Factors that influence the adoption of internet banking by South Africans in the Ethekweni metropolitan region

By

Jun Wu

Submitted in fulfilment of the requirements for the degree of

Master of Technology: Marketing

in the Department of Marketing, Durban Institute of Technology

APPROVED FOR FINAL SUBMISSION

SUPERVISOR: _____ DATE_____

DR J P GOVENDER: B PAED(COM); B COM(HONS); M COM; PHD

DEDICATION

This research dissertation is dedicated to my exceptional parents, Wu Hongxi and Xuan Shengli, for their belief in me. It is with your love, support, guidance and encouragement that I have been able to reach this goal.

ACKNOWLEDGEMENTS

This study has been a challenging, but interesting experience for me. It took a long time, planning, consulting, and conducting the field work, processing the results and computer laboratory work. It has been a real learning experience more than just an academic experience. However, the completion of this study would have been impossible, had it not been for the assistance offered by various people.

Over the last two-years several people have been involved in assisting me in the completion of this dissertation. I would like to express my gratitude to them for their contribution towards this work.

I would like to thank my supervisor, **Dr. J P Govender**, for the time spent reviewing the manuscript and your valued guidance, as well as for your endless patience in answering my endless question. It is truly appreciated.

I would also like to thank all the staff in DIT – especially in the Department of Marketing, specifically Mr Raap; Dr Penceliah; Dr Mason and Mrs Maharaj.

To my family and friends, many thanks for your support.

To the many people who participated in this study; without whom this study would not have taken place.

Finally, thank you to my parents for your continued encouragement and support.

ABSTRACT

Information technology is fundamentally changing the banking industry worldwide. The advent of internet banking offers banking firms a new frontier of opportunities and challenges. An understanding of how demographic characteristics, social factors, and consumer perceptions and attitudes towards internet banking influence the adoption of internet banking can allow banks to create solutions and plans to attract consumers to their internet banking services, thus enabling them to gain a greater share in the banking market. In South Africa little is known and understood about the emergence of internet banking even though this is now beginning to represent an important share of the banking market. This is because internet banking is a new industry here, and so consumer acceptance and use of internet banking is still limited. To date very little research has been conducted into factors which influence consumer adoption of internet banking, and so therefore there is a need for a study such as this.

This study investigates attitudes of retail banking customers in South Africa, specifically in the Ethekweni metropolitan region, towards the adoption of internet banking. A research framework based on the diffusion of innovation theory was used to identify factors that would influence the adoption of internet banking. This report has reviewed current literature and opinions about this innovative banking technology. It has also reviewed the factors, including consumer demographic characteristics, consumer perceptions toward internet banking characteristics and social influences that affect consumer adoption of this mode of banking, and how it can be measured.

This study also explains the methodology used in conducting 400 interviews to obtain primary information for this study. This study presents both the results of the 400 interviews and the analysis of these results, with graphs and figures to determine the extent that the factors studied influence customer adoption of internet banking. The hypotheses of this research were tested with a chi-square test and independent sample t-test. A chi-square test was used to test for relationship between consumers' demographic characteristics and the adoption of

internet banking. An independent sample t-test was used to test differences between users and non-users in terms of their perceptions of internet banking.

The key findings revealed that demographic factors including age, income, education level and occupation have a relationship with the adoption of internet banking. Psychological factors including perceived relative advantage, perceived compatibility, perceived complexity, perceived risk, and perceived cost were found to influence the adoption of internet banking. Social influences including opinions of friends, parents and colleagues were not found to be significant factors to influence the adoption of internet banking in the South Africa context. The theoretical contributions and the practical implications of the findings are discussed and suggestions for future research are presented.

TABLE OF CONTENTS

CHAPTER 4 - RESEARCH METHODOLOGY

CHAPTER 5 - ANALYSIS AND RESULTS

LIST OF APPENDICES

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE – INTRODUCTION TO THE STUDY

1.1 INTRODUCTION

Throughout the past three decades, innovation, within the banking industry, has rapidly increased in an attempt by the industry to combat escalating competition from incumbents, new entrants, accelerating costs and the increasing need by banks to satisfy sophisticated consumer demands. The most recent innovation to occur within the industry has been electronic distribution channels and, more specifically, internet banking which represents a means of revolutionising and modernising this traditionally stagnant industry (Bradley, 2000:2).

There is no doubt that the revolutionary developments in information and communications technology will transform the banking industry. Internet banking, despite the uncertainties about its future, will be an important part of this transformation. This study attempts to provide a useful picture of the current market for internet banking in South Africa, the factors involving demographic factors; consumers' perceptions and attitudes toward internet banking and social influences affecting the decision to adopt internet banking as well as the scope of services offered, and information on the banks' plans for the future.

The objective of this study is to identify and describe the factors influencing the adoption of internet banking in South Africa. Research conducted in Singapore shows an understanding of why users are more accepting of internet banking services and should help bank managers implement this self-service technology (Gerrard and Cunningham, 2003:16). To date very little consideration has been given to researching these factors locally, and perhaps this is why internet banking has not been more widely exploited in this country. The fact that South Africa trails many other countries in the rate of adoption of internet banking indicates that there is an urgent need for a locally based study of this nature.

1.2 PROBLEM STATEMENT

The compound annual growth of internet banking has been 80 percent since 1994. Today, more than 100 million households worldwide bank online, and 25 percent of American households have adopted internet banking (Polatoglu and Ekin, 2001:157). In a world that is becoming increasingly globalised through the use of the Internet and the World Wide Web, internet banking has been gaining ground as a new opportunity for banking institutions. These new opportunities and challenges have resulted in new competitors in the global banking market (Suganthi, et al., 2001:2).

Only 672,000 people are banking online or have banked online in South Africa. In South Africa internet banking is a new industry, consumer acceptance and use of internet banking is still small (Karin, 2002:1). There is limited understanding of factors influencing the South African consumers to adopt internet banking. An understanding of how demographic characteristics, social influences, consumers perceptions and attitudes toward internet banking influence the adoption of internet banking can allow banks to create solutions and plans to attract consumers to use internet banking to gain more share in the internet banking market. Very little research has been undertaken in South Africa on factors influencing the consumer's adoption of internet banking; therefore there is a need for a study of this nature.

These factors include demographic factors such as age, education level, income, occupation; consumers' perceptions on internet banking such as perceived advantage, compatibility, complexity, perceived risk and cost of adoption; social influences such as opinions of family, friends, and colleagues. Hence the question: What are the factors that influence the adoption of internet banking in South Africa?

This research study strives to redress the scarcity of knowledge and understanding of these critical factors and provide bankers with a helpful reference which can be used to develop and adapt their own internet banking services to bring about more vigorous market growth.

1.3 OBJECTIVES

The main objective and sub-objectives are all centred on the factors that influence the adoption of internet banking in South Africa.

1.3.1 Main objective

The main objective of this study is to identify the factors influencing the adoption of internet banking in South Africa.

Sub-objectives

The sub-objectives of this study are:

1. To identify the factors that influence consumers to use internet banking.

2. To measure the relationships between the factors (consumer demographic factors, internet banking characteristics, social influences) and the adoption of internet banking.

3. To identify the factors that discourage customers from using internet banking.

1.4 HYPOTHESES

H1: There is a relationship between demographic factors and the adoption of internet banking.

H2: There is a difference between users and non-users with regard to their perceptions of internet banking.

H3: There is a difference between users and non-users with regard to their perceptions of social influences.

1.5 RATIONALE FOR THE STUDY

The Internet has brought about a revolution, changing the way that companies will interact with their customers, business partners and suppliers in the future. Banks are competing to gain a larger share of South Africa's on-line market. In South Africa internet banking is a new industry. Consumer acceptance and the use of internet banking is still low and very little research has been conducted in South Africa into factors influencing consumers to use internet banking. An understanding of how demographic characteristics, social influences and consumers' perceptions and attitudes toward internet banking influence the adoption of internet banking will enable banks to increase their market share by creating solutions and strategies that attract consumers to use this type of banking. Therefore there is a need for a study such as this.

1.6 DELIMITATIONS

The study was limited to the Greater Durban area. The reasons for this are:

- South Africa is too large for the researcher to travel all over the country.
- Durban is one of the largest cities in South Africa and has a heterogeneous population which ensures a wide spread of potential respondents to the study.
- The cost and time required to conduct the study was lower because the study was limited to a restricted geographic area.

1.7 LIMITATIONS

- A sample of the population was studied, consequently there is the possibility of sampling error occurring.

- The research was done in the Greater Durban area. Therefore it may not be possible to generalize the results of this study to all South African consumers.

1.8 RESEARCH METHODOLOGY

This section explains the research methodology, standards and techniques that were applied to obtain representative data from a sample of the banking public in Durban. It then goes on to discuss the software used to analyse the data and the reliability and validity of the final results.

1.8.1 Research design

This quantitative study is aimed at identifying the factors influencing the adoption of internet banking among South African customers. The primary data collected was quantitative in nature. A questionnaire was developed and pre-tested in order to obtain the information required. The research was descriptive, that is, it was used to determine market characteristics. Malhotra (1999: 87) defines descriptive research as “a type of conclusive research which has as its major objective the description of something’’. Data was collected in the form of questionnaires.

“The cross-sectional study is the most frequently used descriptive design in marketing research. Cross-sectional designs involve the collection of information from any given sample of population elements only once” (Malhotra, 1999:89). As data was collected from any given sample of the population elements only once, a single cross-sectional design was used.

1.8.2 Definition of the target population

The sampling population was defined as customers of South African retail banks of all races, residing in the Greater Durban area. The reason for choosing this sample population is that these individuals are people who engage in retail banking.

1.8.3 Sampling method

In this study, non-probability sampling was used because it was impossible to identify the elements beforehand, as there was no available list corresponding to the required elements and therefore random sampling was not possible.

There were two steps involved in sampling the population for this study covering the two dimensions.

Firstly, the sampling units, that is to say the place where the interviews would be conducted was selected. Thus judgmental sampling was used to choose those units.

Secondly, the selection of the respondents who were to be interviewed, here the convenience sampling method was used.

1.8.4 Sample size

100 respondents at each of four shopping malls (Pavilion, Gateway, Musgrave Centre and Davenport Centre) were interviewed. This means that 400 respondents in total were selected for the study, which is based on categorical variables that measure perception using nominal or ordinal scales.

1.8.5 Sampling units

Pavilion, Gateway, Musgrave Centre and Davenport Centre are the four big shopping malls in four different areas which were selected through the method of judgemental sampling explained above.

1.8.6 Data collection

Data was collected through the use of questionnaires, administered via interviews. Interviews were used for the following reasons:

- The interviewer could explain any questions that the interviewee did not understand.

- It enabled the interviewer to have a visual check as to whether the interviewee fitted the sample population.

1.8.7 Questionnaire

The questionnaire consisted of five parts (see Appendix 1).

Part 1 on Internet usage, determined the time, place and usage of the Internet in the respondents' typical day. The respondents' willingness to use the Internet; the place and the frequency of use of the Internet and what they use the Internet for were tested in this section.

Part 2 obtained information about the respondents' habits with regard to internet banking in South Africa. The respondents' willingness to adopt internet banking and the purpose for which internet banking was used, were tested in this section.

Part 3 sought to determine the perceptions and attitudes of respondents about using the internet banking services. This section was to determine customers' perceptions and attitudes with regard to internet banking.

Part 4 obtained demographic information, while guaranteeing respondents' anonymity, as names were not required, thus ensuring honest opinions and answers.

Part 5 asked one open-ended question, which gave respondents a chance to further clarify some issues in their own words or to express any ideas they considered applicable.

1.8.8 Data analysis

A computerised statistical analysis of the data was necessary to describe and interpret the data that was obtained from the questionnaires. A conversion was made through a computer package (SPSS version 12) in order to analyse the information. An analysis of the data made it possible to accept or reject the stated hypotheses and to make inferences from the data.

The stages in the statistical analysis were data preparation, tabulation of data, and then various tests were conducted to analyse relationships. Based on the questionnaire, frequencies and percentages were used for all variables of this study. A chi-square test and an independent t-test were used to test for significant differences between the observed distribution of data among categories and the expected distribution based on the hypotheses.

1.8.9 Reliability and validity

The validity of a scale may be defined as the extent to which differences in observed scale scores reflect true differences among objects on the characteristics being measured, rather than systematic or random errors (Malhotra, 1999:285). Reliability

refers to the extent to which a scale produces consistent results if measurements are made repeatedly (Malhotra, 1999:281).

To test the validity of the survey instrument a pilot study was conducted. The questionnaire was pilot tested before it was finalised. Face validity was further ensured by asking professional bank staff with expertise on internet banking in ABSA and a statistician in the Department of Statistics at University of KwaZulu-Natal to evaluate the questionnaire, and to ensure that it included the best factors influencing internet banking service use. Reliability is concerned with estimates of the degree to which a measure is free of random error. In this study, adding similar questions to the data-collecting instrument will broaden the sample of measurement questions. Cronbach's Alpha was used to assess the reliability of the instrument.

1.9 OUTLINE OF THE STUDY

This study which is presented in six chapters is focused towards identifying and describing factors that influence the adoption of internet banking in South Africa. A break down and brief description of each chapter is given below.

Chapter 2 – An overview of internet banking

This chapter examines literature about the proposed topic. The literature reviewed starts by providing a definition of the Internet and internet banking, and then goes on to discuss the role of internet banking in the banking market, its advantages and disadvantages, and an overview of internet banking in South Africa.

Chapter 3 – Factors influencing consumer adoption of internet banking

This chapter provides insight into diffusion theory first, and then looks at demographic characteristics, social factors and the perception and attitude of consumers that influences their choice to use internet banking. The basis of consumer behaviour is learning about how consumers would accept or reject products offered in the market and investigating the individual factors that affect their behaviour and buying processes. It is essential for marketers to understand the demographic social and psychological factors that result in certain consumption related behaviour.

Chapter 4 – Research methodology

This chapter shows how the research was conducted. It also contains the critique of the research investigation, including areas where errors could have occurred. It provides insight into the sampling method used, data collection techniques (questionnaire) and various techniques used to analyse the data.

Chapter 5 – Analysis and results

The purpose of this chapter is to present the statistical analysis of the data obtained through questionnaires. The data was then processed into meaningful results, which the reader can interpret and understand. The data was analysed in line with this objective. The findings and results of this study are discussed in this part.

Chapter 6 – Conclusions and recommendations

This chapter outlines the findings in relation to the theory and will either accept or reject the hypotheses. In addition the chapter draws from the findings to make conclusions. It also contains recommendations for further research.

1.10 SUMMARY

This chapter has specified how this study would attempt to construct the body of research about the factors influencing the consumer's behaviour towards internet banking service. This study would also try to embody the value of this research to the internet banking service in South Africa (Durban). The objectives of this study were to investigate factors influencing the use of internet banking as well as to measure the relationship between the above factors and the adoption of internet banking. A literature review based on the above objectives, hypotheses and delimitations was undertaken and is discussed in the next chapter.

CHAPTER TWO – AN OVERVIEW OF INTERNET BANKING

2.1 INTRODUCTION

Fitzsimmons (2002:202) maintains that information technology refers to a variety of computer-based applications such as communication and information storage and retrieval. In today's world, marketing is driven by information. The marriage of information and technology has become a fact of life in marketing.

Information technology is fundamentally changing the banking industry worldwide. In particular, the Internet has been a key driving force behind the change in the banking industry. The emergence of the Internet has had a significant impact on the development of banking (Daniel, 1999:72). Changing consumer needs, innovative financial products, changes in the industry structure and a mix of delivery channels are reshaping the banking industry. An important factor and enabler in this process of fast-pace change and innovation is the Internet (Green and Van Belle, 2002:1).

This chapter will examine literature about factors that influence the adoption of internet banking by South Africans in Durban. The literature first outlines the basic concepts of the Internet, marketing in the Internet age and internet banking, and provides insight into the advantages and disadvantages of internet banking as well as the benefits for using internet banking for banks and customers. Moreover, this chapter gives an overview of the development of internet banking in the world and in South Africa.

2.2 THE INTERNET CONCEPT

The Internet is often referred to as the network of networks – a communication medium made possible by computers and networks. People exchange all kinds of information in innumerable social contexts on the Internet (Pitter, 1995:2). The Internet is a communication system that utilises a computer and a modem to gather information from all over the world. It is composed of tens of millions of computers all connected allowing a person to get information that previously was inaccessible or took a long time to access (Norris, et al., 2000:187).

Research and information pass back and forth endlessly. The Internet is a fluid and dynamic environment, that is, it has no definite boundaries. Its limitations are imposed only by available software and hardware technology. The scientific and academic communities have used it extensively for many years. With the recent surge in Internet usage by business and government, the Internet or its successor computer network will be of major importance to tomorrow's world (Pitter, 1995:2). The Internet is a technology that is spreading much faster than any other technology. It is totally changing the way people work and live. The use of the Internet doubles every hundred days (Wang, 2002:2).

According to Novak and Hoffman (1996:59), the Internet uses a model of distributed computing that facilitates interactive multimedia many-to-many communications. For example, the Internet supports discussion groups (Internet news), multi-player games and communication systems chat, file transfer, electronic mail, and global information access and retrieval systems.

Firms communicate with their customers through various media. Traditionally, these media follow a passive one-to-many communication model, whereby a firm reaches many current and potential customers, segmented or not, through marketing efforts that allow only limited forms of feed back from the customer. The Internet revolution has dramatically altered advertising and communication media. According to Wang

(2002:3) the Internet as a marketing medium has the potential to radically change the way firms do business with their customers.

According to the Case 2000 report (a study of youth in South Africa), about 15% of young people have access to the Internet and 13% know how to use it. According to Goldstuck (2001:2), at the end of 2001, only 1 in 15 South Africans had access to the Internet. At the current growth rate one out of every ten South Africans will have Internet access by 2006. There are more than 1 000 million people online worldwide but just 3.068 million users in South Africa. South Africans comprise only 0.3% of this market (Anonymous, 2002:1). The adoption of the Internet in South Africa has been slow in comparison to the rest of the connected world. Therefore, this study aims to provide greater insight into factors influencing consumer behaviour towards internet-based banking services in South Africa, in the hope that marketers can be equipped to create solutions and plan to attract consumers to use their internet-based banking services, thus boosting their global competitiveness.

2.3 A SHORT HISTORY OF THE INTERNET

The Internet has existed since the late 1960s when a limited number of computers were connected in the United States from the ARPAnet (Advanced Research Project Agency). This was used mainly to enable academics and military personnel to exchange defense information (Chaffey, et al., 2000:10). Until the advent of the World Wide Web in 1990, the Internet was almost entirely unknown outside universities and corporate research departments and was accessible mostly via command line interface such as Telnet and FTP (File Transfer Protocol) (Anonymous, 2004:2). Griffiths (2002:2) indicates that the recent dramatic growth in the use of the Internet has occurred because of the development of the World Wide Web. The World Wide Web changed the Internet from a difficult-to-use tool for academics and technicians to an easy-to-use tool for finding information for businesses and consumers. Since then the Internet has grown to become an almost ubiquitous aspect of modern information systems, becoming highly commercial and a widely accepted medium for all sorts of

customer relations such as advertising, online sales and services (Anonymous, 2005:2).

The Internet can be considered as an interlinked publishing medium for displaying graphic and text information. This information is stored on server computers and then accessed by users who run web browser programs such as Microsoft Internet Explorer and Netscape Navigator, which display the information and allow users to select links to access other web sites (the process known as 'surfing') (Tang, 2004:2).

2.4 MARKETING IN THE INTERNET AGE

According to Norris (2000:18), an Internet market can be viewed as a direct parallel of the familiar shop, store or emporium. It is, in essence, a virtual trading area where deals are made through a computer screen, over a network. The "shop-front" is usually a set of web pages, the shelves equate to the catalogue where products are stored and displayed, and the warehouse is the server.

Internet marketing or Internet-based marketing can be defined as the use of the Internet and related digital technologies to achieve marketing objectives and support the modern marketing concept. These technologies include the Internet media and other digital media such as cable and satellite together with the hardware and software, which enable its operation and use (Chaffey, et al., 2000:6).

The term "electronic commerce" is often used in a similar context to Internet marketing and has become a standard term recognised for business transactions such as selling online, online bill payments, home shopping/banking and improving market efficiency in dealing with suppliers and clients (Novak and Hoffman, 1996:57). In the industrial age, marketers initiated and controlled the exchange process, whereas in the Internet age customers increasingly initiate and control the exchange, customer define what information they need, what offering they are interested in, and

what price they are willing to pay. In other worlds, Internet age marketing is the age of “reverse marketing” (Sheth, et al., 2001:6).

Karjaluoto (2002:348) argues that the commercialisation of the Internet was only started in 1995. By the year 1999, the Internet had reached over 50 million people. At the beginning of the year 2000, there were over 70 million computers connected to the Internet and this development is accelerating at enormous speed. Within the next three to four years, the number of people connected is likely to reach the 350 million mark worldwide.

The Internet provides consumers with a new means of obtaining useful information particularly with regard to commercial products and services. Electronic commerce is currently attracting a great deal of interest. Not only is it growing rapidly, but it also has a significant impact on the computer market and the way people work (Chaffey, et al., 2000:8). Wang (2002:3) highlights the importance of the Internet in facilitating dyadic information flows between supplier and customer, emphasising that the inverse relationship between the richness and reach of information no longer holds. As a result, the Internet has the potential to encourage a simultaneous two-way flow of information between large numbers of customers and suppliers.

Norris, et al., (2000:19) point out that one of the biggest implications for marketing theory and practice is the shift from a non-virtual market-place to a virtual market-space where industry players unlike their traditional counterparts do not have to have a physical presence. The market-space comprises four different spaces of opportunity: virtual information space, virtual communication space, virtual transaction space and virtual distribution space. In order to capture the opportunities provided by each of these spaces it is necessary that firms have a website.

According to Weisman (2001:3), increasingly more consumers are migrating to electronic commerce to make electronic bill payments, to pay for information online, and to purchase products, services and prepaid cell phone airtime. It is estimated

that worldwide electronic commerce had generated up to $42 billion in consumer transactions in the year 2000 and $65.9 billion in the year 2001.

According to Lain (2000:18), electronic commerce in South Africa is expected to grow by 20% every month. However, De Kare-Silver (2001:235) found that there is still a huge gap between the marketing potential of the Internet compared to the level of understanding within companies of how this can be exploited. The majority of companies are still 'missing the link'. More than 50% of companies seemed confused about the role of the Internet in their business, unclear what their strategy should be and have no immediate plans to graduate from trial and error to a level of greater selling sophistication.

2.5 BUSINESS BENEFITS FROM THE INTERNET

According to Chaffey, et al. (2000:33), the Internet can be used to achieve each of the four strategic directions as follows:

- Market penetration. The Internet can be a way to sell more existing products into existing markets. This is achieved by using the power of the Internet to advertise and increase awareness of products and also to lift the profile of a company amongst potential customers in an existing market.

- Market development. The Internet is used to sell into new markets, taking advantage of the low cost of advertising internationally without the necessity for a supporting sales infrastructure in the customers' country.

- Product development. New Internet-based products or services are being developed which are typically information oriented, such as market reports that can be purchased using electronic commerce. This is an innovative use of the Internet.

- Diversification. In this sector, new products are developed which are sold into new markets.

2.6 IMPORTANCE OF THE INTERNET TO MARKETERS

The Internet represents a tremendous opportunity. For customers, it gives a much wider choice of products, services and prices from different suppliers and the means to select and purchase items more readily. For marketers it provides the opportunity to develop new skills and to improve the competitiveness of a company (Chaffey, et al., 2000:1). Understanding the importance of Internet exposure would help companies to implement their web-based marketing more effectively because:

Firstly, consumers and firms are conducting a substantial and rapidly increasing amount of business on the Internet. Recent figures indicate that electronic commerce on the Internet approached $45.8 billion in the year 2000 (Novak and Hofmaan, 1996:57).

Secondly, Malone (1995) cited by Novak and Hoffman (1996:58), argues that the market prefers the decentralised, many-to-many web for electronic commerce, as opposed to the centralised, closed-access environments provided by on-line services. Significantly, all the major on-line services now offer web access to their subscribers and have announced or are expected to announce, plans to allow members to self-publish their own home pages on the web as well. Additionally, virtually all the major communication conglomerates have web sites as they shift their strategic orientation away from so-called interactive television applications to web-based publishing, communication, and multimedia marketing efforts.

Thirdly, the web provides an efficient channel for advertising, marketing, and even direct distribution of certain goods and information services. For example, Verity and Hof (1994), cited by Novak and Hoffman (1996:61), suggest that it may be nearly one-fourth less costly to perform direct-marketing through the Internet than through

conventional channels. A study by IBM Corporation (1995) cited by Novak and Hoffman (1996:62), suggests that on–line catalogues published on the Internet can save firms up to 62 percent of what it would cost to print and distribute them by conventional means. Along with the suspected increases in efficiency, evidence continues to indicate that marketing on the net is far more effective than marketing through traditional media.

2.7 BANKING IN THE INTERNET AGE

Technology, in particular the Internet, has been a key driving force behind the changes in the banking industry. Electronic banking is the newest delivery channel in many developed countries and there is wide agreement that this will affect the banking market significantly (Daniel, 1999:75). According to De Kare-Silver (2001:312), the growth in electronic technology, especially the Internet, could lead to many of today's well-established banking institutions being replaced. With the development of the Internet, the role of the bank branch is under increasing threat. Consumers and providers can deal directly with each other over the Internet, which can make it easy to carry out transactions from home or office.

Research conducted in Estonia (Kerem, 2001:3) shows that there is a strong positive correlation between Internet usage and internet banking. This can be confirmed by the actual data from Estonia. In 2000 Internet usage increased from 21% to 31% while the internet banking customer base grew by nearly 100% during the same year.

Every bank tries to get as much share of the market as it can. In today's competitive world, success of a bank lies in customer focus, segmentation, positioning and target marketing used in conjunction with information technology (IT). Because of technology such as the Internet, banks are facing competition on an international scale and cannot afford to ignore the demands of their clients. Customers now have enough options available to choose the type of service they want at the price they are prepared to pay. It is therefore important for banks to develop suitable Internet

products which identify with their customers and meet their specific needs (Wang, 2002:3).

2.8 THE CONCEPT OF INTERNET BANKING

This section explains the basic terminology of electronic and internet banking, and explores the various features and functions which are typical of remote access banking. Understanding these basics is an essential first step towards evaluating and relating to the information and conclusions drawn in this study.

2.8.1 Electronic banking

The term electronic banking, in a very simplified way, can be described as the provision of information or services by a bank to its customers via computer, telephone or mobile phone (Daniel, 1999:73). According to Daniel (1999:74) electronic banking is said to have three different means of delivery, telephone, personal computer (PC), and the Internet. Electronic banking is a high-order construct which consists of several distribution channels.

It should be noted that electronic banking is a bigger platform than just banking via the Internet. However, the most general type of electronic banking in our times is banking via the Internet, in other words internet banking. Nowadays the Internet is the main channel for electronic banking accessed via personal computer (Karjaluoto, et al., 2002:262).

Table 2.1 below contrasts the various features and functions offered by the alternative forms of electronic banking offered by a major South African bank

Table 2.1 Features and Functions

Features	**Telephone banking**	**ATM**	**Internet banking**
Withdrawals		X	
Deposits		X	
Balance enquires	X	X	X
Interim statements	X		X
Transfer funds	X	X	X
Stop payment of cheques	X		X
Stop orders	X		X
Rates	X		X

SOURCE: (FNB Brochure, 2001:2).

2.8.2 Internet banking

Internet banking is a process which allows a consumer to perform banking functions online. Online banking is accomplished through the Internet with specific information and a consumer password (Ongkasuwan, 2002:3).

Internet banking allows consumers to access their bank accounts to undertake banking transactions. According to Sathye (1999:327) at an advanced level, internet banking is called transactional online banking, because it involves the provision of facilities such as accessing accounts, transfer of funds, and buying financial products or services online. The terms internet banking and online banking are often used to refer to the same things. Presently, the Internet is the main channel for electronic banking. Internet banking, unlike person-to-person banking, is available 24 hours a day, 7 days a week. Internet banking also offers other advantages, such as providing an easy means to keep track of your cheque book, transferring money between accounts, and even paying bills online.

According to Nehmzow (1997:8), internet banking offers the traditional players in the financial services sector the opportunity to add a low cost distribution channel to their numerous different services. Internet banking also threatens the market share of traditional banks, because it neutralises so many of the competitive advantages of having a traditional branch network. Internet banking is a service that enables members to perform various financial transactions, other than cash transactions, from a personal computer at home, work or school (Ongkasuwan, 2002:3).

Information technology is fundamentally changing the banking industry worldwide, altering traditional definitions of product, market and customer base. Internet banking has significantly reduced barriers to entry, accelerating financial disintermediation (Pyun, et al., 2002:74). Internet banking is becoming increasingly globalised through the use of the Internet and the World Wide Web. Internet banking has been gaining ground as a new opportunity for banking institutions. These new opportunities and challenges have led to the rise of new competitors in the global banking market (Suganthi, et al., 2001:2). According to Daniel (1999:72) internet banking is the newest delivery channel in many developed countries and there is a wide agreement that the new channel will have a significant impact on the banking market.

Polatoglu and Ekin (2001:158) indicate that there has been a rapid growth in online PC banking in the USA; from just over 10 million adults in 1999, projected to 35 million in the year 2003 with a rapid shift to Internet access. Early stage consumer growth in some European countries such as Germany, Norway and Sweden has been similar. In the same spirit, the use of alternative banking channels such as personal computer (PC)/ Internet/phone banking is also growing in Turkey. Although data on the number of customers is not available, the number of banks offering the service has been increasing rapidly during the past two years.

According to Wang (2002:2), internet banking allows users to dial in and use the banks' own software or that of an Internet service provider. This type of banking allows customers to access bank accounts from a remote location provided there is

Internet access. This provides customers with the ability to perform transactions via the bank's website, with the advantage of not being required to visit a physical branch or ATM (Automated Teller Machine).

Internet banking services vary from bank to bank. According to Tang (2004:3), virtually all banks that offer internet banking services allow consumers to check the balance in their accounts, transfer funds and make electronic bill payments, while the more sophisticated internet banking systems allow customers to apply for loans, trade stocks or mutual funds, and even view actual images of their cheques or deposit slips.

2.9 DIFFERENT TYPES OF INTERNET BANKING

Molla (2002:2) defines internet banking as a distinct subset of electronic/online banking which is more broadly defined as the provision of retail and small value-added banking products and services through electronic channels. This electronic banking definition includes several different forms of internet banking, the different types of which are outlined below.

- Internet banking which makes use of a bank's proprietary software. This form of online banking uses the bank as an "electronic gateway" to customer accounts. Customers install this software on their home computers to enable them to transfer funds and pay bills electronically.

- Internet banking via personal computers using dial-up software. Here, customers make use of home finance software to link to banks for online banking. Examples of such software include Intuit's Quicken and Microsoft's Money.

- Internet banking via online services. Banks set up retail branches on subscriber-based online services such as America Online.

- Internet banking via the World Wide Web. This form of online banking bypasses subscription based services and allows banks to interact directly with their customers through the World Wide Web.

2.10 ADVANTAGES AND DISADVANTAGES OF INTERNET BANKING

Internet banking offers certain advantages in comparison with traditional banking methods. According to Wang (2002:4), internet banking is time saving and convenient since a customer can bank seven days a week and twenty-four hours a day without physically visiting a branch, and transactions are executed and confirmed almost immediately. Martins, et al., (2001:32) indicate that internet banking offers clients security as they can choose their own secret PIN (Personal Identity Number), thereby, preventing unauthorised access to their accounts. Client safety is also improved by reducing the need to carry around large amounts of cash.

However, Wang (2002:4) argues that internet banking also has disadvantages, the main one being the cost of purchasing and maintaining suitable computer equipment, or obtaining access to such equipment. This is an additional cost which is not present when using traditional banking or other online banking services such as ATMs. Pahnila (2002:2) points out that cash can neither be deposited nor withdrawn with internet banking, and so inevitably there is the inconvenience of having to visit the local branch or ATM. Another disadvantage of internet banking is the possibility that security may be threatened by computer hackers and fraudsters.

2.11 THE BENEFITS OF INTERNET BANKING TO BANKS AND CUSTOMERS

The emergence of the Internet has had a significant impact on the diffusion of internet banking. With the help of the Internet, banking is no longer bound to time or

geography. Consumers all over the world have relatively easy access to their accounts 24 hours per day, seven days a week. Therefore, internet banking provides many benefits to both banks and their customers (Karjaluoto, 2002:348).

2.11.1 Benefits to banks

Internet banking offers many benefits to banks and their customers. The main benefits to banks are cost savings, reaching new segments of the population, efficiency, enhancement of the bank's reputation and better customer service and satisfaction (Brogdon, 1999:2).

The more those clients convert to internet banking, the greater the monetary saving will be. According to Robinson (2000:105), the cost of an electronic transaction is dramatically lower than the cost of a face-to-face branch transaction. Robinson adds that internet banking strengthens the relationship between the service provider (e.g. bank) and the customer because it brings banking services directly to a customer's home, office or mobile phone. This creates customer loyalty. The last point the author makes is that online services are a must for banks that have to compete with a growing number of services from other financial institutions, investment concerns and insurance companies. A good example of this growing competition is the invasion by foreign Internet banks into Finland. The new technology offers a whole new possibility to the banking sector. Furthermore, banking is no longer tied to time and place. As a result global competition is expected to broaden.

Sheshunoff (2000:54) says that the single most important driving force behind the implementation of full-service internet banking by banks is the need to create powerful barriers to customers exiting. The author argues that once a customer moves to full–service internet banking, the likelihood of that customer moving to another financial institution is significantly diminished. The main reasons for this behaviour can be found in the consumer behaviour theory that switching always requires much time and effort from the individual consumer. The author concluded

that the competitive advantage of internet banking for banks is very significant. Burns (2000:5) argues that electronic banking customers are more valuable to banks than traditional customers.

Through electronic banking, banks can achieve better cross-channel productivity and performance. The move towards internet banking increases the need for a holistic approach to channel and process management, especially when integrating new delivery channels into existing frameworks (as many traditional banks are currently doing). Burns (2000:5) indicates that the Internet will not replace other delivery channels, but will offer increased flexibility and the opportunity for improved service.

Internet banking customers are found to be more loyal to their bank than non–internet banking customers (Mols, 1998:200). Mols concluded a survey in Denmark and presented some interesting insights into internet banking users. His results suggest that internet banking customers: are more satisfied with their bank; have higher switching barriers; provide more positive word-of-mouth opinions about their bank; have higher repurchase intentions; have lower price sensitivity; have a lower propensity to exit and a higher propensity to complain. However, there is not much evidence to suggest that internet banking itself strengthens customer loyalty.

2.11.2 Benefits for customers

Internet banking makes available to customers a full range of services including some services not offered at branches. The greatest benefit of internet banking is that it is cheap or even free to customers. However, price seems to be one factor militating against internet banking (Sathye, 1999:333).

Internet banking, in general, is not limited by time or place. It has also been argued that the electronic banks are more likely to change in response to customers' demands (Brogdon, 1999:4). Internet banking has the advantage that the customer cuts down on traveling to and from a bank branch. In this way, internet banking saves

time and money, provides convenience and accessibility, and has a positive impact on customer satisfaction. Customers can manage their banking affairs when they want, and they can enjoy more privacy while interacting with their bank. It has been claimed that internet banking offers the customer more benefits at lower costs (Mols, 1998:200).

2.12 INTERNET BANKING IN THE WORLD

According to Stegman (1999) cited by Ongkasuwan (2002:4), internet banking in the United States has reduced costs in the banking industry and improved service quality for their existing and potential new customers worldwide. The demand for online banking via the Internet increased from 4.8 million customers in 1997 to about 7.8 million customers in 1998. Most of the forecasts for online banking predicted that this growth rate would continue beyond the year 2000, with more than 14 million customers using online banking services via the Internet during the year 2001.

According to Birth and Young (1997) cited by Ongkasuwan (2002:4), UK internet banking services have encountered an increasing demand for cross-border payment transactions involving small amounts. Many UK banks continue to develop and launch new banking services on the Internet in order to satisfy and meet their Internet-based customer requirements in terms of time, ease of use, security and privacy. By June 1999, the U.K. and eight other western European countries, namely, France, Spain, Portugal, Germany, Switzerland, Holland, Luxembourg and Scandinavia had become leading nations in providing internet banking services in Europe.

According to Tang (2004:3), China has decided to take advantage of the financial restructuring process and the Internet revolution in Asia. China's central bank has initiated and encouraged the development of internet banking services since 31 May, 2000. This new internet banking system provides 24 hour access to financial transaction services, personal financial consulting and utility fee payments.

According to Ongkasuwan (2002:5) in Asia and the Pacific, many banks, lending organisations, credit companies such as VISA, and computer vendors such as IBM have formed alliances in order to develop internet banking service standards for their customers. Banks in Singapore, Australia, Indonesia, Korea, Hong Kong, Taiwan, and Thailand formed an organization called Interactive Financial Services (IFS). Through IBM's Global Network Standard, members are able to provide and exchange their internet banking services to their alliance customers. This will eventually allow seamless, interactive banking and other e-business services across these banks around the world.

2.13 INTERNET BANKING IN SOUTH AFRICA

The South Africa Year Book for 2003/2004 maintains that at the end of December 2002, 42 banks (including 14 branches of foreign banks and two mutual banks) were registered with the Office of the Registrar of Banks. Furthermore 52 foreign banks had authorised representative offices in South Africa. The banking institutions collectively employed 115 734 workers at 8 438 branches and agencies. Currently, four major groups dominate the South African banking sector, namely Amalgamated Banks of South Africa (ABSA) Group Limited, Standard Bank Investment Corporation Limited, First Rand Holding Limited (FNB) and Nedcor Limited (NedBank). These groups maintain extensive branch networks across all nine provinces, and together hold 82% of the total assets (R 1 101 billion) of the banking sector. They all offer internet banking services.

South Africa's banks started operating on the Internet in 1996. It has been a fairly slow start but consumers are responding because it is convenient, safe and cheap. ABSA bank was the first to offer limited transactions online in late 1996 and was followed by NedBank which offered a full-service early in 1997. By July 1997, Standard Bank and FNB had added their working sites to the web and in August 1997 the newest player, Mercantile Bank, joined the on-line banking community (www.secure-financialmail.co.za).

According to Green and Van Bellen (2002:2) there is a new type of bank emerging in South Africa and world wide called the virtual bank. The major difference between the virtual bank and other banks is the fact that a virtual bank does not have a physical presence, or a brick-and-mortar building. Nevertheless, these banks perform most of the services provided by banks in brick-and-mortar buildings with regard to internet banking.

According to Botha (2002:22), ABSA bank predicted a South African Internet population of 3.2 million by the end of 2002 and planned to recruit 10 000 new users to the service each month. The bank offered its own free Internet access to encourage the use of the Internet and internet banking. The offer included five e-mail addresses and 10 Mega-Bytes of free web space. At the time ABSA hoped the publicity surrounding the service would generate sufficient interest in internet banking to double their customer base.

In a syndicated banking study, an update on a study conducted in May 2000 that tracked the potential to use the Internet for financial transactions, Karin (2002:1) suggests that roughly 672 000 people are banking online or have banked online in South Africa. Consumer acceptance and use of internet banking is still far less in South Africa when compared to other countries such as UK. There are now 7.8 million internet banking users in the UK. The number of people using internet banking services has more than doubled from 2000 when there were 3.5 million users logging on to internet banking services (www.imrg.org).

There are 42 banks is South Africa, which is competition enough. Now foreign operators are keen to cherry-pick niche markets. Loyalty is lost as customers opt for price and service. IT is the way banks are able to compete. South Africa is now exposed to global market forces because of technology and the lifting of sanctions. Banks will need to focus their attention both at home and abroad and use technology to promote their best advantages (Green and Van Bellen, 2002:2). Therefore, the purpose of this study is to gain an understanding of the diffusion of internet banking in

an African setting where the population is predominantly African and to gain a much better understanding of what they require from a financial services perspective, in order to shed light on how to better market internet banking services to speed up the rate of adoption.

2.14 SUMMARY

The purpose of this chapter was to explore the subject of internet banking. This was done by reviewing published studies which trace the rapid progression from the humble origins of the Internet, to its development, the marketing opportunities that it has provided, and how this has paved the way for the implementation and surging growth of internet banking.

Firstly, the chapter began by discussing the Internet, marketing in the Internet age and the role the Internet plays in marketing. Secondly, the concept of internet banking; the various types of internet banking and the advantages and disadvantages of internet banking were discussed. Thirdly, the chapter looked at the benefits internet banking offers to both banks and their customers, showing that cost saving is the main benefit for banks, while time saving and convenience are the main benefits for customers. This chapter ended with an overview of the development of internet banking in the world and in South Africa. The next chapter analyses the factors that influence consumer behaviour towards the adoption of the internet banking.

CHAPTER THREE – FACTORS INFLUENCING CONSUMER ADOPTION OF INTERNET BANKING

3.1 INTRODUCTION

The basis for understanding consumer behaviour is learning about how consumers will accept or reject product offerings, as well as the factors that shape these decisions. For this reason this chapter starts with a theory of consumer behaviour, which provides a foundation on which the rest of the study stands. The purpose of this literature review is to understand the theory behind the problem, which is to investigate the factors influencing the adoption of internet banking.

The three main factors which affect the adoption of internet banking are then explored and make up the heart of this study. These are: consumer perception and attitude, which is analysed under the sub-headings of relative advantage, compatibility, complexity, perceived cost and perceived risk. Consumer demographic characteristics demonstrate how age, education level, income and occupation are the demographic categories which are most influential in shaping consumer behaviour. Social influences concern the influence of reference groups and how they impact on consumer adoption of internet banking. With a greater understanding of how these factors affect consumer adoption of new products, banks will be able to create new internet banking solutions which are more acceptable to potential consumers

3.2 CONSUMERS AND INTERNET BANKING

Lamb, et al. (2000:142) define consumer behaviour as the acts of decision-making units (families as well as individuals) directly involved in obtaining and using need-satisfying products and services, and this also includes the decision-making process that precedes and determines these acts. These acts refer to activities like traveling to and from the stores, evaluation of both goods and services available in the market and the actual purchasing of goods.

When referring to consumers, Rice (1997:78) explains that consumers are people who use services and products, and pay for those things. Consumer behaviour is about learning about consumers and their buying behaviour. Schiffman and Kanuk (2000:8) explain that a “consumer” is used to describe two kinds of consumers, i.e. personal and business or organisational consumers. Personal consumers are consumers who buy goods and services for their own use, and business consumers are those buying products, equipment and services in order to run a business. Block and Roering (1979:132) define consumer behaviour as the acts of individuals directly involved in obtaining and using economic goods and services. This includes the decision making processes that consumers go through when buying goods.

With a better understanding of consumer behaviour banks will be able to identify customer profiles. Beckett, et al. (2000:20) suggest that the type of financial product being purchased influences consumer purchasing behaviour. Secondly, the emphasis on trust and having a relationship is also highly pertinent to the strategies of banks and other financial providers. Thirdly the ability to retain customers and increase customer profitability is very important (Karialuoto, et al., 2002:263). Individual differences in consumer behaviour have been theorised and found to be associated with the acceptance of new information technology, such as internet banking (Nelson, 1990:85).

According to Wang (2002:3) the emergence of internet banking has created highly competitive market conditions, which have had a critical impact upon consumer behaviour. Internet banking providers must therefore attempt to better understand the factors affecting consumer acceptance of internet banking. If they succeed, banks will be able to influence and even determine consumer behaviour, which will become a major issue in creating competitive advantage in the future.

3.3 CONSUMER PERCEPTION AND ATTITUDE

Lamb, et al. (2000:168), define perception as the process whereby an individual selects, organises and integrates stimuli into a meaningful and overall picture. Perception involves all the senses (seeing, feeling, tasting, smelling and hearing), and these sensory stimuli play a role in causing certain sensations which influence consumers in deciding whether to purchase or not.

According to Lussier (2000:295) perception has defence mechanisms that are used to protect consumers against undesirable stimuli from the environment. According to Reekie and Brits (1997:95) different consumers will perceive a product offering differently, depending on their needs. Consumer perception towards a product and service can play a role to influence their buying behaviour.

Consumers' acceptance of technological innovations such as internet banking may be influenced not only by their socioeconomic and demographic characteristics, but also by their perceptions of specific technologies and by the characteristics of different products and services (Davis, 1989:338).

Attitude is a positive or negative feeling or mental state of readiness, learned and organised through experience that exerts specific influences on a person's response to people, objects and situations (Gibson, et al., 2000:65). Consumer attitude refers to the feeling of liking or disliking that consumers have towards products, stores, brands and other marketing stimuli. The attitude of consumers is of importance to marketers because they show consumers' intentions and behaviours towards the marketing mix variables of product, price, place and promotions (Foxall and Goldsmith, 1994:95). Attitudes represent a primary means of measuring the effectiveness of all aspects of marketing communication. Attitudes are learned and those which result in purchase behaviour are formed as a result of direct experience with the product, information acquired from others, and exposure to mass media (Hawkins, et al., 1989:432). According to Guo (1999:122), attitudes are often viewed as determinants of meanings,

because they provide a context for the interpretation of new information, and help individuals to evaluate each other's opinions and organise and select facts.

The attitude theory suggests that the more favourable attitude a person has towards a given product/service, the more likely that person is to buy or use that product/service. The overall attitude towards an object is expected to relate to behaviours towards the object (Ajzen and Fishbein, 1980:65). The measure and understanding of attitudes allow and help marketers in the development of products that consumers want and promote them effectively and in evaluating their efforts at promoting the products (Foxall and Goldsmith, 1994:94).

According to Lussier (2000:296) attitude is an overall perception about an object. Attitudes both affect and are affected by behaviour. Hence attitude refers to the overall evaluation of an object. Attitudes are personal feelings that influence a person's tendency to act in a particular way. In this study attitude describes a person's perception towards internet banking. Attitude motivates consumers towards a particular behavior. According to Mink (2001:4), of the ten countries studied, 3% of consumers had no interest in internet banking as customer service is what really matters and they receive that at a traditional bank.

An innovation presents potential adopters with a new means of solving problems and exploiting opportunities. According to Rogers (1983:213) an individual first forms an attitude towards the innovation leading to a decision to adopt or reject the innovation. If the innovation is perceived to be better than the existing system (a measure of is relative advantage), is consistent with the needs of the potential adopter (a measure of its compatibility), and is easy to understand and use (a measure of its complexity), it is more likely that a favourable attitude towards the innovation will be formed.

Attitudes are themselves influenced by past behaviour, hence, the relationship between attitude and behaviour is usually represented as a two-way process in which attitude and behaviour affect each other. Therefore, if a person has a positive

attitude toward internet banking, he or she is more likely to become a user of internet banking (Du, 2002:1). Thus, the purpose of this dissertation is to provide greater insights into how attitudes towards internet banking in general tend to impact on consumer behaviour in South Africa.

3.4 DIFFUSION OF INNOVATION

Research on diffusion of innovation was introduced to the domain of marketing in the 1950s. Diffusion of innovation theory attempts to identify patterns and rates of adoption of innovation. This is especially significant in consumer markets in terms of attempting to forecast demand and market growth (Valente, 1993:31).

According to Kotler (2000:348), an innovation refers to any goods, service, or idea that is perceived by someone as new. The idea may have a long history, but it is an innovation to the person who sees it as new. Rogers (1983:11) defines an innovation as any idea, practice, or object that is perceived as being new by an individual or other unit of adoption. Almost all of the new ideas are technological innovations, and innovation and technology are often used as synonyms. A technology is a design for instrumental action that reduces the uncertainty in the cause-effect relationships involved in achieving a desired outcome.

Rogers (1983:192) defines the diffusion process as the spread of a new idea from its source of innovation or creation to its ultimate users or adopters. According to Kotler (2000:348) adoption is the decision of an individual to become a regular user of a product. Internet banking is potentially the most radical innovation, especially in the context of banks dominated by the branch as the means to provide service to customers. Only a few studies have investigated diffusion of innovation within the retail banking sector (Bradley and Stewart, 2003:1088). Senior bank management have an interest in studies which have investigated the adoption of internet banking as the results can shed light on how to better market their internet banking services and thus accelerate the rate of adoption. If the service can more quickly reach a critical

mass of customers, then the respective bank's investment in internet banking could be recouped more quickly (Gerrard and Cunningham, 2003:2).

Therefore this study aims to gain an understanding of the diffusion of internet banking in South Africa and to explore how to better market internet banking in order to accelerate the rate of its adoption.

3.5 THE INFLUENCE OF INNOVATION ON THE ADOPTION OF INTERNET BANKING

Rogers (1983:213) identifies three characteristics of innovations: relative advantage, compatibility, and complexity. Adopters have invariably been found to have different perceptions about these characteristics in comparison with non-adopters. According to Kotler (2000:350), the characteristics of an innovation affect its rate of adoption. Some products catch on immediately, whereas others take a long time to gain acceptance.

If the innovation is perceived to be better than the existing system (a measure of its relative advantage), is consistent with the needs of the potential adopter (a measure of its compatibility), and is easy to understand and use (a measure of its complexity), it is more likely that a favourable attitude towards the innovation will be formed (Ching and Ellis, 2004:411). Thong (1999:212) found that the perceived relative advantage, compatibility and complexity of the innovation played a key role in the adoption of internet banking.

Therefore this study identifies how these characteristics of innovation influence the adoption of internet banking in South Africa. The remaining parts of this section identify these characteristics of innovations as established in prior studies.

3.5.1 Relative advantage

Relative advantage describes the degree to which an innovation is perceived as being better than its precursor (Rogers, 1983:213). Gerrard and Cunningham (2003:8) identify a perceived relative advantage as being a significant factor driving the adoption of internet banking.

According to Kotler (2000:351) when individuals pass through the innovation-decision process, they are motivated to seek information in order to decrease uncertainty about the relative advantage of an innovation. Potential adopters want to know the degree to which a new idea is better than an existing practice. Hence relative advantage is often the content of network messages with regard to an innovation.

Relative advantage, in one sense, indicates the strength of the reward or punishment resulting from the adoption of an innovation. There are a number of sub-dimensions of relative advantage such as the degree of economic profitability; decrease in discomfort; time saving; and effort (Rogers, 1983:217). This construct is similar to the perceived usefulness in the Technology Acceptance Model, defined as the degree to which a person believes that a particular information technology would enhance his or her job performance. It has been revealed to be a factor towards the adoption of internet banking (Leaderer, et al., 2000:272).

A survey conducted in South Africa (Goldstuck, 2001:2) states that another issue facing internet banking customers is that they perceive the Internet channel to lack functionality. So far financial service providers appear to have failed to communicate a clear value proposition to customers. Most consumers reported that they do not use Internet-based financial services nor expect to use them in the near future. Financial institutions thus face a challenge in demonstrating that using the Internet as a service channel will be worthwhile and that functionality will be delivered.

Agarwal and Prasad (1998:222) found that relative usefulness of an innovation is positively related to its rate of adoption. Therefore it is possible to suggest that the way that people perceive the usefulness of Internet banking could affect its rate of adoption. In another survey, a large proportion of consumers said that twenty-four hour availability was the most important factor in their use of computer banking (Lockett and Littler, 1997:795). A study of 220 consumers found that shoppers appreciated the ability to visit virtual stores at any hour (www.studioarchetype.com).

Consumers may be motivated to use some electronic banking technologies because of the time saving. Time saving equates to a customer being able to bank without physically visiting a branch. In one survey of computer banking users, 79% indicated that convenience was very important in their decision to use computer banking and 71% said that saving time was very important (Fox, 2002:9). A survey conducted in Finland (Karjaluoto, et al., 2002:269) shows that internet banking users do not hunger for traditional banking. Usually, visiting bank branches is considered time-consuming due to long queues. Internet banking users are not eager to queue at branches.

It is therefore possible to suggest that the advantages that internet banking offer over and above regular banking methods could influence its rate of adoption. For example, the possibility of performing transactions at any time of the day from any location with Internet access would be a source of real advantage to people who have extremely tight schedules.

3.5.2 Compatibility

Compatibility is defined as the degree to which an innovation is perceived as being consistent with the existing values, past experiences and the needs of potential adopters. An innovation can be compatible or incompatible with socio-cultural values and beliefs; with previously introduced ideas; or with client needs for innovations (Rogers, 1983:213). The compatibility of an innovation, as perceived by members of a social system, is positively related to its rate of adoption (Rogers, 1983:226).

The term compatibility refers to the fact that an innovation is more likely to be adopted when it is compatible with an individual's job responsibilities and value system (Agarwal and Prasad, 1998:207). Bradley and Stewart (2003:1089) discovered that the perceived compatibility of internet banking is a key driver in the adoption of internet banking.

Compatibility is a measure of the values or beliefs of consumers, the ideas they have adopted in the past, and the ability of an innovation to meet their needs. Black, et al. (2001:393) conclude that past experiences and the values of consumers in the UK appear to have a significant impact on their willingness to adopt internet banking. Those that indicate that they are comfortable with the Internet are more positive about internet banking. In Turkey, due to low levels of e-mail usage and a preference for using over-the-counter services at bank branches, respondents view internet banking as being far less compatible because it does not suit the way they are living and working (Polatoglu and Ekin, 2001:155).

The vast majority of bank customers would still like to opt for personal interaction when doing their bank transactions. The personal touch of officers and managers adds value to each transaction. Research by Suganthi, et al. (2001:2) reported that in the Malaysian context, a personal relationship between customers and bankers transcends many boundaries especially so in the rural areas. About 90 percent of the Malaysian respondents valued human tellers very highly. Georgiades and Dowsland (2000:6) reveal that lack of personal contact and face anonymity are seen as disadvantages to the extent that "some websites have started to include photos and video clips of store owners and staff to overcome the perception that electronic storefronts are too impersonal". A survey conducted in Singapore (Gerrard and Cunningham, 2003:9) found that compatibility is a significant factor which affects the adoption of internet banking.

Therefore individuals that use the Internet frequently are more likely to perceive internet banking as being compatible with their lifestyles, and are therefore more likely

to adopt internet banking than individuals that prefer to communicate and conduct their affairs in a face-to-face type of environment.

3.5.3 Complexity

Complexity is defined as the degree to which an innovation is perceived to easy to understand and use. Adoption will be less likely if the innovation is perceived as being complex or difficult to use (Rogers, 1983:230). Complexity can be considered as the exact opposite of ease of use in the Technology Acceptance model, which has been found to directly impact the adoption of the Internet (Leaderer, et al., 1999:270).

Consumers will reject an innovation if it is very complex and not user friendly. In this context, Cooper and Zmud (1997:137) report ease of use of innovative products or services as one of the three important characteristics for adoption from the customer's perspective. For example, the user-friendliness of domain names, navigation tools and the graphical user interface are important determinants of the user-friendliness of a web page design.

Research by Davis (1989:338) has found that perceived complexity is associated with the adoption of electronic technologies. Research conducted in Estonia (Kerem, 2001:7) states that the most important factors in starting to use internet banking are first and foremost better access to the services (convenience), better prices and a high-level of privacy. Better service (i.e. preferring self-service over office-service) was also of above average importance. Therefore the adoption of internet banking is likely to be increased when customers consider using internet banking processes to be easy.

Therefore an individual is far less likely to adopt a new technology if this requires a high level of technical skills. Conversely the adoption of internet banking is far more likely to occur if the internet banking processes are simplified and are user friendly.

3.6 Perceived cost

According to Ching and Ellis (2004:414) adoption will be driven by the perceived costs and benefits inherent in the particular innovation. The cost of an innovation has many components – initial investment costs, operational costs, and utilisation costs. Rothwell and Gardiner (1984:88) observe that there are two fundamental sets of factors affecting user needs, namely price factors and non-price factors. To this extent Gupta (1988:353) identifies price as a major factor in brand switching. If consumers are to use new technologies, the technologies must be reasonably priced relative to alternatives. Otherwise, the acceptance of the new technology may not be viable from the standpoint of the consumer.

According to the Comptroller's Handbook (1999:17) another factor that would stand in the way of consumer adoption of internet banking is the cost factor. In internet banking two types of costs are involved. First the normal costs associated with Internet access fees and connection charges. Secondly, the bank fees and charges. Bradley and Stewart (2003:1091) found high initial set up costs; cost reductions and the costs incurred during implementation are considered as the greatest inhibitors of the diffusion of internet banking. Another study indicates that consumers will not adopt a new financial product unless it reduces their costs and does not require them to change their behaviour when using it (Bareczal and Ellen, 1997:137).

From a customer retention perspective, Goosen, et al. (1999:59) point out that with the introduction of internet banking, lower switching costs and easy accessibility via the internet, customers who are dissatisfied with the services or products offered by their banks are more likely to withdraw their loyalty if their requirements are not provided for.

In South Africa in 2001, ABSA Bank launched a marketing campaign offering free Internet access as a means of promoting its internet banking services. This campaign yielded the desired affect with 20 800 people signing up in the first three days. Since

the service was introduced, the number of people banking online with ABSA has increased from 150 000 to 300 000, and ABSA has moved from the number two position to become the top Internet banking provider in South Africa (Botha, 2002:23).

Clearly cost perception is a factor which continues to inhibit the adoption of internet banking in South Africa. To overcome this barrier banks should be at pains to prove to consumers that internet banking is a cost effective and beneficial form of banking and in doing so actively take measures to dispel any misperceptions that consumers may have about online banking costs. In addition they should consider the success of the ABSA strategy discussed above and look for equally innovative incentives which will tip their clients perception of cost firmly in favour of internet banking. In conclusion, by lowering the perceived cost of using internet banking, cost conscious consumers are more likely to adopt this innovation.

3.7 Perceived risk

Perceived risk increases a consumer's motivation to process information. Perceived risk reflects the extent to which consumers are uncertain about the consequences of buying, using or disposing of an offering. It is important to recognise that risk is subjective. That is, the risk that a customer perceives in making a purchase decision may not really exist (Hoyer and MacInnis, 2000:67). Risk or uncertainty regarding the most appropriate purchase decision or the consequences of the decision is a significant variable influencing the total amount of information gathered by consumers (Loudon and Bitta, 1993: 511).

According to Loudon and Bitta (1993:512) there are several situations that influence the consumer's perception of uncertainty or consequences and, thus, the perception of risk. These are: uncertainty regarding buying goals; uncertainty regarding which alternatives (such as product, brand, or model) will best match or satisfy the purchase goals; perceived possible undesirable consequences if the purchase is made (or not made) and the result fails to satisfy buying goals. If the consumer senses any of

these situations, then he or she is said to perceive risk in the situation. Research conducted in Turkey (Polatoglu and Ekin, 2001:164) states that risk includes financial, physical, or social risks associated with trying an innovation. It is known that security risks are one of the major barriers to the adoption of online banking. With the introduction of internet banking services by a few large, well-known, and trusted banks in Turkey, customers perceive the security risk to have decreased considerably.

One of the major influencing factors around the use of internet banking is that of security. According to Liu and Arneet (1999:31) the need for secure transactions is critical to the success of not only internet banking but that of any e-commerce related to website. Consequently the lower the perception of risk in using internet banking the more likely an individual would be prepared to use it.

Hartman, et al. (2000:75) point out that security is a major concern wherever online transactions take place. They suggest that Internet-based service providers must implement access control, authentication procedures, encryption, firewalls, audit trails and virus protection to secure their online services. Another survey conducted by Cranor and Laurie (1999:2) found that 81% of Internet users are concerned about threats to their privacy while online. An empirical study found that consumers are often reluctant to share personal information for fear that their financial life will become an open book to the Internet universe (Bestavros, 2000:55).

Lain (2000:18) conducted an Internet survey and found that South Africans are just as concerned about security as US consumers were a year previously. Security is a major concern for South Africans when conducting online transactions, where people are nervous about releasing credit card and other banking details to companies on the web. A survey in South Africa (Martins, et al., 2001:30) showed that 66.3% of the respondents were not willing to give their credit card information in a secure transaction on the Internet while purchasing products or services. Even if the bank guarantees the safety of the transaction 57.8% of the respondents were still not prepared to give their credit card information over the Internet.

Security has been widely recognised as one of the main obstacles to the adoption of internet banking. Many studies suggest that banks must first convince their customers that internet banking and transactions are secure before customers will show a willingness to use internet banking. Consequently the adoption of internet banking is likely to increase when the risk of using internet banking is low.

3.8 DEMOGRAPHIC CHARACTERISTICS OF INTERNET BANKING ADOPTERS

Demography is the study of human population statistics, including size, age, sex, race, location, occupation, income, education, and other characteristics. Each of these characteristics influences the nature of consumer needs and wants; ability to buy products; the perceived importance of various attributes or choice criteria used to evaluate alternative brands; and attitudes towards and preference for different products (Loudon and DellaBitta, 1993:35).

Marketers often segment markets on the basis of demographic information because it is widely available and often relates to consumers buying and consuming behaviour. Only with a clear understanding of major consumer characteristics can the implications of environmental and individual determinants of consumer behaviour begin to be appreciated (Du Plessis and Rousseau, 1999:274).

Age, education level, income and occupation are the most influential demographic variables affecting Internet usage. Typical internet banking users tend to be well educated, relatively young and are high income earners. It has been widely recognised that demographic factors have a great impact on consumer attitudes and behaviour towards internet banking (Karjaluoto, 2002:360). The consumer demographic factors relevant to this study are therefore age, education level, income and occupation. These are discussed in the following sections.

3.8.1 Age

The goods and services people buy varies during the different stages of their lives. For example the kind of food that appeals to youths is unlikely to be the choice of adults. Furthermore people's taste in clothes, furniture and recreation are also age related (Kotler, 2000:180). People in different age groups often share distinctive values, meanings, and behaviours. Marketers must be cautious, however, about segmenting consumers on the basis of actual age. Many adult American consumers think of themselves as ten to fifteen years younger than they really are. Their behaviour and cognition is more closely related to their psychological age than their chronological age (Peter and Olson, 1994:363).

Research conducted in Britain (Pollit, 2001:4) shows that 74% of 15 to 19 year olds have a cellular telephone compared with only 52% of adults. Pollit recommends that marketers take time to understand and communicate with youngsters aged between 1 and 20, as they spend more than six hundred billion dollars a year in the USA. According to Stoneman (2001:4), the greatest concentration of computer owners who have banked online in the USA are in the 18 to 34 year age group and represent 30% of the market. By way of contrast only 15% of the population in 55 to 64 year age group owns a computer and only 9% of this group banks online. According to Kane (2002:123), around 10% of the South Africa population falls into the 15 to 19 age group; 16% falls into 20 to 34 age group; 13.7% falls into 40 to 50 age group and 9.8% falls into 50 to 69 group. Karjaluoto, et al. (2002:271) show that age has an impact on the use of internet banking. The results imply that the typical user is between 35 and 49. Therefore this study undertakes to determine whether age has an impact on consumer acceptance of internet banking.

3.8.2 Education level

Education level is defined as a means by which access to a particular occupation is granted (Kolter and Amstrong, 2000:75). There is a strong relationship between income and education level. More educated consumers have more money available to spend, due to better education, and this affects their life-styles. As people attain higher education, if affects which type of products they buy, what kind of stores to buy them in, and what prices they are willing to pay (Wilkie, 1990:78).

A person's level of education can impact strongly on their ability to generate income and their consumer spending potential. In short, better educated consumers tend to have better paying occupations than those who are not well educated (Schiffman and Kanuk, 2000:4).

In South Africa, education levels have improved greatly. In 2001, 23% of the South African population had matric education, compared to 14% in 1994. In rural areas, 13% had completed a matric education (compared to 5% in 1994), and in urban areas this figure was 29% (compared to 20% in 1994). Basic literacy (the ability to read and understand) is also up from 87% to 92% (www.safrica.info.com). According to Polatoglu and Ekin (2001:164) affluent and highly educated groups generally accept changes more readily, making them the most likely group of consumers to adopt internet banking; this is based on sample information gleaned from their survey of internet banking customers, which revealed that 82% of those interviewed are university graduates and 73% reported being in the medium high or high-income group. Therefore this study undertakes to examine whether education level has an impact on consumer adoption of internet banking.

3.8.3 Income

The amount of money consumers spend on goods depends on their income. Income as it affects spending is measured in three ways: i.e. personal income, disposable

income, and discretionary income (McCarthy and Perreault, 1993:190). Income is a popular demographic variable for segmenting markets because income levels influence consumer wants and determines their buying power (Lamb, et al., 2000:217).

Income is meaningful only in relation to the amount of goods and services it can buy (its purchasing power). Inflation, recession, the international value of currency, and productivity all affect purchasing power. Marketers of income-sensitive goods pay constant attention to trends in personal income, savings, and interest rates. If economic indicators point to a recession, marketers can take steps to redesign, reposition, and re-price their products so they continue to offer value to target customers (Kotler, 2000:217). Well educated, intelligent consumers may be better able to evaluate more complex information and make informed decisions, however should they be faced with financial constraints this could well effect their motivation to act out these decisions (McCarthy and Perreault, 1993:191).

South Africa is an upper-middle income country, but it is also a country of stark contrasts. The extreme inequality in South Africa means that destitution, hunger and overcrowding are seen side by side with affluence. Living Standard Measures (LSM) are utilised by marketers to understand the segments within the country. The South African Advertising Research Foundation uses its own LSM scale to rank household incomes. LSM 1 represents the poorest households and LSM 8 the wealthiest. (www.safrica.info.com). Since 1994, the percentage of South Africans classed as LSM 1 has dropped significantly – from just under 20% in 1994 to about 5% in 2001. The ranks of the middle classes – LSM 4 to 6 are also on the increase (wwwsafrica.info.com). Since 1994 the poorest households have benefited the most. At that time 74% of all households had a monthly income of less than R 2499, but by 2001 only 62% were still in that category. The higher income brackets have also grown. Households earning a monthly income from R2500 to R5999 are up from 16% to 20%, and households that now have a monthly income of over R 6000 are up from

10% to 18%. Clearly these findings indicate the emergence of higher income earners
who are likely to require access to the Internet (wwwsafrica.info.com). Du (2002:1) suggests that the wealthy segment represents a profitable and less risky customer base for several reasons: most importantly because they deal with larger sums of money, and thus, have more purchasing power in buying banks' products and services such as investments and insurance.

According to Mcleod and Planting (2001:2), there are other factors at play in South Africa which inhibit growth. One is South Africa's high Internet access cost. The longer you are online the higher the cost of the connection. When the economy becomes tougher consumers become less confident and want to reduce telephone costs resulting in less time spent online. A survey in Finland (Karjaluoto, 2002:359) shows that income has a major effect in the adoption of internet banking. Internet banking users had much higher incomes than non-users did. Therefore this study aims to identify whether income has an impact on consumer adoption of internet banking in South Africa.

3.8.4 Occupation

A person's occupation also influences his or her consumption pattern. For example a blue-collar worker is unlikely to buy the same type of clothes, join the same type of clubs, or enjoy the same type of recreational pursuits as a company president would. Marketers try to identify the occupational groups that have above-average interest in their products and services. A company can even specialise their products for certain occupational groups (Kotler, 2000:181). Demographic variables are often used as a basis to describe different types of consumers. Differences in occupations are also commonly used (Wilkie, 1990:105).

Education, occupation and income level tend to be closely correlated in a cause-and-effect relationship. High-level occupations that are rewarded with high

incomes usually require advanced educational training. Individuals with little education rarely qualify for high-level occupations (Schiffman and Kanuk, 2000:42). Karjaluoto (2002:359) relates this to internet banking where those currently using online services are well-educated and have better occupations than non-users.

In conclusion, occupation has an impact on internet banking and current users tend to be employed in better positions than non-users. The challenge facing banks in this regard is to find ways to make internet banking equally attractive to the majority of their clients who are not employed in top occupations.

3.9 SOCIAL INFLUENCES ON THE ADOPTION OF INTERNET BANKING

Social influences result from face-to-face communication. The opinion of friends and neighbours, the judgment of one's peers or the influence of the family are all social influences (Du Plessis and Rouseau, 1999:80).

Service buyers are guided in their behaviour not only by their own motives, perceptions and attitudes, but also by those of the reference groups to which they belong. The influence of others may be elicited by the consumer, who for example may ask a friend to recommend a good electrician. The influence of other people may also be very direct, such as when a mother forbids her children to see a particularly violent film (Du Plessis and Rousseau, 1999:166). Groups having a direct influence on a person are called membership groups. These are groups to which the person belongs and interacts. Some are primary groups, such as family, friends, neighbours and co-workers with whom the person interacts fairly continuously (Kotler, 2000:178). Family members constitute the most influential primary reference group. The family of orientation consists of the person's parents. From parents a person acquires an orientation toward religion, politics and economics and a sense of personal ambition, self-worth, and love. Even if the buyer no longer interacts very much with parents, the parents' influence on the buyer's behaviour can be significant

(Kotler, 2000:179). A more direct influence on everyday buying behaviour is the family of procreation, namely, spouse and children. The family is the most important consumer-buying organisation in society, and it has been researched extensively. Marketers are interested in the roles and relative influence of the husband, wife, and children in the purchase of a large variety of products and services (Stanton, et al., 1994:165). Many groups influence a person's behaviour. Reference groups serve as a point of focus in purchasing decisions and in identifying solutions to problems. A person's reference group consists of all the groups that have a direct (face-to-face) or indirect influence on that person's attitudes or behaviour (Mason and Ezell, 1987:261).

Cheung, et al. (2000:55) state that the Internet is such a broadly discussed topic that social pressure plays an important part in explaining its usage. It follows therefore that social pressures may also affect internet banking. Social pressures can emanate from any group such as parents, colleagues, and friends. Whilst it would be difficult to predict how a particular group could influence an individual in the adoption of Internet banking it is never the less possible to assert that there is some influence by others on an individual's intention to adopt internet banking.

A survey conducted in Hong Kong (Cheung, 2001:116) shows that classmates and friends are likely to have an influence on potential adopters and users of Internet banking. Social factors are a dominant force that not only influence consumers to adopt internet banking, but also influences them to continue banking by internet. This suggests that strategies should be implemented to attract potential adopters through the references of friends, colleagues and family members. This can be achieved by offering member referral rewards. According to Davis (1989:336), should a superior or a co-worker suggest that a particular system (e.g. internet banking) is useful, a person may come to believe that this is actually so, and become amenable towards accepting that system.

The opinion of a reference group is an important factor influencing the adoption of internet banking. To bring internet banking to the attention of reference groups,

banks should be more actively promoting their online services. With greater awareness people are more likely to start discussing the advantages and disadvantages of internet banking. Once people perceive that its positive aspects out weight any negative aspects, they are more likely to accept internet banking (Du, 2002:4).

Because consumers are often influenced by the opinions of others, it is important therefore that marketers identify these influences and understand the impact they have on the adoption of internet banking. Reference groups are a major factor in consumer decision making, so campaigns that are aimed at key influences within reference groups would be effective if they were successfully implemented, because others would be influenced in turn. Perhaps additional incentives such as membership reward incentives could be used to add impetus to the campaign.

3.10 SUMMARY

In a world that is becoming increasingly globalised through the use of the Internet, internet banking is gaining ground as a new opportunity for banking institutions. From a South African perspective consumers are slow to adopt internet banking, and only a small percentage of banking clients have opted to use internet banking services to date. Very little research has been conducted in South Africa to determine what factors influence consumer adoption of internet banking. Clearly there is a need for more research on this topic.

This chapter, which is a combination of research findings from around the world, is primarily a study of consumer behaviour and the factors which impact that behaviour, particularly when the consumer is faced with the uncertainty of adopting life-changing innovations like internet banking. The chapter started by defining consumer behaviour. This provided a foundation on which the remainder of the chapter is built, and which leads on to the study of the three dominant factors which affect consumer behaviour.

The first of these factors (consumer perception and attitude toward internet banking) was broken down and analysed under the sub-headings of relative advantage, compatibility, complexity, perceived cost and perceived risk. Clearly, consumer perceptions and attitudes are interlinked and entirely subjective and can be changed. The second factor (consumer demographic characteristics) demonstrated how age, education level, income and occupation are the demographic categories which are most influential in shaping consumer behaviour. The results of the various studies indicates that current users of internet banking are in the 35 to 49 year age group, are well-educated, have better occupations, and thus higher income levels than non-users. The third factor (social influences on the adoption of internet banking) examined the influence of reference groups on consumer adoption of innovative products such as internet banking.

It is hoped that this chapter will be of value to the banking community in South Africa by providing a better understanding of the factors which influence consumer adoption of internet banking. Many of the factors discussed impact negatively on internet banking and present a challenge for banks which they will need to overcome by implementing new purpose designed strategies. Conversely, banks should also consider whether they are fully exploiting those factors which positively influence the adoption of internet banking. In the next chapter the research methodology of this study will be presented.

CHAPTER FOUR – RESEARCH METHODOLOGY

4.1 INTRODUCTION

This chapter explains the research methodology, standards and techniques that were applied to obtain representative data from a sampling of the banking public in Durban. The five Ws (Who?, When?, Where?, Why? and Way?) were strategic to the design of this research. Great care was taken in ensuring that the target population was properly representative. Judgemental sampling was used to choose the sampling units (4 shopping malls) and convenience sampling was used in selecting the respondents (100 in each of the four shopping malls). Data was collected using questionnaires administered during interviews.

Prior to finalising the questionnaire a pilot test was used to test face validity and evaluate the questionnaire. The final questionnaire had five parts. Dichotomous, multiple choice and Likert scale questions were mostly used apart from one open ended question. The data was analysed using the SPSS computer program and the results were presented using frequency, percentages, bar charts, pie charts and tables. The face validity of the questionnaire was confirmed by expert opinion, and the reliability of the results was confirmed by applying Cronbach's Alpha test.

4.2 RESEARCH DESIGN

This quantitative study is aimed at identifying the factors influencing the adoption of internet banking among South African customers.

"A quantitative study, consistent with the quantitative paradigm, is an inquiry into a social or human problem, based on testing a theory composed of variables, measured with numbers, and analysed with statistical procedures, in order to

determine whether the predictive generalisations of the theory hold true" (Babbie and Mouton, 2002:646). The research was descriptive, that is it was used to determine market characteristics. Malhotra (1999:87) defines descriptive research as "a type of conclusive research which has as its major objective the description of something".

Thus, the research, marked by a clear statement of the problem and detailed information needs, as was shown in previous chapters, corresponds to descriptive research. Finally, the 'five Ws' of research specific to a descriptive design, have been identified (Malhotra, 1999:88): Who? (consumers), When? (currently), Where? (in the Durban area), Why? (to investigate factors influencing the adoption of internet banking), Way? (by identifying consumers' demographic characteristics, perceptions, and attitudes towards internet banking).

As the respondents were considered at a fixed point in time, the research used a cross-sectional methodology (Bailey, 1987:460). "The cross-sectional study is the most frequently used descriptive design in marketing research. Cross-sectional designs involve the collection of information from any given sample of population elements only once" (Malhotra, 1999:89).

4.3 DEFINITION OF THE TARGET POPULATION

The population of interest is called the target population. Data should only be gathered from objects in the population of interest. Properly defining the target population is a crucial step in the design of the research project (Crask, et al., 1995:176). The sampling population was defined as customers of South African retail banks of all races who reside in the Great Durban area. The reason for choosing this sampling population is that these individuals are people who engage in retail banking.

4.4 SAMPLING METHOD

In this study, non-probability sampling was used, as it was impossible to identify the elements beforehand because there was no list available which corresponded with the required elements and so random sampling was not possible.

Non-probability sampling relies on the personal judgment of the researcher rather than chance to select sample elements. These sampling techniques do not use chance selection procedures (Malhotra, 1999:334).

Two steps were used to sample the population for this study:

Firstly, the selection of the sampling units, that is to say the places where the interviews were to be conducted. Thus judgmental sampling was used to choose those units. According to Malhotra (1999:335), judgmental sampling is a form of convenience sampling in which the population elements are purposefully selected based on the judgment of the researcher.

This method was necessary as the places which are believed to be representative of the target population had to be chosen subjectively (Crask, et al., 1995:177). Because there are so many shopping malls, it was important for the interviewer to be present at each of these different places.

Secondly, to select the respondents who were to be interviewed the convenience sampling method was used.

“Convenience sampling is a non-probability sampling technique that attempts to obtain a sample of convenient elements. The selection of sampling units is left primarily to the interviewer” (Malhotra, 1999:335)

According to Struwig and Stead (2001:111) convenience sampling is chosen purely on the basis of availability. Respondents are selected because they are accessible and articulate. Convenience sampling is the least expensive and least time consuming of all sampling techniques. The sample elements are easily accessible, easy to measure, and co-operative. Therefore for this study convenience sampling was used to select the respondents who were to be interviewed.

4.5 SAMPLE SIZE

One hundred respondents multiplied by four from four shopping malls (The Pavilion, Gateway Theatre of Shopping, Musgrave Centre and Davenport Centre) were interviewed, i.e. 100 respondents in each shopping mall were interviewed. Four hundred respondents were selected at the site of study since the study is based on categorical variables that measure perception using nominal or ordinal scales.

The sample size was therefore large enough for the study. This view is backed by Struwig and Stead (2001:119) who state that if the sampling process has been correctly followed then sample sizes of 150 to 200 can provide an acceptable reflection of the population.

4.6 SAMPLING UNITS

The Pavilion, Gateway Theatre of Shopping, Musgrave Centre and Davenport Centre are the four big shopping malls in four different areas which were selected through the method of judgemental sampling explained above.

The reasons why The Pavilion, Gateway Theatre of Shopping, Musgrave Centre and Davenport Centre were selected are as follows:

- These four shopping malls are large shopping malls in Durban.

- They are located in different areas of Durban.

Therefore, the researcher believes the selected places are representative of the target population of Durban.

The places selected are reflected in Table 4.1.

Table 4.1 Place selected

Name of shopping mall	Shopping mall address
The Pavilion	9 Spine road Westville
Gateway Theatre of Shopping	1 Palm Boulevard, Umhlanga Ridge New Town Centre Umhlanga
Musgrave Centre	115 Musgrave Road Berea
Davenport Centre	89 Davenport Road Glenwood

4.7 METHOD OF COMMUNICATION USED DURING INTERVIEWING

Data was collected through the use of questionnaires and interviews.

A questionnaire is a pre-formulated, written set of questions to which respondents record their answers, usually with rather closely defined alternatives (Anonymous, 2005:51).

Interviews were used for the following reasons:

- The interviewer can explain any questions that the interviewee does not understand.

- They are the best method for collecting personal data. For example: information on a person's income.

- It would enable the interviewer to have a visual check as to whether the interviewee fits the sample population.

- It allows for the development of a detailed questionnaire.

Data was collected through the use of questionnaires and interviews. The interviews were conducted in The Pavilion, Gateway Theatre of Shopping, Musgrave Centre and Davenport Centre. The reason for choosing these shopping malls is that a wide cross-section of people visit them every day, therefore the interviewers were able to find a wide cross-section of people to interview.

4.8 DATA COLLECTION

The interviews were conducted in four big shopping malls located in Durban and its surrounding areas. (The Pavilion, Gateway Theatre of Shopping, Musgrave Centre and Davenport Centre). In order to have a reliable study and a representative sample, it was necessary to interview customers in different areas to reach the heterogeneous population to ensure a wide spread of potential respondents to the study.

In order to administer the questionnaire, students from the Durban Institute of Technology and the University of Kwazulu Natal were hired. Interviews were conducted at different times of the day and different days of the week. A day was divided into two parts: the morning and the afternoon.

The interviewing plan specified in detail, the way the questionnaires were administered, according to the name of the shopping mall and the day of the week. The number of questionnaires, which were completed in each shopping mall, was indicated by the figure in bold, and AM was used to indicate whether the interviews were done in the morning or afternoon sessions.

The interview plan is shown in Table 4.2.

Table 4.2: Interview Plan

	Pavilion shopping centre	Gateway shopping centre	Musgrave shopping centre	Davanport shopping centre
Monday	10 AM **20**	10 Am **20**	10 AM **20**	10 AM **20**
Tuesday	10 AM **20**	10AM **20**	10 AM **20**	10 AM **20**
Wednesday	10 AM **20**	10 AM **20**	10 AM **20**	10 AM **20**
Thursday	10 AM **20**	10 AM **20**	10 AM **20**	10 AM **20**
Friday	10 AM **20**	10 AM **20**	10 AM **20**	10 AM **20**

4.9 PRE-TESTING

Survey pre-testing involved administering the questionnaire to a small sample of respondents to determine if the questions were understandable and if the survey procedures worked (Crask, et al., 1995:210).

Pre-testing the questionnaire was essential to ensure that the respondents interpreted the questions correctly and to evaluate the quality of the data collected. The questionnaire was submitted to the supervisor to check whether the questions would provide the type of data that would answer the research questions. The supervisor also checked the wording of the questionnaire to ensure that there were no leading questions and that there was no order bias in the sequence of the questions.

To test the face validity of the survey instrument a pilot study was conducted. The questionnaire was pilot tested before it was finalised. For the final stage in questionnaire construction the questionnaire was tested using customers who had the exact characteristics of the respondents in the study population. These test subjects were encouraged to express their own opinion of the questionnaire. In this way the questionnaire was pilot tested by customers from their own point of view.

The pre-test questionnaire was evaluated using 20 Standard Bank customers at the Davenport Road Branch in Glenwood, Durban. Being adjacent to the shopping mall, this branch attracts both young and mature customers. The aim of the pre-test questionnaire was to establish the following:

- To test if the questionnaire sufficiently covered the research topic.
- To identify ambiguous questions.
- To ensure that the questions precisely tested the information required.

- To test the respondents' willingness to answer sensitive questions.

- To ensure that there was no order bias in the sequence of questions.

Based on feedback from this pre-test, some customers said questions 3.1 and 3.2 were too long to read; hence these questions were reconstructed to ensure simple and clear understanding. Other than that, no other alterations were required and no items needed to be deleted. The average completion time was 10 minutes.

4.10 CONSTRUCTION OF THE FINAL QUESTIONNAIRE

The questionnaire consisted of five parts (see Appendix 1).

Part 1: INTERNET USAGE. This section was designed to determine the time, place and usage of the Internet in the respondents' typical day. This implied using Internet for many different tasks such as e-mail, entertainment, study, news updates, banking and so on. This information was acquired by using dichotomous and multiple-choice questions.

Part 2 INTERNET BANKING HABITS: This section gathered information about the respondents' internet banking habits, their willingness to conduct internet banking and the type of transactions for which they use internet banking for. Dichotomous and multiple-choice questions were also used to determine this information.

Part 3 PERCEPTIONS AND ATTITUDES: This section probed the perceptions and attitudes of respondents towards using internet banking services. The 5-point Likert scale was used to determine customers' perceptions and attitudes in this regard.

Part 4 DEMOGRAPHICS: This section gathered demographic information. To ensure that honest opinions and answers where obtained, respondents were guaranteed anonymity. Dichotomous and multiple-choice questions were used to determine these variables. Respondents chosen from a range which ensured that they did not have to disclose specific details which might otherwise make them uncomfortable.

Part 5 OPEN-ENDED QUESTION: One open-ended question was provided to give respondents a chance to further clarify some issues in their own words or to express any ideas that they considered applicable. No choice or alternatives were offered.

The questionnaire constructed was kept deliberately short to suit the face-to-face technique and to improve the response rate. The questionnaire was finalised and professionally edited to ensure that it was grammatically correct. The following sample rating scales were used in developing the questionnaire: dichotomous questions, multiple choice single response questions, multiple choice multiple response questions and 5 point Likert-type scales were chosen to specifically test the attitudes of the respondents.

Dichotomous questions allow for responses that indicate an unmistakeable division, e.g. ‘yes’ or ‘no’. Respondents were offered a choice between two options only, such as, did/did not, cash/credit, and so forth (McDaniel and Gates, 2002:362).

Multiple choice single response questions offer specific alternatives from which the respondent must choose one (McDaniel and Gates, 2002:362).

Multiple choice or multiple response questions offer specific alternatives from which the respondent may choose more than one answer (Struwig and Stead, 2001:92).

A Likert-type scale is usually linked to a number of statements to measure attitudes or perceptions and 5-point or 7-point scales are often used (Struwig and Stead, 2001:94).

4.11 VALIDITY AND RELIABILITY

The validity of a scale may be defined as the extent to which differences in observed scale scores reflect the true differences between the characteristics being measured without systematic or random errors (Malhotra, 1999:285). For this research, the researcher has attempted to ensure the face validity of the questionnaire.

Face validity

This refers to whether the items of the test appear to measure what the test proposes to measure. It should be ensured that the instrument address all essential questions and consideration taken to use the appropriate and suitable language for the respondents. Unlike content validity, face validity does not rely on the established theory for support (Struwig and Stead, 2001:140).

To ensure face validly and whether the instrument adequately covers the topic, a pilot questionnaire was tested face to face between the banking customers and the researcher on 20 people. Face validity was further ensured by asking professional bank staff with expertise on internet banking at ABSA and a statistician in the Department of Statistics at the University of KwaZulu-Natal to evaluate the questionnaire, and to ensure that it included the best factors influencing the use of internet banking service. The comments of the expert were generally positive and indicated that the questionnaire was clear and easy to understand.

Reliability

Reliability refers to the extent to which a scale produces consistent results if measurements are made repeatedly (Malhotra, 1999:281). Internal consistency reliability is a commonly used psychometric measure for assessing survey instruments and scales. Internal consistency is measured by calculating a statistic known as Cronbach's co-efficient Alpha (Litwin, 1995:24).

Reliability is concerned with estimates of the degree to which a measure is free of random error. Cronbach's Alpha test was used to test for reliability. According to Litwin (1995:31) a minimum Cronbach's Alpha value of 0.7 is generally accepted as representing good reliability. The aggregate Cronbach's Alpha value for this study was 0.8039 which being better than the acceptable level of 0.70 (see appendix 2), indicates a high level of reliability and internal consistency.

4.12 ETHICS

The goal of ethics in research is to ensure that no one is harmed or suffers adverse consequences from research activities (Cooper and Schindler, 2001:112). Central to the concept of research is the safeguarding of respondents rights. The researcher has done the following to ensure that the respondents' rights are protected.

- Informed consent was sought and appropriate documentation was kept.

- Questionnaires were coded to guarantee anonymity. None of the respondents was named at any time during the research or in the subsequent thesis.

- Respondents were selected for their willingness to participate without compulsion, and no risks to the respondents could be identified at any stage during the research.

- The researcher honoured all agreements.

- Respondents were treated with respect and courtesy throughout the research process.

4.13 DATA ANALYSIS

A computerised statistical analysis of the data was necessary to describe and interpret the data that was obtained from the questionnaires. A conversion was made through a computer package (i.e.SPSS version 12) in order to analyse the information. The data was analysed in order to identify factors which influence customers to use internet banking. The stages in the statistical analysis were data preparation; tabulation of data, and then various tests were conducted to analyse relationships.

4.13.1 Data preparation

Data preparation includes coding and editing (McDaniel and Gates, 2002:464). Editing is the process of ascertaining that questionnaires were filled out properly and completely. This involves checking for interviewer and respondent mistakes. Coding refers to the process of grouping and assigning numeric codes identifying various respondents with a particular question.

As mentioned previously, the questionnaires were pre-coded. However, open-ended questions had to be analysed and coded after completion. Open-ended questions were kept to a minimum to avoid any coding problems.

Questionnaires were discarded if they fell outside the sample parameters, and if it appeared that a respondent had not understood the question then a decision was made whether to leave out that question or the whole questionnaire. Answers were also checked for inconsistencies.

Four questionnaires, which did not comply with the requirements after this quality review, had to be discarded as it was impossible to approach the respondents again to clear up problems. Some parts, especially question 3.5, were incompletely or incorrectly answered and the omission of certain elements would have seriously impaired the representativeness of the results. To achieve the minimum sample size of 400 respondents, another four replacement interviews were conducted in the same places and under the same conditions.

4.13.2 Data analysis and interpretation of the results

Tabulation is merely a frequency count of each question's answers (Crask, et al., 1995:229). Tabulating the data aids in finding how the data was distributed, what was typical in the data, how much the data varied, and whether there was any significant relationship between different sets of data.

Frequencies and percentages are widely used in marketing research because the relative importance of figures is revealed more clearly by these simple tools than by the original data. Frequencies and percentages are used to represent variables throughout the study (Aaker, et al., 2004:450).

Once this data was collected the questionnaires were edited and checked to ensure that none of them contained missing data and recorded it was carefully analysed. The data was analysed by examining the frequency with which certain responses occurred. The results were displayed by means of pie charts or bar charts to make the frequencies easier to read. The program used to analyse the results was the SPSS program. The data was then entered into a statistical program and the information was verified to ensure that the data was entered correctly. The questionnaires were pre-coded to make this task easier. The underlying purpose of the statistical analysis was to show that certain factors have a significant influence on customer attitudes towards internet banking.

The statistical analysis process was covered under the following headings:

Descriptive statistics

Descriptive statistics describe data in terms of measures of central tendency. Descriptive statistics are the most efficient means of summarising the characteristics of large sets of data. In a statistical analysis, the analyst calculates one number or a few numbers that reveal something about the characteristics of large sets of data (Mc Daniel and Gates, 2002:488).

The following statistical methods were used:

Frequency

”A report of the number of responses that a question has received” (Aaker, et al., 2004:772).

Percentages

“The percentage is the proportion of respondents who answer a question a certain way, multiplied by 100” (Aaker, et al., 2004:450).

Bar charts

According to Kinnear and Taylor (1991:674) bar charts depict magnitudes of the data by the length of the various bars that have been laid out with reference to a horizontal or vertical scale.

Pie charts

Kinnear and Taylor (1991:674) describe a pie chart as a circle which is divided up into slices, each of which represents a portion of the total. Struwig and Stead (2001:271) believe the pie chart is particularly effective for depicting relative size or emphasizing static comparisons since the sections are represented as part of the whole or total.

Inferential statistics

These have been used to gain knowledge about the structural relationships among the variables.

Cross tabulations

The objective of cross tabulation is to compare responses to one question in relation to the responses of one or more other questions (Mc Daniel and Gates, 2002:479).

Chi-square test

Chi-square distribution is the most commonly used method of comparing proportions to establish whether the relationships mentioned above are dependent or independent of each other (Mc Daniel and Gates, 2002:516).

Independent sample t-test

The independent sample t-test compares the mean values of two groups of cases, and is used to test whether the difference in means of variable in two groups of respondents is significantly different from zero (Struwig and Stead, 2001:161).

In this study the data was analysed by examining the frequency with which certain responses occurred. The results were illustrated by means of pie charts or bar charts to make the frequencies easier to use. A chi-square was used to test the relationship between consumer's demographic characterists and adoption. An independent sample t-test was used to test differences between users and non-users in terms of their perceptions of internet banking.

4.14 SUMMARY

In this section, the methodology used in the study has been discussed. This chapter has also shown that the methodology was designed to maximize reliability and validity, and thus the findings of the study can be accepted with a reasonable degree

of confidence. This discussion of the methodology also allows an easier understanding of the following chapter, which presents the results and analysis of the data collected.

CHAPTER FIVE – ANALYSIS AND RESULTS

5.1 INTRODUCTION

This study analysed 400 responses. All the respondents were customers of major South African retail banks; there were 320 non-users and 80 users of internet banking. The results of the statistical analysis as reported here were obtained using the SPSS version 12 computer program. Appropriate frequency tables and graphs were inserted for clear illustration.

The analysis was conducted in order to identify the factors that influence consumer usage of the Internet. The ultimate aim of the study was to gain a better understanding of factors that influence the adoption of internet banking. The data was analysed in accordance with the three research objectives.

The analysis begins with a description of the demographic profile of the respondents, which will give the reader an insight into demographic trends typical of any representative sampling of retail banking customers in the Durban area. The hypotheses of this research were tested with a chi-square test and independent sample t-test. A chi-square test was used to test the relationship between consumers' demographic characteristics and the adoption of internet banking. An independent sample t-test was used to test differences between users and non-users in terms of their perceptions of internet banking.

5.2 DEMOGRAPHIC FACTORS

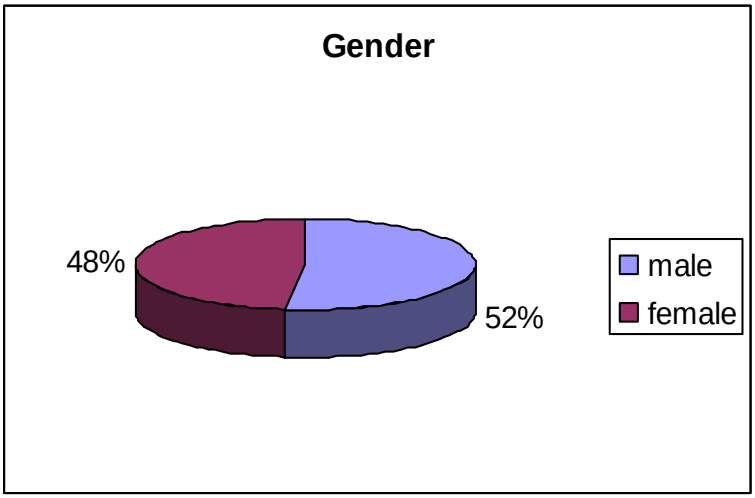
Frequencies were used to determine how often a respondent made a certain response to a particular question. This gives general information about what the information means. This section introduces the demographic profile of the participants. Firstly, the participants are introduced together in terms of their

demographics. Secondly, this section introduces some important demographic findings in the different groups separately.

5.2.1 Gender

As reflected in Figure 5.1, 52 percent of the study participants were male and 48 percent were female. This indicates that both males and females were nearly equally represented in the sample size of this research. This, however, should not be taken as an indication that both the male and female respondents use internet banking equally.

Figure 5.1 Gender of respondents



Figures 5.2 and 5.3 reflect user and non-user gender distribution. With 67 percent of users being male and 52 percent of non-users being female, these results show that men are using internet banking more than women are. This indicates that gender could be a factor that affects customer adoption of internet banking in South Africa.

Figure 5.2
Internet banking users' gender distribution

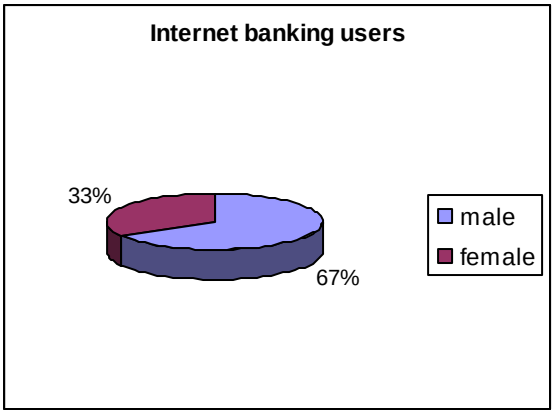
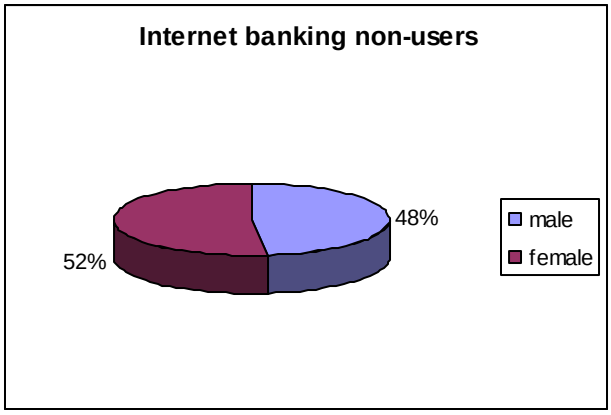


Figure 5.3
Internet banking non-users' gender distribution



5.2.2 Age

Figure 5.4 shows the age groups into which respondents fell. Almost half of the respondents (46 percent) fall into the 21 to 29 age group, with 27 percent in the 30 to 39 age group, 16 percent in the 40 to 49 age group and only 11 percent in the over 50 age group. The demographic age profile of the study participants shows that the 21 to 29 age group is dominant.

Figure 5.4 Age of respondents

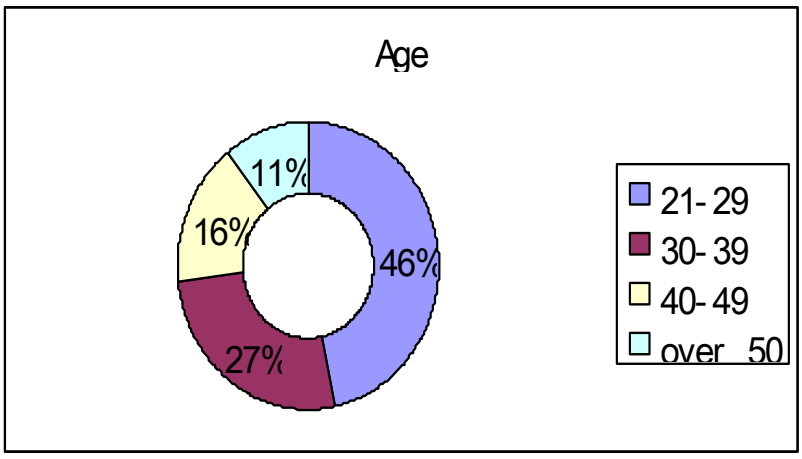


Figure 5.6 shows that non-users are relatively young (53 percent in the 21-29 age group), while users are relatively older (Figure 5.5). Research quoted previously shows that in Finland (Karjaluoto, et al., 2000:263) age has an impact on the use of internet banking and the typical user is between 35 and 49. As this is not borne out by the aforementioned findings it is likely that the age of typical South African internet banking users differs from those in Finland. The age group 30-39 accounts for 64 percent of the users, which is a relatively high proportion. To sum up, the present data analysis suggests that age has an impact on the use of internet banking. Additionally, the results imply that typical internet banking users are middle-aged.

Figure 5.5

Internet banking users' age distribution

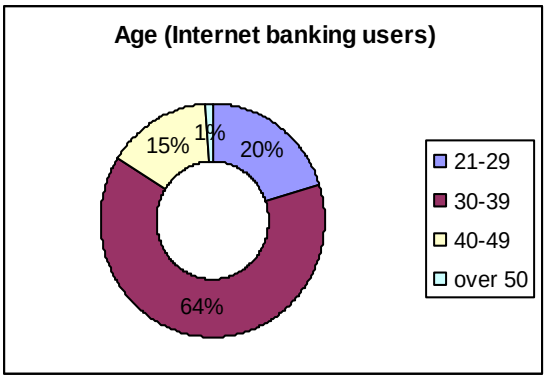
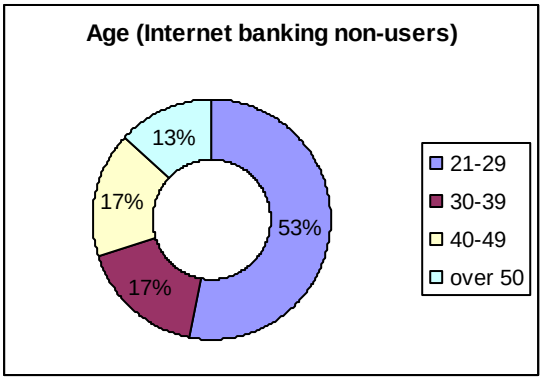


Figure 5.6

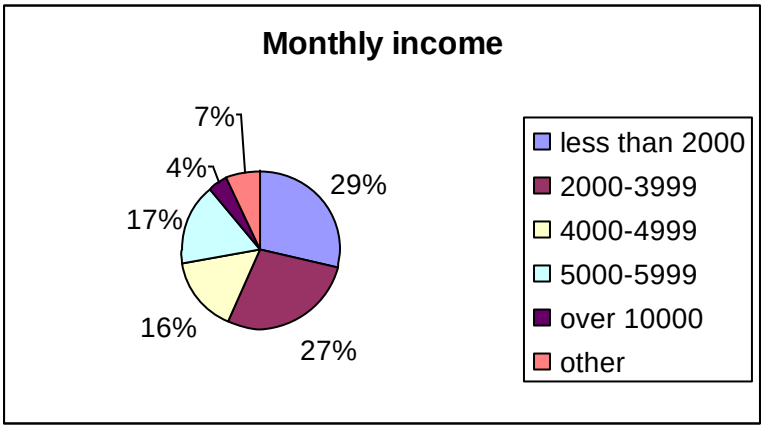
Internet banking non-users' age distribution



5.2.3 Income

Figure 5.7 displays the monthly income of respondents. 21percent of the respondents earn over R5000, while 16% were in the R4000 to R 4999 bracket. The respondents in these groups are likely to have their own computers with Internet access. Those earning below R2000 accounted for 29 percent of the total respondents. This group is unlikely to have access to a computer or the Internet.

Figure 5.7 Monthly income



Figures 5.8 and 5.9 contrast the income disparity between users and non-users and indicates that monthly income seems to be a major factor affecting the use of internet banking. The findings show that a total of 64 percent of users have a monthly income of more than R 5000 per month. Another interesting implication of Figure 5.9 is that about 66 percent of non-users have an income of less than R4000 per month, and that only 10 percent of non-users have an income of more than R5000 per month. This finding concurs with prior studies (Karjaluoto, et al., 2002:265), which show that income has a major effect on the adoption of internet banking. Internet banking users earn a higher income than non-users.

Figure 5.8
Internet banking users'
Monthly income distribution

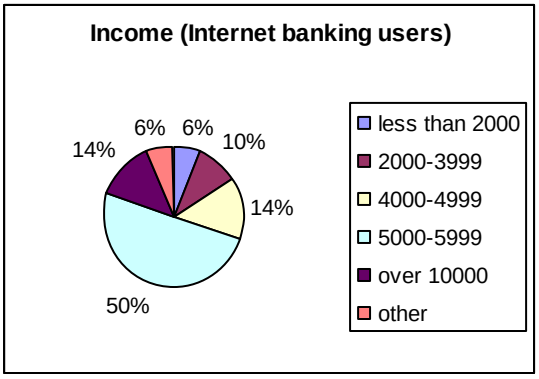
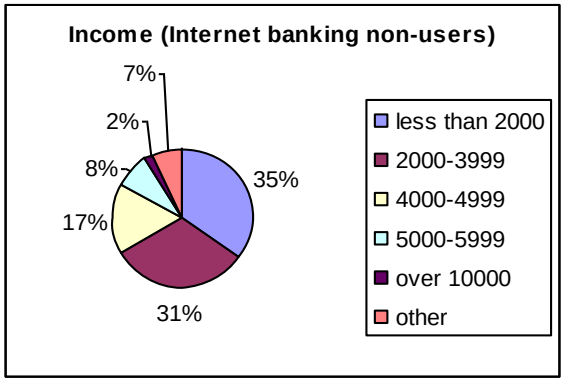


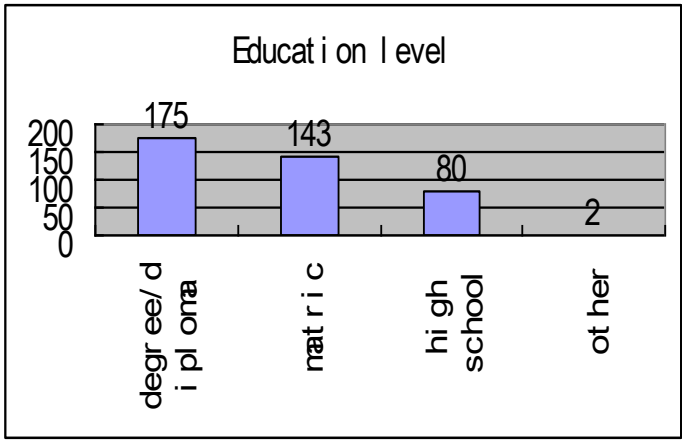
Figure 5.9
Internet banking non-users'
Monthly income distribution



5.2.4 Education level

The education level of the participants varied widely. Figure 5.10 indicates that 43.8 percent (175) have a university or technikon education; 35.8 percent (143) have a matriculation certificate, 20 percent (80) have a high school qualification and 0.5 percent (2) have other education.

Figure 5.10 Education level



Figures 5.11 and 5.12 compare the education level distribution between users and non-users. The higher education levels are particularly significant in both groups, as earlier research indicates that high levels of education enhance the consumer's ability to process more complex information and make decisions based on that (Polatoglu and Ekin, 2001:159). The education level distribution between user and non-user groups was exactly in line with this. Figure 5.11 shows that 83.8 percent of internet banking users (67) have a high education level while figure 5.12 shows that only 33.8 percent of the non-users (108) have a tertiary level education.

Figure 5.11 Internet banking users' education level distribution

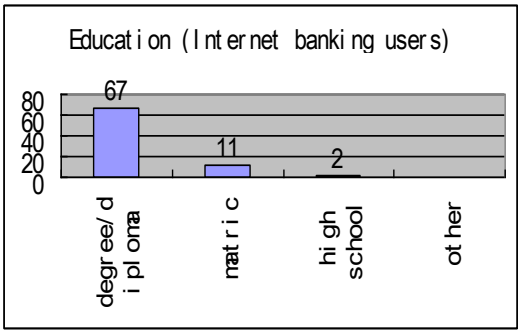
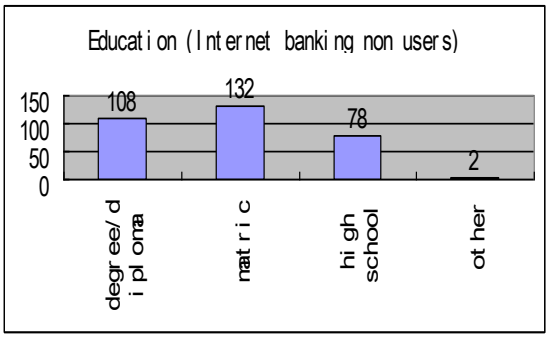


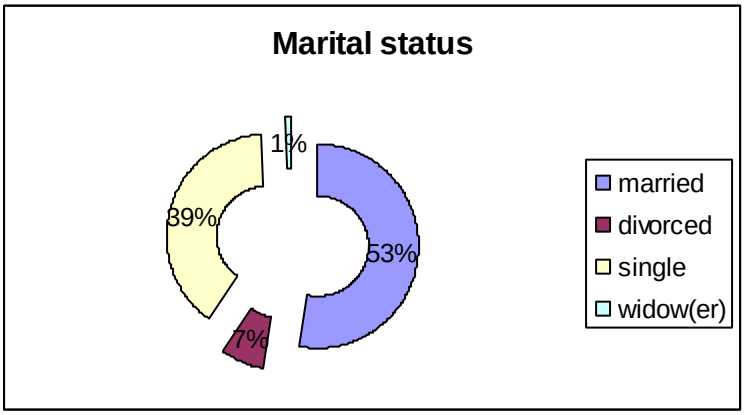
Figure 5.12 Internet banking non-users' education level distribution



5.2.5 Marital status

Figure 5.13 shows that more than half of the respondents (53 percent) are married, 7 percent are divorced, 39 percent are single and 1 percent were widowed.

Figure 5.13 Marital status



More specifically, 77 percent of the internet banking users are married, whereas less than half (43 percent) of the non-users are single. This is partly explained by the fact that users are older than non-users. The frequency results given in Figure 5.14 and 5.15 suggest that marital status influences the use of internet banking.

Figure 5.14 Internet banking users' marital status distribution

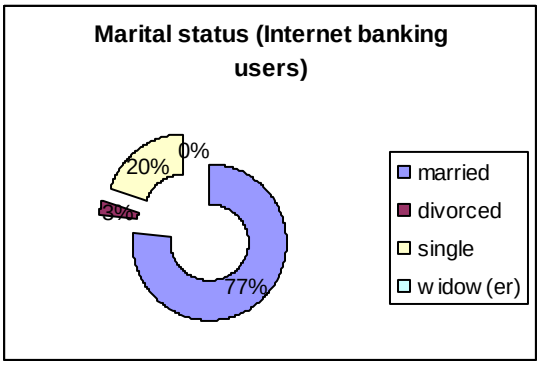
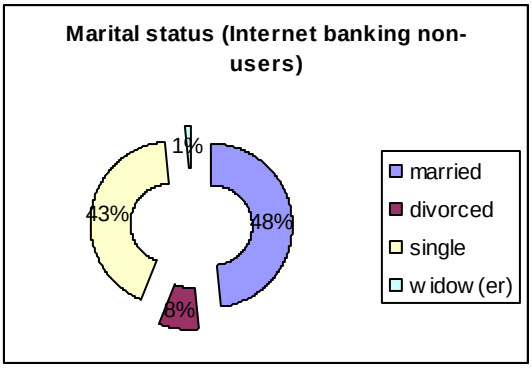


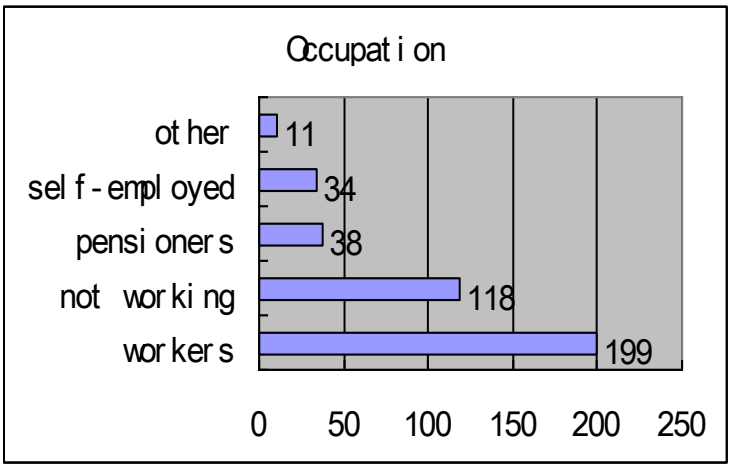
Figure 5.15 Internet banking non-users' marital status distribution



5.2.6 Occupation

The occupation distribution of the respondents varies widely. Figure 4.16 shows that the largest proportion of respondents is employed (49.8%). While 29.5% are unemployed, 9.5% (38) are pensioners and 11.3% (45) have other occupations.

Figure 5.16 Occupation



Figures 5.17 and 5.18 depict the occupation distribution between the two different groups. As can be seen, 81.3% of the users (65) are employed, whereas more than half of the non-users (58.1%) are not employed (111). To sum up, occupation seems to have an impact on the use of internet banking; and most users are employed, but the majority of non-users are unemployed. This confirms other research findings (Karjaluoto, 2002:359), which reveal that occupation has an impact on the usage of

internet banking, and that users are generally well educated and have better occupations than non-users.

Figure 5.17 Internet banking users' occupation distribution

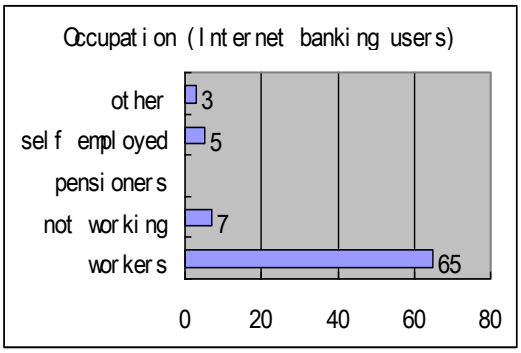
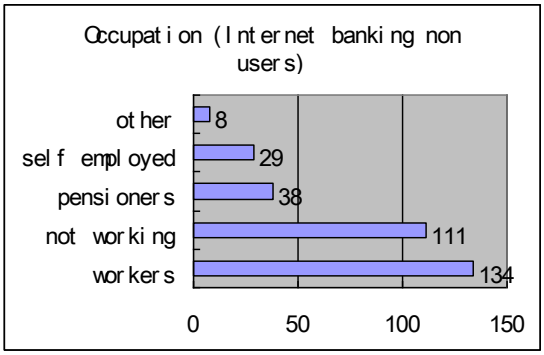


Figure 5.18 Internet banking non-users' occupation distribution



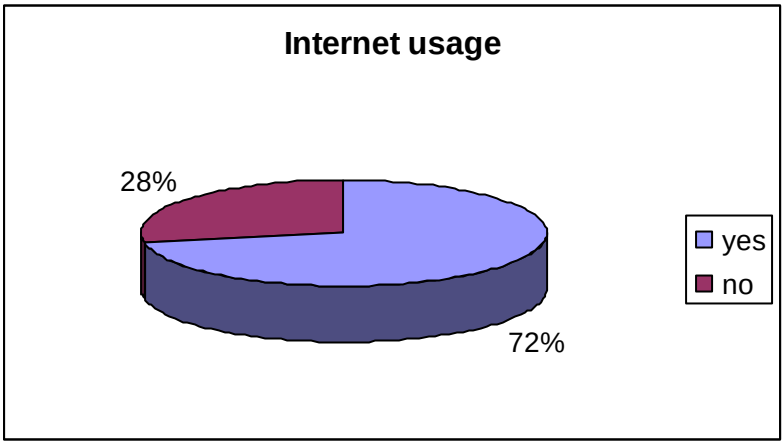
5.3 INTERNET USAGE

This section discusses the usage patterns of respondents of the Internet, the location where they have access, what they use the Internet for and how frequently they use the Internet. The influence of all these factors on the use of internet banking is also discussed.

5.3.1 Frequency of Internet use

The results shown in Figure 5.19 are in response to a question aimed at establishing the number of respondents who use the internet for any purpose (but not necessarily for internet banking). A total of 72 percent of the respondents use the Internet in the Durban area (South Africa).

Figure 5.19 Frequency of Internet use



5.3.2 The place where respondents use the internet

Table 5.1 reveals that 52 percent of respondents (151) use the Internet at their work places, 33.4 percent (97) at their homes, and 33.8 percent at internet cafés (98) and 31.7 percent at libraries (92). This indicates that many of the respondents use the internet at more than one location.

Table 5.1 Where do respondents use the Internet

Location where internet used	Yes	Percent	No	Total
Home	97	33.4	193	290
Work place	151	52	139	290
Internet Café	98	33.8	192	290
Library	92	31.7	198	290
Other	2	0.68	288	290

5.3.3 What respondents use the Internet for

Table 5.2 reveals that the Internet is mostly used for e-mail (72.8%) and as a means of keeping up to date with the news (64.1%). 50.7% of respondents use the Internet for entertainment and 41.4% for study purpose. Only 27.6% of the respondents do

their banking on the internet. These results suggest that there is a real need for Internet-based financial service delivery in South Africa.

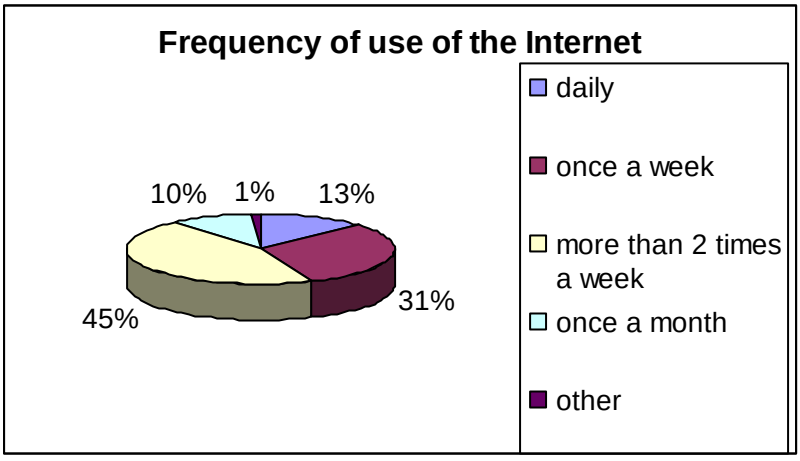
Table 5.2 What respondents use the Internet for

What do you use Internet for	Yes	Percent	No	Total
E-mail	211	72.8	79	290
Entertainment	147	50.7	143	290
Study	120	41.4	170	290
Update on current news	186	64.1	204	290
Banking	80	27.6	210	290
Other	1	0.34	289	290

5.3.4 Frequency of use of the Internet

Figure 5.20 indicates that 45 percent of the respondents use the Internet more than 2 times a week; 31 percent use the internet once a week; 13 percent use the Internet daily and 10 percent use the Internet once a month.

Figure 5.20 Frequency of use of the Internet



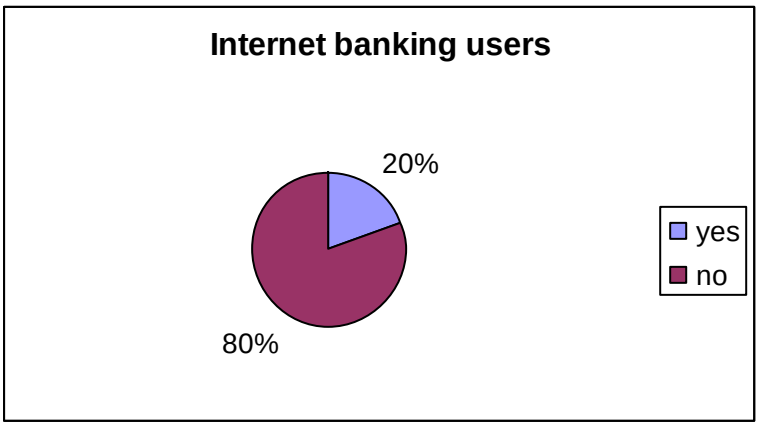
5.4 INTERNET BANKING

This section reveals findings about the respondents' habits with regard to internet banking in South Africa. The willingness of respondents to conduct internet banking and what they use internet banking for as well as factors encouraging or hampering the adoption of internet banking are tested in this section.

5.4.1 Internet banking users

The result of a question aimed at establishing the number of internet banking users within the sample is illustrated in Figure 5.21. Surprisingly only 20 percent of the respondents use internet banking despite the fact that 72 percent of the respondents are Internet users.

Figure 5.21 Users of internet banking



5.4.2 Factors hampering the use of internet banking

The 80 percent (320 respondents) who do not use internet banking gave the following reasons for not using this facility: firstly, 127 respondents indicated that the cost of Internet access is too high; secondly, 109 respondents do not believe that internet banking is sufficiently safe; thirdly, 71 respondents do not know how to use the Internet. The fourth (58) and fifth (58) most common reasons are that they are not

good with computers and they do not feel there is a need for them to engage in internet banking. These are the main reasons given by non-users' for their reluctance to adopt internet banking. The full range of results is shown in Table 5.3.

A smaller number of the respondents indicated that they did not own a computer (55) or have internet access (57). Being unequipped for internet banking is one of the reasons why non-users do not adopt this service. Other respondents indicated that they were unaware of internet banking. In this regard banks should be doing a lot more to bring about awareness and actively promote this service.

Table 5.3 Factors hampering the use of internet banking

Factors hampering internet banking use	yes	no	total
No Internet access	55	265	320
No computer at home	57	263	320
Not good at computer	58	262	320
Not good at using Internet	71	249	320
Cost of Internet access is high	127	193	320
Internet banking is not safe	109	211	320
No need	58	262	320
Have not heard of internet banking	36	283	320
other	2	318	320

5.4.3 Factors encouraging the use of internet banking

The purpose of this question was to establish some of the factors that would encourage non-users to change their attitudes towards internet banking. 66% of the non-users revealed that free Internet access would be a major factor, 59.4% stated that free skills training would encourage them to change, and 47% agreed that if banks could provide better security they would be inclined to change to internet banking. Some of the issues indicated under 'other' include an increase in the

number of personal transactions allowed, and the provision of better support (brought about by increased staffing) when an enquiry or problem is encountered.

Table 5.4 Factors encouraging the use of internet banking

Factors encouraging use of internet banking	Yes	Percent	No	Total
Free internet access	211	66	109	320
Free skills training	190	51.8	130	320
More economical banking transactions	83	25.9	237	320
Better security	151	47	169	320
Other	6	1.88	314	320

5.4.4 Where respondents learned about internet banking

Table 5.5 indicates the sources from which users learned about internet banking. It emerges that that television and radio (57.5%) have been the most effective means of promoting internet banking, followed by newspaper and magazine coverage (47.5%), printed promotional material put out by banks (33.8%) and finally word-of mouth (8.75%).

The data presented in Table 5.5 reveals that broadcasted media and printed periodicals are the most effective channels by which banks can promote their internet banking services. Internet banking involves personal finance matters, and is therefore unlike other IT innovations, so existing users are unlikely to influence non-users by showing them how easy it is to use. Instead, banks need to provide interactive demonstration accounts on the Internet so that non-users have an opportunity to try it out and know what the relative advantages of internet banking are. Banks could also offer video demonstrations in their branches aimed particularly at those who do not use the internet. On the whole, banks should use every effective means to educate those clients who do not use internet banking.

Table 5.5 Where respondents learned about internet banking

Sources of internet banking knowledge	Yes	Percent	No	total
Bank leaflets/advertisements	27	33.8	53	80
Television/Radio	46	57.5	34	80
Newspaper/Magazines	38	47.5	42	80
Word-of-mouth	7	8.75	73	80
Other	0	0	80	80

5.4.5 The bank of preference to respondents

Table 5.6 indicates that Standard Bank is the preferred bank of the respondents who use internet banking. ABSA took the second position and First National bank and Nedbank took the third and fourth place respectively.

Table 5.6 Which banks do respondents prefer for internet banking

Preferred banks for internet banking users	Yes	Percent	No	Total
ABSA	26	32.5	54	80
Standard Bank	45	56.3	35	80
First National Bank	19	23.8	62	80
Nedbank	6	7.5	74	80
Other	1	1.25	79	80

5.4.6 Uses of internet banking

Table 5.7 shows that internet bankers use their online service for viewing account statements (91.3%), for viewing cheque account balances (82.5%); for making payments (26.3%), and for transferring funds (20%).

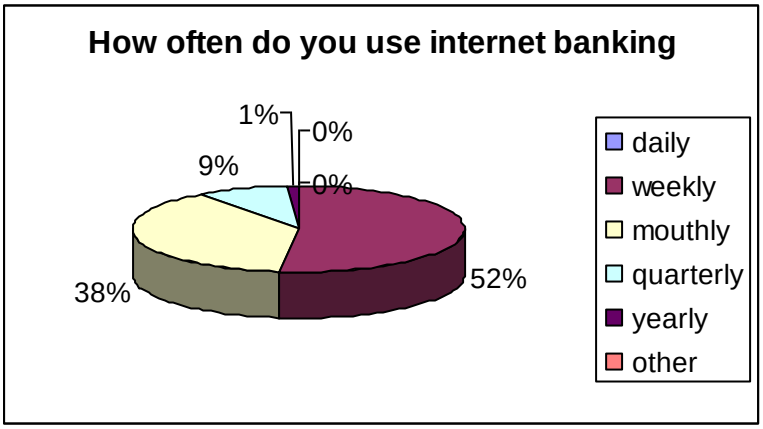
Table 5.7 What respondents use internet banking for

Uses of internet banking	Yes	Percent	No	Total
Viewing account statements	73	91.3	7	80
Viewing cheque account balances	66	82.5	14	80
Making payments	21	26.3	59	80
Transferring funds	16	20	64	80
Other	0	0	80	80

5.4.7 The frequency with which respondents use internet banking

Figure 5.22 illustrates that more than 50 percent of the respondents use internet banking weekly, 38 percent use it monthly, 9 percent use it quarterly, and one percent use it annually. None of the respondents use internet banking daily.

Figure 5.22 How often do you use internet banking



5.5 PERCEPTIONS OF INTERNET BANKING

This section reports on the perceptions and attitudes of respondents towards using internet banking. The respondents were asked to rate each item on a scale ranging from 1 (strongly disagree) to 5 (strongly agree), as recommended by Struwig and Stead (2001:94) for conducting this kind of research.

5.5.1 The relative advantages of internet banking

The following sub-sections report on responses to questions concerning attitudes and perceptions towards the internet banking characteristic of relative advantage.

Internet banking enables better management of finances

The response to this question confirms that when customers perceive internet banking as being advantageous they then become far more likely to adopt internet banking for themselves. As reflected in Table 5.8, a total of 45.6 percent of the respondents agree that internet banking enables users to manage their finances better than branch-based banking does.

Table 5.8 also reflects interesting results in that only 36.9 percent of non-users agreed that internet banking users conduct their finances better. Clearly internet banking users have a contrary viewpoint because 80.1 percent of them do agree that internet banking enables them to manage their finances better. Therefore this result is in keeping with the findings of Leaderer, et al., (2000:272), which suggest that perceived usefulness is associated with the adoption of electronic technologies.

Table 5.8 Internet banking enables better management of finances

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet banking non-users Frequency	Internet banking non-users Percent
strongly disagree	2	.5	0	0	2	.6
disagree	126	31.5	0	0	126	39.4
neither	90	22.5	16	20	74	23.1
agree	107	26.8	17	21.3	90	28.1
strongly agree	75	18.8	47	58.8	28	8.8
Total	400	100.0	80	100	320	100

Internet banking saves time

In response to this question, customers indicate that they perceive time savings as being an important advantage, though not all respondents believe that this benefit can result from using internet banking. Table 5.9 shows that 60 percent of the respondents agree that internet banking is much better than traditional banking because of time savings. Previous research reveals that consumers may be motivated to use some electronic banking facilities because they can save time by not having to visit a branch. This is a very important motivation for using internet banking (Fox, 2002:9).

Table 5.9, also reveals that 96.3 percent of users agree that internet banking allows them to conduct transactions at any time, from any location, with time savings being the end result. Thus internet banking eliminates time and place constraints. Surprisingly Table 5.9 also shows that about half of non-users (49 percent) disagree that internet banking can be time saving.

Table 5.9 Internet banking saves time

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet banking non-users Frequency	Internet banking non-users Percent
strongly disagree	2	.5	0	0	2	.6
disagree	106	26.5	0	0	106	33.1
neither	52	13	3	3.8	49	15.3
agree	138	34.5	37	46.3	101	31.6
strongly agree	102	25.5	40	50	62	19.4
Total	400	100.0	80	100	320	100

Internet banking makes respondents more comfortable communicating with their bank

In response to this question, customers indicate that they perceived being able to communicate more comfortably with their banks as being an important advantage. Table 5.10 reveals that a total of 42.8 percent of respondents agreed that internet banking makes communication with their banks more comfortable. As can be seen from Table 5.10, 65 percent of users agreed while only 34.7 percent of non-users agreed that internet banking makes communication with their banks more comfortable. Consequently internet banking users perceive that internet banking enables them to communicate with their bank more comfortably than non-users in this research.

Table 5.10 Internet banking makes respondents more comfortable communicating with their bank

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet banking non users Frequency	Internet banking non users Percent
strongly disagree	2	.5	0	0	2	.6
disagree	124	31	2	2.5	122	38.1
neither	103	25.8	18	22.5	85	26.6
agree	113	28.3	22	27.5	91	28.4
strongly agree	58	14.5	38	47.5	20	6.3
Total	400	100.0	80	100	320	100

5.5.2 The compatibility of internet banking

The following sub-sections report on responses to questions concerning attitudes and perceptions towards the internet banking characteristic of compatibility.

Internet banking suits respondents' life styles

This question probes customer perceptions about the impact that internet banking has on their life style and what influence this has on their willingness to use internet banking. Table 5.11 reveals that 25.8 percent of the respondents agree that internet banking suits their life style. These results show that 85.1 percent of users were in agreement, whereas just 11 percent of non-users agreed that internet banking suits their life style. This indicates that internet banking users perceive internet banking to be suitable to their life style far more than non-users do.

Table 5.11 Internet banking suits respondents' life styles

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet banking non users Frequency	Internet banking non users Percent
strongly disagree	27	6.8	2	2.5	25	7.8
disagree	157	39.3	0	0	157	49.1
neither	113	28.3	10	12.5	103	32.2
agree	65	16.3	35	43.8	30	9.4
strongly agree	38	9.5	33	41.3	5	1.6
Total	400	100.0	80	100	320	100

Internet banking suits respondents' work styles

This question probes customer perceptions about the impact that internet banking has on their work style and what influence this has on their willingness to use internet banking. Table 5.12 reveals that a total of 32.4 percent of respondents agreed that

internet banking suits their work style. Table 5.12 shows that 83.8 percent of users agreed whereas just 19.4 percent of non-users agreed that internet banking suits their work style. Consequently internet banking users perceive that internet banking fits their work style far more than non-users do.

Table 5.12 Internet banking fitting respondents work styles

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet banking non-users Frequency	Internet banking non--users Percent
strongly disagree	23	5.8	0	0	23	7.2
disagree	134	33.5	2	2.5	132	41.3
neither	114	28.5	11	13.8	103	32.2
agree	85	21.3	30	37.5	55	17.2
strongly agree	44	11	37	46.3	7	2.2
Total	400	100.0	80	100	320	100

Internet banking makes respondents' life convenient

This question aims to establish if internet banking is perceived to be convenient by the respondents and whether this is a factor that influences its usage. Research conducted in Estonia (Kerem, 2001:7) states that the most important factors in engaging in internet banking are first and foremost better access to the services (convenience). Table 5.13 reveals that a total of 28.9 percent of the respondents agree that internet banking makes their life more convenient. As can be seen from Table 5.13, 82.5 percent of users agreed while just 15.3 percent of non-users agreed that internet banking makes their lifestyle more convenient. Consequently users perceived that internet banking makes their life more convenient whereas non-users do not. Therefore this result concurs with research findings discussed previously in this study.

Table 5.13 Internet banking makes respondents life convenient

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet banking non users Frequency	Internet banking non users Percent
strongly disagree	18	4.5	2	2.5	16	5
disagree	88	22	0	0	88	27.5
neither	179	44.8	12	15	167	52.2
agree	71	17.8	32	40	39	12.2
strongly agree	44	11	34	42.5	10	3.1
Total	400	100.0	80	100	320	100

5.5.3 The complexity of internet banking

The following sub-sections report on responses to questions concerning attitudes and perceptions towards the internet banking characteristic of complexity.

The ease of conducting internet banking

The question aims to understand how customer perception of the ease of use of internet banking influences their willingness to use internet banking. Table 5.14 shows that 34.5 percent of all the respondents agree that internet banking is easy to use. This amounts to 87.5 percent of the users agreeing, and only 21.3 percent of the non-users agreeing that internet banking is easy to use. Hence this result is in line with the earlier literature review, which suggests that ease of use has a positive influence on the adoption of internet banking (Cheung, et al., 2000:49).

Table 5.14 Internet banking programme is easy

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet banking non-users Frequency	Internet banking non-users Percent
strongly disagree	7	1.8	0	0	7	2.2
disagree	69	17.3	0	0	69	21.6
neither	186	46.5	10	12.5	176	55
agree	88	22	26	32.5	62	19.4
strongly agree	50	12.5	44	55	6	1.9
Total	400	100.0	80	100	320	100

The complexity of using internet banking

The question aims to determine if there is a difference between users and non-users in their perceptions of how complex internet banking is. Table 5.15 shows that a total of 44.2 percent of respondents agreed that internet banking is too complex for them. Table 5.15 shows that 45.7 percent of the non-users agreed that internet banking is complex. Contrary to this only 6.3 percent of users agreed that internet banking is complex. It emerged that there is a difference between users and non-users when it comes to their perceptions of the complexity of internet banking.

Table 5.15 Using internet banking is complex

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet banking non users Frequency	Internet banking non users Percent
strongly disagree	53	13.3	49	61.3	4	1.3
disagree	49	12.3	12	15	37	11.6
neither	147	36.8	14	17.5	133	41.6
agree	135	33.8	3	3.8	132	41.3
strongly agree	16	4	2	2.5	14	4.4
Total	400	100.0	80	100	320	100

The simplicity of the internet banking process

The question aims to understand how customer perception on the simplicity of using the internet banking process influences their acceptance of internet banking. Table 5.16 shows that 20.3 percent of the respondents agree that the internet banking process is simple for them to use. 81.3 percent of users, but only 5 percent of non-users agree that the internet banking process is simple for them to use.

Table 5.16 Internet banking process is simple

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet banking non users Frequency	Internet banking non users Percent
strongly disagree	22	5.5	0	0	22	6.9
disagree	131	32.8	2	2.5	129	40.3
neither	166	41.5	13	16.3	153	47.8
agree	47	11.8	34	42.5	13	4.1
strongly agree	34	8.5	31	38.8	3	.9
Total	400	100.0	80	100	320	100

5.5.4 The perceived cost of internet banking

The following statements are the basis for questions about the respondents' attitudes and perceptions towards the cost of internet banking.

Telecommunication costs are expensive

This question aims to establish customer perceptions of the telecommunication cost of internet banking. 61.7 percent of the respondents agree that the telecommunication costs are expensive compared to only 14.3 percent who disagree. More specifically Table 5.17 shows that 90 percent of the non-users agree that the telecommunication costs are expensive while 70 percent of the users did not agree that the telecommunication costs are expensive. This is an indication that perception

of cost plays an important part in the consumer decision-making process and when viewed negatively, hampers customer acceptance of internet banking. This finding concurs with Botha (2002:23) who states that high Internet access costs is a factor which inhibits growth in South Africa because people are too concerned about cost to maintain lengthy internet connections.

Table 5.17 Telecommunication costs are expensive

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet Banking non-users Frequency	Internet Banking non-users Percent
strongly disagree	8	2	6	7.5	2	.6
disagree	49	12.3	48	60	1	.3
neither	28	7	2	2.5	26	8.1
agree	239	59.8	16	20	223	69.7
strongly agree	76	19	8	10	68	21.3
Total	400	100	80	100	320	100

The cost of internet banking services

This question aims to understand if customer perceptions of the cost-effectiveness of internet banking influence their willingness to accept internet banking. These results as reflected in Table 5.18 indicate that a total of 78.3 percent of the respondents agree that internet banking service fees are too expensive. 90 percent of the non-users agreed that the internet banking service fees are expensive compared to users of which just 30.3 percent agreed that internet banking service fees are expensive. The results therefore indicate that internet banking charges are a key factor in motivating the use of internet banking. This information will assist banks in establishing their target market for internet banking.

Table 5.18 Internet banking service fees are expensive

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet banking non-users Frequency	Internet banking non-users Percent
strongly disagree	7	1.8	6	7.5	1	.3
disagree	51	12.8	47	58.8	4	1.3
neither	29	7.3	2	2.5	27	8.4
agree	212	53	18	22.5	194	60.6
strongly agree	101	25.3	7	8.8	94	29.4
Total	400	100.0	80	100	320	100

The cost of Internet installation

This question aims to understand if customer perceptions of Internet setup costs influence their use of internet banking. Research quoted earlier shows that consumers will not adopt a new financial product unless it reduces costs and does not require them to change their behaviour when using it (Bareczal and Ellen, 1997:135). A total of 70.3 percent of the respondents agree that the Internet setup costs are too expensive. Table 5.19 reveals that 66.4 percent of the users do not agree that Internet installation costs are expensive, while 79.4 percent of non-users agree that Internet installation costs are expensive. This factor will inhibit customers who are not suitably equipped from using internet banking. Therefore this finding is in line with the research findings of Bareczal and Ellen (1997:135).

Table 5.19 Internet installation costs are expensive

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet banking non users Frequency	Internet banking non users Percent
strongly disagree	6	1.5	5	6.3	1	.3
disagree	51	12.8	45	56.3	6	1.9
neither	62	15.5	3	3.8	59	18.4
agree	202	50.5	18	22.5	184	57.5
strongly agree	79	19.8	9	11.3	70	21.9
Total	400	100.0	80	100	320	100

The cost-effectiveness of internet banking

This question aims at measuring how likely customers are to accept internet banking if they perceive it to be cost-effective. A total of 23.3 percent of the respondents consider internet setup costs to be too expensive. Table 5.20 reveals that 81.3 percent of users perceive that internet banking is cost-effective which contrasts with the 91.2 percent of non-users who do not agree that internet banking is cost-effective.

Table 5.20 Internet banking is cost-effective

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet banking non-users Frequency	Internet banking non-users Percent
strongly disagree	10	2.5	1	1.3	9	2.8
disagree	113	28.3	2	2.5	111	34.7
neither	184	46	12	15	172	53.8
agree	63	15.8	40	50	23	7.2
strongly agree	30	7.5	25	31.3	5	1.6
Total	400	100.0	80	100	320	100

5.5.5 The perceived risk of internet banking

The results presented in this section describe responses to questions concerning the perception of risk associated with internet banking by the respondents.

Safety of banking at the branch

The question aims to probe customers' beliefs about the safety of banking at a traditional branch. 67 of the respondents believe that it is safe to bank at a branch. Table 5.21 shows that 83.8% of users and 62.8% of non-users perceive that banking in the branch is safe. This indicates an established perception in the mind of the consumer, making it difficult to convince customers to try new innovations. Marketers have to work hard to change the beliefs of customers as negative perceptions

influence the consumer decision-making process. This may be the reason why the majority of the respondents choose not to use internet banking.

Table 5.21 Banking at the branch is safe

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet banking non-users Frequency	Internet banking non-users Percent
strongly disagree	4	1	0	0	4	1.3
disagree	14	3.5	5	6.3	9	2.8
neither	114	28.5	8	10	106	33.1
agree	176	44	42	52.5	134	41.9
strongly agree	92	23	25	31.3	67	20.9
Total	400	100.0	80	100	320	100

The safety of internet banking

This question investigates consumer beliefs about the safety of internet banking. A total of 17.5 % of the respondents believe that it is safe to bank online. Table 5.22 shows that most of the users (91.3%) agree, but only 18.2 % of the non-users consider internet banking to be safe. Consequently the higher the perception of risk in using internet banking the less likely an individual will be to adopt it.

Table 5.22 Internet banking is safe

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet banking Non-users Frequency	Internet Banking non-users Percent
strongly disagree	23	5.8	0	0	23	7.2
disagree	117	29.3	1	1.3	116	36.3
neither	129	32.3	6	7.5	123	38.4
agree	99	24.8	46	57.5	53	16.6
strongly agree	32	8	27	33.8	5	1.6
Total	400	100.0	80	100	320	100

Disclosure of credit card and account details on the Internet

This question aims to determine whether respondents are confident in disclosing credit card and account details on the Internet. 62.1% of respondents are not confident in disclosing credit card and account details on the Internet. Table 5.23 reveals that 66.3% of non-users are not confident to reveal their credit card and account details on the Internet, and this is a reluctance that is shared by nearly half of the users (45.1%). Undoubtedly, safety is at the forefront of the minds of consumers and their perceptions that the Internet is not safe may be one of the factors that fuel their reluctance to use internet banking.

Table 5.23 Disclosure of credit card and account details on the Internet

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet Banking non-users Frequency	Internet Banking Non-users Percent
strongly disagree	99	24.8	21	26.3	78	24.4
disagree	149	37.3	15	18.8	134	41.9
neither	74	18.5	4	5	70	21.9
agree	67	16.8	38	47.5	29	9.1
strongly agree	11	2.8	2	2.5	9	2.8
Total	400	100.0	80	100	320	100

Disclosure of personal information on the Internet

This question probes consumer perceptions about the safety of bank websites. A total of 61.1% of the respondents are not comfortable with disclosing personal information on the Internet. Table 5.24 shows that only 50 % of users are confident to disclose their particulars on the Internet, while the majority of non-users (65%) are also reticent. This confirms that negative perceptions concerning the safety of internet banking abound among consumers. Results show that negative perceptions about internet safety influence the decision-making process, resulting in negative consumer outcomes.

Table 5.24 Disclosure of personal information on the Internet

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet Banking non-users Frequency	Internet Banking non-users Percent
strongly disagree	101	25.3	24	30	77	24.1
disagree	143	35.8	12	15	131	40.9
neither	73	18.3	4	5	69	21.6
agree	68	17	38	47.5	30	9.4
strongly agree	15	3.8	2	2.5	13	4.1
Total	400	100.0	80	100	320	100

5.5.6 Social influences on internet banking

Social factors are considered to be a powerful influence that affects attitudes towards internet banking. The results presented in this section describe responses to questions examining how respondents perceive the effect of social influences on internet banking.

The influence of friends on the use of internet banking

This question aims at investigating if the adoption of internet banking is influenced by friends. Earlier research (Cheung, 2001:116) indicates that classmates and friends are likely to have an influence on potential adopters and existing users of internet banking. Table 5.25 reveals that 41.6 % of the respondents agree that friends influence their attitudes towards internet banking. More than half of the users (52.5%) and 60 % of non-users disagreed that friends influence their attitudes towards internet banking. Consequently this result contradicts the earlier literature review and it appears that in Durban the opinion of friends is not a major factor affecting the adoption of internet banking.

Table 5.25 My friends influence me to use internet banking

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet banking non users Frequency	Internet banking non users Percent
strongly disagree	111	27.8	37	46.3	74	23.1
disagree	35	8.8	2	2.5	33	10.3
neither	88	22	3	3.7	85	26.6
agree	155	38.8	35	43.8	120	37.5
strongly agree	11	2.8	3	3.7	8	2.5
Total	400	100.0	80	100	320	100

The influence of parents on the use of internet banking

This question aims to reveal if the adoption of internet banking is influenced by parents. Table 5.26 shows that 31.7 % of respondents agreed that parents have influenced them to use internet banking. Less than half of both users (43.8%) and non-users (31%) agree that their parents have had influence on them with regard to internet banking.

Table 5.26 My parents influence me to use internet banking

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet banking non-users Frequency	Internet banking non-users Percent
strongly disagree	156	39	42	52.5	114	35.6
disagree	24	6	1	1.3	23	7.2
neither	86	21.5	2	2.5	84	26.3
agree	126	31.5	34	42.5	92	28.8
strongly agree	8	2	1	1.3	7	2.2
Total	400	100.0	80	100	320	100

The influence of colleagues on the use of internet banking

This question aims to determine whether the adoption of internet banking is influenced by colleagues. Table 5.27 shows that less than half of respondents (39%) agree that colleagues have an influence on them with regard to internet banking. As can be seen from Table 5.27, more than half the users (51.4%) and non-users (61.3%) do not agree that colleagues influence them to use internet banking. This indicates that colleagues do not significantly influence each other by their attitudes towards internet banking.

Table 5.27 My colleagues influence me to use internet banking

option	Frequency	Percent	Internet banking users Frequency	Internet banking users Percent	Internet banking non-users Frequency	Internet banking non-users Percent
strongly disagree	115	28.8	37	46.3	78	24.4
disagree	45	11.3	1	1.3	44	13.8
neither	77	19.3	3	3.8	74	23.1
agree	155	38.8	35	43.8	120	37.5
strongly agree	8	2	4	5	4	1.3
Total	400	100.0	80	100	320	100

5.6 THE RELATIONSHIP AMONG THE VARIABLES

There were two types of tests used to determine the relationship between the adoption of internet banking and demographics, customer perceptions of internet banking and social influences. The tests conducted were chi-square tests and independent sample t-tests.

The relationship between consumer demographic characteristics and the adoption of internet banking was tested by using a chi-square test. The reason for using chi-square was that it helps to determine the significance of the relationship between nominal variables.

Perceptions towards using internet banking were analysed with an independent sample t-test, which was conducted between users and non-users. The reason for using the t-test was that this test compares the means for two groups of cases, and is used to test whether the difference in means of one variable in two groups of respondents is significantly different from zero.

5.6.1 Hypothesis H1: there is a significant relationship between consumers' demographic characteristics and the adoption of internet banking.

5.6.1.1 Age

The p of 0.000, which is less than 0.05 (Table 5.29), implies that the chi-square is significant and indicates there is a relationship between age and the adoption of internet banking. The cross-tabulation (Table 5.28) shows the age distribution between the two different groups. Non-users were younger (53% aged 21-29). Users were relatively older. The age group 30-39 accounted for 64% of the users.

To sum up, the data analysis suggests that age has an impact on the use of internet banking. Additionally, the results imply that typical internet banking users are middle-aged. The results therefore point to the acceptance of the hypothesis.

Table 5.28 Age and the use of internet banking cross tabulation

		internet banking		Total
		yes	no	
Age	21 to 29	16	171	187
	Percent	20%	53.4%	46.8%
	30 to 39	51	55	106
	Percent	63.8%	17.2%	26.5%
	40 to 49	12	53	65
	Percent	15%	16.6%	16.3%
	50 and over	1	41	42
	Percent	1.3%	12.8%	10.5%
Total		80	320	400
Percent		100%	100%	100%

Table 5.29 Chi-Square Test – relationship between age and the use of internet banking

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	75.912(a)	3	.000
Likelihood Ratio	72.630	3	.000
Linear-by-Linear Association	.470	1	.493
N of Valid Cases	400		

a 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.40.

5.6.1.2 Income

The chi-square is significant (p = 0.000) (Table 5.31) indicating there is a significant relationship between income and the adoption of internet banking. The cross-tabulation (Table 5.30) clarifies the distribution of income between users and non-users, which shows that monthly income seems to be a factor affecting the use of internet banking. A total of 64 percent of users have a monthly income of over R5000 per month. 66 percent of non-users have an income of under R4000 per month; only 10 percent of non-users have an income of over R 5000 per month.

This finding shows that income has an effect on the adoption of internet banking. Internet banking users have much higher incomes than non-users. Hence the hypothesis is accepted.

Table 5.30 Income and the use of internet banking cross-tabulation

		internet banking		Total
		yes	no	
Income	less than R2000	5	113	118
	Percent	6.3%	35.3%	29.5%
	2000 to 3999	8	98	106
	Percent	10%	30.6%	26.5%
	4000 to 4999	11	53	64
	Percent	13.8%	16.6%	16%
	5000 to 9999	40	27	67
	Percent	50%	8.4%	16.8%
	over 10000	11	6	17
	Percent	13.8%	1.9%	4.3%
	other	5	23	28
	Percent	6.3%	7.2%	7%
Total		80	320	400
Percent		100%	100%	100%

Table 5.31 Chi-Square Test – relationship between income and the use of internet banking

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	116.234(a)	5	.000
Likelihood Ratio	104.774	5	.000
Linear-by-Linear Association	56.398	1	.000
N of Valid Cases	400		

a 1 cells (8.3%) have expected count less than 5. The minimum expected count is 3.40.

5.6.1.3 Education level

The chi-square is significant (p = 0.000) (Table 5.33) indicating that there is a significant relationship between education level and the adoption of internet banking. The cross-tabulation (Table 5.32) depicts the educational levels between users and non-users. 83.8% of internet banking users (67) have a tertiary education (university/technikon), while only 33.8% of non-users (108) have a tertiary education. This finding shows that educational level has a major influence on the adoption of internet banking. Users of internet banking have much higher education levels than non-users. As a result of the test, the hypothesis is accepted.

Table 5.32 Education level and the use of internet banking Cross-tabulation

		internet banking		Total
		yes	no	
Education	university/technikon	67	108	175
	degree/diploma	83.8%	33.8%	43.8%
	Percent			
	matric	11	132	143
	Percent	13.8%	41.3%	35.8%
	high school	2	78	80
	Percent	2.5%	24.4%	20%
	other	0	2	2
	Percent	0%	0.6%	0.5%
Total		80	320	400
Percent		100%	100%	100%

Table 5.33 Chi-Square Test–relationship between education level and the use of internet banking

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	65.922(a)	3	.000
Likelihood Ratio	71.151	3	.000
Linear-by-Linear Association	56.355	1	.000
N of Valid Cases	400		

a 2 cells (25.0%) have expected count less than 5. The minimum expected count is .40.

5.6.1.4 Occupation

The chi-square value is significant (p = 0.000) (Table 5.35), which means there is a significant relationship between occupation and the adoption of internet banking. The cross-tabulation (Table 5.34) describes the distribution between the two different groups, showing that 81.3 % of users are employed, but more than half of non-users (58.1%) are unemployed. To sum up, occupation has an impact on the use of internet banking. Most users are employed while the majority of non-users interviewed are unemployed. Therefore the hypothesis that there is a significant relationship between occupation and the adoption of internet banking is accepted.

Table 5.34 Occupaion and the use of internet banking cross-tabulation

		internet banking		Total
		yes	no	
Occupation	workers	65	134	199
	Percent	81.3%	41.9%	49.8%
	not working	7	111	118
	Percent	8.8%	34.7%	29.5%
	pensioners	0	38	38
	Percent	0%	11.9%	9.5%
	self–employed	5	29	34
	Percent	6.3%	9.1%	8.5%
	other	3	8	11
	Percent	3.8%	2.5%	2.8%
Total		80	320	400
Percent		100%	100%	100%

Table 5.35 Chi-Square Test – relationship between employment and the use of internet banking

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	44.999(a)	4	.000
Likelihood Ratio	54.469	4	.000
Linear-by-Linear Association	15.566	1	.000
N of Valid Cases	400		

a 1 cells (10.0%) have expected count less than 5. The minimum expected count is 2.20.

5.6.2 H2: There is a significant difference between users and non-users with regard to their perceptions of internet banking

5.6.2.1 H2A: The relative advantages of internet banking

This section tests the hypothesis that there is a significant difference between users and non-users with regard to their perceptions of the relative advantages of internet banking.

Internet banking enables a better management of finances

The observed t-value for this statement is 10.862, with degrees of freedom (total sample size minus 2) equal to 398. The two-tailed probability of 0.000 is less than 0.05 (Table 5.37) and therefore the test is considered significant at the 0.05 level implying that there is a significant difference between the perceptions of users and non-users regarding the question of whether internet banking enables a better management of their finances.

Non-users do not believe that internet banking could make their finances better in the way that users do. The mean score for users is significantly higher (4.3875) than that of non-users (3.05) as reflected in Table (5.36). Hence the hypothesis that there is a

significant difference between the perceptions of users and non-users regarding the question of whether internet banking makes their finances better is accepted.

Table 5.36 Means between users and non-users with regard to their perceptions of internet banking making their finances better

	Internet banking	N	Mean	Std. Deviation	Std. Error Mean
Finances better	yes	80	4.3875	.80338	.08982
	no	320	3.0500	1.02508	.05730

Table 5.37 Independent Sample Test – differences between users and non-users with regard to their perceptions of internet banking making their finances better

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Finances better	Equal variances assumed	10.862	398	.000	1.33750	.12313	1.09543	1.57957

Internet banking saves time

The observed t-value for this statement is 8.322, with degrees of freedom (total sample size minus 2) equal to 398. The two-tailed probability of 0.000 is less than 0.05 (Table 5.39) and, therefore, the test is considered significant at the 0.05 level.

Non-users do not perceive internet banking as a time-saving exercise, while users believe that internet banking can be used at any time and place without having to queue up at the bank, and that this equates to time saving. The responses of users and non-users were totally different; the mean score for users is 4.4625 and for non-users 3.3594 (Table 5.38). The mean for users is significantly more than non-users. Hence, the hypothesis that there is a significant difference between the perceptions of users and non-users regarding the question of whether internet banking saves time is accepted.

Table 5.38 Means between users and non-users with regard to their perceptions that internet banking saves their time

	internet banking	N	Mean	Std. Deviation	Std. Error Mean
Time saving	yes	80	4.4625	.57244	.06400
	no	320	3.3594	1.14972	.06427

Table 5.39 Independent Sample Test – differences between users and non-users with regard to their perceptions of internet banking saving time

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Time saving	Equal variances assumed	8.322	398	.000	1.10313	.13255	.84253	1.36372

Internet banking improves communication with banks

The observed t-value for this statement is 9.939, with degrees of freedom (total sample size minus 2) equal to 398. The two-tailed probability of 0.000 (Table 5.41) is less than 0.05 and, therefore, the test is considered significant at the 0.05 level.

Users of internet banking perceive internet banking as being more comfortable to communicate with their banks. The mean score for users is 4.2 and for non-users, 3.0156 (Table 5.40). The mean for users is far more than non-users. Hence, the hypothesis that there is a significant difference between the perceptions of users and non-users regarding the question of whether internet banking makes them more comfortable communicating with the bank is accepted.

Table 5.40 Means between users and non-users with regard to their perceptions of internet banking making an individual more comfortable to communicate with his/her bank

	internet banking	N	Mean	Std. Deviation	Std. Error Mean
communicate	yes	80	4.2000	.87728	.09808
	no	320	3.0156	.97125	.05429

Table 5.41 Independent Sample Test – differences between users and non-users with regard to their perceptions of internet banking making them more comfortable to communicate with their bank

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
communicate	Equal variances assumed	9.939	398	.000	1.18438	.11917	.95010	1.41865

To sum up, the support for H2A (relative advantage) is in line with the findings of Gerrard and Cunningham (2003:8). This shows quite conclusively that across different populations, perceived relative advantage has a positive influence on the adoption of internet banking. The greater the perceived advantage of using internet banking the more likely it is that internet banking will be adopted.

5.6.2.1 H2B: The compatibility of internet banking with lifestyle and work

This section tests the hypothesis – There is a significant difference between users and non-users with regard to their perceptions of compatibility of internet banking.

Internet banking suits one's life style

The observed t-value for this statement is 16.625, with degrees of freedom (total sample size minus 2) equal to 398. The two-tailed probability of 0.000 (Table 5.43) is less than 0.05 and, therefore, the test is considered significant at the 0.05 level. Users perceive that internet banking suits their life styles, the mean response of non-

users (2.4781) was significantly less than that of users (4.2125) (Table 5.42). Hence the hypothesis that there is a significant difference between users and non-users with regard to their perceptions of internet banking suiting their lifestyle is accepted.

Table 5.42 Means between users and non-users with regard to their perceptions of internet banking suiting their life styles

	internet banking	N	Mean	Std. Deviation	Std. Error Mean
Suits life style	yes	80	4.2125	.85231	.09529
	no	320	2.4781	.83017	.04641

Table 5.43 Independent Sample Test – Differences between users and non-users with regard to their perceptions of internet banking suiting their life styles

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Suits life style	Equal variances assumed	16.625	398	.000	1.73438	.10433	1.52928	1.93947

Internet banking and work style

The observed t-value for this statement is 14.418, with degrees of freedom (total sample size minus 2) equal to 398 (Table 5.45). The two-tailed probability of 0.000 is less than 0.05 and therefore the test is considered significant at the 0.05 level.

Users perceive internet banking to be more fulfilling to their work styles; the mean response of non-users (2.6594) was significantly less than that of users (4.2750) (Table 5.44). Hence the hypothesis that there is a significant difference between users and non-users with regard to their perceptions of internet banking fitting work style is accepted.

Table 5.44 Means between users and non-users with regard to their perceptions of internet banking fitting work style

	internet banking	N	Mean	Std. Deviation	Std. Error Mean
Fits work style	yes	80	4.2750	.79516	.08890
	no	320	2.6594	.91978	.05142

Table 5.45 Independent Sample Test – difference between users and non-users with regard to their perceptions of internet banking fitting their work style.

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Fits work style	Equal variances assumed	14.418	398	.000	1.61563	.11205	1.39534	1.83591

Internet banking makes life style convenient

The observed t-value for this statement is 13.260, with degrees of freedom (total sample size minus 2) equal to 398 (Table 5.47). The two-tailed probability of 0.000 is less than 0.05 and, therefore, the test is considered significant at the 0.05 level.

Users perceived internet banking as offering high levels of convenience to their life style, the mean response of non-users (2.8094) was significantly less than that of users (4.2000) (Table 5.46). Hence the hypothesis that there is a significant difference between users and non-users with regard to their perceptions of internet banking making life style convenient is accepted.

Table 5.46 Means between users and non-users with regard to their perceptions of internet banking making their lives convenient

	Internet banking	N	Mean	Std. Deviation	Std. Error Mean
convenient	yes	80	4.2000	.87728	.09808
	no	320	2.8094	.82927	.04636

Table 5.47 Independent Sample Test – difference between users and non-users with regard to their perceptions of internet banking making their lives convenient

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
convenient	Equal variances assumed	13.260	398	.000	1.39063	.10488	1.18444	1.59681

To sum up, the support for H2B (compatibility) is in agreement with the findings of Bradley and Stewart (2003:1089), that consumers who believe that internet banking is more compatible with their values are more inclined to adopt it. The more a customer uses internet banking, the more he or she perceives internet banking as being compatible with his/her lifestyles, and the more likely he/she is to adopt it.

5.6.2.2 H2C: The complexity of internet banking

This section tests the hypothesis that there is a significant difference between users and non-users with regard to their perceptions of complexity of internet banking.

The ease of conducting internet banking

The observed t-value for this statement is 15.555, with degrees of freedom (total sample size minus 2) equal to 398. The two-tailed probability of 0.000 (Table 5.49) is less than 0.05 and, therefore, the test is considered significant at the 0.05 level. Customers, especially users, perceive that internet banking is easy to use. As can be

seen from Table 5.48, the mean response of non-users (2.9719) was significantly less than that of users (4.4250). Hence the hypothesis that there is a significant difference between users and non-users with regard to their perceptions of the ease of conducting internet banking is accepted.

Table 5.48 Means between users and non-users with regard to their perceptions of the internet banking programme being easy

	Internet banking	N	Mean	Std. Deviation	Std. Error Mean
easy	yes	80	4.4250	.70755	.07911
	no	320	2.9719	.75688	.04231

Table 5.49 Independent Sample Test – difference between users and non-users with regard to their perceptions that internet banking programme is easy to use

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
easy	Equal variances assumed	15.555	398	.000	1.45313	.09342	1.26947	1.63678

Internet banking is too complex

The observed t-value for this statement is 15.540, with degrees of freedom (total sample size minus 2) equal to 398. The two-tailed probability of 0.000 (Table 5.51) is less than 0.05 and, therefore, the test is considered significant at the 0.05 level.

Users perceive that internet banking does not involve any complex procedures and is simple to use. As can be seen from Table 5.50, the mean response of non-users (3.3594) was significantly more than that of users (1.7125). Hence the hypothesis that there is a significant difference between users and non-users with regard to their perceptions of internet banking being complex is accepted.

Table 5.50 Means between users and non-users with regard to their perceptions whether internet banking is too complex

	Internet banking	N	Mean	Std. Deviation	Std. Error Mean
complex	yes	80	1.7125	1.04571	.11691
	no	320	3.3594	.79116	.04423

Table 5.51 Independent Sample Test – difference between users and non-users with regard to their perceptions whether internet banking is too complex

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Complex	Equal variances assumed	15.540	398	.000	1.64688	.10597	1.43854	1.85521

Internet banking processes are simple to use

The observed t-value for this statement is 17.926, with degrees of freedom (total sample size minus 2) equal to 398. The two-tailed probability of 0.000 (Table 5.53) is less than 0.05 and, therefore, the test is considered significant at the 0.05 level.

Non-users obviously perceive that internet banking does not involve simple procedures and is far too complex. As can be seen from Table, 5.52 the mean response of non-users (2.5188) was significantly less than that of users (4.1750). Hence the hypothesis that there is a significant difference between users and non-users with regard to their perceptions that using internet banking processes is simple, is accepted.

Table 5.52 Means between users and non-users with regard to their perceptions that using internet banking processes is simple

	Internet banking	N	Mean	Std. Deviation	Std. Error Mean
simple	yes	80	4.1750	.79197	.08854
	no	320	2.5188	.72546	.04055

Table 5.53 Independent Sample Test – difference between users and non-users with regard to their perceptions that internet banking processes is simple

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
simple	Equal variances assumed	17.926	398	.000	1.65625	.09239	1.47461	1.83789

To sum up, complexity is accepted, it concurs with previous findings (Gerrand and Cunningham, 2003:26; Leader, et al., 1999:270). These sources suggest that the more complex internet banking is perceived to be, the less likely it is that it will be adopted.

It would appear that those who have adopted internet banking have become more familiar with these procedures and perceive that they are far from complex. Non-users on the other hand perceive that using internet banking is somewhat complicated.

5.6.2.3 H2D: The perceived cost of internet banking

This section tests the hypothesis that there is a significant difference between users and non-users with regard to their perceptions of cost factors.

Telecommunication costs are too expensive

The observed t-value for this statement is 15.578, with degrees of freedom (total sample size minus 2) equal to 398. The two-tailed probability of 0.000 (Table 5.55) is less than 0.05 and therefore the test is considered significant at the 0.05 level. Non-users perceive telecommunication fees to be very expensive. As can be seen from Table 5.54, the mean response of non-users (4.1063) was significantly more than that of users (2.6500). Hence the hypothesis that there is a significant difference between users and non-users with regard to their perceptions of telecommunication costs is accepted.

Table 5.54 Means between users and non-users with regard to their perceptions toward telecommunication costs

	Internet banking	N	Mean	Std. Deviation	Std. Error Mean
telecommunication cost	yes	80	2.6500	1.18107	.13205
	no	320	4.1063	.59356	.03318

Table 5.55 Independent Sample Test – difference between users and non-users with regard to their perceptions concerning telecommunication costs

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
telecom-munica-tion costs	Equal variances assumed	15.578	398	.000	1.45625	.09348	1.24247	1.64003

Internet banking service fees are too expensive

The observed t-value for this statement is 15.451, with degrees of freedom (total sample size minus 2) equal to 398. The two-tailed probability of 0.000 (Table 5.57) is less than 0.05 and, therefore, the test is considered significant at the 0.05 level. Users perceived that internet banking service fees are not as expensive as non-users

do. As can be seen from Table 5.56, the mean response of non-users (4.1750) is significantly more than that of users (2.6625). Hence the hypothesis that there is a significant difference between users and non-users with regard to their perceptions of internet banking service fees is accepted.

Table 5.56 Means between users and non-users with regard to their perceptions that internet banking service fees are too expensive

	internet banking	N	Mean	Std. Deviation	Std. Error Mean
Service fee	yes	80	2.6625	1.16862	.13066
	no	320	4.1750	.65342	.03653

Table 5.57 Independent Sample Test – difference between users and non-users with regard to their perceptions that internet banking service fees are too expensive

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Service fee	Equal variances assumed	15.451	398	.000	1.51250	.09789	1.32005	1.70495

Internet installation costs are expensive

The observed t-value for this statement is 11.759, with degrees of freedom (total sample size minus 2) equal to 398. The two-tailed probability of 0.000 (Table 5.59) is less than 0.05 and, therefore, the test is considered significant at the 0.05 level.

Users perceive that Internet installation costs were reasonable while non-users did consider setup costs to be too expensive. The mean response of non-users (3.9875) was significantly more than that of users (2.7625) (Table 5.58). Hence the hypothesis that there is a significant difference between users and non-users with regard to their perceptions of Internet installation costs is accepted.

Table 5.58 Means between users and non-users with regard to their perceptions that Internet installation costs are too expensive

	internet banking	N	Mean	Std. Deviation	Std. Error Mean
Installation cost	yes	80	2.7625	1.20383	.13459
	no	320	3.9875	.71252	.03983

Table 5.59 Independent Sample Test – difference between users and non-users with regard to their perceptions that internet Installation costs are too expensive

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Installation cost	Equal variances assumed	11.759	398	.000	1.22500	.10418	1.02020	1.42980

Internet banking is cost-effective

The observed t-value for this statement is 14.975, with degrees of freedom (total sample size minus 2) equal to 398. The two-tailed probability of 0.000 (Table 5.61) is less than 0.05 and, therefore, the test is considered significant at the 0.05 level. Users consider internet banking more cost effective than non-users do. The mean score for users is 4.0750, while it is 2.7 for non-users (Table 5.60). Hence the hypothesis that there is a significant difference between users and non-users with regard to their perceptions of cost-effectiveness of internet banking is accepted.

Table 5.60 Means between users and non-users with regard to their perceptions about the cost-effectiveness of internet banking

	internet banking	N	Mean	Std. Deviation	Std. Error Mean
Cost effective	yes	80	4.0750	.82332	.09205
	no	320	2.7000	.71087	.03974

Table 5.61 Independent Sample Test – difference between users and non-users with regard to their perceptions about the cost-effectiveness of internet banking

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Cost effective	Equal variances assumed	14.975	398	.000	1.37500	.09182	1.19449	1.55551

To sum up, these results for H2D (perceived cost) are in line with the results of earlier research by Bradley and Stewart (2003: 1091), which show that perceived cost has a negative influence on the adoption of internet banking. Customers who feel that using internet banking is too expensive are less likely to adopt this service.

5.6.2.4 H2E: The perceived risk of internet banking

This section tests the hypothesis –There is a significant difference between users and non-users with regard to their perceptions of risk factors involved in using internet banking.

Banking at a branch is safe

The observed t-value for this statement is 14.975, with degrees of freedom (total sample size minus 2) equal to 398. The two-tailed probability of 0.04 (Table 5.63) is less than 0.05 and, therefore, the test is considered significant at the 0.05 level.

Banking in the branch was perceived by both users and non-users to be safe, but users perceive banking in branch to be safer. The mean score for users was 4.0875; and 3.7844 for non-users (Table 5.62). Hence the hypothesis that there is a significant difference between users and non-users with regard to their perceptions of the safety of banking at a branch is accepted.

Table 5.62 Means between users and non-users with regard to their perceptions about the safety of banking at the branch

	Internet banking	N	Mean	Std. Deviation	Std. Error Mean
Bank security	yes	80	4.0875	.81433	.09104
	no	320	3.7844	.84934	.04748

Table 5.63 Independent Sample Test – difference between users and non-users with regard to their perceptions toward banking at branch

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Bank security	Equal variances assumed	2.878	398	.004	.30313	.10531	.09608	.51017

Internet banking is safe

The observed t-value for this statement is 14.679, with degrees of freedom (total sample size minus 2) equal to 398. The two-tailed probability of 0.000 (Table 5.65) is less than 0.05 and, therefore, the test is considered significant at the 0.05 level. Users perceive internet banking to be much safer than non-users. The mean response of non-users (2.6906) was significantly less than that of users (4.2375) (Table 5.64). Hence the hypothesis that there is a significant difference between users and non-users with regard to their perceptions of the safety of internet banking is accepted.

Table 5.64 Means between users and non-users with regard to their perceptions concerning the safety of internet banking.

	Internet banking	N	Mean	Std. Deviation	Std. Error Mean
Internet banking is safe	yes	80	4.2375	.64128	.07170
	no	320	2.6906	.88593	.04952

Table 5.65 Independent Sample Test – difference between users and non-users with regard to their perceptions of banking at a branch

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Internet banking is safe	Equal variances assumed	14.679	398	.000	1.54688	.10538	1.33971	1.75404

The fear of disclosing credit card and account details on the Internet

The observed t-value for this statement is 4.216, with degrees of freedom (total sample size minus 2) equal to 398. The two-tailed probability of 0.000 (Table 5.67) is less than 0.05 and therefore the test is considered significant at the 0.05 level.

Users and non-users indicate that they are concerned about matters pertaining to confidentiality and are afraid to disclose credit card and account details on the Internet. Non-users are the most concerned about this issue. The mean score for users is 2.8125 which is significantly higher than the score of 2.2406 for non users (Table 5.66). Hence the hypothesis that there is a significant difference between users and non-users with regard to their perceptions of disclosing credit card and account details on the Internet is accepted.

Table 5.66 Means between users and non-users with regard to their perceptions about disclosing credit card and account details on the Internet

	Internet banking	N	Mean	Std. Deviation	Std. Error Mean
Credit card	yes	80	2.8125	1.34158	.14999
	no	320	2.2406	1.01164	.05655

Table 5.67 Independent Sample Test – difference between users and non-users with regard to their perceptions of disclosing credit and account details on the Internet

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Credit card	Equal variances assumed	4.216	398	.000	.57187	.13564	.30521	.83854

Disclosure of personal information on the Internet

The observed t-value for this statement is 3.477, with degrees of freedom (total sample size minus 2) equal to 398. The two-tailed probability of 0.001 (Table 5.69) is less than 0.05 and, therefore, the test is considered significant at the 0.05 level.

Users and non-users point out that they are both worried about disclosing personal information on the Internet, but non-users are more concerned about this matter than users. The mean score for users is 2.7750 and for non-users 2.2844 (Table 5.68). Hence the hypothesis that there is a significant difference between users and non-users with regard to their perceptions concerning disclosing personal information on the Internet is accepted.

Table 5.68 Means between users and non-users with regard to their perceptions concerning disclosing personal information on the Internet

	Internet banking	N	Mean	Std. Deviation	Std. Error Mean
Personal information	yes	80	2.7750	1.37772	.15403
	no	320	2.2844	1.05807	.05915

Table 5.69 Independent Sample Test – difference between users and non-users with regard to their perceptions of disclosing personal information on the Internet

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Personal information	Equal variances assumed	3.477	398	.001	.49063	.14109	.21325	.76800

To sum up, the acceptance of perceived risk is in agreement with the findings of (Polatoglu and Ekin, 2001:164), which found that the lower the perceived risk of using internet banking, the more likely it is that internet banking will be adopted.

5.6.3 H3: There is a significant difference between users and non-users with regard to their perceptions of social influences.

5.6.3.1 H3A: The influence of friends on the use of internet banking

The observed t-value for this statement is 1.849, with degrees of freedom (total sample size minus 2) equal to 398. The two-tailed probability of 0.065 (Table 5.71) is more than 0.05 and, therefore, the test is considered not significant at the 0.05 level.

Users and non-users are somewhat neutral in their perceptions about the influence of friends. Neither perceive that their friends' opinions have any influence on their willingness to adopt internet banking. The mean score for users is 2.5625 and for non-users 2.8594 (Table 5.71). Hence the hypothesis that there is a significant difference between users and non-users with regard to their perceptions of the influence of friends on the use of internet banking is rejected.

Table 5.70 Means between users and non-users with regard to their perceptions of the influence of friends on the use of internet banking

	Internet banking	N	Mean	Std. Deviation	Std. Error Mean
friends	yes	80	2.5625	1.51652	.16955
	no	320	2.8594	1.21984	.06819

Table 5.71 Independent Sample Test – difference between users and non-users with regard to their perceptions of the influence of friends on the use of internet banking

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
friends	Equal variances assumed	1.849	398	.065	0.29688	0.16052	.01871	0.61246

5.6.3.2 H3B: The influence of parents on the use of internet banking

The observed t-value for this statement is 0.954, with degrees of freedom (total sample size minus 2) equal to 398. The two-tailed probability of 0.340 (Table 5.73) is more than 0.05 and, therefore, the test is considered not significant at the 0.05 level. Users and non-users both disagreed that their parents' opinions affect their choices regarding internet banking. The mean score for users is 2.3875 and for non-users 2.5469 (Table 5.72). Hence the hypothesis that there is a significant difference between users and non-users with regard to their perceptions of the influence of parents on the use of internet banking is rejected.

Table 5.72 Means between users and non-users with regard to their perceptions that the opinion of parents influences their willingness to adopt internet banking.

	Internet banking	N	Mean	Std. Deviation	Std. Error Mean
parents	yes	80	2.3875	1.49678	.16735
	no	320	2.5469	1.29297	.07228

Table 5.73 Independent Sample Test – difference between users and non-users with regard to their perceptions that the opinion of parents influences their willingness to adopt internet banking.

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
parents	Equal variances assumed	0.954	398	0.340	0.15937	0.16699	0.16891	0.48766

5.6.3.3 H3C: The influence of colleagues on the use of internet banking

The observed t-value for this problem is 1.085, with degrees of freedom (total sample size minus 2) equal to 398. The two-tailed probability of 0.279 (Table 5.75) is more than 0.05 and, therefore, the test is considered not significant at the 0.05 level.

Users and non-users both disagreed that their colleagues' opinions affect their choices regarding internet banking. The mean score for users is 2.60 and for non-users 2.7750 (Table 5.74). Hence the hypothesis that there is a significant difference between users and non-users with regard to their perceptions of the influence of colleagues on the use of internet banking is rejected.

Table 5.74 Means between users and non-users with regard to their perceptions of the influence of colleagues in bringing about their acceptance of internet banking

	Internet banking	N	Mean	Std. Deviation	Std. Error Mean
colleagues	yes	80	2.6000	1.53936	.17211
	no	320	2.7750	1.22128	.06827

Table 5.73 Independent Samples Test – difference between users and non-users with regard to their perceptions of the influence of colleagues in bringing about their acceptance of internet banking

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
colleagues	Equal variances assumed	-1.085	398	.279	-.17500	.16133	-.49217	-.14217

In summary, it appears that both users and non-users do not regard the influence of friends, parents and colleagues as being significant in their choices about accepting internet banking. This contradicts the earlier research findings of Cheung (2001:116), which suggest that the opinions of reference groups have an influence on the adoption of internet banking.

5.7 Summary

This chapter details the results of the statistical analysis and establishes consumer attitudes towards internet banking. It also identifies those factors which influence the use of internet banking and those factors which hamper the use of internet banking. These factors concern consumer demographic characteristics, consumer perceptions towards internet banking and social influences.

The chapter also presents the results of the data analysis, profiling the banking habits and internet banking expectations of respondents. A chi-square test was used to test the relationship between consumer demographic characteristics and the adoption of

internet banking. An independent sample t-test was used to test differences between users and non-users in terms of their perceptions of internet banking.

This study describes the demographics of the survey participants, and confirms that demographics (age, income education level and occupation) have an impact on their use of internet banking. Most users are middle-aged (i.e. between 31-39), have monthly incomes in excess of R4000, are educated to tertiary levels and are employed. Most attitudinal factors including relative advantage, compatibility, complexity, perceived risk, and perceived cost are found to be significant, however complexity, perceived risk and perceived cost present a negative relationship. Social influences did not result in any significant differences between users and non-users. On the basis of these findings the conclusions and recommendations will be made in the next chapter i.e. chapter six.

CHAPTER SIX – CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

This chapter outlines the findings of this study and their relationship with the relevant theory and determines how the factors identified impact on the adoption of internet banking. Based on the results obtained from the study, a discussion of the theoretical and practical implications are presented. The contributions this study can make to determine future research directions are highlighted. The limitations of the study are discussed and finally a conclusion is presented.

6.2 CONCLUSIONS DRAWN ON THE INFLUENCE OF DEMOGRAPHIC FACTORS ON CONSUMERS' ADOPTION OF INTERNET BANKING

The conclusions drawn about the impact of demographic factors on consumers' adoption of internet banking are the following:

6.2.1 Age

Research quoted earlier showed that in Finland, (Karjaluoto, et al., 2002:263) age had an impact on the use of internet banking. The age of the typical user was identified as being between 35-49 years. However, it emerged that internet banking users in South Africa are not the same as the literature from other continents suggests. In this study, the age group 30-39 accounts for 64 percent of internet banking users, which is a relatively high proportion of younger user than previous studies (Karjaluoto, et al., 2002:263) have indicated. The data suggests that age has an impact on the use of internet banking in South Africa.

6.2.2 Income

The results of this study indicate that on the one hand, 64 percent of internet banking users have an income of more than R5000 per month. In South Africa, this represents the middle-to-high income group. On the other hand, 66 percent of the non-users have an income of less than R 4000 per month. Only 10 percent of the non-users have an income of more than R 5000 per month. Therefore this finding concurs with the studies of Karjaluoto, et al. (2002:265) which showed that income has a major effect on the adoption of internet banking. Internet banking users generally earn a higher income than non-users.

6.2.3 Education Level

Education levels are regarded as an influential factor in consumers' use of internet banking services with high education levels being particularly significant. As earlier research has indicated, high levels of education enhance a consumer's ability to process more complex information and make decisions (Polatoglu and Ekin, 2001:159). In this study, 83.8 percent of internet banking users have a higher education level (diploma or degree), whereas only 33.8 percent of non-users have tertiary education level qualifications. This confirms the high impact of education levels on the use of internet banking in this study and is consistent with previous research findings.

6.2.4 Occupation

Previous studies indicate that occupation has an impact on the use of internet banking; users are educated and have better occupations than non-users (Karjaluoto, 2002:359). In this study 81.3% of the users were employed, whereas more than half of the non-users (58.1%) were not employed. As can be seen from these figures most of current users are employed compared to non-users. Hence occupation has

an impact on the adoption of internet banking in South Africa and the finding is in line with past studies (Karjaluoto, 2002:359).

6.3 CONCLUSIONS DRAWN ON THE PSYCHOLOGICAL FACTORS INFLUENCING CONSUMERS' ADOPTION OF INTERNET BANKING

Attitude and perception do influence the use of internet banking services as negative perceptions of the product, as revealed in this study, explain the large number of respondents who do not use the product. There is an opportunity, however, for banks to build on the positive perceptions of customers. The conclusions drawn about consumers' attitudes and perceptions towards internet banking in this study are as follows:

6.3.1 Relative advantage

On the basis of the results of this study, in comparison to non-users, users perceived internet banking to make a positive contribution to their finances, saving time and making communication with banks more comfortable. This result is in line with the findings of Gerrard and Cunningham (2003:8), which identified the perceived relative advantage as a significant factor in driving the adoption of internet banking. The greater the perceived advantage of using internet banking, the more likely that internet banking would be adopted; hence the perceived relative advantage of internet banking is a significant factor in influencing consumers to adopt internet banking.

6.3.2 Compatibility

Based on the results of this study, internet banking users perceived internet banking to be more suitable to their life style and work style and more convenient to their life

style compared to non-users. This finding is in agreement with the research of Bradley and Stewart (2003:1089), which showed that consumers who feel that internet banking is more compatible with their values are more intent on using internet banking services. The more a customer uses internet banking, and the more he or she perceives internet banking to be compatible with his or her lifestyle, the more likely that customer will continue to use internet banking. Therefore, a perception of compatibility of internet banking is an influential factor in the use of internet banking.

6.3.3 Complexity

The results of this study indicate that internet banking users perceived internet banking as not involving complex procedures. Users perceived the service to be easier, less complex and simpler than non users did. This result concurs with the findings of Gerrand and Cunningham (2003:26), which suggested that the more complex internet banking is perceived to be, the less likely it is that internet banking will be adopted. Hence, the perception of complexity is a significant factor influencing the use of internet banking.

6.3.4 Perceived cost

This research indicates that consumers view factors such as telecommunication costs, internet banking service fees and the cost of the installation of the Internet as being important in motivating them to use internet banking services. However, non-users of internet banking perceived these costs as being higher and more expensive than did users. These perceptions were confirmed by the perceptions of the degree of cost effectiveness reflected in the responses of non-users who perceived internet banking to be less cost-effective for their needs than did users. Hence, this result is in line with results found in earlier research (Bradley and Stewart, 2003: 1091) which showed perceived cost to have a negative influence on the adoption of internet banking. The literature review reflects the degree to which perceived costs act as a deterrent to some consumers and how banks have attempted to address this factor.

For example, First National Bank aims to drive Internet usage by rewarding customers with the virtual currency, Standard Bank offers consumers a credit card facility with a reward scheme linked to an online shopping mall. These initiatives have been reported to have yielded the desired effect. The results of this research validate the thinking of these three major financial institutions.

6.3.5 Perceived risk

According to the results of this study, factors which hamper internet banking usage are:

- consumers believe that it is not safe to use internet banking;
- consumers are not confident to disclose their credit card and account online; and
- consumers believe that it is unsafe to reveal personal information on a bank websites.

The findings corroborate with research which earlier found that South Africans are nervous about releasing credit card and banking details on the web resulting in financial institutions experiencing problems in enticing online customers. This finding is also consistent with the research done by Polatoglu and Ekin (2001:164), which stated that the lower the perceived risks of internet banking the more likely an individual would be prepared to become active users of internet banking. Therefore, to sum up, the perceived risk negatively influences consumer behaviour with regard to internet banking.

6.3.6 Social influences on the adoption of internet banking

The results of this study provide a higher level of significance, which indicates that adoption is not affected by social influences. In other words, opinions of friends, parents or colleagues are not considered an important factor when deciding whether to adopt internet banking service. A possible reason for this is that internet banking services are seen as an extension of other banking services. The decision to bank at

a particular bank may be affected by social influences such as what other people might think of that bank. Once the bank has been accepted, the decision to adopt an additional service such as internet banking at this particular bank would be relatively unaffected by the opinions of other people. Another possible explanation is that extensive information is readily available on the Internet and, in particular, on each of the individual banks' website. This relatively easy access to comprehensive information results in potential users being less dependent on other sources such as the opinions of friends, parents and colleagues.

6.4 CONTRIBUTIONS AND THEORETICAL IMPLICATIONS

Theoretically, this study contributed to the existing literature in the following ways.

First and foremost, this study provided fresh information on the differences between non-users and users of internet banking. Secondly, the findings of this study make an important contribution to the literature by investigating a little studied, yet important, group of internet banking adopters, namely South Africa's retail bank customers. The findings from this study can be directly compared with those obtained previously in other countries. Thirdly, the study provides information of interest to the South Africa banking industry. Last, but not least, the instruments developed and validated in this study can be used in future research. The validated research framework proposed in this study can hence serve as a basis for hypothesis formulation for future research in this area.

6.5 PRACTICAL IMPLICATIONS AND RECOMMENDATIONS FOR BANKS IN SOUTH AFRICA

Internet banking is a fact of life for the banking industry and its role is likely to continue to grow in the foreseeable future. Competitive realities are in a state of flux and few can predict how internet banking will ultimately shape competition within the

banking industry. During this period of uncertainty and opportunity, bank managers would do well to benchmark their online operations against the best-performing rivals in their core markets. Continuous improvement and adaptation are the only means to ensure that banks are not left behind as the competitive landscape continues to shift.

From a pragmatic perspective, these results give an important insight into customer management in the South Africa retail bank environment. Customer management is expected to reflect a sense of caring and the feeling that someone in the bank is really listening to the customers and trying to fulfil his or her needs. The winners in the field will be those who can turn internet banking from transactional business to relational business. Only by developing full-range online services with similar features to those offered at the branch level (including personal services), can banks differentiate themselves from their competitors and thereby create competitive advantage.

Depending on the products, marketing managers can use the dimensions identified in this study to investigate the attitudes of their online target market. For example, assessing whether their on-line offerings are expensive and safe, managers can formulate strategies to accommodate these concerns when marketing their products over the Internet. Similarly, managers need to be particularly sensitive to consumers' perceived competitiveness of their offerings over the Internet since perceived non-competitiveness of their offerings may damage the company's name and image and add to the beliefs of consumers that the substitution of traditional banking with internet banking is not justifiable.

Drawing from the conclusions of this study the following recommendations can be made. Recommendations are made in line with the four P's in marketing: product, price, promotion and place.

6.5.1 Product

This survey provides the rankings of internet banking services by users. For the banks wishing to launch their internet banking services, the type of products and services offered through internet banking should basically include those frequently used by their clients as well as services requiring few interactions with bank staff. These services include checking account balances and inquiries, account transfers, bill payments, and funds transfer to other banks. Banks have the capacity to offer many creative banking services through the Internet to their customers. It is, however, wise to make these services available online one phase at a time.

Relative advantages of internet banking are very important. Banks thus face a challenge in demonstrating that using the Internet as a service channel will be worthwhile for the potential user and that functionality will be delivered. Complexity of internet banking is another key factor to influence the adoption of internet banking. Easy-to-use internet banking is important for all customers. Banks should aim to make their internet banking as simple and easy to use as possible so that customers do not perceive them as being complicated or difficult to use. It provides insights for developers to design an internet banking system interface, websites, processes, and programmes and for banks to formulate strategies in offering services. Websites should be user-friendly with clear instructions for users. The use of illustrations is advised and will be embraced by all levels of users. Banks should install security features such as encryption devices, which safeguard sensitive information.

There is a need to further enhance mechanical resources within the structure of the main internal framework. That is to say, if internet banking becomes popular, there would be problems generated by the influx of banking transactions being made at the same time. Banks need to look into better equipping their systems with more powerful and advanced computer technologies.

6.5.2 Price

A key factor, which will drive the use of internet banking in this country, is cost effectiveness. Hence, a reduction in the cost of internet banking transactions can motivate consumers to use the service.

Banks offering internet banking should not charge fees for similar banking services that are free-of-charge in the physical world (for example, at bank branches and/or ATMs).

The results of this survey revealed that both users and non-users are unlikely to pay high charges for using internet banking. However, certain transactions, such as cheque cancellations and wire transfers, would still require administrative charges. Banks could introduce price bands. Customers, who process large volumes of transactions online, should receive a discount on transaction charges. Customers could receive free statement updates via Short Message Services (SMS).

Since the cost of operating internet banking services is lower than any other channel of service, banks should look for opportunities to lower the charges and transfer the cost savings (at least part of instead of all) to customers. Therefore any potential cost reductions will act as a significant driver. The desires for cost reductions will be a key driver for banks to increase the adoption rate of internet banking.

6.5.3 Promotion

Consumers of all ages can be targeted. The target market could also include small and medium businesses in South Africa. An important feature in promoting internet banking is the emphasis on lower charges for online transactions as a key benefit. Promotions could be held at branches, offering prizes to customers who sign up and use the online facility.

Banks offering internet banking should launch campaigns to direct awareness to potential adopters. Issues such as fear of the lack of privacy and security, together with relative advantages of using internet banking should be highlighted to alleviate fears and educate potential customers to the advantages. Awareness should be created about the differences in traditional and internet banking charges through advertisements on radio, television and newspapers.

Risk perceptions by potential adopters are negatively related to the adoption of internet banking. Therefore, banks providing internet banking should actively address these negative perceptions. To boost confidence and enhance the efficacy of using internet banking services, demonstrations via video presentations could be made at bank branches to showcase the user-friendliness of such services. In order to overcome consumers' negative perceptions about internet banking safety, banks should promote the positives of the service, such as convenience and cost-effectiveness, and should begin a marketing campaign that makes internet banking the new buzz word.

These initiatives will help customers familiarize themselves with the bank and its internet banking services. New technology, like all things that are unfamiliar, requires initiation. This is an important criterion in helping customers select a bank that offers internet banking.

There can be substantial marketing advantages for banks offering internet banking services. This survey discovered that to date two to eight percent of the population in South Africa using internet banking is comprised of the more affluent portion of the population, namely, those who have higher incomes and better education. Recognizing this, banks can use the Internet to offer special services catered to their upper-scale customers more effectively. That is, banks don't need to waste time, effort and money on promoting these services to those far less likely to use them. When the cost of the technology and access to the Internet becomes more wide-spread, different strategies may be employed to tailor services to those in the lower

income groups.

6.5.4 Place

Banks could target business and establish relations with them. The benefits of internet banking can be illustrated to the owners of the company.

Banks could penetrate new markets through the use of company Internet sites as people may be encouraged to open bank accounts in order to utilize the internet banking facilities.

Banks could visit companies and provide free training on the use of computers, the Internet and more importantly internet banking. The company will benefit from having its staff educated on the use of computers and banks will benefit from creating brand awareness.

6.6 LIMITATIONS

Limitations in the research could not be totally avoided. The following limitations are cited:

- Firstly, internet banking in South Africa is a new innovation and is still in its infancy. During the collection of literature, the author found that there was a lack of relevant information of the local context. The origins of information inevitably came from other countries, like Finland, Hong Kong and England. This may not accurately describe the local context and situation in South Africa.

- Secondly, the main limitation of the study was a consequence of limiting the study to the Greater Durban area. As a result, the study may contain some information and results that are relevant only to the Durban market, which may limit the

opportunities to make generalizations based on the findings. Thus, future studies need to have a wider geographical scope. One interesting area for future research could be comparisons of consumers across different countries.

- Thirdly, in order to solicit the co-operation of respondents, multiple choice questions were employed throughout this study. Although the choices for each question were adopted from the elicitation study and amended according to the responses from several pilot tests, all possible alternatives might not have been included. Besides, showing the respondents the list of potential answers could have biased the responses.

6.7 RECOMMENDATIONS FOR FUTURE STUDY

The following are areas that could be considered for future research:

- The study on the adoption of internet banking services in South Africa can be extended to corporate customers. Comparison can then be made between individual customers and corporate customers in terms of the factors influencing their adoption decisions, the criteria for selecting an internet banking service, and the types of products and services perceived to be useful.

- The number of respondents interviewed could be increased in a national study in order to extrapolate the conclusions to incorporate the general population.

- When the number of internet banking customers reaches a critical mass, future studies may examine the factors that contributed to this increase in usage. For example, such a study could take place a year from the date of this study.

6.8 SUMMARY

In conclusion, all the objectives of this study were achieved. With respect to research sub-objective 1, the factors influencing the adoption of internet banking in the South African context were identified. These were demographic factors such as age, income, educational level and occupation, which have an impact on a consumer's adoption of internet banking in South Africa. Psychological factors such as perceptions of relative advantage, compatibility, complexity, perceived risk, and perceived cost were identified. For research sub-objective 2, a measure of the relationship between the factors and the adoption of internet banking was determined. Demographic factors, including age, income, education level and occupation were found to have influences and impacts on decisions to adopt internet banking. Psychological factors, including perceptions of relative advantage, compatibility, complexity, risk, and cost are found to be significant. However, negative perceptions of complexity, risk and cost were indications of negative attitudes towards adopting internet banking. Negative perceptions and attitudes influence the decision-making process, resulting in negative consumer behaviour outcomes. Social influences, including the opinions of friends, parents and colleagues were found to have insignificant differences in having influenced internet banking users and non-users. With respect to research sub- objective 3 that identified the factors that discouraged customers from using internet banking, the complexity, cost and risk perceived by non-users hindered the adoption of internet banking.

This research is especially valuable for the South African banking industry. Findings in this study shed some light for South Africa banks interested in implementing internet banking strategies by emphasizing the relevant criteria at each phase necessary for a successful adoption process. The recommendations drawn from the conclusions of this study were consistent with the four P's in marketing: product, price, promotion and place. Contributions of this study, its limitations and recommendations for future study were made based on the findings.

Bibliography

Aaker, D.; Kumar, V. and Day, G. 2004. *Marketing Research*. New York: John Wiley and Sons.

Agarwal, R. and Prasad, J. 1998. “A conceptual and operational definition of personal innovativeness in the domain of information technology”. *Information systems research.* Vol.9. pp.204-224.

Ajzen, I. and Fishbein, M. 1980. *Understanding Attitudes and Predicting Social Behaviour.* Englewood Cliffs: Prentice-Hall.

Anonymous. 2002. “Living standards – surprise!” (Online). Available at: http://www. safrica.info/doing_business/economy/succss/living standards.htm. Accessed on 2004-03-15.

Anonymous. 2002. “South Africa”. (Online). Available at: http://www.infoplease.com/ipa/A0107983.html. Accessed on 2004-05-17.

Anonymous. 2004. “Meaning of Internet”. (Online). Available at: http://www.hyperdictionary.com/dictionary/Internet. Accessed on 2005-3-2.

Anonymous. 2005. Research Methodology. Faculty of Commerce. Durban: Durban Institute of Technology.

Babbie, E. and Mouton, J. 2002. *The Practice of Social Research.* CapeTown: Oxford.

Bailey, K. D. 1987. *Methods of Social Research*. London: Collier Macmillan.

Bareczal, G. and Ellen, P. 1997 “Developing typologies of consumer motives for use of technologically – base banking services”. *Journal of Business Research.* Vol.38. pp.131-139.

Besavros, A. 2000. “Banking industry walk ‘tightrope’ in personalization of web services”. *Bank Systems & Technology.* Vol. 37(1). pp.54-56.

Beckett, A.; Hewer, P. and Howcroft, B. 2000. “An exposition of consumer behavior in the fiancial services industry”. *International Journal of Bank Marketing.* Vol.18(1). pp.15-26.

Black, N. F.; Lockett, A.; Winkhofer, H. and Ennew, C. 2001. “The adoption of Internet financial services: A qualitative study”. *International Journal of Retail and Distribution Management*. Vol.29 (8). pp.390-398.

Block, C. and Roering, J. 1979. *Essential of Consumer Behavior: Concepts and Applications.* Hinsdale: The Dryden Press.

Botha, S. 2002. “Woman on top”. *Marketing Mix.* Nov/Dec. Vol.20(9). pp.20-23.

Bradley, L. 2000 “The diffusion of Internet banking within the Irish retail banking industry,” Unpublished MBA dissertation. Dublin Institute of Technology.

Bradley, L. and Stewart, K. 2003. “The diffusion of Online Banking”. *Journal of Marketing Management.* Vol.19. pp.1087-1109.

Brogdon, C. 1999. “Banking and the Internet: Past, Present, and Possibility”. (Online). Available at: http:// www-db.stanford.edu/pub/gio/CS99I/banking.html. Accessed on 2004-04-23.

Burns, P.P. 2000. “Service consistency across channels is a key to success”. *American Banker*. Vol.165(68). pp.4-6.

Case 2000 Report “A study of youth in South Africa”. (Online). Available at: http:// www.case.org.za/htm. Accessed on 2004-04-28.

Chaffey, D.; Mayer, R.; Johnston, K. and Ellis-Chadwick, F. 2000. Internet Marketing. New York : Prentice Hall.

Cheung, C. S. 2001. “Understanding adoption and continual usage behaviour towards Internet Banking service in Hong Kong”. Unpublished M. Com dissertation. Lingnan University.

Cheung, W.; Chang, M. K. and Lai, V. S. 2000. “Prediction of Internet and world web usage at work”. *Decision Success*. Vol.33. pp.45-57.

Cheskin Research and Studio Archetype/Sapient. 1999. “E-commerce Trust Study”. (Online). Available at: http://www.studioarchetype.com/cheskin.htm. Accessed on 2004-04-20.

Ching, H. L. and Ellis, P. 2004. “Marketing in Cyberspace: what factors drive e-commerce adoption?”. *Journal of Marketing Management*. Vol.20. pp.409-429.

Comptroller’s Handbook October 1999 “Internet banking”. (Online). Available at: http://www.fjinfo.gov.cn/publicat/qbts/011/4.htm. Accessed on 2005-04-25.

Cooper, D. R. and Schindler, P. 2001. *Business Research Methods.* New York: McGraw Hill.

Cooper, R. B. and Zmud, R. W. 1990. “Information Technology Implementation Research: A technological diffusion approach”. *Management Science.* Vol.36(2). pp.123-139.

Cranor. and Laurie, F. “Understanding net users’ attitudes about online privacy”. At&T Lab-Research Technical Report TR99.4.3, 24 April 1999. (Online). Available at: http://www.Research.att.com/library/trs.TRs/99/99.4. Accessed on 2004-04-25.

Crask, M.; Fox, R. and Stout, R. 1995. *Marketing Research: Principles and Applications*. Englewood Cliffs: Prentice Hall.

Daniel, E. 1999. “Provision of electronic banking in the UK and the republic of Ireland.” *International Journal of Bank Marketing.* Vol.17(2). pp.72-82.

Davis, S. 1989. “Perceived usefulness, perceived ease of use, and user acceptance of information technology”. *MIS Quarterly.* Vol.1(13). pp.319-339.

De Kare-Silver, M. 2001. *E-Shock, The New Rules*. New York: Palgrame.

Doll, W. J.; Raghunathan, T. S.; Lim, J. S. and Gupta, Y. P. 1995. “A confirmatory analysis of the user information satisfaction instrument”. *Information Systems Research.* Vol.6(2). pp.177-188.

Du, J. 2002. “Internet marketing strategy”. (Online). Available at: http://www.fji-nfo.gov.cn/publicat/qbts/011/4.htm. Accessed on 2005-03-10.

Du Plessis, P. J. and Rousseau, G. G. 1999. *Buyer Behaviour.* Johannesburg: Thomson.

First National Bank 2001 Brochure. “Electronic Banking”. South Africa

Fitzsimmons, J. 2002. “Evolution of B2C e-commerce in Japan”. *International Journal of Business Performance.* Vol.4. pp.202-204.

Georgiaders, P. and Dowsland, B. 2000. “Attitude towards online purchases behavior”. Working paper. European Business Management School.

Fox, S. 2002. “Online banking: A pew Internet project data memo”. Pew Research Center. (Online). Available at: http://www.pew-internet.org/reports-/pdfs/pip_online_bankling.pdf. Accessed on 2004-04-14.

Gerrard, P. and Cunningham, J. B. 2003. “The diffusion of internet banking among Singapore consumers”. *The International Journal of Banking Marketing.* (Online). Available at http://www.proquest.umi.com/pqdweb?index. Accessed on 2004-04-25.

Gibson, J.; Ivancevich, J. and Donnely, J. 2000. *Organizations: Behavior, Structure, Process.* New York: McGraw Hill.

GoldStuck, A. 2001. “Internet access in South Africa”. (Online). Available at: http://www. Itweb.co.za/sections/features/internet. Accessed on 2004-04-14.

Goosen, D. 1999. *Banking in the new millennium*. Cape Town: Juta.

Guo, G. Q. 1999. *Marketing Strategy*. Beijing: Wuhan.

Green, S. and Van Belle, J. 2002. “Customer expectations of Internet Banking in South Africa”. Working paper. University of Cape Town.

Griffiths, R.T. 2002. “From Arpanet to world wide web”. (Online) Available at: http://www.let.leidenuniv.nl/history/ivh/frame.theorie.html. Accessed on 2005-03-10

Gupta, S. 1988. “Impact of sales promotion on when and how much to buy”. *Journal of Marketing Research.* Vol.25. November. pp.342-355

.

Hartman, A.; Sifonis, J. and Kador, B. 2000. *Net Ready: Strategies for success in the E-conomy*. New York: McGraw Hill.

Hawkins, D.; Best, R. J. and Coney, K. A. 1989. *Consumer Behaviour*. Boston: Irwin.

Hoyer, W. and MacInnis, D. 2000. *Consumer Behaviour*. New Jersey: Houghton Mifflin.

Imrg.org.uk. 2003. “UK online banking users double”. (Online). Available at:http://www.imrg.org/IMRG/IMRGReports.nsf. accessed on 2005-04-27.

Kane, J. 2002. South Africa Survey. Johannesburg: South Africa Institute of Race Relations.

Karin. 2002. “Are there still growth opportunities in the Internet Banking market?” (Online) Available at: http://www.webchek.co.za/library - growbanking.html. Accessed on 2004-04-17.

Karjaluoto, H.; Mattila, M. and Pento, T. 2002. “Factors underlying attitude formation towards online banking in Finland”. *The International Journal of Bank Marketing*. Vol.20. pp.261-273.

Karjaluoto, H. 2002. “Electronic banking in Finland: Consumer Beliefs, Attitudes, Intentions, and Behaviors”. *Journal of Financial Services Marketing.* Vol. 6(4). pp. 346-361.

Kerem, K. 2001. “Adoption of electronic banking: underlying consumer Behavior and critical success factors”. Unpublished dissertation. M COM.Tallinn Technical University.

Kinnear, T. C. and Taylor, J. R. 1991. *Marketing Research: An Applied Approach*. New York: McGraw Hill.

Kotler, P. and Amstrong, G. 2000. *Marketing: An Introduction*. New York: Prentice Hall.

Kotler, P. 2000. *Marketing Management.* New York: Prentice Hall.

Lain, R. 2000. “Internet shopping soars at the end of the century”. Natal Mercury, Tuesday 18. January 2000. pp.7.

Lamb, C.; Hair, J. and McDaniel. 2000. *Marketing*. New York: South – Western College Publishing.

Leaderer, A. L.; Maupin, D. J.; Sena, M. P. and Zhuang, Y. 2000. “The technology acceptance model and the world wide web”. *Decision support systems.* Vol.29. pp.269-282.

Litwin, M. S. 1995. *How to measure survey reliability and validity*. London: SAGE Publications.

Liu, C. and Arnett, K. P. 1999. “Exploring the factors associated with website success in the context of electronic commerce”. *Information and management.* Vol.38. pp.23-33.

Lockett, A. and Littler, D. 1997. “The adoption of direct banking services”. *Journal of Marketing Management”*. Vol.13. pp.791-811.

Loudon, D. and Della Bitta, A. 1993. *Consumer Behavior.* Singapore: McGraw Hill.

Lussier, R. 2000. *Management Fundamentals*. New York: Thomson Learning.

Maier, N. R. F. 1965. *Psychology in Industry.* New York: Houghton-Mifflin.

Malhotra, N. 1999. Marketing Research: An Applied Orientation. Upper Saddle River: Prentice Hall.

Martins, A.; Martins, N.; and Olivier, M. S. 2001. "Consumer perception of electronic-commerce". *South African Computer Journal*. Vol.27. pp.27-33.

Mason, J. and Ezell, H F. 1987. *Marketing: Principles and Strategy*. Texas: Business Publications.

McCarthy, E. J. and JR Perreault, W. D. 1993. *Basic Marketing*. Boston: Irwin.

McDaniel, C. and Gates, R. 2002. *Marketing Research*. Singapore: South-Western.

Mcleod, D and Planting, S. 2001. "Making a net loss." (online). Available at: http://www.futurecompany.co.za/2001/05/25reviewa.htm. Accessed on 2004-04-27.

Mink, M. 2001. "Allaying members' online fears". *Credit Union Executive Newsletter. V*ol.27. pp.27.

Mols, N. P. 1998. "The behavioral consequences of PC banking". *International Journal of Bank Marketing.* Vol.16(5). pp.195-201.

Molla, A. 2002. “Diffusion of Internet banking services in South Africa”. (Online). Available at: http//www.commerce.uct.ac.za/informationsystems/research. Accessed on 2004-04-15.

Mowan, J. C. 1995. *Consumer Behavior.* Engelwood Cliffs: Prentice Hall.

Nehmzow, C. 1997. “The Internet will shake banking’s medieval foundations”. *Journal of Internet banking and commerce*. (Online) available at:http://www.arraydev.com/commerce/JIBC. Accessed on 2004-04-11.

Nelson, D. 1990. “Individual adjustment to information – driven technologies: a critical review". *MIS Quarterly*. Vol.14. pp.79-100.

Norris, M.; West, S. and Gaughan, K. 2000. *E-Business Essentials.* NewYork: John Wiley.

Novak, T. and Hoffman, D 1996. ‘Marketing in hypermedia computer – mediated environment conceptual foundations’. *Journal of Marketing.* Vol.60. pp.50-68.

Ougkasuwan, M. 2002. “A comparative study of Internet Banking in Thailand”. Unpublished dissertation. M COM. Asian University of Science and Technology.

Pahnila, S. 2002. “Consumer acceptance of online banking”. (Online). Available at: http://www.ingenta.com/isis/searching/expand/ingenta/art 00003. Accessed on 2005-04-13.

Peter, J.; Olson, J. and Irwin, R. 1994. *Understanding Consumer Research.* New York: McGraw Hill.

Pitter, K. 1995. *Every student’s guide to the Internet*. Cape Town: Juta.

Polatoglu, V. and Ekin, S. 2001. “An empirical investigation of the Turkish consumers’acceptance of Internet banking service”. *The International Journal of Bank Marketing.* Vol.19(4). pp.156-166.

Pollit, D. 2001. “Electronic commerce trends”. (Online). Available at: http://www.emaraldinsight.com/now aarchive/apri:2001/trendshtm. Accessed on 2004-04-11.

Pyun, C.; Scruggs, L. and Nam, K. 2002. “Internet banking in the US, Japan and Europe”. *Multinational Business Review.* Vol.10. pp.73-82.

Reekie, W. D. and Brits, R. N. 1997. *Marketing in South Africa: Decision, Analysis, Theory and Practice.* Johannesburg: Macmillan.

Rice, C. 1997. Understanding Customers. London: Butterworth Heinemann

Robinson, T. 2000. “Internet banking stills not a perfect marriage”. *Information Week.* Vol.17(4). pp.104-106.

Rogers, E. and Shoemaker, F. 1971. *Communications in Innovation.* New York: Free press.

Rogers, E. M. 1983. *Diffusion of Innovations*. New York: Free press.

Rothwell, R. and Gardiner, P. 1984. “Design and competition in engineering”. *Long Range Planning.* Vol.7(3). pp.78-91.

Sathye, M. 1999. “Adoption of Internet banking by Australian consumers: an empirical investigation”. *International Journal of banking Marketing*. Vol.17 (7). pp. 324:334.

Schiffman, G. and Kanuk, L. 2000. *Consumer Behaviour*. New Jersey: Prentice Hall, Inc.

Financial Mail. 1997. “New competition – Technology: a double-edge sword”. (Online) Available at: http://www.secure-financialmail.co.za/report/-banking/atm.htm. Accessed on 2004-05-12.

Sheshunoff, A. 2000. “Internet Banking-an update from the frontlines”. *ABA Banking Journal.* Vol. 92(1). pp.51-55.

Sheth, J.; Eshghi, A. and Krishnan, B. 2001. Internet Marketing. New York: Harcourt.

South Africa Year Book 2003/2004. (Online). Available at: http://www.info.gov.za/yearbook/2004/finance.htm. Accessed on 2004-05-17.

Stoneman, B. 2001. “Expectations increase for online banking and brokerage”. *American Banker.* Vol.166 pp.141.

Struwig, F. and Stead, G. 2001. *Planning, designing and reporting research.* Cape Town: Pearson Education.

Suganthi, Blachander and Balachandran. 2001. “Internet banking Patronage: An investigation of Malaysia”. *Journal of Internet Banking and Commerce.* (Online). Available at: http://www.arrraydev.com/commerce/jibc/010301.htm. Accessed on 2004-04-12.

Tang, J. B. 2004. “Internet make city better”. (Online). Available at: http://www.shlottery.gov.cn/epublish/gb/paper94/20030325/class009400003/hwz1055981.htm. Accessed on 2005-03-11.

Thong, J. 1999. “An integrated model of information systems adoption in small businesses”. *Journal of Management Information Systems*. Spring Vol.15 (4). pp. 187-214.

Valente, T. W. 1993. “Diffusion of Innovations and policy decision making”. *Journal of Communication*. Vol. 43. pp. 30-45.

Wang, J. H. 2002. “The function of Internet”. (Online). Available at: http://www.scagri.gov.cn/b10025.txt. Accessed on 2005-03-11. Accessed on 2004-05-23.

Weisman, J. 2001. “E-commerce to grow 57% in 2001, E-commerce Times”. (Online). http:/www.ecommercetimes.com/per1/story/?id=6530. Accessed on 2004-04-13.

Wilkie, W. 1990. *Consumer Behaviour*. New Jersey: McGraw Hill.

.

APPENDIX 1

QUESTIONNAIRE

My name is Jun Wu and I am conducting research for my M Tech degree in Marketing at the Durban Institute of Technology. The title of my research project is factors influencing adoption of internet banking. In order to collect representative data I would like to interview you. I need only 15 minutes of your time to complete the interview. The information provided will be treated confidentially and your co-operation will be highly appreciated. The aim of this research project is to improve the internet banking service to South African customers.

Full name: Jun Wu 2005-1-25

Signed: _____ DATE

1. Internet usage

1.1 Have you ever used the Internet?

❑ Yes	1
❑ No	2

1.2 If yes, do you use Internet at: (you can tick more than one choice)
If no, please go to Section 3

❑ Home	1
❑ Work place	2
❑ Internet café	3
❑ Library	4
❑ Other, please specify: _____	5

1.3 You use the Internet for (you can chose more than one answer)

- ❑ E-mail
- ❑ Entertainment
- ❑ Study
- ❑ Update on current news
- ❑ Banking
- ❑ Other, please specify: _____

1
2
3
4
5
6

1.4 How often do you use the Internet

- ❑ Daily
- ❑ Once a week
- ❑ More than 2 times a week
- ❑ Once a month
- ❑ Other, please specify: _____

1
2
3
4
5

2. Internet banking

2.1 Have you ever used internet banking?

- ❑ Yes
- ❑ No

If yes please answer question 2.4-2.7, if no please answer 2.2-2.3

1
2

2.2 If you have not used internet banking, state why? (You can tick more than one option)

- ❑ I do not have Internet access
- ❑ I do not have a computer at home
- ❑ I am not good at computer
- ❑ I am not good at using Internet
- ❑ Cost of Internet access is very high
- ❑ Internet banking is not safe.
- ❑ No need.
- ❑ I have not heard of internet banking
- ❑ Other, please specify: _____

1
2
3
4
5
6
7
8
9

2.3. Will you engage in internet banking service if the bank offers: (you can tick more than one choice)

- ❑ Free Internet access
- ❑ Free training skills on the use of internet banking
- ❑ More economical banking transaction
- ❑ Great security

Other, please specify: _____

1
2
3
4
5

2.4 If yes, where did you learn about internet banking? (You may tick more than one answer).

- ❑ Bank leaflets/advertisements
- ❑ Television/Radio
- ❑ Newspaper/Magazines
- ❑ Words-of-mouth
- ❑ Other, please specify:_____

1
2
3
4
5

2.5 Which bank do you prefer to use (you can choose more than one answer)

- ❑ ABSA
- ❑ Standard Bank
- ❑ First National bank
- ❑ Ned Bank
- ❑ Other, specify: _____

1
2
3
4
5

2.6 What do you use internet banking for? (You can select more than one option).

- ❑ Viewing account statements
- ❑ Viewing cheque account balances
- ❑ Making payments
- ❑ Transferring funds
- ❑ Other, please specify: _____

1
2
3
4
5

2.7 How often do you use internet banking?

- ❑ Daily
- ❑ Weekly
- ❑ Monthly
- ❑ Quarterly
- ❑ Yearly
- ❑ Other, please specify: _____

1
2
3
4
5
6

3. Internet banking perception

Please read each statement and than put a score in the box, which best indicates how strongly you agree or disagree with the statement.

Strongly disagree	**Disagree Somewhat**	**Neither agree nor disagree**	**Agree to some extent**	**Strongly Agree**
1	**2**	**3**	**4**	**5**

3.1 Relative advantages of internet banking

a. Internet banking allows me to manage my finances better.
b. Internet banking saves my time.
c. Internet banking makes me more comfortable to communicate with the bank.

3.2 Compatibility of internet banking

a. Internet banking suits my life style.
b. Using internet banking to do my banking business fits into my work style.
c. Using internet banking makes my lifestyle more convenient.

3.3 Complexity of internet banking

a. Internet banking programme is easy for me to manage my finances.
b. Using internet banking is very complex.
c. Using internet banking process is simple.

3.4 Perceived cost

a. The telecommunication cost is expensive.
b. Internet banking service fee is expensive for me.
c. The Internet installation cost is expensive.
d. Internet banking is cost-effective to me.

3.5 Perceived risk

a. I prefer to go to the bank to do my banking business for security reason.
b. Internet banking is safe/secure.
c. I am not afraid of disclosing credit card and account details on the Internet.
d. I am not afraid of disclosing personal information on the Internet.

3.6 My decision to adopt internet banking is influenced by:

a. My friends
b. My parents
c. My colleagues

4 Demographic Details

4.1. Gender

Male	
Female	

4.2. Age category

21 to 29	
30 to 39	
40 to 49	
50 and over	

4.3. Monthly Income

Less than R 2000	
R 2000 to R 3999	
R 4000 to R 4999	
R 5000 to R 9999	
Over R 10000	
Other	

4.4. Educational qualifications

University / Technikon degree/diploma	
Matric	
Some high School	
Other (Specify)	

4.5. Occupation

Workers	
Not working	
Pensioners	
Self employed	
Other (Specify)	

4.6. Marital Status

Married	
Divorced	
Single (never married)	
Widow(er)	

5. Please indicate how the banks can improve the internet banking service to you.

_____

_____

_____

_____

_____

Thank you for time and your responses.

APPENDIX 2

Alpha test:

Reliability

```
 ****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   (A L P H A)
```

		Mean	Std Dev	Cases
1.	FINACESB	3.3175	1.1202	400.0
2.	ANYTIMEA	3.5800	1.1476	400.0
3.	COMMUNIC	3.2525	1.0638	400.0
4.	SUITSLIF	2.8250	1.0850	400.0
5.	FITSWORK	2.9825	1.1046	400.0
6.	CONVENIE	3.0875	1.0062	400.0
7.	EASYMANA	3.2625	.9465	400.0
8.	SIMPLE	2.8500	.9925	400.0
9.	COSTEFFE	2.9750	.9173	400.0
10.	BANKSECU	3.8450	.8502	400.0
11.	INTERN_B	3.0000	1.0453	400.0
12.	CREDITCA	2.3550	1.1077	400.0
13.	PERSONAL	2.3825	1.1443	400.0
14.	FRIENDS	2.8000	1.2881	400.0
15.	PARENTS	2.5150	1.3358	400.0
16.	COLLEAGU	2.7400	1.2910	400.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	47.7700	78.3229	8.8500	16

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
FINACESB	44.4525	68.3035	.4734	.7884
ANYTIMEA	44.1900	71.1568	.3021	.8007
COMMUNIC	44.5175	69.5035	.4334	.7914
SUITSLIF	44.9450	65.4556	.6658	.7748
FITSWORK	44.7875	66.1126	.6118	.7785
CONVENIE	44.6825	67.1145	.6185	.7795
EASYMANA	44.5075	67.9298	.6087	.7812
SIMPLE	44.9200	67.3169	.6153	.7800
COSTEFFE	44.7950	68.6947	.5778	.7836
BANKSECU	43.9250	76.5708	.0692	.8115
INTERN_B	44.7700	67.3655	.5749	.7819
CREDITCA	45.4150	69.6820	.4009	.7936
PERSONAL	45.3875	69.5562	.3907	.7943
FRIENDS	44.9700	73.1670	.1587	.8131

PARENTS	45.2550	75.1729	.0590	.8218
COLLEAGU	45.0300	72.7159	.1790	.8116

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients

N of Cases = 400.0 N of Items = 16

Alpha = .8039

APPENDIX 3

LETTER OF CONSENT

32 Siddeley hall
32 Bonamour Avenue
Glenwood
4001

To WHOM IT MAY CONCERN:

SUBJECT: LETTER OF CONSENT: To interview customers

I, Jun Wu, am a registered student: Master of Technology (Marketing) at Durban Institute of Technology. Currently I am engaged in a research for my master's degree. The topic of this research is on factors influencing adoption of internet banking among South Africans in Durban. The aim of this study is to develop guidelines for financial institutions with regard to customer perceptions and attitudes towards internet banking services.

The researcher will interview customers in various areas of Durban. The copy of research project will be available in the DIT B. M. Patel library and also to banks on request.

I hereby request your consent and support in conducting this research by completing the attached questionnaire. This information from customers will only be used for research purpose, and customers' identity and individual answers will be confidential.

Thanking you

Jun Wu