value	Without Correction Prob Level
Diff<>0	Reject Ho		-2.6339	0.008441	Reject Ho	-2.6320	0.008488
Diff<0	Reject Ho		-2.6339	0.004220	Reject Ho	-2.6320	0.004244
Diff>0	Accept Ho		-2.6339	0.995780	Accept Ho	-2.6358	0.995803

25% Discount on Travel

Equal-Variance T-Test Section

Alternative Hypothesis	Power T-Value (Alpha=.01)	Prob Level	Decision (5%)	Power (Alpha=.05)
Difference <> 0	-3.6469 0.848507	0.000367	Reject Ho	0.951858
Difference < 0	-3.6469 0.900964	0.000184	Reject Ho	0.976443
Difference > 0	-3.6469 0.000000	0.999816	Accept Ho	0.000000

Difference: (Gender=1)-(Gender=2)

Aspin-Welch Unequal-Variance Test Section

Alternative Hypothesis	Power T-Value (Alpha=.01)	Prob Level	Decision (5%)	Power (Alpha=.05)
Difference <> 0	-3.6499 0.848999	0.000366	Reject Ho	0.952108
Difference < 0	-3.6499 0.901360	0.000183	Reject Ho	0.976591
Difference > 0	-3.6499 0.000000	0.999817	Accept Ho	0.000000

Difference: (Gender=1)-(Gender=2)

Mann-Whitney U or Wilcoxon Rank-Sum Test for Difference in Medians

Variable	Mann Whitney U	W Sum Ranks	Mean of W	Std Dev of W
Gender=1	1914	4329	5209.5	265.1943
Gender=2	3675	6996	6115.5	265.1943

Number Sets of Ties = 2, Multiplicity Factor = 12

Alternative Hypothesis	Exact Probability Prob Level	Decision (5%)	Approximation Z-Value	Approximation With Correction Prob Level	Without Correction Decision (5%)	Z-Value	Prob Level
Diff<>0		Reject Ho	-3.3202	0.000900	Reject Ho	-3.3183	0.000906
Diff<0		Reject Ho	-3.3202	0.000450	Reject Ho	-3.3183	0.000453
Diff>0		Accept Ho	-3.3202	0.999550	Accept Ho	-3.3221	0.999553

Kolmogorov-Smirnov Test For Different Distributions

Alternative Hypothesis	Dmn Criterion Value	Reject Ho if Test Alpha Level	Decision Greater Than (Test Alpha)	Prob Level
D(1)<>D(2)	0.245840	0.2228	.050	Reject Ho 0.0176
D(1)<D(2)	0.245840	0.2228	.025	Reject Ho
D(1)>D(2)	0.000000	0.2228	.025	Accept Ho

Free Companion ticket over R80 000 spend

Equal-Variance T-Test Section

Alternative Hypothesis	Power T-Value (Alpha=.01)	Prob Level	Decision (5%)	Power (Alpha=.05)
Difference <> 0	2.6357 0.512115	0.009290	Reject Ho	0.744938
Difference < 0	2.6357 0.000000	0.995355	Accept Ho	0.000010
Difference > 0	2.6357 0.612283	0.004645	Reject Ho	0.836162

Difference: (Gender=1)-(Gender=2)

Aspin-Welch Unequal-Variance Test Section

Alternative Hypothesis	Power T-Value (Alpha=.01)	Prob Level	Decision (5%)	Power (Alpha=.05)
Difference <> 0	2.6502 0.517719	0.008926	Reject Ho	0.749488
Difference < 0	2.6502 0.000000	0.995537	Accept Ho	0.000009
Difference > 0	2.6502 0.617686	0.004463	Reject Ho	0.839673

Difference: (Gender=1)-(Gender=2)

Mann-Whitney U or Wilcoxon Rank-Sum Test for Difference in Medians

Variable	Mann Whitney U	W Sum Ranks	Mean of W	Std Dev of W
Gender=1	3520	5935	5209.5	265.1943
Gender=2	2069	5390	6115.5	265.1943

Number Sets of Ties = 2, Multiplicity Factor = 12

Alternative Hypothesis	Exact Probability Prob Level	Decision (5%)	Approximation Z-Value	Approximation With Correction Prob Level	Without Correction Decision (5%)	Without Correction Z-Value	Without Correction Prob Level
Diff<>0		Reject Ho	2.7357	0.006224	Reject Ho	2.7338	0.006260
Diff<0			2.7357	0.996888	Accept Ho	2.7376	0.996906

	Accept Ho					
Diff>0		2.7357	0.003112	Reject Ho	2.7338	0.003130
	Reject Ho					

Kolmogorov-Smirnov Test For Different Distributions

Alternative Hypothesis	**Dmn Criterion Value**	**Reject Ho if Alpha)**	**Test Alpha Greater Than Level**	**Decision**	**Prob (Test**
D(1)<>D(2)	0.242619	0.2228	.050	Reject Ho	0.0199
D(1)<D(2)	0.014493	0.2228	.025	Accept Ho	
D(1)>D(2)	0.242619	0.2228	.025	Reject Ho	