FACTORS INFLUENCING ADOPTION OF INTERNET BANKING IN KENYA: THE CASE OF KENYA COMMERCIAL BANK, MOMBASA COUNTY

BY

ONG'WEN ALEX LIVINGSTONE MULIMA

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DECLARATION

This Research Project is my original work and has not been presented for award of degree in any other university.

SIGNATURE ..... DATE 09/08/12

ONGWEN ALEX LIVINGSTONE MULIMA

REGISTRATION NUMBER: L50/66672/2010

This Research Project has been submitted for examination with my approval as University supervisor.

SIGNATURE ..... DATE 12/08/2012

JOHNBOSCO KISIMBII

LECTURER, DEPARTMENT OF EXTRAMURAL STUDIES

UNIVERSITY OF NAIROBI

DEDICATION

To my mother Millicent Akinyi Ong'wen, you always prayed for me and encouraged me to get nothing but the best and also provided financial support and my father the late Joshua Ong'wen Muheba who taught me that in life you can achieve what you desire only if you are determined to do so.

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ABBREVIATIONS AND ACRONYMS

CCK	: Communication commission of Kenya
CBK	: Central Bank of Kenya
KCB	: Kenya commercial Bank group
UN	: United Nations
UNCTAD	: United Nations Conference on trade and Development
MCDA	: Multi-criteria decision aid-based
ATM	: Automated teller machine

ABSTRACT

Internet banking offers many benefits but little research has been done about its acceptance in Kenya. This study aims at assessing the factors that influence the adoption of internet banking in Kenya, the factors include demographic factors; consumers perceptions and attitudes" toward internet banking; social influences influencing the decision to adopt internet banking This research has utilized Rogers, (1995) diffusion of innovation model to understand the diffusion of new innovation (internet banking) among consumers. The research was conducted using a descriptive survey research design and the data was collected using questionnaires which were be administered in seven branches of Kenya commercial bank in Mombasa County. A sample of 196 subjects was selected through proportionate stratified and simple random sampling technique from the accessible population. The findings were analyzed and presented in frequency tables. 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. Also relationship between consumer perception and attitude and use of internet banking was tested using chi-square. 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 Kenyan context.

CHAPTER ONE

INTRODUCTON

1.1 Background of the study

Today, the Internet has infiltrated every aspect of life, as exemplified by online entertainment, online shopping, and Internet banking and these new technologies have affected and encroached on people's lives in many ways. The rapid development of Internet banking may make life easier in some ways; however, it must be remembered that there is another side to the issue--it also changes lives and habits in unpredictable ways (Mbaraghani, 2008).

An appropriate banking environment is considered a key pillar as well as an enabler of economic growth (Koivu 2002). The world has witnessed an information and technology revolution (Siam, 2006). This revolution has touched every aspect of people's life including banking. Singh (2002) opined that technology has introduced new ways of delivering banking services and products to the customers, such as ATMs, and internet banking (IB). Hence banks have found themselves at the forefront of technology adoption for the past three decades. These changes and developments in the banking industry have impacts on service quality, future of the banking activities, and consequently its continually competitive ability in the world markets since going along with technology is one of the most important factors of economic organizations success in general and banks in particular (Siam, 2006).

Internet banking is defined as "the provision of retail and small value banking products and services through electronic channels. Such products and services can include deposit-taking, lending, account management, the provision of financial advice, electronic bill payment, and the provision of other electronic payment products and services such as electronic money." (Basel Committee Report on Banking Supervision, 1998).Internet banking customers can perform their financial transactions

electronically over the internet through their personal computer or laptop at a time convenient to them, without having to be restricted to regular branch operating hours. Furthermore, a customer is expected to perform at least one of the following transactions online, namely viewing account balance and transaction histories, paying bills , transferring funds between accounts, ordering cheques, managing investments and stock trading (Alsajjan and Dennis,2006). Internet banking was first conceptualized in the mid-1970s, some banks offered customers electronic banking in 1985. However, the lack of Internet users, and costs associated with using online banking, stunted growth. The Internet explosion in the late-1990s made people more comfortable with making transactions over the web.

According to Khalfan, et al., (2006) reasons for e-banking infrastructure investment include the promise of transaction cost reduction by limiting overheads associated with bank staff and bank branch costs and to provide better services to customers who increasingly desire 24 hour banking. Indeed, Almogbil (2005) note that a common reason for bank adoption of e-banking is to maintain the bank's competitive position and image.

The developed country as a part and parcel of their economy is now using electronic banking or online banking. There have already been a number of studies related to Internet banking covering a range of research dimensions. For example, Pyun et al. (2002) in the U.S., Japan and Europe, Gurau (2002) in Romania; Sathye (1999) in Australia; Polatoglu and Ekin (2001) in Turkey; Balachandher et al (2000) in Malaysia; and Jasimuddin (2004) in Saudi Arabia focused also related studies of internet banking. Apart from the developed countries, the developing countries are experiencing strong growth in e-banking such as India and the Republic of Korea are experiencing particularly strong growth in e-banking. In Southeast Asia, internet banking is also developing rapidly in Thailand, Malaysia, and Singapore and in Philippines (Mia et al., 2007). We refer also Thulani et al. (2009) in Zimbabwe; Guangying (2009) in China;

Dhekra (2009) in Tunisia; Adesina and Ayo (2010); Maiyaki and Mokhtar (2010) in Nigeria; Salehi and Alipour (2010) in Iran and Jun Wu (2005) in South Africa, explored the extent of adoption and usage of internet banking. In Nepal, ATMs are the most popular electronic delivery channel for banking services but only a few customers are using internet banking facilities.

A strong banking industry is an important in every country and can have a significant affect in supporting economic development through efficient financial services (Salehi and Azary, 2008, Salehi et al., 2008).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 (Wu, 2005). This study attempts to provide a useful picture of the current situation for internet banking in Kenya, the factors involving demographic factors; consumers perceptions and attitudes" toward internet banking; 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.

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 Kenya 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 Statement of problem

The need for convenient ways of accessing financial resources beyond the conventional norms has seen the recurrent expansion and modernization of banking patterns. And given the huge demand for finance oriented services, institutions beside the historical banks have joined the fray in an attempt to grab a piece of the perceived cake of opportunity within the banking industry. Yet still banking in the country is beset by long queues, energy exacting and time-consuming, and on whole costly (Appiah and

Agyemang, 2005). It defeats the purpose of customer service to see the hard time that many customers go through to access banking services around the end of every month when most salaries are paid through the banks (Adams and Lamptey 2009). This has resulted in the loss in potential exchanges as many people simply keep money outside the banking system to avoid the ordeal meted out to them by the banks (William et al 2005; Appiah and Agyemang 2005).

In eliminating time, space and distance constraints, customizing products and services, effecting payment or cross-selling, the internet stands out as the biggest digital platform for businesses that leverage the technology. In addition, compression technologies are converting the internet's platform, the web, into a multimedia platform (Chaundhury and Kuilboer, 2002; Adams and Lamptey 2009) making the internet channel a holistic interactive platform. Ho and Ko (2008) also identify labour cost for banks as an incentive to introduce technology-based self-service offer to customers.

In Kenya internet banking is a new industry, consumer acceptance and use of internet banking is still small (Karin, 2002). There is limited understanding of factors influencing the Kenyan bank customers 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 date very little research had been undertaken in Kenya on factors influencing the bank customer's adoption of internet banking; therefore creating 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 perceived 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 Kenya? This research

study strived to redress the scarcity of knowledge and understanding of these critical factors.

1.3 Purpose of the study

The purpose of the study was to examine the factors that influence the adoption of internet banking in Kenya.

1.4 Objectives of the study

The broad objective of the study was to establish the factors influencing adoption of internet banking in Kenya.

The specific objectives were:

1. To establish whether demographic factors influence the adoption of internet banking.
2. To establish whether customer perceptions influence the adoption of internet banking.
3. To establish the role of social forces in influencing the adoption of internet banking.

1.5 Research questions

This study attempted to provide answers to the following questions:

1. How does customer perception and attitude influence the adoption of internet banking?
2. Do demographic factors influence the adoption of internet banking?
3. What is the difference between users and non-user's perception about social influence in acceptance of internet banking?

1.6 Research hypothesis

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

H2: There is no relationship between demographic factors and adoption of internet banking

H3: There is significant relationship between customer perceptions and adoption of internet banking.

H4: There is no relationship between customer perceptions and adoption of internet banking

H5: There is a difference between users and non-users with regard to their perceptions of social influences and adoption of internet banking.

H6: There is no difference between users and non-users with regard to their perceptions of social influences and adoption of internet banking.

1.7 Significance of the study

Research indicates that internet banking offers a promising and exciting way for organizations to meet various challenges of an ever-changing environment in these present days. The research study will have the potential to assist Kenya commercial bank limited in implementing program and policies to increase the adoption and diffusion of online banking and the role of internet banking in achieving faster growth in Kenya's banking industry.

It generally provides new ways and opportunities for organizations to broaden their participation into new national and international markets. The adoption of online banking are paraded with many benefits which includes market changes, customer

expansion, creation of wealth, job opportunities, ability to be reached worldwide, system and organizational efficiencies to mention a few.

The study will be beneficial to the students and lecturers, Kenyan government, organizations in Kenya, Kenya's banking industry in general and the general public and also researchers who might want to embark on similar study in future.

1.8 Basic assumptions of the study

This study was based on the assumption that, the respondents will be willing to spare time to respond to the items in the questionnaire in order to provide vital information for the research.

1.9 Limitations of the study

In the conduct of this study, certain limitations were encountered; Failure on the part of some respondents to return their filled questionnaires. Due to the hectic nature of bank's job and the busy schedule of respondents and the banks nature to treat information as top secret away from competitors, the researcher had to pay several visits to banks before filled questionnaires were to be obtained which invariably cost time and money.

Despite the above limitations, due to good human relations of the researcher and staff of the bank and their customers, sufficient data was obtained which paved way for a meaningful study; furthermore the researcher is also a banker in Kenya commercial bank. Hence, this provided confidence to bank staff to assist in collection of data.

1.10 Delimitations of the study

This research was narrowed down to Kenya commercial bank customers in Kenya and in particular Mombasa county branches. This is because banking has centralized processes and the Mombasa County has heterogeneous population which ensures a wide spread of potential respondents to the study.

1.11 Definition of significant terms

Digital divide

It is the differentiated capabilities of entire social (regional) groups to access and utilize electronic forms of knowledge, segregating the "haves" from the "have-nots" in the information society.

Electronic funds transfer (EFT)

The sending of money between financial institutions electronically and account exchange information over secure private communications networks.

Innovation

This is the introduction of new things, ideas or ways of doing things.

Internet

A group of interconnected networks, an international computer network connecting other networks and computers.

Online banking services

Banking services delivered over the Internet. These include opening/closing of account, domestic/foreign money transfer, standing orders, direct debit, debit card application, loan application, credit card application, insurance investment, mutual funds investment, foreign/domestic equity investment, deposit account opening, life insurance contract, traffic insurance contract (Centeno, 2003).

1.12 Organization of the study

This study is organized in five chapters and is focused towards identifying factors that influence the adoption of internet banking in Kenya. A break down and brief description of each chapter is given below.

Chapter 1 – Introduction

This chapter introduces the topic by providing the background of the study, the statement of the problem, the objectives of the study, research questions and research hypothesis, the scope of the study and its significance.

Chapter 2 – Literature review

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 growth trends of internet banking, its benefits, and an overview of internet banking in Kenya. 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.

Chapter 3 – 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 4 – Data analysis, presentation and interpretation

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

and research hypothesis tested. The findings and results of this study are discussed in this part.

Chapter 5 – Summary of findings, discussion, conclusion, and recommendations

This chapter outlines the summary and discussion of the findings in relation to the objectives. In addition the chapter draws from the findings to make conclusions and recommendations. It also contains suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW

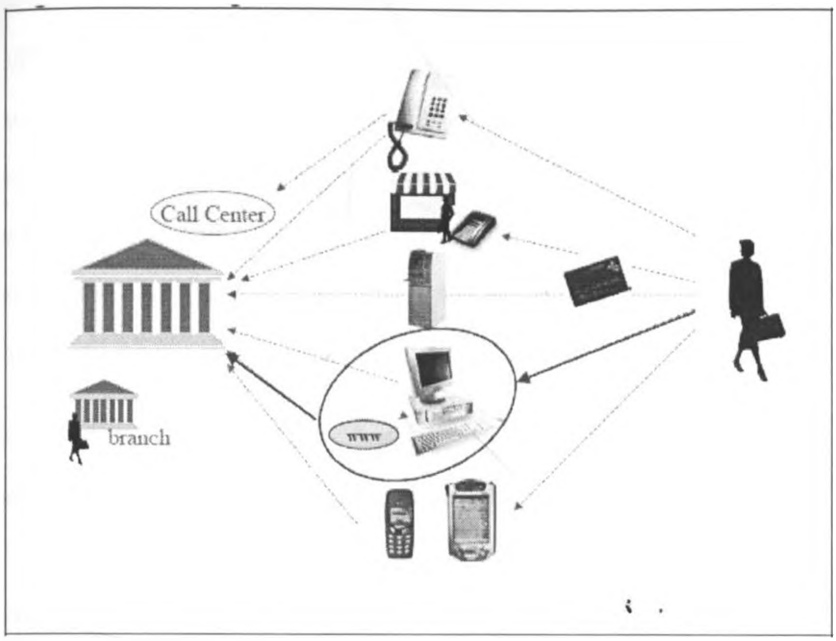
2.1 Introduction

In order to demonstrate the importance of current study, this chapter provides a background highlighting the benefits of internet banking, consumers' adoption trends across various countries in the world and those in Kenya. The first section focuses on internet banking services, its acceptance trends as against predictions from different market research organizations, followed by a comparative review of adoption trend in Kenya and other countries. The second section on the benefits on internet banking and the consumer factors for internet adoption.

2.2 Internet banking

E-banking is defined as web based banking (Hertzum*et al.*, 2004). Deployment of retail or wholesale banking services over the internet is often referred as internet banking which involves individual and corporate clients, and includes bank transfers, payments and settlements, documentary collections and credits, corporate and household lending, card businesses and some others (UNCTAD,2002). Other researchers related e-banking to type of products and services through which bank customers request information and carryout most of their retail banking activities through computer, television or mobile phone (Mols, 1998; Sathye, 1999; Daniel, 1999), figure 2.1 shows the banking distribution channels, currently adopted by most banks.

Figure 1: Banking distribution channels



Adopted from European Union report, on adoption of internet in Europe (Clara Centeno, 2003).

The advent of the internet has a significant impact on the banking service that is traditionally offered by the branches to the customers. Internet banking often referred to as 'online banking' can be defined as performing financial transactions over the internet through a bank' s website (Shao,2007). The objective of internet banking is to provide financial services to the customers 24hours a day, 365 days a year from locations with internet accessibility. Banks expect advantages such as reducing operating costs, wide customer reach, promote business diversification, and retain market share (Carlson, 2001; Centeno, 2003).

Internet banking allows consumers to access their bank accounts to undertake banking transactions. 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 (Sathye, 1999). The

terms internet banking and online banking are often used in the literature to refer the same things. Nowadays the internet is the main channel for electronic banking (Mbaraghani, 2008). Although there is a significant growth of internet users in almost every country, the number of financial transactions carried out over Internet remains to be low. It is observed that potential users either do not adopt Internet banking or do not use it continually after adoption. Mearian (2001) indicated that most of the banks' websites are getting accessed by huge numbers of customers in USA but only a minority of customers has made online financial transactions.

In order to be successful, banks and financial organizations are keen to understand to what extent customers are adopting or using Internet banking services. Courtier and Gilpatric (1999) recommended that banks and financial companies must survey customers' requirements on regular basis in order to understand factors that can affect their intention to adopt or use Internet banking. Researchers (Brown, Hoppe, Mugera and Newman, 2004) suggested banks (mainly international banks) for considering influence of national factors while introducing their services for example, socio-economic conditions that affects income and levels of affluence, and consumers' ability to use Internet banking need to be considered. But due to the limited number of studies that have been conducted in understanding users' adoption or usage intention, availability of information in this context is found limited for many countries (Poddar, 2005), including Kenya

2.3 Global internet banking trends

Many research organizations have predicted the future growth of Internet banking users in different countries based on available adoption trends, and banks' strategies and initiative towards implementing it (Poddar, 2005). From extant literature review, it is evident that the average consumer has accepted the internet with phenomenal intensity, but adoption of Internet banking services has been found much slower than predictions made (Centeno, 2003). Barwise (1997) estimated that 60% of retail banking

transactions would be online by 2007 while Burnham (1997) indicated that 20% of retails and 30% of corporate customers will use some form of internet banking by 2002.

Through a statistical analysis, Bughin (2001) concluded that when a country achieves Internet penetration rate of 30%, (which he referred to as a measure of customer's readiness to transact online) use of Internet banking services will start increasing disproportionately. For example, Sweden and Norway have Internet and Internet banking penetration rates over 50% and 25% respectively. On the contrary, Spain, France and Portugal have Internet usage less than 20% and Internet banking diffusion rate less than 5%. Other researchers also have supported such relation (Christian, 2001; Corrocher, 2001).

However, the relation does not hold valid for USA, Korea and Switzerland where Internet banking diffusion rates are low, despite high Internet penetration rates. This is the same case for Kenya where Internet penetration is well above 25% (CCK, 2012). The differences might be due to the lack of banks' initiative towards converting their offline customers to online (Bughin, 2001) and are not related with countries' economic development status (Centeno, 2003).

Hence in summary, slower diffusion rate is experienced in various countries in the world in comparison to estimates made by market research organizations. This has caused several virtual banks running into trouble. Developed countries (European countries, USA, Canada and Australia) are way ahead from the rest of developing countries in Internet banking adoption.

2.3.1 Internet banking in developed countries

UK, Spain, France, Germany and Italy account for a massive 77% of the installed base. Greatest growth is being led by Turkey, the Netherlands and Greece as well as from the countries in the Eastern European region. In Western Europe, on-premise ATM market is increasingly mature, and growth opportunities for off-premise are still available. At

the end of 2006, Western Europe has just fewer than 350,000 ATM' s (Source: Retail Banking Research, 2006).On an average an ATM in Western European alone completes 2888 cash withdrawals per month.

According to the European Central Bank, although all major banks offer internet banking services, the level of services and its quality differ according to the country and the banks (Centeno, 2003). Even in countries such as Finland and Sweden where internet penetration is more than 50%, consumers tend to prefer branch banking and around 60% of the consumers are reluctant to make online banking transactions (Bughin, 2001). Further, disparities in adoption of internet banking also exist among several countries in Europe.

First electronic banking services were introduced in Estonia in 1996. Electronic banking applications gained a quick momentum in Estonia due to high internet penetration and speed in the internet access (Emor, 2002). In Estonia, 18-25%of population are using internet banking services, whereas Italian bank almost had no online consumers by early 2000 and banks in Malta launched internet banking only in 2002 (Centeno, 2003). The percentage of internet usage was 43% in 2002 and Estonia recorded the highest internet penetration rate in comparison with the other East European countries (Kerem *et al.*, 2003). Scandinavian banks are best performing due to push and pull effects than Irish and French banks (Bughin, 2001).

Existence of a strong correlation between internet diffusion and cost of service access, confidence in the security of the system, privacy and trust on banks hindered the adoption of internet banking (Gurau, 2002). Similarly, access to ATM, use of cashless payments and value of cash in circulation to gross domestic products (GDP) also influence the rate of internet banking adoption, but the results are either mixed or inconclusive in prior studies(Centeno, 2003). Pure internet banking would be unlikely to succeed in Europe since high level of technology investment and high consumer acquisition cost would hinder economic viability and it has been revealed that the

success of internet banking would be more promising by integrating with other traditional channels (Centeno, 2003).

According to a Canadian market research company (Finextra, 2005), use of Internet banking services is increasing but once it reaches to a sizeable segment of consumers it might slow down or even get stopped as they presumed that Internet banking service is not for everyone. The major barrier to Internet banking service diffusion is due to availability of other channels, which adequately meet customers' need. The study reported the use of ATMs in 2004 is 75%, which is same as that of 2003 while telephone banking has reduced to 20% in 2004 from 26% in 2001. About 59% of consumers visit branches for banking, which remain unchanged since 2003. Further, among 6% of non-user has shown interest to use Internet banking services within next six months. Review on adoption and usage of Internet banking services in Canada remains limited due to little studies found (Poddar, 2005).

While analyzing reasons for low diffusion rate, Carlson (2001) argued that it might due to consumers' *"wait and see"* attitude as they neither clear about the benefits nor are they convinced of usefulness of Internet banking services (e-Marketer, 2004). Forrester (e-Marketer, 2004) expressed security and privacy are the main barriers to Internet banking diffusion apart from preference of branches, ATMs and phone banking. In short, Internet banking diffusion appears to be slower than expected except Pew's (e-Marketer, 2004) findings. Individuals are aware of Internet banking products and its benefits but are not adopting due to risks involved in carrying out financial transactions. Banks are facing huge competition from their rivals as well as from new entrants in Internet banking services. Large banks are dominating the market with more variety of products and services while small and medium sized banks waiting for market to grow.

2.3.2 Internet banking in emerging economies

The Market Intelligence Strategy Centre (MISC) reported over 7.2 million customer' s accessed 27million accounts online (Sathye, 1999). Among users, women in particular are becoming increasingly attracted to internet banking services and baby boomers are considered to be the fastest growing segment. Banks are considering active users' growth and increase in the number of online transactions are the factors that determine the performance of online banking channel rather than the number of new registrations. Highest interest rate in online savings account motivated users to perform internet banking transactions and also driving the major banks in offering similar products.

Consumers in New Zealand are accustomed to use safe and secure electronic information and money transfer systems (Chung and Paynter, 2002). Consumers in New Zealand are reluctant to online purchases compared to USA and Europe (Straeel, 1995). Although internet penetration and usage has reached to a significant level, still use of internet banking services is the lowest amongst all the banking facilities in New Zealand (Chung and Paynter, 2002). In New Zealand; retail banks have taken the lead. All New Zealand, retail banks now offer mobile banking services, and two of the major banks, ANZ and National Bank have made richer mobile banking and payment services to customers via mobile Java applets (Luarn and Lin, 2004).

In summary, Internet banking in New Zealand started late as compared to USA and Europe despite higher Internet diffusion. Internet banking is gaining popularity in recent years but limited to certain types of services. People generally prefer personalized services and found satisfied with smaller banks (Poddar, 2005).

In South Africa, internet banking is relatively new with only four banks providing internet banking services in 2002 with slow progress (Singh, 2002).About 92% consumers depend on ATMs mainly and the frequency of internet banking ranges from12% daily to 59% monthly. 69% of the consumers are identified as non-users and the main reason for non-adoption pertains to unsafe transactions, cost and unawareness

of the benefits and products and services offered through internet banking. Also about 33% of the consumers were found to be ignorant of internet banking (Singh, 2002).

In short internet banking is significantly a new phenomenon in African countries with a very low diffusion rate. And the current situation with regard to mobile banking could not be further analyzed due to lack of information and the limited amount of published reports (Varma, 2001).Currently, South Africa's four main domestic banks, First National Bank (FNB), Standard Bank, Nedbank and Absa are offering Internet banking services. These banks are investing billions of rands on Internet banking to encourage customers to adapt to this innovation (Wu J, 2005).

According to Botha (2002), 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. Though many efforts to change the adoption trend, consumer acceptance and use of internet banking is still far less in South Africa when compared to developed countries.

2.3.3 Internet banking trend in Kenya

Most industries have been influenced in different ways by ecommerce (Foxall et al. 2003) and that the banking industry has been subject to this technological change (Bradley and Stewart2003). Today according to internet world statistics (2011), it is estimated that approximately 10.5 million Kenyan use the internet, while CCK puts the number at 17 million by end of March 2012 (CCK, 2012). It is evident that banks and other financial institutions in developed and emerging markets are embracing e-banking. For example, in Kenya, a recent survey indicates that there is steady increase in use of e-banking technologies such as automated teller machine (ATM), mobile and

Internet (online) banking, electronic funds transfer, direct bill payments and credit card (CBK, 2008).

ATM banking is one of the earliest and widely adopted retail e-banking services in Kenya (Nyangosi, 2009). However, according to an annual report by Central Bank of Kenya (CBK), its adoption and usage has been surpassed by mobile banking (M-banking)in the last few years (CBK, 2008). Currently, there are about 8 million users of M-banking services compared to 4 million people who hold accounts in conventional financial institutions in Kenya (CBK, 2008). The tremendous increase in number of people adopting M-banking has been attributed to ease of use and high number of mobile phone users. This is consistent with the theory of consumer choice and demand as conceptualized in Au and Kauffman (2008) in relation to mobile payments. Based on their observation, customers can choose to adopt a particular banking technology such as M-banking, perceived to offer such advantages as ease of use (Joyce and Chris, 2009). According to a study by Joyce and Chris (2009) on Adoption and effectiveness of electronic banking in Kenya, there was a drastic shift in the importance attached to some e-banking drivers between years 2005 and 2009. In the 2005 survey, the number of other retail banks adopting e-banking was considered as a driver of medium importance by 70% of the banks. However, in the 2009 survey it was ranked among the extremely important drivers by a 100% of the banks. Similar observations were made in the case of competitive forces. All the banks identified it as being a driver of extreme importance; this was a 40% rise in the period between 2005 and 2009.

This is consistent with Agarwal et al. (2009) findings and confirmed the previously (2005 survey results) disputed observations reported by Courchane et al.(2002). Interesting, though expected, is the reduction in the number of banks identifying availability of technology and suitability of online facilities as banking as drivers of high importance. Since online banking has matured in developed countries, it would be expected that banks in developing countries would learn some lessons from the

developed countries and be spared some of the uncertainties undergone by their counterparts in technological development.

According to the Banking Supervision Report of 2006 (CBK, 2007), There were 41commercial banks licensed in Kenya and two under statutory management, which is competition enough. Kenya is now exposed to global market forces because of technology. Banks will need to focus their attention both at home and abroad and use technology to promote their best advantages (Green and Bellen, 2002). Despite higher Internet diffusion in Kenya, Internet banking is yet to gain popularity or embraced and also there is little study to give more information on online banking. Therefore, the purpose of this study is to gain an understanding of the diffusion of internet banking in Kenya 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.

2.4 Benefits of internet banking

Internet banking offers many benefits to the banks and their customers; hence this section tries to look into the customer, the bank and economic benefits that can be derived from internet banking.

2.4.1 Benefits from the bank point of view

The main benefits to banks are cost savings, reaching new segments of population, efficiency, enhancement of bank's reputation and better customer service and satisfaction (Brogdon, 1999; Jayawardhena and Foley, 2000). Banks offering Internet banking services assume better branding and better responsiveness to the market. Those banks that would offer such services would be perceived as leaders in technology implementation. Therefore, they would enjoy a better brand image. The other benefits are possible to measure in monetary terms. The main goal of every company is to

maximize profits for its owners and banks are not any exception. Automated e-banking services offer a perfect opportunity for maximizing profits.

According to a global survey by Booz, Allen and Hamilton (1997), an estimated cost providing the routine business of a full service branch in USA is $1.07 per transaction, as compared to 54 cents for telephone banking, 27 cents for ATM (Automatic Teller Machine) banking and 15 cents for Internet banking (Nathan 1999; Pyun *et al.*, 2002). In Nordea Bank, Finland, one online transaction costs the bank an average of just 11 cents, compared to $1 for a transaction in the branch (Dynamo…, 2001). The difference in a net cost between the USA and Finnish banks can be explained by smaller population in Finland and the scale effect in case of the USA.

Robinson (2000) indicates that the cost of an electronic transaction is dramatically less when done online compare to at a branch. Sheshunoff (2000), says further that the single most important driving force behind the implementation of full service internet banking by banks is need to create powerful barriers to customer exiting. He 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 behavior can be found in the consumer behavior theory: switching always requires much time and effort from individual consumer. He concluded that the competitive advantage of internet banking for banks is very significant.

Mols (1998) conducted a survey in Denmark and argued that internet banking might be useful for strengthening cross-selling and price differentiation. Internet banking makes it possible for banks to offer consumer a variety of services 24/7. Internet banking is attractive because the consumer are more satisfied with their banks, are less price sensitive, have the highest intention to repurchase, and provide more positive word of mouth information than other bank customers.

The business benefit of the internet, according to Gow (1997), is to generate additional revenue, improve customer service, extend marketing, and increase cost saving. Banks enjoy these benefits as well. In an article entitled "Next-Generation Retail Banking"(Compaq, 2001), the business drivers for internet banking included; Additional transaction revenues. Banks can derive revenues over and above their offline revenues by charging for online services and value-added services, such as providing a portal for financial services linked to short-and long-term insurers, links to stock brokers, and links to foreign banks.

2.4.2 Benefits from the customers' point of view

The main benefit from the corporate bank customers' point of view is significant saving of time by the automation of banking services processing and introduction of an easy maintenance tools for managing customer's money. The main advantages of internet banking for bank customers are as follows (Bank Away, 2001; Gurău, 2002). Reduced costs in accessing and using the banking services; Increased comfort and timesaving – transactions can be made 24 hours a day, without requiring the physical interaction with the bank staff; Quick and continuous access to information, Corporations will have easier access to information as, they can check on multiple accounts at the click of a button.

Better cash management, internet banking facilities speed up cash cycle and increases efficiency of business processes as large variety of cash management instruments are available on Internet sites of banks. For example, it is possible to manage company's short-term cash via Internet banks in Kenya (investments in over-night, short- and long term deposits, in commercial papers, in bonds and equities, in money market funds). Also remittances to other accounts in the same bank or other banks can be done just by a click of a button.

Private (individual) customers seek slightly different kind of benefits from internet banking. In the study on online banking drivers Aladwani (2001) found, that providing

faster, easier and more reliable services to customers were amongst the top drivers of internet banking development.

According to BankAway(2001) the benefits from internet banking for private customers include: Reduced costs, his is in terms of the cost of availing and using the various banking products and services; Convenience, all the banking transactions can be performed from the comfort of the home or office or from the place a customer wants to; Speed, the response of the medium is very fast therefore customers can actually wait till the last minute before concluding a fund transfer; Funds management,customers can download their history of different accounts and do a "what-if" analysis on their own PC before affecting any transaction on the web. This will lead to better funds management.

2.4.3 Economic benefits

The impact of the New Economy on the entire economic growth has been studied in several research projects. For example Pohjola (2002) shows, that the contribution of the use of information communication technology to growth of output in the Finnish market sector has increased from 0.3 percentage points in early 1990s to 0.7 points in late 1990s. However, unlike the US, there has been no acceleration in the trend rate of labor productivity in Finland.

According to the research conducted in Estonia (Aarma and Vensel, 2001), bank customers use bank office services on average 1.235 times per month, and wait in queue in bank office on average for 0.134 hours. Simple calculation shows, that making payments via e-banking facilities (for instance using Internet bank) rather than in the bank offices create overall economy savings in the amount of 0.93% of GDP (Average distance to nearest bank office is 4.14 km (Aarma and Vensel, 2001), which takes approximately 0.21 hours to travel. Estonian GDP in 2001 was 10 billion kroons and average hour wage was 35.40 kroons (Statistikaamet, 2002). There are 0.5 million citizens, who use brick-and-mortar bank facilities in Estonia.

2.5 International studies of consumer adoption of internet banking

There are many studies which have been conducted to investigate the influencing factors of internet adoption using different theories and models. Specifically, Lichtenstein and Williamson (2006) used mass media theories through individual and focus group discussion to determine the decision of internet banking adoption. Findings showed that Australian older people with low income reported themselves were lack of awareness towards internet banking and its advantage, lack of internet access and internet confidence, inadequate knowledge and support to use or initial setting up procedure, lack of trust, security and privacy risks were among the reasons of not using internet banking services.

In Turkey, Onar, Aktas and Topcu (2010) found that security and reliability were among the important factor that influences the adoption of internet banking. This followed by infrastructural competencies and user friendliness among respondents with accessibility to internet, aged 20 to 45, higher level of education and socioeconomic class. The study used Multi-criteria decision aid-based (MCDA-based).

In Malaysia, a study conducted by Suganthi and Balachandran (2001) focused on the factors of accessibility, reluctance to changes, costs, trust in one's bank, security concerns, convenience, ease of use through online survey that potentially influence internet banking adoption. The results revealed that there were positive significant relationships between accessibility, reluctance to changes and awareness with internet banking adoption.

On the other hand, Ainin, Lim and Wee (2005) adapted model of website evaluation by Chung and Payter (2002)to study the information, legal statement, order, ease of use, aesthetics effects, performance and others elements of bank that provide internet banking. The study found that a negative significant relationship between age and internet banking adoption among Klang Valley adopters. Monthly gross income and job position level had positive significant relationship with internet banking adoption

among Klang Valley adopters. Further, there was no significant relationship between gender, marital status, ethnic group, level of education with internet banking adoption. The study also found that family, colleagues and peers (53.0%) were influence the most on their adoption decision. However, the study merely focused on demographic factors and there is no further analysis to identify the website elements that influence consumer in internet banking adoption.

Study conducted by Khalil and Pearson (2007) applied theory of diffusion of innovation (IDT) (Rogers, 1995)that focused on five key belief (relative advantage, compatibility, complexity, trial ability and obeservability)and trust (Mayers et al., 1995) to explore the intention to use internet banking among university students. The results of structural equation modeling showed that trust, relative advantage and trial ability significantly influence attitude. The attitude was play as moderator that influences intention to use technology that is internet banking.

A similar study was conducted by Ndubisi and Sinti (2006) used IDT theory, trust and motivation theory (utilitarian and hedonism) through online survey method. The study found that four factors namely: importance of internet to banking needs, compatibility, complexity, trial ability, risk accounted explained 38.0%for the variance of internet banking adoption. There was only compatibility is not significant predictors for internet banking adoption. The study also found that utilitarian is significantly influence internet banking adoption. The internet experience, education level and frequency of usage of banking services were not related to internet banking adoption.

2.6 Theory of Diffusion of innovation

Diffusion of innovation (DOI) theory is a model that explains the process by which innovations in technology are adopted by users. Rogers (1983) defines the diffusion process as the spread of a new idea from its source of innovation or creation to its ultimate users or adopters. Diffusion is defined as "the process by which an innovation is communicated through certain channels over time among the members of a social

system." So, it follows that Diffusion of Innovation theory focuses on explaining how new ideas and concepts gain widespread adoption. This is especially significant in consumer markets in terms of attempting to forecast demand and market growth (Valente, 1993).

According to Kotler (2000) 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).

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).

2.7 Review of related literature

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 analyzed 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

2.7.1 Consumer perception and attitude and adoption of internet banking

Perception is defined as the process whereby an individual selects, organizes and integrates stimuli into a meaningful and overall picture (Lamb, 2000). 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) perception has defense mechanisms that are used to protect consumers against undesirable stimuli from the environment.

Reekie and Brits (1997) observed that 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 socio-economic and demographic characteristics, but also by their perceptions of specific technologies and by the characteristics of different products and services (Davis, 1989).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).

The relevance of internet banking as an innovation has been found significant. Tan and Teo's (2000) survey of (mostly male) internet users employed Ajzen's (1985) theory of planned behaviour and Rogers' theory of innovation diffusion and identified the main influences as: perceptions of relative advantage, compatibility, trialability and risk. All but risk are known constructs in Rogers' theory of innovations diffusion. Also supporting the importance of trialability, Chung and Paynter (2002) found that lack of prior use of internet banking inhibited consumer adoption. Their survey further found that consumers who did not use the internet channel did not feel a need to do so,

suggesting the importance of relative advantage. In a related finding, Sathye's (1999) study highlighted that many consumers were simply unaware of internet banking and its unique benefits.

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 favorable attitude towards the innovation will be formed (Ching and Ellis, 2004). Thong (1999) found that the perceived relative advantage, compatibility and complexity of the innovation played a key role in the adoption of internet banking. Thus, the purpose of this study is to provide greater insights into how attitudes towards internet banking in general tend to impact on consumer behavior in Kenya.

a) Relative advantage

Relative advantage describes the degree to which an innovation is perceived as being better than its precursor (Rogers, 1983). Gerrard and Cunningham (2003) identify a perceived relative advantage as being a significant factor driving the adoption of internet banking. According to Kotler (2000) 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.

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). 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).

Agarwal and Prasad (1998) 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. 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). A survey conducted in Finland (Karjaluoto, et al., 2002) 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.

According to Khalfan, et al., (2006) reasons for e-banking infrastructure investment include the promise of transaction cost reduction by limiting overheads associated with bank staff and bank branch costs and to provide better services to customers who increasingly desire 24 hour banking. 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.

b) 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). The compatibility of an innovation, as perceived by members of a social system, is positively related to its rate of adoption (Rogers, 1983).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). Bradley and Stewart (2003) 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) concludes 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). 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) 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) 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) found that compatibility is a significant factor which affects the adoption of internet banking (Wu, 2005). 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.

c) 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). 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). Consumers will reject an innovation if it is very complex and not user friendly. In this context, Cooper and Zmud (1997) 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) has found that perceived complexity is associated with the adoption of electronic technologies. Research conducted in Estonia (Kerem, 2001) 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.

d) 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 recognize 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). 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).Research conducted in Turkey (Polatoglu and Ekin, 2001) 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.

According to Cooper (1997) and Daniel (1999) an important factor affecting the acceptance and adoption of new innovation is the level of security or risk associated with it. Even in countries where Internet banking has long been established, one of the most important factors slowing progress of this new innovation is the consumers concern for security of financial transactions over the Internet. Security, privacy, trust and risk concerns may impact consumer internet banking choices.

Security has been widely recognized 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.

e) Perceived cost

Costs refer to price that consumers are willing to pay for the service and goods that consists monetary cost and other cost Ho and Ko (2007).According to Ching and Ellis (2004) 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 utilization costs. Rothwell and Gardiner (1984) observe that there are two fundamental sets of factors affecting user needs, namely price factors and non-price factors.

To this extent Gupta (1988) 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) 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) 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). From a customer retention perspective, Goosen, et al. (1999) 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 (Poddar, 2005).

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 (Wu, 2005). In conclusion, by lowering the perceived cost of using internet banking, cost conscious consumers are more likely to adopt this innovation.

2.7.2 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).

Demographics may be relevant. In the uptake of electronic banking - which includes ATMs, phone banking, internet banking and other electronic banking forms - Kolodinsky, Hogarth and Shue (2000) found that the likelihood of adoption rose with higher levels of financial assets and education, but that individual consumer attitudes and beliefs were stronger influences than demographics. In addition, recent studies confirm earlier reports of difficulties attracting the 65+ age group to internet banking (Ilett, 2005; Perumal and Shanmugam, 2005). Gender issues may also be relevant. Shergill and Li's (2005) study of internet banking consumers found that women regarded privacy protection and ethical standards more seriously than did men. Nevertheless, in some countries such as the UK, women now equal men in numbers using internet banking (Ilett, 2005) raising new questions about the nature of gender differences found in internet banking adoption.

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).

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 recognized that demographic factors have a great impact on consumer attitudes and behaviour towards internet banking (Karjaluoto, 2002). The consumer demographic factors relevant to this study are therefore age, education level, income and occupation.

2.7.3 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).

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). 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).

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). 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).

Cheung, et al. (2000) stated 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) 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), 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.

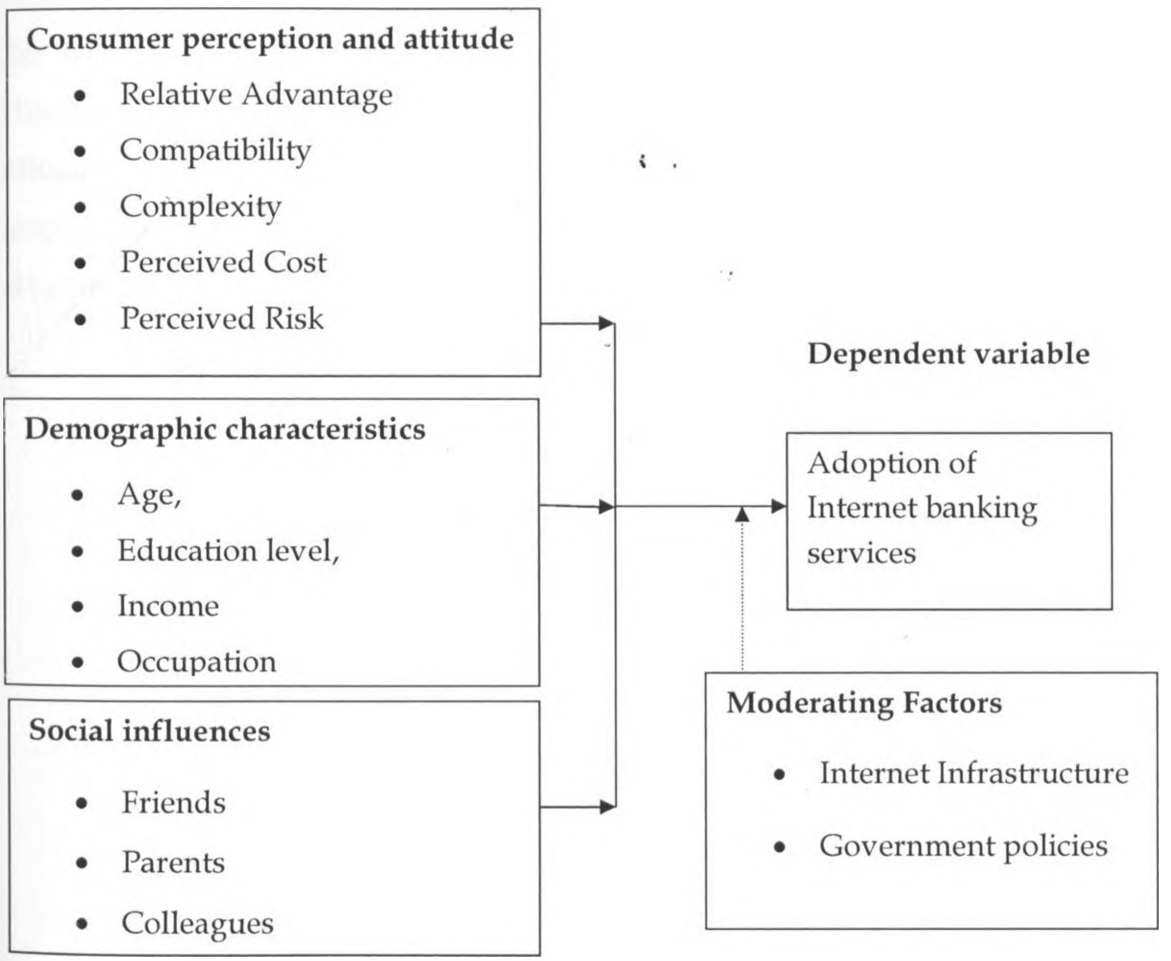
The opinion of a reference group is an important factor influencing the adoption of internet banking. To bring internet banking to the attention of reference groups, banks should be more actively promoting their online services. With greater awareness people are more likely to start discussing the advantages 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).

Because consumers are often influenced by the opinions of others, it is important therefore that bank managers should 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.

2.8 Conceptual framework

Mugenda and Mugenda (2008) defines conceptual framework as a hypothesized model identifying the concepts under study and their relationship. It is a framework usually developed by the researcher to demonstrate the inter relationships between variables of the study. The conceptual framework (Figure 3) will be used to examine the factors influencing KCB customers' acceptance and adoption of Internet banking services.

Figure 2: Conceptual framework



Adopted from Tan and Teo, [2000] and Modified to suit the research.

2.9 Summary of the Literature

This chapter, which is a combination of research findings from around the world, is primarily a study of factors influencing adoption of internet banking. It explains the global internet banking trends, benefits and also studies of the factors influencing adoption in other countries.

The first of these factors (consumer perception and attitude toward internet banking) was broken down and analyzed 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 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.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter highlights the various methods and procedures the researcher adopted in conducting the study in order to answer the research objectives raised in the first chapter. The chapter was organized in the following structure: the research design, target population, sampling design and sample size, data collection methods, research procedures, data analysis methods and lastly the ethical issues.

3.2 Research design

Descriptive research design was applied to this study. Descriptive research is considered appropriate because subjects are normally observed in their natural set up and can result in accurate and reliable information (Britt, 2006). The descriptive survey research aims at describing phenomena or narrating how various behaviors and events occur. Therefore it was useful in describing the adoption of internet banking as the dependent variable by exploring three different independent variables that include the demographic factors; consumers perceptions and attitudes toward internet banking; social influences affecting the decision to adopt internet banking.

3.3 Target population

A population is defined as the total collection for elements about which we wish to make some inferences (Cooper and Schindler, 2003). The total target population was made up 80,292 customers of the KCB, being all customers in Mombasa county branches (Island branches).This population was characterized by customers of different age brackets, income levels, gender, ethnic and racial backgrounds and occupation. The selected population was representative enough to respond to the research questions.

3.4 Sample size and sampling techniques

According to Malhotra (2004), sampling size refers to the numbers of elements to be included in the study. From the aforementioned population, a sample size was determined using the Morgan and Krejcie 1970 approach (Amin, 2005) and the sample of 196 was determined with minimum return rate of 150 respondents.

Population is infinite n =(Z/M) 2 .P (1–P)

Where:

P= estimated value for the proportion of a sample that will respond a given way to a survey (.5 for 50%)

q=Alternative population

Z=standard variant at a given confidence level (95% is 1.96)

M= the margin of the error (±7% is .07) (Moore,D and McCabe, G.(1999).)

N =(1.96/.07)2 .5(1–.5)=784.(.25)=196

Sample selection used was based on stratified proportionate sampling technique to ensure representation of the different strata (Business/Corporate and individual customers) of the population. According to Sekaran (2003), stratified random sampling as its name implies, involves a process of stratification or segregation, followed by random selection of subjects from each stratum. It is most efficient, is a good choice when differentiated information is needed regarding various strata within the population, which are also known to differ in their parameters.

3.5 Data collection instruments

The study used primary and secondary data. The primary data collection method was carried out by the use of questionnaires. Glasser and Strauss (2007) explains that questionnaires are an important instrument for research; a tool for data collection. The

use of questionnaires was justified because they are an effective way of collecting information from a large literate sample in a short span of time and at a reduced cost than other methods. Further, questionnaires will facilitate easier coding and analysis of data collected.

Secondary data, the researcher undertook a document analysis, which included banks' policy, annual reports, strategic planning, internet banking journals and magazines to help in better understanding of the research findings. The data collected from these sources were within the bank industry, Internet banking concept and technology used as distribution channels in the financial industry.

3.6 Validity and reliability of the research instruments

Validity is synonymous with accuracy or correctness (Churchill and Lacobucci, 2002) and is an important measure of a survey instrument's accuracy (Litwin, 1995). It tells us whether the question or item really measures what it is supposed to measure (Oppenheim, 1984, Baines and Chansarkar (2002), Parasuraman, (1991), and Peterson, 2000). Fujun et al. (2007) mentioned about three types of validity: content validity, predictive validity and construct validity. Duggirala et al. (2008) defined the content validity as the assessment of the correspondence between the individual items and concept. This study addressed content validity through the view of literature and adapting instruments used in previous research as indicated by the different researchers depicted in the conceptual framework. Also the researcher gave out 20 questionnaires to staff of KCB Kilindini branch to help validate it by pointing out ambiguous and unhelpful questions.

Reliability indicates the extent to which a variable or set of variables is consistent in what it is intended to measure (Hair et al., 2007). It differs from validity in that it relates not to what should be measured, but instead to how it is measured. The current study used multiple items in all constructs and so the internal consistency method was applied. Hair et al. (2007) mentioned that the rationale for internal consistency is that

the individual items or indicators of the scale should all be measuring the same construct and thus be highly inter-correlated and as it is the items in this study are.

Fujun et al. (2007) pointed out that the Cronbach alpha with acceptable cutoff point 0.70 demonstrates that all attributes are internally consistent, and as a rule of thumb for describing internal consistency using Cronbach's alpha is acceptable among many researchers (Cronbach, 1951; Zinbargetal., 2006). The measurement scale for the variables in this study was based on a 5-point Likert scale ranging from "strongly agree" to "strongly disagree". Reliability statistics indicate that the 'alphavalue' of all items exceeded Nunnally and Bernstein (1994) recommended criterion of 0.70 for scale reliability and thus the tool was reliable enough to collect the right data.

3.7 Data analysis techniques

Tabachinck and Fidell (1983) suggest that data abnormalities may lead to an inaccurate analysis and caution in scrutinizing data for these abnormalities is a prerequisite for mature analysis. Thus, problems of missing data, outliers, multi-co linearity and violations of statistical assumptions was diagnosed and corrected before applying statistical procedures.

The data collected from the questionnaires was be analyzed by both qualitative and quantitative methods of data analysis. The data collected was analyzed using Statistical Package for Social Science for Windows (SPSS for Windows version 20). Descriptive analysis by use of frequency and percentage was used to examine the profile of the respondents. Independent sample T-test and Chi square test of independence at 95% level of confidence was used in this study. The level of significance at probability level of 5% was applied.

3.8 Ethical considerations

Ethics has been defined as that branch of philosophy which deals with one's conduct and serves as a guide to one's behaviour (Mugenda and Mugenda, 1999). In doing research, the researcher followed ethical guidelines to ensure that there was no physical or emotional harm to the participants of the research. The researcher avoided plagiarism and falsification of findings while conducting a research. Plagiarism refers to situations where a researcher refers to another person's work as theirs without their consent. In addition, plagiarism is a crime which is punishable by law and it erodes the integrity of the researcher plus the research paper (Sharp and Howard, 1996).

Last but not least, the researcher was honest in gathering and analysing data and interpreting the findings; data integrity was of priority. The findings will not be publicized or examined by other qualified researcher by reviewing the original data. Further, all the techniques applied in doing the research were current and appropriate to the current problems. Therefore, by considering the above legal guidelines the researcher avoided legal penalties that compromise the integrity of their work (Mugenda, 2003).

3.9 Operational definition of variables

This is a set of procedures that describes a set of procedures a researcher can follow in order to establish the existence of the phenomenon described by a concept (Nachmias and Nachmias, 1996). This assigns meaning to a construct or a variable by specifying the activities or 'operations' necessary to measure it. It is a sort of manual of instructions to the investigator.

Table 3.1: Operationalization of variables

Variable	Indicator	Measurement	scale	Data collection method	Tool of analysis
Dependent variable: Adoption of internet banking		Number of customers who use internet banking services	Nominal	Questionnaire and Document analysis	Qualitative and quantitative method
Independent variable: Consumer perception and attitude	Relative advantage Compatibility Complexity Perceived cost Perceived risk	Rate of adoption of internet banking	Five point Likert scale	Questionnaire	Qualitative and quantitative method
Independent variable: Demographic characteristics	Age, Education level, Income Occupation	Rate of adoption of internet at each segment.	Nominal	Questionnaire	Qualitative and quantitative method
Independent variable: Social influences	Friends Parents Colleagues	Rate of adoption of internet banking	Ordinal	Questionnaire	Quantitative method

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

The results of the statistical analysis as reported here were obtained using the IBM SPSS version 20 computer program. Appropriate frequency tables 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 validity and reliability tests of the research variables were carried out before statistical techniques were employed to analyze data.

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 KCB banking customers in the Mombasa County. The hypotheses of this research were tested with a chi-square test. A chi-square test was used to test the relationship between consumers' demographic characteristics, customer perceptions and the adoption of internet banking.

4.2 Response rate

This study analyzed 190 responses out of 196 questionnaires administered which is 97 percent. All the respondents were customers of Kenya Commercial bank (KCB); there were 100 non-users and 90 users of internet banking.

4.3 Characteristics of respondents

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.

4.3.1 Gender of respondents

The research findings as reflected in Table 4.1 show that 58 percent of the study participants were male and 42 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 almost equally. With 61 percent of users being male and 39 percent being female while 59 percent of non-users being female and 31 percent being male; 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 Kenya.

Table 4.1 Gender distribution of respondents

Variables		All respondents		Internet banking users'		Internet banking non-users'	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Gender	Male	110	57.9	55	61	41	41
	Female	80	42.1	35	39	59	59
	Total	190	100	90	100	100	100

4.3.2 Age of respondents

From Table 4.2 almost half of the respondents (48 percent) fall into the 21 to 29 age group, with 30 percent in the 30 to 39 age group, 16 percent in the 40 to 49 age group and only 6 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.

The non-users are relatively young (53 percent in the 21-29 age group), while users are relatively older (Table4.2). Research findings show that it is likely that the age of typical internet banking users agree with those in South Africa (Wu, 2005) where most users

are middle aged. 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.

Table 4.2 Age of respondents

Variables		All respondents		Internet banking users'		Internet banking non-users'	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Age	21 -	91	48	18	20	53	53
	30 -	57	30	57	64	25	25
	40 -	30	16	14	15	17	17
	OVER	12	6	1	1	5	5
	Total	190	100	90	100	100	100

4.3.3 Income of respondents

Table 4.3 shows that 34percent of the respondents earn between KES 70,001 to 105,000.00, while 38 percent were in the KES 35,001 to 70,000 brackets, while income bracket of KES 10,000 to 35,000 was 16 percent. The respondents in these groups are likely to have their own computers with Internet access or accessed using their mobile phones. Those earning below KES 10,000 accounted for 4 percent while those above KES 105,000 accounted for 10 percent of the total respondents. This group is unlikely to have access to a computer or the Internet.

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 82 percent of users have a monthly income of more than KES 35,000 per month. This finding concurs with prior studies in South Africa (Wu, 2005) and New Zealand (Poddar, 2005), which show that income has a major effect on the adoption of internet banking. Internet banking users earn a higher income than non-users.

Table 4.3 Monthly income distribution of respondents

Variables		All respondents		Internet banking users'		Internet banking non-users'	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Income (KES)	< 10000	4	2	0	0	2	2
	10000-35,000	30	16	5	5	11	11
	35,001-70,000	72	38	23	25	42	42
	70,001-105,000	65	34	54	60	35	35
	>105,000	19	10	9	10	10	10
	Totals	190	100	90	100	100	100

4.3.4 Education Level of respondents

Education level of the participants varied widely across the board. Table 4.4 indicates that 52 percent (99) have a university degree, 31percent (59) have a postgraduate qualification, 13 percent (25) have college certificates/diplomas3 percent (5) have a high school qualification and 1 percent (2) have other education.

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 (Poddar, 2005). The education level distribution between user and non-user groups was exactly in line with this. The findings show that 87 percent of internets banking users (78) have a high education level.

Table 4.4 Education level distribution of the respondents

Variables		All respondents		Internet banking users'		Internet banking non-users'	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Education level	Postgraduate	59	31	28	31	31	31
	Graduate	99	52	50	56	49	49
	College (Dip/Cert)	25	13	9	10	16	16
	High school	5	3	3	3	3	3
	Other (specify)	2	1	0	0	2	1
	Totals	190	100	90	100	100	100

4.3.5 Occupation of respondents

The occupation distribution of the respondents (Table 4.5) shows that the largest proportion of respondents is employed (49%). While 20% are self-employed, 5% (10) are pensioners and 26% (49) are not employed. As can be seen, 70% of the users (63) are employed, whereas almost half of the non-users (40%) are not employed. 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.

Table 4.5 Occupation distribution of respondents

Variables		All respondents		Internet banking		Internet banking non-	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Occupation	Employed	93	49	63	70	30	30
	Self-Employed	38	20	18	20	20	20
	Pensioner	10	5	0	0	10	10
	Not working	49	26	9	10	40	40
	Totals	190	100	90	100	100	100

4.3.6 Marital status of respondents

Table 4.6 shows that more than half of the respondents (55 percent) are married, 7 percent are divorced, 37 percent are single and 1 percent were widowed. More specifically, 70 percent of the internet banking users are married, whereas less than half (42 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 suggest that marital status influences the use of internet banking.

Table 4.6 Marital status of the respondents

Variables		All respondents		Internet banking		Internet banking non-	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Marital status	Married	105	55	63	70	48	48
	Single	70	37	24	27	42	42
	Divorced	13	7	3	3	9	9
	Widow(er)	2	1	0	0	1	1
	Totals	190	100	90	100	100	100

4.4 Internet usage of respondents

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.

Table 4.7 Frequency of internet use

	Frequency	Percent
Use internet	152	80
Does not use internet	38	20
Total	190	100

From the findings (Table 4.7) 80 percent of respondents use internet and only 20 percent do not use. The use of internet does not mean necessarily access of internet banking but to do other things online. The findings show that most internet users access internet from their work place hence explaining why most internet banking users are people who are employed. The study also 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.

Table 4.8 Frequency of use of internet

	Frequency	Percent
Daily	21	11
Once a week	59	31
More than 2 times a week	91	48
Once a months	17	9
Other	2	1
Totals	190	100

4.5 Internet Banking

This section reveals findings about the respondents' habits with regard to internet banking in Kenya. 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.

4.5.1 Internet banking users

The result of a question aimed at establishing the number of internet banking users within the sample is illustrated in Table 4.9. The findings show that only 20 percent of the respondents use internet banking, despite the fact that 72 percent of the respondents are Internet users.

Table 4.9 Internet banking use distribution

Use internet banking	Frequency	Percent
Yes	38	20
No	152	80
Total	190	100

4.5.2 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. 60% of the non-users revealed that free Internet access would be a major factor, 51% 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 4.10 Factors encouraging the use of internet banking

Factors encouraging the use of internet banking	Frequency	Percent
Free internet access	50	50
Free skills training	51	51
Better Security	47	47
More economical banking transactions	30	30
Other	2	2

4.5.3 Factors hindering the use of internet banking

The 80 percent (100 respondents) who do not use internet banking gave the following reasons for not using this facility: firstly, 60 respondents indicated that the cost of Internet access is too high; secondly, 52 respondents do not believe that internet banking is sufficiently safe; thirdly, 48 respondents do not know how to use the Internet. The fourth (40) and fifth (32) 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.

A smaller number of the respondents indicated that they did not own a computer (35) or have internet access (37). 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 4.11 Factors hindering the use of internet banking

Factors hindering the use of internet banking	Frequency	Percent
No internet access	60	60
No computer at home	52	52
Not good at computer	48	48
Not good at using internet	40	40
Cost of internet access is high	32	32
Internet banking is not safe	35	35
Have not heard of Internet banking	37	37

4.5.4 Where respondents learned about internet banking

From the research findings it emerges that that television and radio (60%) have been the most effective means of promoting internet banking, followed by newspaper and magazine coverage (30%), printed promotional material put out by banks (31%) and finally word-of mouth (10%).The data presented in Table 4.12 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 4.12 Sources where respondents got information on internet banking.

Sources of internet banking information	Frequency	Percent
Bank leaflets/ advertisements	28	31
Television/Radio	54	60
Newspaper/Magazines	27	30
Word of mouth	9	10
Other	3	3

4.5.5 Uses of internet banking

Table 4.13 shows that internet bankers use their online service for viewing account statements (91%), for viewing account balances (82%); for making payments (26%), and for transferring funds (20%).

Table 4.13 what respondents use internet banking for

Uses of internet banking	Frequency	Percent
Viewing account statements	82	91
Viewing account balances	74	82
Making payments	23	26
Transferring funds	18	20

4.6 Social influence on internet banking

Social factors are considered to be a powerful influence that affects attitudes towards internet banking. The results presented in this section (Table 4.14) describe responses to questions examining how respondents perceive the effect of social influences on internet banking.

From the table below 60 percent of the internet banking users respondents indicated that they were influence by colleagues at work place since majority of internet banking users were employed people, 30 percent were influenced by friends while 10 percent were influenced by parents. For internet banking non-users 62 percent indicated they would be influenced by friends to use internet banking, 8 percent by parents and 30 percent by colleagues. Hence social influence cannot be ignored in terms of adoption of internet banking in Kenya.

Table 4.14Social influences on internet banking

	Internet banking users		Internet banking non-users	
My decision to adopt internet	Frequency	Percent	Frequency	Percent
My Friends	27	30	62	62
My Parents	9	10	8	8
My Colleagues	72	80	30	30
Total	90	100	100	100

4.7The 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, consumer perceptions 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 variables.

4.7.1 Hypothesis testing (one)

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

H2: There is no relationship between demographic factors and adoption of internet banking

a) **Age of respondents**

H1A: There is significant relationship between age of respondents and the adoption of internet banking.

H2A: There is no relationship between age of respondents and adoption of internet banking

The p of 0.000, which is less than 0.05 (Table 4.35), implies that the chi-square is significant and indicates there is a relationship between age and the adoption of internet banking. 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 alternative hypothesis.

Table 4.15 Chi-Square Test – relationship between age and the use of internet banking

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.382[a]	3	.094
Likelihood Ratio	7.282	3	.063
Linear-by-Linear Association	1.361	1	.243
N of Valid Cases	190		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is .82.

b) Income of respondents

H1B: There is significant relationship between income levels of respondents and the adoption of internet banking.

H2B: There is no relationship between income levels of respondents and adoption of internet banking

The chi-square is significant (p of 0.000, which is less than 0.05) (Table 4.36) indicating there is a significant relationship between income and the adoption of internet banking. Table 4.3 shows 34percent of the respondents earn between KES 70,001 to 105,000.00, while 38 percent were in the KES 35,001 to 70,000 brackets, while income bracket of KES 10,000 to 35,000 was 16 percent. The respondents in these groups are likely to have their own computers with Internet access or accessed using their mobile phones. Additionally, the results imply that typical internet banking users earn incomes above KES 35,000.00.The results therefore point to the acceptance of the alternative hypothesis.

Table 4.16 Chi-Square Test – relationship between income and the use of internet banking

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	44.864[a]	3	.000
Likelihood Ratio	53.481	3	.000
Linear-by-Linear Association	15.584	1	.000
N of Valid Cases	190		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 9.85.

c) Education level of respondents

H1C: There is significant relationship between education levels of respondents and the adoption of internet banking.

H2C: There is no relationship between education levels of respondents and adoption of internet banking.

The chi-square is significant (p of 0.000, which is less than 0.05) (Table 4.17) indicating that there is a significant relationship between education level and the adoption of internet banking. The educational levels between users' and non-users show that 83% of internet banking users have university education while only 35% of non-users have a university 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 alternative hypothesis is accepted.

Table 4.17 Chi-Square Test – relationship between education level and the use of internet banking

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.277[a]	3	.000
Likelihood Ratio	36.087	3	.000
Linear-by-Linear Association	.002	1	.963
N of Valid Cases	190		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 4.93.

d) Occupation of respondents

H1D: There is significant relationship between occupation of respondents and the adoption of internet banking.

H2D: There is no relationship between occupation of respondents and adoption of internet banking

The chi-square is significant (p of 0.000, which is less than 0.05) (Table 4.18) indicating that there is a significant relationship between education level and the adoption of internet banking. The distribution between the two different groups, showing that 65 % of users are employed, but more than half of non-users (49%) 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 4.18 Chi-Square Test – relationship between occupation and the use of internet banking

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	46.622[a]	2	.000
Likelihood Ratio	52.865	2	.000
Linear-by-Linear Association	38.292	1	.000
N of Valid Cases	190		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.34.

4.7.2 Hypothesis testing (Two)

H3: There is significant relationship between customer perceptions and adoption of internet banking.

H4: There is no relationship between customer perceptions and adoption of internet banking

a) Relative advantage of internet banking

H3A: There is significant relationship between relative advantage and adoption of internet banking.

H4A: There is no relationship between relative advantage and adoption of internet banking.

The p-value of the T-test indicates the level of significance in between the variables. When the significance p-value is less than 0.05, it means there is a statistically significant association between the dependent and independent variables. P-value 0.10 refers to weakly significant association. If the p-value is more than 0.10, then the variables chosen are not statistically significant. Hence (Table 4.19, p=.0000) meaning there is significant relationship between perceived relative advantage and adoption of internet banking. 85% of the internet-banking users were connected because they perceived to have convenience and save on time. Therefore the hypothesis that there is a significant relationship between perceived relative advantage and the adoption of internet banking is accepted.

Table 4.19 Chi-Square Test – relationship between relative advantage and the use of internet banking

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	65.706[a]	4	.000
Likelihood Ratio	87.619	4	.000
Linear-by-Linear Association	.889	1	.346
N of Valid Cases	190		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 4.93.

a) Complexity of internet banking

H3B: There is significant relationship between complexity and adoption of internet banking.

H4B: There is no relationship between complexity and adoption of internet banking.

The findings (Table 4.19, p=.0000) means there is significant relationship between perceived complexity of internet banking and adoption. 60% of the internet-banking non-users perceived that internet banking websites are complex to deal with and hence perceived complexity negatively influences internet banking adoption. Therefore the hypothesis that there is a significant relationship between perceived complexity and the adoption of internet banking is accepted.

Table 4.19 Chi-Square Test – relationship between complexity and the use of internet banking

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	71.668[a]	3	.000
Likelihood Ratio	86.309	3	.000
Linear-by-Linear Association	55.455	1	.000
N of Valid Cases	190		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.34.

b) Compatibility of internet banking

H3B: There is significant relationship between compatibility and adoption of internet banking.

H4B: There is no relationship between compatibility and adoption of internet banking.

P value is more than 0.05 (p= .574) means there is a weak relationship between perceived compatibility and adoption of internet banking. Most users and non-users were neutral at about 50%, meaning it's compatibility to their lifestyle was not of much

significance. Therefore the hypothesis that there is a significant relationship between compatibility and the adoption of internet banking is accepted.

Table 4.20 Chi-Square Test – relationship between complexity and the use of internet banking

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.110[a]	2	.574
Likelihood Ratio	1.097	2	.578
Linear-by-Linear Association	.968	1	.325
N of Valid Cases	190		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.67.

c) Perceived cost of internet banking

H3B: There is significant relationship between perceived cost and adoption of internet banking.

H4B: There is no relationship between perceived cost and adoption of internet banking.

P value of (p=.000) means there is significant relationship between perceived cost of internet banking and adoption. 60% of the internet-banking users have computers and phones with internet access hence have a income levels of 35,000 and above, while 80% of non-users have low income and hence perceive the cost of telecommunication to be expensive which negatively influences internet banking adoption. Therefore the hypothesis that there is a significant relationship between perceived cost and the adoption of internet banking is accepted.

Table 4.21 Chi-Square Test – relationship between cost and the use of internet banking

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	68.423[a]	4	.000
Likelihood Ratio	90.396	4	.000
Linear-by-Linear Association	1.901	1	.168
N of Valid Cases	190		

a. 1 cells (10.0%) have expected count less than 5. The minimum expected count is 4.93.

d) Perceived risk of internet banking

H3B: There is significant relationship between perceived risk and adoption of internet banking.

H4B: There is no relationship between perceived risk and adoption of internet banking.

P value of (p=.029) means there is significant relationship between perceived risk and adoption of internet banking. 70% of the internet-banking non-users raised security concerns for their fear to adopt internet banking while 49% of users still were unsure if their transactions were really secure online hence negatively influencing adoption. Therefore the hypothesis that there is a significant relationship between perceived risk and the adoption of internet banking is accepted while the null hypothesis is rejected.

Table 4.22 Chi-Square Test – relationship between perceived risk and the use of internet banking

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.991[a]	3	.029
Likelihood Ratio	9.111	3	.028
Linear-by-Linear Association	2.267	1	.132
N of Valid Cases	190		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.26.

4.7.3 Hypothesis testing (Three)

H5: There is significant difference between internet banking users and non-users perception of social influence and adoption of internet banking.

H6: There is no difference between internet banking users and non-users perception of social influence and adoption of internet banking.

a) Friends

H5A: 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 188. The two-tailed probability of 0.065 (Table 4.23) 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 perceives that their friends' opinions have any influence on their willingness to adopt internet banking. The mean score for users is 2.54 and for non-users 2.33 (Table 4.23). 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 4.23 Means between users and non-users with regard to their perceptions of the opinion of friends on the use of influences their willingness to adopt internet banking.

	Internet banking	N	Mean	Std. Deviation	Std. Error Mean
My decision to adopt internet banking is influenced by	Yes	112	2.54	.848	.080
	No	78	2.33	.949	.107

Table 4.24 Independent sample test – difference between users and non-users with regard to their perceptions of the opinion of friends on the use of 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
Friends	Equal variances assumed	1.849	188	.065	0.29688	0.16052	.01871	0.61246

b) Parents

H5A: 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 188. The two-tailed probability of 0.340 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. 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 4.25 Means between users and non-users with regard to their perceptions of the influence of parents on the use of internet banking.

	Internet banking	N	Mean	Std. Deviation	Std. Error Mean
My decision to adopt internet banking is influenced by	Yes	88	2.3875	1.49678	.16735
	No	102	2.5469	1.29297	.07228

Table 4.26 Independent sample test – difference between users and non-users with regard to their perceptions of parents on 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	0.954	188	.340	0.15937	0.16699	0.16891	0.48766

c) Colleagues

H5A: 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 188. 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 4.27 Means between users and non-users with regard to their perceptions of the influence of colleagues on the use of internet banking.

	Internet banking	N	Mean	Std. Deviation	Std. Error Mean
My decision to adopt internet banking is influenced by	Yes	88	2.6000	1.53936	.17211
	No	102	2.7750	1.22128	.06827

Table 4.28 Independent sample test – difference between users and non-users with regard to their perceptions of colleagues on 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	-1.085	188	.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.

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSION, CONCLUSION,AND RECOMMENDATIONS

5.1 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 is 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.

5.2 Summary of findings

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. The study revealed that demographic factors have a great impact on consumer attitudes and behaviour towards internet banking (Karjaluoto, 2002). The consumer demographic factors were found to have significant relationship with internet banking adoption when tested using chi-square.

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 to influence adoption. Those customers who perceived relative advantage, compatibility, low cost and risk were the early adopters, while others employed the 'wait and see' attitude. Hypothesis was tested and there was significant relationship between consumer perceptions and attitude and internet banking adoption.

Social factors are considered to be a powerful influence that affects attitudes towards internet banking. While most respondents agree that they are influenced in one way or another from friends, parents or colleagues, they tend to differ between the users and non-users. Most of the working respondents were influenced by colleagues while non-users would be influenced by friends to adopt to such service. Hence social influence cannot be ignored in terms of adoption of internet banking in Kenya.

5.2 Discussions

Research quoted earlier showed that in South Africa, (Wu, 2005) age had an impact on the use of internet banking. The age of the typical user was identified as being between 30-39 years which agrees with users in Kenya. 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 in Finland (Karjaluoto, et al., 2002) have indicated age between 40-49 years. The data suggests that age has an impact on the use of internet banking in Kenya.

Income has significant influence on the adoption of internet banking since most respondents were users who had higher income. Therefore this finding concurs with the studies of Karjaluoto et al. (2002) 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.

Previous studies indicate that occupation has an impact on the use of internet banking; users are educated and have better occupations than non-users (Wu, 2005). In this study most users were employed, whereas more than half of the non-users 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 Kenya.

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 to influence adoption. Those customers who perceived relative advantage, compatibility, low cost and risk were the early adopters, while others employed the 'wait and see' attitude. While other research indicate that compatibility influences adoption of internet banking (Bradley and Stewart, 2003), this study indicates that users in Kenya do not consider it of major significant.

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.

5.3 Conclusions

The objective of the study was achieved with respect to the findings. The factors influencing adoption of internet banking in Kenya were identified. Demographic factors such as age, income level, occupation and education were found to be significant in relation to adoption of internet banking. Consumer perception factors were also found

to influence adoption in the sense that those who perceived internet banking to have relative advantage, compatible and with low risk and cost adopted easily, while for those who perceived otherwise did not opt for internet banking. Also the relationship between adoption and the independent variables were tested.

This research is valuable for the Kenya's banking industry. Findings in this study shed some light for Kenyan banks and in particular KCB in terms of implementing internet banking strategies by emphasizing the relevant criteria at each phase necessary for a successful adoption process.

5.4 Recommendation

"Push" strategies related to awareness of internet banking services is essential in the early adoption stages. As internet banking services are still new for Kenya, effective presentations using all forms of media advertising such as leaflets, brochures, web pages, etc., will be useful to introduce the services to wider audience and educate potential customers about the benefits of internet banking. In order to access to more potential adopters, information about internet banking should be provided by bank tellers and bank front office staff at branches. The information should include references to "time saving", "convenience" at anywhere any time, "low costs", and "information availability". In addition, banks should design their web sites as an effective delivery channels and offer information beyond banking services. It is essential to provide a well-designed and user friendly web site to attract potential adopters' attention. Customers should not be allowed to spend a lot of effort or time, to adopt internet banking services.

Information and instructions on the web should be provided in multiple languages like English, Kiswahili and French in order to make the adopters more comfortable. Wide publicity underscoring the benefits and ease of use by demonstrating internet banking services should be provided. This could be implemented by providing personal

computers at bank branches accompanied by good documentation and bank assistance. Regular surveys on customers' responses and opinions of the services should be conducted continuously to ensure continuous improvement.

Reliability of access when needed is one of the key encouragement factors. Although this "reliability" partly depends on customers' networks, which is not included in this study, internet banks can enhance accessibility by co-operating with Internet Service Provider(ISPs) to provide good quality internet access. While reliability is a key element from a customers' perspective, so is the security system. It must be enhanced continuously to guarantee integrity of online transactions as this will build customer confidence. Security provisions should be posted on banks' web sites clearly and understandably to create customer confidence and improve the trustworthiness reputation of banks. Security information should be provided in non-technical terms, and be accompanied by standard security statements.

A perception of quality service will increase the bank's image for good services, accuracy and effectiveness. Failure of execution not only causes dissatisfaction and uncertainty to the customer but also makes the whole internet banking process more complex and less comprehensible. Offering incentives is another effective strategy to encourage internet banking adoption by consumers of KCB, so is the provision of access to internet banking in public places such as shopping centers and bank branches. Most people in Mombasa spend much of their free time in shopping centers on the weekend and bank branches can now be found on almost every single street.

Support from the government and industry regulator should be strengthened to increase the growth of internet banking services. The government should remove legal and regulatory barriers to e-commerce in general and internet banking in particular. In addition to lobbying the government, banks should also proactively participate in

improving internet services in order to increase online banking. For example, electronic related laws should be promoted by the banks in order to reduce customers' perceptions of risks. Current co-operation has been for commercial purposes, rather than for mutual benefit of the industry. This may need the industry regulator, to act as the Central bank of Kenya to improve the external environment.

5.5 Suggestions for further study

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

1. The number of respondents interviewed could be increased in a national study in order to extrapolate the conclusions to incorporate the general Kenyan population;
2. Studies to establish the business value in internet banking could also be undertaken;
3. 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.

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APPENDICES

Appendix 1: Letter of transmittal

ONGWEN ALEX LIVINSTONE MULIMA
P.O. BOX 90300 – 80100,
MOMBASA – KENYA.
TEL; 0720-230509
EMAIL: aongwen@kcb.co.ke
19TH APRIL, 2012.

TO,

THE HUMAN RESOURCE DIRECTOR,

KENYA COMMERCIAL BANK GROUP,

P.O. BOX 43800-00100,

NAIROBI – KENYA.

Dear Sir,

REF: PERMISSION TO CONDUCT RESEARCH.

I am student at the University of Nairobi, School of Education. I am currently carrying out research on "Factors influencing adoption of internet banking in Kenya, The case of Kenya commercial bank". This is in partial fulfillment of the requirement of the degree of Masters of Arts in Project Planning and Management program. Hence I hereby request for permission to undertake the research in the organization.

The research will be carried out in Coast region, island branches (Mombasa County) and intends to interview200 customers as well as analyzing office documents. The information obtained will be used purely and solely for academic purposes and will be treated with utmost confidence; names or any other personal details shall not appear in the report. I am looking forward to your response.

Yours Sincerely,

Ong'wen Alex Livingstone Mulima

REGISTRATION NUMBER: L50/66672/2010

Appendix 2: Questionnaire

My name is Alex Ong'wen and I am conducting research for my Masters of Arts degree in Project Planning and Management at University of Nairobi. The title of my research project is "Factors influencing adoption of internet banking in Kenya: The case of Kenya commercial bank". In order to collect representative data I would like to interview you. I need only 30 minutes of your time to complete the interview/questionnaire. 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 Kenyan Customers.

Full name: Ong'wen Alex Livingstone Mulima

Signed: ..... DATE .....

1.0 Internet usage

1.1 Have you ever used the Internet?

- ☐ Yes
- ☐ No

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

- ☐ Home
- ☐ Work place
- ☐ Internet café
- ☐ Library
- ☐ Other, please specify: _____

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: _____

1.4 How often do you use the Internet?

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

2. Internet banking

2.1 Have you ever used internet banking?

- ☐ Yes
- ☐ No

If yes please answer question 2.4-2.6, if no please answer 2.2-2.3 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: _____

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: _____

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:_____

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

□ Viewing account statements

□ Viewing account balances

□ Making payments

□ Transferring funds

□ Other, please specify: _____

2.6 How often do you use internet banking?

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

3.0 Internet banking perception

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

3.1 Relative advantages of internet banking (Tick (√))

	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
a. Internet banking is more convenient than other banking options.					
b. Internet banking gives me greater control of my finances than other banking options.					
c. Internet banking is less-time consuming than other banking options.					
d. Internet banking is more accessible than other banking options.					

3.2 Compatibility of internet banking (Tick (√))

	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
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 (Tick (√))

	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
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 (Tick (√))

	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
a. The telecommunication cost is expensive.					
b. Using internet banking increases my cost of banking.					
c. The Internet installation cost is expensive.					
d. Internet banking is cost-effective to me.					

1.5 Perceived risk (Tick (√))

	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
a. I prefer to go to the bank to do my banking business for security reason.					
b. Internet banking is unreliable.					
c. Using internet banking may expose me to fraud or monetary loss.					
d. Using internet banking may jeopardize my privacy.					
e. Internet banking would increase the time it takes to my banking.					

4.0 Demographic Details

4.1. Gender (Tick (√))

Male	
Female	

4.2. Age category (Tick (√))

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

4.3. Monthly Income (Tick (√))

Less than KES 10000	
KES 10000 to KES 35,000.00	
KES 35,001.00 to KES 70,000.00	
KES 70,001.00 to KES 105,000.00	
Over KES 105,001.00	

4.4. Educational qualifications (Tick (√))

Postgraduate	
University	
College (Certificate/Diploma)	
High School	
Other (Specify)	

4.5. Occupation (Tick (√))

Employed	
Not working	
Pensioners	
Self employed	
Other (Specify)	

4.6. Marital Status (Tick (√))

Married	
Divorced	
Single	
Widow(er)	

5.0 Social influences

5. 1 My decision to adopt internet banking is influenced by (Tick (√)):

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

6.0 Suggestions

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

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Thank you for time and your responses.