

**FACTORS HINDERING CONSUMER ADOPTION OF INTERNET BANKING IN
COMMERCIAL BANKS IN KENYA**

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DECLARATION

This research proposal is my original work and has not been presented for examination in any other university.

Signature

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This research proposal has been submitted for examination with my approval as a University Supervisor.

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DEDICATION

I dedicate this project to my loving daughters Joan Murugi and Rita Wairimu who had to ‘sacrifice’ their time with me during the course of my MBA.

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ABSTRACT

In the face of rapid expansion of electronic payment (E-payment) systems throughout the developed and the developing world, Kenyan financial sector cannot remain an exception in expanding the use of the system (Gardachew, 2010). The increasingly competitive environment means that there is pressure to stabilise or market internet banking (IB) to be adopted and accepted by all. It was expected that large organisations would be able to pioneer these services due to their availability of resources and skills. (Daniel, 1999).

E-banking has enabled banking institutions to compete more effectively in the global environment by extending their products and services beyond the restriction of time and space (Turban, 2008). However, mirroring the development of E-commerce, the adoption and diffusion of electronic banking (E-banking) system is not well developed in Kenya.

This study sought to fill the existing research gap by conducting a study to determine factors hindering consumer adoption of internet banking in Kenya. This study adopted a descriptive survey. The target population of the study was 44 Commercial Banks in Kenya. The study being a census survey, it means that data was collected from all the 44 Commercial banks in Kenya, where one senior person in operation department was selected from each bank thus forming a sample size of 44 respondents. With regard to factors hindering consumer adoption of internet banking in Kenya, the study used a survey questionnaire administered to each member of the sample population. Quantitative data collected was analyzed by the use of descriptive statistics was used. The information was displayed by use of bar charts, graphs and pie charts and in prose-form. Content analysis was used to test data that is qualitative in nature or aspect of the data collected from the open ended questions. The study revealed that in the Internet banking context, consumers' relative rewards/benefits cannot be guaranteed by means of any legal contract. Because consumers do not have experience with the Internet bank prior to its adoption, they are likely to draw upon their trust in the physical bank to infer about the operations of the Internet bank. Thus, having high trust in the physical bank could lead the consumer to have high trust in adopting Internet banking. Internet banking can mitigate consumers' uncertainty about the security and privacy of their technological infrastructure and services by providing structural assurances that promote a sense of security and privacy about the pertinent technological infrastructure used.

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LIST OF ABBREVIATIONS

ATM	Automated Teller Machine
AVR	Automated Voice Response
CBK	Central Banks of Kenya
CRBs	Credit Reference Bureaus
DTMs	Deposit-Taking Microfinance Institutions
EFT	Electronic Funds Transfer
ICT	Information and Communication Technology
MFC	Mortgage Finance Company
SMS	Short Text Message
TAM	Technology Acceptance Model
TPB	Theory of Planned Behaviour

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The rapidly growing information and communication technology (ICT) is knocking the front door of every organization in the world, where Kenyan banks would never be exceptional. In the face of rapid expansion of electronic payment (E-payment) systems throughout the developed and the developing world, Kenyan financial sector cannot remain an exception in expanding the use of the system (Gardachew, 2010). The concept of Internet banking (Daniel, 1999) developed with the development of the World Wide Web (WWW), during the 1980s and was intended to benefit customers in terms of saving time, speed in banking transactions and easy access to their accounts, (Yahya, 2011). The increasingly competitive environment means that there is pressure to stabilise or market internet banking (IB) to be adopted and accepted by all. It was expected that large organisations would be able to pioneer these services due to their availability of resources and skills. (Daniel, 1999).

Technological innovations play a crucial role in banking industry by creating value for banks and customers, that it enables customers to perform banking transactions without visiting a brick and mortar banking system. On the other hand E-banking has enabled banking institutions to compete more effectively in the global environment by extending their products and services beyond the restriction of time and space (Turban, 2008). However, mirroring the development of E-commerce, the adoption and diffusion of electronic banking (E-banking) system is not well developed in Kenya. This study seeks to determine the factors hindering consumer adoption of internet banking in Kenya.

1.1.1 Concept of consumer adoption

Adoptions are a person's decision to purchase or use a product. An innovation on the other hand is any good, service or idea that is perceived by someone as new. The adoption process resembles a bell curve formed by innovators, early adapters, and the majority of consumers, late adapters and laggards. Consumer behaviour and satisfaction are key ingredients to adoption of a product or service. Quality, service and satisfaction are directly related to the way a consumer will perceive a product or service.

The technology adoption process goes through five phases that results in acceptance and adoption of a good or service. The first phase is awareness when people first become aware of the product. Prospective adopters then move to the second phase of assessment. At this stage, adopters make the decision to accept or reject a product.

The third stage is the acceptance stage where potential adopters have weighed all the evidence at their disposal and made their decision. The fourth and fifth stages are the learning and usage stage respectively, where at the last stage people are actively using the new technology to achieve their goals.

1.1.2 Internet Banking

Internet banking is 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). According to Chou and Chou (2000), Internet banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels. Internet banking includes the systems that enable financial institution customers, individuals or businesses, to access accounts, transact business, or obtain information on financial products and services through the Internet. Customers access e-banking services using an intelligent electronic device, such as a personal computer, personal digital assistant, Automated Teller Machine (ATM), Kiosk, or Touch Tone telephone.

Although internet banking may have appeared and even behaved like a new product or service when it was initially introduced, e-banking is now most accurately portrayed as a relatively new, convenient, and technologically-oriented procedure whereby, consumers can accomplish customary banking tasks more quickly and easily than before (Rogers, 1983).

Organizations continue to substantially invest in Information Technology hoping that it will improve their business process and increase their productivity. However, for technologies to improve productivity, they must be accepted by intended users (Venkatesh, 2003). He also noted that research in understanding user acceptance of new technology has resulted in several theoretical models with roots in information systems, psychology and sociology. Technology Acceptance Model is one of the most utilized models for studying Internet banking acceptance (Al-Gahtani, 2001).

Technology Acceptance Model involves two primary predictors for the potential adopter that is perceived usefulness and perceived ease of use of technology as the main determinants of the attitudes toward a new technology. Perceived Usefulness is the degree to which a person believes that using a particular system would enhance his or her job performance; while Perceived Ease of Use is the degree to which a person believes that using a particular system would be free of effort (Davis, 1989). These two beliefs create a favorable behavioural intention toward using the Information Technology that consequently affects its self-reported use (Davis, 1989).

1.1.3 Commercial Banks in Kenya

As at 31st December 2011, the banking sector comprised of the Central Bank of Kenya, as the regulatory authority, 44 banking institutions (43 commercial banks and 1 mortgage finance company - MFC), 4 representative offices of foreign banks, 6 Deposit-Taking Microfinance Institutions (DTMs), 118 Forex Bureaus and 2 Credit Reference Bureaus (CRBs). Out of the 44 banking institutions, 31 locally owned banks comprise 3 with public shareholding and 28 privately owned while 13 are foreign owned (CBK, 2011). The number of bank branches increased by 98 from 1,063 in 2010 to 1,161 branches in 2011 indicating increased access to banking products and services.

The number of banks ATMs increased by 226 from 1,979 in December 2010 to 2,205 in December 2011 representing an increase of 11.4%. 6 large banks accounted for 54 percent of total assets, 53 percent of customer deposits, 55 percent of capital & reserves and 62 percent of pre-tax profit in 2011. Developments within the banking sector are strongly guided by the medium-term objectives of the financial sector reform and development strategy embedded in

the economic development blueprint, Vision 2030. In the year 2011, access to financial services continued to be enhanced, spurred by increased innovation in the delivery of financial products and services throughout the country (CBK,2012).

The source of funding in the banking sector, mainly customer deposits grew by 20 percent from Ksh.1, 236.5 billion in 2010 to Ksh.1, 488.2 billion in 2011. The growth was supported by branch expansion and receipts from exports. The increased deposits enhanced the banks' capacity to extend credit to various economic sectors and banks enhanced credit appraisal standards.

In terms of profitability, the sector registered a 30.5% growth in pre-tax from Kshs 14.9 billion in April 2009 to Kshs 19.5 billion at the end of April 2010. consequently, annualized return on assets has improved from 2.8% in April 2009 to 3.0% in April 2010, while return on equity increased from 25.3% to 27.3%. Total industry income increased by 18.5% during the year from Kshs 53.0 billion in April 2009 to Kshs 62.8 billion in April 2010, while total expenses increased by 13.7% from Kshs 38.1 billion in April 2009 to Kshs 43.4 billion, interest on loans and advances, fees and commissions and government securities were the major sources of income accounting for 53.0%, 26% and 16.0% of total income, respectively. Meanwhile, staff costs, other expenses, and interest on deposits were the components of industry expenses, accounting for 34%, 27% and 26% respectively, (CBK, 2012).

1.2 Research Problem

When the internet was revolutionised as early as 1962, it set the stage for a host of integration of capabilities. It represented one of the most successful examples of the benefits of sustained investments and commitment to research and development of information infrastructure (Leiner et. al. 2012). The benefits of internet banking to banks are lower fees in banking because costs of staff or overheads are non- existent. Other benefits of internet banking are, increased customer base, marketing or communication, increased customer loyalty and satisfaction, high profit consumers, ability to attract new customers and enable innovation and development of non – core business services.

Although there has been a rapid diffusion of new mobile services by commercial banks in Kenya, internet banking services have not been widely adopted by bank customers (Mayer, 1995). This may be due to lack of trust, poor customer’s attitude and perceived risk towards the services. Customers have been complaining that reversing a transaction, stopping a payment after discovering a mistake, or a refund may not be possible, (Ayriga, 2011). Customers have also reported that there is no real need for mobile internet-based banking services because it is associated with e-bank fraud where only a username and password stand between your money and a fraudster (Luarn and Lin, 2005).

Banks have been significantly affected by the evolution of technology, competition between banks has forced them to find new market to expand, and the number of financial institutions that offer electronic banking products increased, (Almazari and Siam, 2008). Hence, banks have begun to offer electronic banking services to improve the effectiveness of distribution channels

through reducing the transaction cost and increasing the speed of services. Recently, electronic banking has become the way for the development of banking system, and the role of electronic banking is increasing in many countries, (Ayriga, 2011). It offers opportunities to create services processes that demand few internal resources, and therefore, lower cost. As well as it provides wider availability and possibility to reach more customers.

Empirical studies done in Kenya include; Njuru (2007), who did a study on the challenges in implementing electronic banking strategy by commercial banks in Kenya, Ongare (2013), conducted a study on the effect of electronic banking on the financial performance of commercial banks in Kenya, Aduda & Kingoo (2012), on the relationship between electronic banking and financial performance among commercial banks in Kenya , Maiyo (2013), did a study on the effect of electronic banking on financial performance of commercial banks in Kenya and Mwangi (2007) did a study on an investigation into internet banking technology adoption among commercial banks in Kenya, however none of these studies has sought to determine factors hindering consumer adoption of internet banking in Kenya, this is the gap the study seeks to ask, What are the factors hindering consumer adoption of internet banking in Kenya?

1.3 Research Objective

To determine factors hindering consumer adoption of internet banking in Kenya.

1.4 Value of the Study

The findings of will help management of commercial banks understand the various factors hindering consumer adoption of internet banking in Kenya and this will offer them an insight on what they can do to overcome these challenges and fully adopt internet banking . Adoption of

internet banking will provide a new platform for commercial banks in Kenya to offer service to their customer conveniently. The Findings of this study would provide information and advice on the possible challenges facing commercial banks in the adoption of internet banking in Kenya, guide policy makers in designing policies that will assist in adoption of internet banking. The study will be of great importance to future scholars and academicians as it will form basis for future research as well as provide literature review for future scholars.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews previous literature and helps us to analyse the previous studies carried out relating to Internet banking in order to gain validation for carrying out the study and analyses the models to be used. It reviews the theoretical foundation that guides the study, the adoption of internet banking and the factors that hinder the successful adoption of internet banking.

2.2 Theoretical Foundation

Technology acceptance model and theory of planned behaviour will provide theoretical foundation for this study.

2.2.1 Technology acceptance model (TAM)

To understand, predict and explain why people accept or reject information systems, researchers have developed and used various models to understand the acceptance of users of the information systems. The technology acceptance model (TAM) that was introduced by Davis, Bagozzi, and Warshaw (1989) is one of the most cited models that researchers used to study underlying factors that motivate users to accept and adopt a new information system (Al Shibly, 2011). The primary goal of TAM is to provide an explanation of factors affecting computer applications' acceptance in general. In addition, this model helps researchers and practitioners to identify why a particular system is unacceptable (Davis, 1989). Davis suggested that using an information system is directly determined by the behavioural intention to use it, which is in turn influenced by the users' attitudes toward using the system and the perceived usefulness of the system. Attitude and perceived usefulness are also affected by the perceived ease of use.

2.2.2 Theory of planned behaviour (TPB)

The theory of planned behaviour (TPB) suggested that human behaviour is determined by intention to perform the behaviour, which is affected jointly by attitude toward behaviour, subjective norm and perceived behavioural control (Ajzen, 1991, 2002). Attitude (ATT) is the general feeling of people about the desirability or undesirability of a specific behaviour. Subjective norm (SN) expresses the perceived organizational or social pressure of a person who intends to perform a particular behaviour. Perceived behavioural control (PBC) reflects a person's perception of the ease or difficulty of implementing a particular behaviour. The ability of TPB in providing a useful theoretical framework for understanding and predicting the acceptance of new information systems is demonstrated (Ajzen, 2002).

The ability of TPB in providing a useful theoretical framework for understanding and predicting the acceptance of new information systems is demonstrated (Ajzen, 2002). Armitage and Conner (2001) analysed previous studies using the TPB in a meta-analysis study. The major conclusion was support for the efficacy of the TPB and the suggestion that more work on new variables is needed to increase the predictability of the model.

2.3 Adoption of Internet Banking

Electronic innovation in banking industry can be traced back to 1970, when the computerization of financial institutions gained momentum (Malak, 2007). However; a visible presence of this was evident to the customers since 1980, with the introduction of ATM. Innovative banking has grown since then, aided by technological developments in the telecommunications and information technology industry. The early decade of the 1990s witnessed the emergence of

automated voice response (AVR) technology. By using the AVR Technology, banks could offer telephone banking facilities for financial services.

With further advancements in technology, banks were able to offer services, through PC owned and operated by costumers at their convenience, through the use of intranet propriety software. The users of these services were, however, mainly corporate customers rather than retail ones (Sohail & Shanmugham, 2003). The security first network bank was the first Internet banking in the world that was built in 1995 in USA. After that some famous banks introduced their internet banking one after another, such as Citibank and bank of America.

Some related studies are conducted by different researchers in different parts of the world. However, there are limited numbers of studies conducted in Ethiopia on the adoption of technological innovation.

Gardachew (2010) conducted research on the opportunities and challenges of E-banking in Ethiopia. The aim of his study was focused on analyzing the status of electronic banking in Ethiopia and investigates the main challenges and opportunities of implementing E-banking system. The author conducted a survey on the existing operating style of banks and identifies some challenges of using E-banking system, such as, lack of suitable legal and regulatory frame works for E-commerce and E- payments, political instability in neighboring countries, high rates of illiteracy and absence of financial networks that links different banks.

Wondwossen and Tsegai (2005) also studied on the challenges and opportunities of E-payments in Ethiopia; their objective was studying of E-payment practices in developing countries, Africa and Ethiopia. The authors employs interview and on site observation to investigate challenges to E-payment in Ethiopia and found that, the main obstacles to the development of E-payments are, lack of customers trust in the initiatives, Unavailability of payment laws and regulations particularly for E-payment, Lack of skilled manpower and Frequent power disruption. According to Wondwossen and Tsegai (2005), an adequate legal structure and security framework could foster the use of E-payments, which is contradicting with the finding of the previous study.

Gerrard *et al.* (2006) in their study in Singapore identify risk to be an important factor for Internet Banking adoption. All respondents who did not use Internet Banking services had a negative perception of the security in Internet Banking. The respondents perceived that there were many security risks when using the internet. They felt the privacy was a concern, feeling all their financial information could be in jeopardy. Risk was one of the two most frequently mentioned factors in their study, “Concern about risk was mentioned by all respondents. Sathye (1999) on the adoption of Internet Banking by Australian consumers also identified, security concerns as key factor in internet banking adoption. A report on Internet Banking in Australia finds that, security concerns among banks and customers are keeping both away from Internet Banking” Sathye (1999).

Locally, Njuru (2007) did a study on the challenges in implementing electronic banking strategy by commercial banks in Kenya. The objective of the study was to establish the challenges inhibiting electronic banking implementation and how banks are responding to these challenges.

The targets of the study were the commercial banks in Kenya. The study found that there exist various challenges to the implementation of electronic banking in Kenya Commercial banks. The banks have thus employed strategic responses to overcome these challenges with some of the responses being more popular than the rest depending on the Impact they have on the implementation process.

Ongare (2013) conducted a study on the effect of electronic banking on the financial performance of commercial banks in Kenya. Specifically, the study was meant to establish whether there exists a relationship between the dependent variable, for example, performance measured by profit after tax and the independent variables consisting of number of ATMS, number of debits and credit cards issued to customers, number of point of sales terminals and the usage levels of Mobile banking, Internet banking and Electronic funds transfer, as components of e-banking. The study used secondary data which was collected from the annual report of commercial banks and Central Bank of Kenya. The study used both descriptive and inferential statistics in analysing the data. The findings of the study were that e-banking has a strong and significant effect on the profitability of commercial banks in the Kenyan banking industry.

Kingoo (2012) did a study on the relationship between electronic banking and financial performance among commercial banks in Kenya. This study investigated the relationship between e-banking and performance of Kenya banking system. Specifically, the study established whether there is relationship between the dependent variable i.e., performance measured by return on assets and the independent variables: investments in e-banking, number of ATMS and number of debits cards issued to customers as proxy for e-banking. The study used

secondary data. The data was collected from annual report of target banks and Central Bank of Kenya. The study used both descriptive and inferential statistics in analysing the data. In general the study revealed that e-banking has strong and significance marginal effects on returns on asset in the Kenyan banking industry.

Maiyo (2013) did a study on the effect of electronic banking on financial performance of commercial banks in Kenya. The main objective of the study was to establish the effect of electronic banking on financial performance of commercial banks in Kenya. The specific objectives were to determine the extent of e-banking adoption and the effect of this adoption on financial performance of commercial banks in Kenya. The study adopted a descriptive research design. Primary data was collected through data collection form that was developed and sent to the respondents of commercial banks. The adoption of e-banking banking has enhanced performance of commercial banks due to increased efficiency, effectiveness and productivity.

Mwangi (2007) did an investigation into internet banking technology adoption among commercial banks in Kenya. The main objective of this study was to analyse the extent of Internet banking adoption, major factors responsible for and barriers to Internet banking technology adoption. A survey of the 43 commercial banks was conducted with 31 valid responses. Data was collected using self- administered semi- structured questionnaires and analysed using both descriptive and inferential statistics. The project found that internet banking has contributed greatly to saving costs and has intensified the competition severely, making the banking industry more beneficial for customers, but less attractive for new entrants. A number of barriers were also identified from the survey.

2.4 Factors Hindering Consumer Adoption of Internet Banking

In this section the study explores the various factors that hinder consumer adoption of internet banking; they include consumer attitude, perceived risk and trust. The focus will be on issues associated with Internet Banking from a consumer's perspective. Previous research in countries with different levels of E-commerce adoption shows that perceived security risk is an important predictor of internet banking adoption. Sathye (1999) investigates internet banking adoption by Australian consumers and identifies security concerns and lack of awareness as the main obstacles to adoption. Gerrard and Cunningham (2003) found security concerns over internet banking high in both adopters and non-adopters in Singapore.

Lee (2005) on USA consumers showed greater concern among prospective adopters than current adopters over transaction security and monetary benefits when choosing an internet based banking service. Cheng (2006) found perceived web security to be a significant determinant of customer's acceptance of online banking. Customers tend to increase purchases only if they perceive that credit card number and other sensitive information is safe. The different types of perceived risk have a significant influence on the adoption of the channel, as they become a barrier to performing internet banking transactions (Suganthi, 2001). According to Venkatesh *et al.*, (2003), attitude toward internet banking is defined as an individual's overall affective reaction to using the internet for his/her banking activities. Fishbein and Ajzen (1975), argued that attitude towards behaviour is made up of beliefs about engaging in the behaviour and the associated evaluation of the belief. They defined attitude as an individual's positive and negative feelings (evaluative affect) about performing the target behaviour.

The attitude theory suggests that the more favorable attitude a person has towards a given product or service, the more likely that person is to buy or use the product or service, (Ajzen and Fishbein, 1980). The concept of consumer-perceived risk has been widely dealt with in the literature and has been shown to influence consumer behaviour to varying degrees and in varying contexts (Cunningham *et al.*, 2005; Mitchell, 1998). Online trust is defined as the consumer expectations of how the site would deliver expectations, how believable the site's information is how much confidence the site commands (Bart, 2005). In essence trust is developed when consumers form positive impressions on the electronic sites and are willing to accept vulnerability, (McKnight, 2002). In the context of internet banking, the trustier is typically a consumer who has to decide whether to adopt internet banking or stay with more traditional ways to undertake her/his financial transactions.

2.4.1 Consumer Attitudes

The Technology Acceptance Model (TAM), suggests that a prospective user's overall feelings or attitudes toward using a given technology-based system or procedure represent major determinants as to whether or not he/she will ultimately use the system (Davis, 1993). Lockett and Litter (1997) presented a study of the adoption of direct banking services in the UK using a model of the perceived innovation attributes and the personal characteristics of adopters and non-adopters. Their results indicated that the most important perceived positive attribute of internet banking was its 24-hour-a-day availability, whereas complexity and risk of service were the two negative attributes. The main disadvantages associated with internet banking, however, included its complexity and the security risks involved in using it. The study also revealed that adopters of

new technology generally earned higher incomes, worked longer hours, moved house more frequently and also possessed more favourable attitudes towards change than non-adopters.

Daniel (1998) analyzed the adoption of computer banking through in-depth interviews with the bank personnel responsible for its implementation and development. The main factors influencing adoption included the convenience aspects of the service, ease of use and its compatibility with consumer's existing lifestyles. Attitudes towards new technologies may also be linked to a set of personal characteristics. Howcroft (2002) revealed that younger consumers value the convenience or time saving potential of online and mobile banking more than older consumers.

Younger consumers also regarded the lack of face-to-face contact as less important than older consumers. These authors further found the educational levels of respondents did not affect the use of telephone or online banking. However, Karjaluoto (2002) found a typical user of online banking in Finnish market highly educated, relatively young and wealthy person with good knowledge of computers and, especially, the internet. The results of their study proposed that, demographic factors have an impact on online banking behaviour. He further found that attitude towards online banking and actual behaviours were both influenced by prior experience of computers and technology as well as attitudes towards computers.

Research on consumer attitude and adoption of electronic banking showed there are several factors predetermining a consumer's attitude towards online and mobile banking such as a person's demographic, motivation and behaviour towards different banking technologies and

individual acceptance of new technology. Similarly, it has been found that attitudes towards online banking and actual behaviours were both influenced by prior experience of computers and new technology and, other possible factors discussed below. With regard to demographics factor, Howcroft (2002) revealed that younger consumers value the convenience or time saving potential of online and mobile banking more than older consumers. Younger consumers also regarded the lack of face-to-face contact as less important than older consumers. These authors further found the educational levels of respondents did not affect the use of telephone or online banking.

2.4.2 Perceived Risk of Internet Banking

The issue of perceived risk adoption arises because economic transactions involve risk, (Humphrey and Schmitz, 1998). This is particularly true in the case of online banking, where the bank and the customer are physically separated, contingencies are difficult to predict and incorporate into terms and conditions, relationships are difficult to monitor, and cyber-laws are not well-defined. The heightened risk perceptions of customers affect the level of internet banking adoption. When processing online information, customers may often perceive that there is a high level of risk even though the risk level may be actually low. More experienced online customers have more information about online banking, and therefore they perceive the risk to be less and thus have more trust in online transactions, (Ba, 2001).

Clay and Strauss, (2000) argued that one of the customers main concerns would be reliability of the network. When customers are transmitting personal financial data over the electronic network, there are risks that unauthorized parties could intercept this information. Therefore,

customers' technology orientation and perception of the technological competency of the electronic communication system is very important in their information processing behaviour and perceived trust. The reputation of the bank is a very important factor of trustworthiness. Ba (2001) concluded that when customers feel that an online bank has a poor or bad reputation, they would be discouraged from using that Web site. While assessing the reputation, customers also assess the innovative abilities of the bank, which is based on the customers' expectations of the skills and competencies that the bank possesses in electronic transactions, (Lee and Turban, 2001).

Perceived risk reduction proves critical in an uncertain and risky environment, (Mayer , 1995) and, as pointed out by Krauter and Kaluscha (2003), online transactions always take place in that risky environment where anonymity, lack of control and potential opportunism are always involved. Online trust can reduce the levels of perceived risk associated with transaction processes, (Pavlou, 2003; Koufaris and Hampton-Sosa, 2004). In terms of perceived security, web sites could increase consumers' online trust by decreasing perceived environmental risks or by raising security (Warrington, 2000). Also consumers may disclose their private information to web sites when reliability and credibility are recognized; this subsequently reduces consumers concerns of privacy and security and helps to build online trust toward the web sites, (Culnan and Armstrong, 1999).

Perceived risk can also cause customers to reject new technology-based service delivery. Customers are also worried that technology-based service delivery systems will not work as expected, and lack confidence that problems can be solved quickly (Walker, 2002). Westland

(2002) found that transaction risk occurs when online markets fail to assure that service will be delivered with adequate quality. Frequently, slow response time after the Internet interaction leads to a delay of service delivery and causes customers to be unsure that the transaction was completed

2.4.3 Trust and internet banking adoption

Many studies have proved the significant relationship between trust and electronic banking or any e-commerce adoption. Trust occurs when one party has confidence in an exchange partner's reliability and integrity, Chen and Barner, (2007). For example, Chen and Barner, (2007) found that trust significantly important on online purchasing intention, web site loyalty (Flavian and Guinaliu, 2006), online banking commitment (Mukherjee and Nath, 2003), electronic banking adoption and behaviour intention to adopt online information service, (Chen and Corkindale, 2008). Yousafzai, (2003) concluded that trust in electronic banking and its infrastructure reduces customers transaction-specific uncertainty and related risks associated with the possibility that a bank might behave opportunistically. When people trust others, they assume that those they trust will behave as they are expected to, reducing the complexity of the interaction.

Studies of online banking (Kim and Prabhakar, 2000) have shown that trust is a critical factor in stimulating online banking operations. The uncertainty that an individual often assumes makes trust a necessary component (Pikkarainen, 2004). Otherwise the consumer is reluctant to use online banking services (Mukherjee and Nath, 2003). Ratnasingham (1998) proposes the term technology trust and suggests that dimensions of security services such as confidentiality mechanisms, authentication mechanisms, and access control mechanisms contribute to the enhancement of technology trust from a capability process that serves to support the privacy,

accuracy, authenticity of authorized parties, and accountability of e-commerce transactions. Mukherjee and Nath, (2003) view the customers' orientation towards e-commerce technology and the extent to which they trust the electronic system as a proxy for their trust in internet banking. Stell and Paden (2002) suggested that inexperience may lead to concern about, or avoidance of, using the internet and hence to a lack of trust.

Transactions are normally completed through these technologies and parties will not necessarily meet each other face to face. The parties will thus be worried that their personal information and money will be transferred to third party without their knowledge (Luarn and Lin, 2005). Customer attitudes towards Internet banking are driven by trust, which plays an important role in increasing usability within the internet banking environment. The issue of trust is more important in online as opposed to offline banking because transactions of this nature contain sensitive information and parties involved in the financial transaction are concerned about access to critical files and information transferred via the Internet.

The role of trust in the development and maintenance of successful relationships is likely to be of particular significance in the financial services sector because of the complexity of many of the products (Diacon and Ennew, 1996). The degree to which a customer trusts the internet banking will be negatively influenced by the belief that he/she is operating in a high level of risk even though the risk level may be actually low (perceived risk). The existence of trust in a relationship is a kind of insurance against risks and unexpected behaviour.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methodology approach for the study and highlights the research design, target population, sampling technique, data collection instruments and data analysis and presentation.

3.2 Research Design

This study adopted a descriptive survey. Descriptive survey research design is a scientific method which involves observing and describing the behaviour of a subject without influencing it in any way. It was designed to gain more information about variables within a particular field of study. Its purpose was to provide a picture of a situation as it naturally happens.

3.3 Population of the study

Target population is the specific population about which information is desired. According to Ngechu (2004), a population is a well-defined or set of people, services, elements, events, group of things or households that are being investigated and to which the findings will be generalized.

The target population of the study was the 44 Commercial Banks in Kenya.

The study being a census survey means that data was collected from all the 44 Commercial banks in Kenya.

3.4 Data Collection

Primary data was collected for this study by administering a semi-structured questionnaire. With regard to the challenges facing commercial banks in the adoption of internet banking in Kenya,

the study used a survey questionnaire administered to each member of the sample population. The questionnaire had both open and close-ended questions. The close-ended questions provided more structured responses to facilitate tangible recommendations. The open-ended questions provided additional information that may not have been captured in the close-ended questions.

The questionnaire was carefully designed and tested with a few members of the population for further improvements. This was done in order to enhance its validity and accuracy of data to be collected for the study. The respondents were bank officials who are directly linked to the Internet banking operations.

This type of questionnaire used both closed and open-ended questions. Secondary data on the other hand was collected through review of both empirical and theoretical data from books, journals, dissertations, magazines and the internet.

3.5 Data Analysis

Before processing the responses, the completed questionnaires would be edited for completeness and consistency. Quantitative data collected was analyzed by the use of descriptive statistics such as mean, standard deviation, frequency and percentages. The findings were displayed by use of bar charts, graphs and pie charts and in prose-form. This was done by tallying up responses, computing percentages of variations in response as well as describing and interpreting the findings in line with the study objectives and assumptions. Content analysis was used to test data that was qualitative in nature or aspect of the data collected from the open ended questions.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATIONS AND DISCUSSION

4.1 Introduction

This chapter discusses the interpretation and presentation of the findings obtained from the field. The chapter presents the background information of the respondents, findings of the analysis based on the objectives of the study. Descriptive and inferential statistics have been used to discuss the findings of the study.

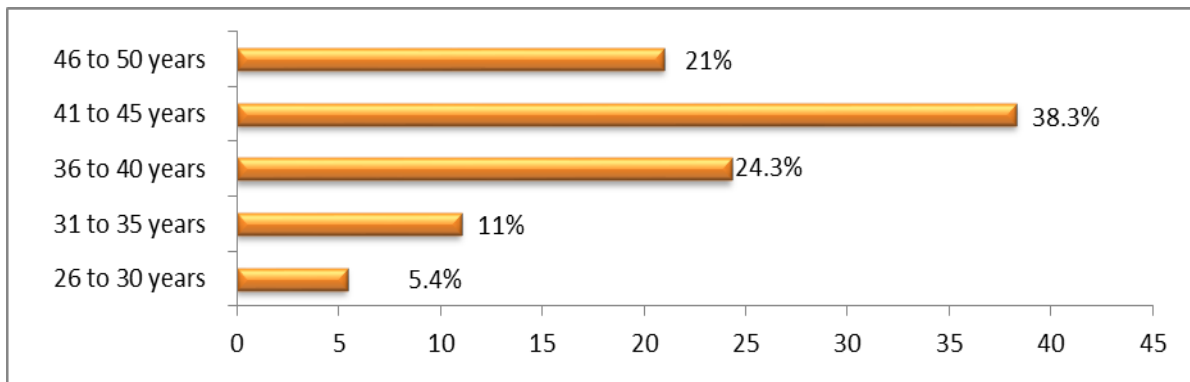
4.1.1 Data collection overview

The study targeted a sample size of 44 respondents from which 38 filled in and returned the questionnaires while 2 declined to complete the questionnaire making a response rate of 86.4%. This response rate was satisfactory to make conclusions for the study as it acted as a representative. According to Mugenda and Mugenda (2003), a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. Based on the assertion, the response rate was excellent

4.2 Respondents Information

The study requested the respondents to indicate their age category as shown in figure 4.1. The study established that most of the respondents or 38.3% were aged between 41 to 45 years, 24.3% of the respondents were aged between 36 to 40 years, and 21% of the respondents were aged between 46 to 50 years 11% of the respondents were aged between 31 to 35 years whereas 5.4% of the respondents were aged between 26 to 30 years. This implies that respondents were well distributed in terms of their age.

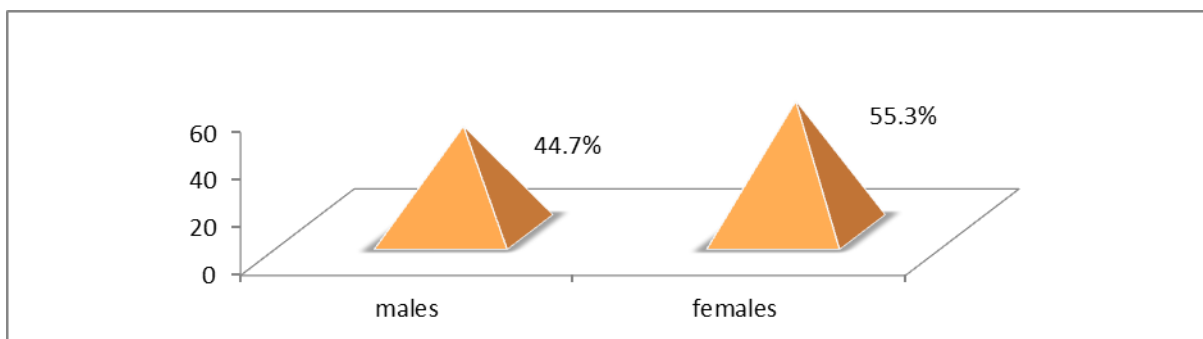
Figure 4.1: Age of the respondent



Field data 2014

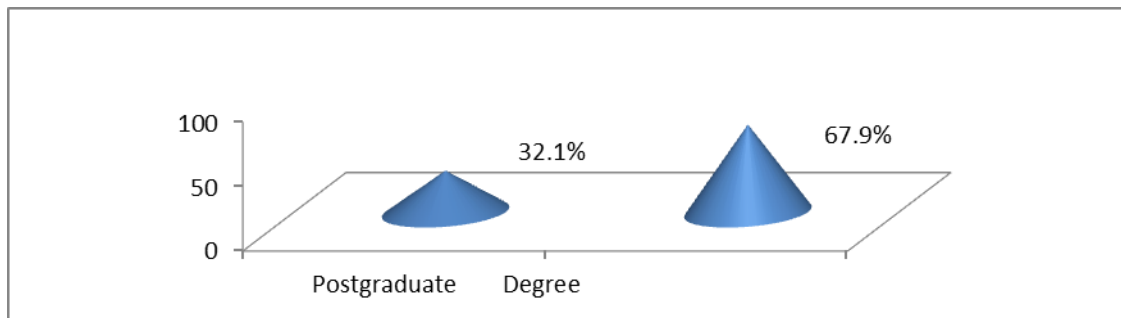
The study requested to determine the gender category of the respondent, from research findings, the study established that majority of the respondents were females at 55.3% whereas 44.7% of all the respondents were males as shown in figure 4.2. This is an indication that both genders were fairly involved in this research and thus the findings of this study did not suffer from gender biasness.

Figure 4.2: Gender of the respondent



Field data 2014

Figure 4.3: Highest level of education



Field data 2014

The study requested the respondent to indicate their highest levels of education. From the research findings the study revealed that 67.9% of the respondent's held bachelor's degrees, whereas 32.1 % of the respondent's held post graduate certificates as shown in figure 4.3 above. This implies that respondents were literate and that they were in a position to respond to research questions with ease.

4.3 Factors Hindering Consumer Adoption of Internet Banking

The study established that Internet banking can engender high outcome uncertainty because the temporal and the spatial separation between the consumers and the physical bank does not allow consumers the experience of witnessing the transactional situation in the same way they can in the experience of face-to-face transactions with bank personnel, Consumers' intention to adopt Internet banking depends on whether their perceptions of rewards gained exceed the incurred costs of using Internet banking, The smooth and secure processing of online transactions depends on the functioning of the hardware and software as well as on the security of the data exchange services including the Information technology protocols that are used. Lack of structural

assurances increases the uncertainty about the security and privacy of online interactions and transactions with the Internet banking that hinder consumers' intention to adopt it

Table 4.1: Factors hinder the adoption of electronic banking by customers

factors	Very great extent	Great extent	Moderate	Less extent	Not at all	Mean	Std deviation
Consumer attitude	11	24	3	0	0	1.80	0.26
Perceived risk	6	29	2	1	0	1.95	0.31
Trust	15	22	1	0	0	1.61	0.27
Awareness	12	24	1	1	0	1.75	0.28

The study sought to establish the extent to which factors hinder the adoption of electronic banking by the customers, from the study findings, majority of the respondents were of the that the following factors hindered the adoption of electronic banking by customers to a great extent, customer trust as shown by a mean of 1.61, customer awareness as shown by a mean of 1.75, Consumer attitude as shown by a mean of 1.80 and Perceived risk as shown by a mean of 1.95,

Table 4.2: Statements relating to Customer Attitude

Customer Attitude	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean	Std deviation
Younger consumers value the convenience or time saving potential of online and mobile	9	27	1	1	0	1.89	0.30

banking more than older consumers							
Educational levels of the consumer	11	27	0	0	0	1.70	0.31
Demographic factors	13	23	1	0	1	1.75	0.27

The study sought to establish the extent to which respondents agreed with the above statements, from the study findings, majority of the respondents agreed that Educational levels of the consumer influence customer decision adoption on E-banking, as shown by a mean of 1.70, Demographic factors customer decision adoption on E-banking as shown by a mean of 1.75, Younger consumers value the convenience or time saving potential of online and mobile banking more than older consumers as shown by a mean of 1.89.

Table 4.3: Statements relating to Perceived risk

Perceived Risk	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean	Std deviation
Perceived risk adoption arises because economic transactions involve risk	13	22	1	2	0	1.77	0.26
Heightened risk perceptions of customers affect the level of internet banking adoption	10	26	1	1	0	1.82	0.30
When processing online information, customers may often perceive that there is a high level of risk even though the risk level may be actually low	5	29	2	1	1	2.02	0.32
More experienced online customers have more information about online banking, and therefore they perceive the risk to be less and thus have more trust in online transactions	13	22	1	1	1	1.82	0.25
Perceived risk can also cause customers to reject new technology-based service delivery	10	25	1	2	0	1.84	0.28

Perceived risk is related to reliability and system failure	9	25	2	0	2	1.95	0.28
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The study sought to establish the extent to which respondents agreed with the above statements, from the study findings, majority of the respondents agreed that Perceived risk adoption arises because economic transactions involve risk as shown by a mean of 1.77, Heightened risk perceptions of customers affect the level of internet banking adoption, More experienced online customers have more information about online banking, and therefore they perceive the risk to be less and thus have more trust in online transactions as shown by a mean of 1.82, Perceived risk can also cause customers to reject new technology-based service delivery as shown by a mean of 1.84, Perceived risk is related to reliability and system failure as shown by a mean of 1.95,

Table 4.4: Perceived risk Trust and Adoption of Electronic Banking

Trust and adoption of electronic banking	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean	Std deviation
There is a significant relationship between trust and electronic banking or any e-commerce adoption	12	25	0	1	0	1.73	0.29
Trust in electronic banking and its infrastructure reduces customers transaction-specific uncertainty and related risks associated with the possibility that a bank might behave opportunistically	14	21	2	0	1	1.73	0.25
Dimensions of security services such as confidentiality mechanisms, authentication mechanisms, and access control mechanisms	15	20	2	1	0	1.73	0.24

contribute to the enhancement of technology trust from a capability process that serves to support the privacy, accuracy, authenticity of authorized parties, and accountability of e-commerce transactions							
customers orientation towards e-commerce technology and the extent to which they trust the electronic system as a proxy for their trust in internet banking	7	28	2	1	0	1.91	0.32
trust play a significant role in developing and maintaining successful relationships in the financial services sector because many of the products are complex and there is physical separation between the bank advisor and the consumer	11	22	2	2	1	1.91	0.25
Customer attitudes towards Internet banking are driven by trust, which plays an important role in increasing usability within the internet banking environment	11	23	3	1	0	1.82	0.26
issue of trust is more important in online as opposed to offline banking because transactions of this nature contain sensitive information and parties involved in the financial transaction are concerned about access to critical files and information transferred via the Internet	12	22	2	0	2	1.86	0.25
The role of trust in the development and maintenance of successful relationships is likely to be of particular significance in the financial services sector because of the complexity of many of the products	15	21	1	0	1	1.68	0.26

The study sought to establish the extent to which respondents agreed with the above statements, from the study findings, majority of the respondents agreed that, the role of trust in the development and maintenance of successful relationships is likely to be of particular significance in the financial services sector because of the complexity of many of the products as shown by a mean of 1.68, there is a significant relationship between trust and electronic banking or any e-commerce adoption, trust in electronic banking and its infrastructure reduces customers transaction-specific uncertainty and related risks associated with the possibility that a bank might behave opportunistically, Dimensions of security services such as confidentiality mechanisms, authentication mechanisms, and access control mechanisms contribute to the enhancement of technology trust from a capability process that serves to support the privacy, accuracy, authenticity of authorized parties, and accountability of e-commerce transactions as shown by a mean of 1.73 in each case, Customer attitudes towards Internet banking are driven by trust, which plays an important role in increasing usability within the internet banking environment as shown by a mean of 1.82, issue of trust is more important in online as opposed to offline banking because transactions of this nature contain sensitive information and parties involved in the financial transaction are concerned about access to critical files and information transferred via the Internet as shown by a mean of 1.86, customers orientation towards e-commerce technology and the extent to which they trust the electronic system as a proxy for their trust in internet banking trust play a significant role in developing and maintaining successful relationships in the financial services sector because many of the products are complex and there is physical separation between the bank advisor and the consumer as shown by a mean of 1.91 in each case

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of key data findings, conclusion drawn from the findings highlighted and recommendation made there-to, the conclusions and recommendations drawn were focused on addressing the objective of the study. The researcher intended to determine factors hindering consumer adoption of internet banking in Kenya

5.2 Summary of findings

The study established that internet banking is hindered by high outcome uncertainty because the temporal and the spatial separation between the consumers and the physical bank does not allow consumers the experience to witness the transactional situation in the same way they can in the experience of face-to-face transactions with bank personnel. Consumers' intention to adopt internet banking depends on whether their perceptions of rewards gained exceed the incurred costs of using internet banking, the smooth and secure processing of online transactions depends on the functioning of the hardware and software as well as on the security of the data exchange services including the cryptographic protocols that are used. Lack of structural assurances increases the uncertainty about the security and privacy of online interactions and transactions with the internet bank and hinders consumers' intention to adopt it. The study further revealed that customer trust, customer awareness, consumer attitude and perceived risk effects hindered the adoption of electronic banking by customers to a great extent.

The study established that that educational levels of the consumer influence customer decision adoption on e-banking, demographic factors customer decision adoption on e-banking, younger

consumers value the convenience or time saving potential of online and mobile banking more than older consumers. The study sought to establish the extent to which respondents agreed with the above statements and from the study findings, majority of the respondents agreed that perceived risk adoption arises because economic transactions involve risk. Heightened risk perceptions of customers affect the level of internet banking adoption, more experienced online customers have more information about online banking, and therefore they perceive the risk to be less and thus have more trust in online transactions, perceived risk can also cause customers to reject new technology-based service delivery, perceived risk is related to reliability and system failure.

The study established that the role of trust in the development and maintenance of successful relationships is likely to be of particular significance in the financial services sector because of the complexity of many of the products, there is a significant relationship between trust and electronic banking or any e-commerce adoption. Trust in electronic banking and its infrastructure reduces customers transaction-specific uncertainty and related risks associated with the possibility that a bank might behave opportunistically, dimensions of security services such as confidentiality mechanisms, authentication mechanisms, and access control mechanisms contribute to the enhancement of technology trust, from a capability process that serves to support the privacy, accuracy, authenticity of authorized parties, and accountability of e-commerce transactions. Customer attitudes towards internet banking are driven by trust, which plays an important role in increasing usability within the internet banking environment, issue of trust is more important in online as opposed to offline banking because transactions of this nature contain sensitive information and parties involved in the financial transaction are concerned

about access to critical files and information transferred via the Internet, customers orientation towards e-commerce technology and the extent to which they trust the electronic system as a proxy for their trust in internet banking trust plays a significant role in developing and maintaining successful relationships in the financial services sector because many of the products are complex and there is physical separation between the bank advisor and the consumer.

5.3 Conclusion

The study revealed that in the Internet banking context, consumers' relative rewards or benefits cannot be guaranteed by means of any legal contract. Thus, trust in Internet banking is essential to mitigate uncertainty to entice the consumer to using it.

Because consumers do not have experience with the Internet banking prior to its adoption, they are likely to draw upon their trust in the physical bank to infer about the operations of the Internet bank. Thus, having high trust in the physical bank could lead the consumer to have high trust in adopting Internet banking.

Internet banking can mitigate consumers' uncertainty about the security and privacy of their technological infrastructure and services by providing structural assurances which include safety nets, guarantees, regulations and security recourses in place to promote a sense of security and privacy about the pertinent technological infrastructure used thus lack of structural assurances increases the uncertainty about the security and privacy of online interactions and transactions with the Internet bank that hinder consumers' intention to adopt it

5.4 Recommendations

Banking institutions must identify and manage the factors affecting the consumer's intention to adopt and continue usage, to increase the adoption rate of internet banking. Banks should form

their strategy around the value chain system, through marketing their service to differentiate it from the normal mobile banking transactions as Internet banking provides other services not offered in mobile banking. This method will help banks to increase internet banking adoption rate among its consumers by supplying something of value to their consumers, the perceived value should range from ease of use of the technology to the level of privacy offered from the banks. For example the commercial banks should provide for an automatic download and registration of the Bank Icon on the consumers software technology available.

Banking institutions must also encourage all banks to promote and provide internet banking and create a forum for joint responsibility for growth of Internet banking so as to remain competitive.

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QUESTIONNAIRE

My name is Catherine Karungu and I am currently a student at University of Nairobi undertaking my Masters in Business Administration (MBA)

The purpose of my research is to identify and assess factors that contribute to the slow adoption of Internet banking in Kenya. To this end, the study intends to gather information from commercial banks.

The results will be reported without compromising the anonymity of respondents. The questionnaire takes a few minutes to complete. I would appreciate your favourable consideration in completing the enclosed questionnaire and assisting me in the research endeavour

Catherine Karungu

Thanking you in advance

APPENDICES

Appendix I: Questionnaire

Kindly ticks in the space provided [] the correct answer or supply the required information where, required, please specify and elaborate.

Part A: Respondents Information

1. Name..... (Optional)

2. Age of the respondent

- 20-25 years () 26 to 30 years () 31 to 35 years ()
 36 to 40 years () 41 to 45 years () 46 to 50 years ()
 Above 50 years ()

3. Gender of the respondent

Male [] Female []

4. What is your highest level of education?

Postgraduate [] Degree [] Diploma []

Part B: Factors Hindering Consumer Adoption of Internet Banking In Kenya

5. What are the factors hindering consumer adoption of internet banking in Kenya?

.....

6. To what extent do the following factors hinder the adoption of electronic banking by your customers?

	Very great extent	Great extent	Moderate	Less extent	Not at all
Consumer attitude					
Perceived risk					
Trust					
Awareness					

7. To what extent do you agree with the following statement relating to factors affecting adoption of electronic banking by consumer among commercial banks in Kenya?

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Customer Attitude					
Younger consumers value the convenience or time saving potential of online and mobile banking more than older consumers					
Educational levels of the consumer					
Demographic factors					
Perceived Risk					
Perceived risk adoption arises because economic transactions involve risk					
Heightened risk perceptions of customers affect the level of internet banking adoption					
When processing online information, customers may often perceive that there is a high level of risk even though the risk level may be actually low					
More experienced online customers have more information about online banking, and therefore they perceive the risk to be less and thus have more trust in online transactions					
Perceived risk can also cause customers to reject new technology-based service delivery					
Perceived risk is related to reliability and system failure					
Trust And Adoption Of Electronic Banking					
There is a significant relationship between trust and electronic banking or any e-commerce adoption					

Trust in electronic banking and its infrastructure reduces customers transaction-specific uncertainty and related risks associated with the possibility that a bank might behave opportunistically					
Dimensions of security services such as confidentiality mechanisms, authentication mechanisms, and access control mechanisms contribute to the enhancement of technology trust from a capability process that serves to support the privacy, accuracy, authenticity of authorized parties, and accountability of e-commerce transactions					
customers orientation towards e-commerce technology and the extent to which they trust the electronic system as a proxy for their trust in internet banking					
trust play a significant role in developing and maintaining successful relationships in the financial services sector because many of the products are complex and there is physical separation between the bank advisor and the consumer					
Customer attitudes towards Internet banking are driven by trust, which plays an important role in increasing usability within the internet banking environment					
issue of trust is more important in online as opposed to offline banking because transactions of this nature contain sensitive information and parties involved in the financial transaction are concerned about access to critical files and information transferred via the Internet					
The role of trust in the development and maintenance of successful relationships is likely to be of particular significance in the financial services sector because of the complexity of many of the products					

Thank you for your time

Appendix II : Licensed Commercial Banks in Kenya as at 31st Dec 2013

1. ABC Bank (Kenya)
2. Bank of Africa
3. Bank of Baroda
4. Bank of India
5. Barclays Bank
6. CFC Stanbic Bank
7. Chase Bank Kenya
8. Charterhouse Bank
9. Citibank
10. Commercial Bank of Africa
11. Consolidated Bank of Kenya
12. Cooperative Bank of Kenya
13. Credit Bank
14. Development Bank of Kenya
15. Diamond Trust Bank
16. Dubai Bank Kenya
17. Ecobank
18. Equatorial Commercial Bank
19. Equity Bank
20. Family Bank
21. Fidelity Commercial Bank Limited
22. Fina Bank
23. First Community Bank
24. Giro Commercial Bank
25. Guardian Bank
26. Gulf African Bank
27. Habib Bank
28. Habib Bank AG Zurich
29. I&M Bank

30. Imperial Bank Kenya
31. Jamii Bora Bank
32. Kenya Commercial Bank
33. K-Rep Bank
34. Middle East Bank Kenya
35. National Bank of Kenya
36. NIC Bank
37. Oriental Commercial Bank
38. Paramount Universal Bank
39. Prime Bank (Kenya)
40. Standard Chartered Kenya
41. Trans National Bank Kenya
42. United Bank for Africa
43. Victoria Commercial Bank

Source, CBK (2013)