

**INFLUENCE OF ELECTONIC BANKING SERVICES ON
CUSTOMER SERVICE DELIVERY IN BANKING INDUSTRY,
A CASE OF BUNGOMA COUNTY, KENYA**

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2013

DECLARATION

This Research Proposal is my original work, and has not been presented for a degree award of this or any other university

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

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DEDICATION

I dedicate this research to my lovely husband George Ayieko and my daughter Gracian Ayieko who stood by me to ensure that the noble idea, which was generated through a discussion come to succeed.

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ABBREVIATIONS AND ACRONYMS

E-Banking - Electronic banking

EFT- Electronic Funds Transfer

KBA- Kenya Bankers Association

ICT - Information Communication and Technology

ATM - Automated Teller Machine

CBK - Central Bank of Kenya

IBS - Internet Banking Service

ISP - Internet Service Provider

GDP–Gross Domestic Product

ABSTRACT

A global explosion in the use of electronic commerce has been witnessed in recent times with the monetary value of products and services exchanged electronically being estimated at above US\$ 7 trillion in the year 2004. Research has followed the same pattern especially in investigating factors influencing the adoption and effectiveness of e-commerce in retail businesses. However, little has been done to establish these factors in electronic banking (e-banking) in developing countries. Are customers satisfied by the services offered by the e-banking channels as compared to the traditional over-the counter service? Statistics obtained on number of over the counter transactions in these banks in the past one month indicated that indeed, over the counter transactions are still preferred by many clients. The question that is raised then is why? The purpose of this research was to establish the influence of electronic banking services on customer service delivery in banking industry in Bungoma County, Kenya. The objectives of the research were to: determine how of Information Communication and Technology influence customer service delivery; evaluate how customer service delivery is influenced by mobile devices; establish the influence of electronic banking in customer service delivery and explore the influence of bank employees in e-banking services and customer service delivery in the banking industry in Bungoma County, Kenya.

The Theory of Reasoned Action, (TRA) which was developed to better understand relationships between attitudes, intentions and behaviors (Fishbein, 1967) was used in the theoretical framework. This is one of the most important theories that are used to explain human behaviors. The study was conducted using cross-sectional design in which the researcher collected data at one point in a time and analyzed it instead of following the target population in order to analyze changes in behavior over a long period of time. The target population was 308 correspondents drawn from heads of electronic banking and their immediate reporters in ten commercial banks in Bungoma County. A sample size of 174 correspondents was used. Data was collected through questionnaires, open-ended semi-structured interviews and focused group discussions. Data analysis technique was by content analysis method. Data was analyzed in chapter four and represented in tables. Summary, conclusions and recommendations were made in chapter five. The study findings showed a great influence of e-banking services on customer service delivery. The study suggests to the banks to give high priority to customer service delivery and consider electronic banking as important key drivers towards successful implementation of customer service delivery. Recommendations include the following; Banks to continually train their staff on IT to realize benefits of e-banking both to them and their customers, which in turn improves customer service delivery. To the government, for Electronic transactions, which utilize the PIN, the PIN must be recognized by the Court as being key and crucial to such transaction and there must be a method of upholding its validity in a transaction. This assures users of security while using e-banking services. Also, banks need to regularly carry out customer surveys so as to understand their customer needs and develop e-banking services with customer driven strategies.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

In the United States, Most modern banks have deployed Internet banking capabilities in an attempt to reduce costs while improving customer service. Despite the potential benefits that online banking offers consumers, the adoption of online banking has been limited and, in many cases, has fallen short of expectations (Bielski, 2003; Wade, 2003). While all of the top 50 largest banks in the US offered Internet banking by 2002 and approximately 91% of US households had a bank account (Kolodinsky, 2004), only 17% of consumers adopted online banking. At the time, analysts estimated that this online banking penetration would not exceed 30% of all bank households by 2007 (Babej, 2003). This prediction appears to have been realized. An American Bankers Association survey in the summer of 2007 found that only 23% of U.S. consumers use online banking as their primary banking method (Fisher, 2007). Prior research on online banking adoption has principally used survey methods to attribute social and technical dimensions such as attitudes toward new technology, awareness, access and usability to the variation in Internet banking adoption and usage (Karjaluoto, et al., 2001; Gerrard and Cummingham, 2003; Lee, et al., 2004; Lee et al., 2003; Lichtenstein and Williamson, 2006; and Tan and Teo, 2000).

In Pakistan however, banking organizations have been focused on censure for not given to their customers with original and suitable banking services. Therefore, the outcome that some customers, find it suitable to keep their money or reserves at home than the banks. Manual banking system was performing below standard services to the customers and it may be affected on the customer's support. Transactions of the money from one manual bank to the other can take five to ten days. Some time, when the purpose of transferring the money

has almost dead. Sometimes businessmen have to cancel their business deals due to the unavailability of the cash transferring facility in time in traditional banking system where services are as slow as non-secure, non-satisfactory. In order to satisfy customer's needs, many banks build their set up through web sites and internet that provide the services and information to customers and the better service can help to get higher profitability (Lin, 2003). There are 3,424 online branches are facilitating with real-time e-banking services to the financial credit holders in Pakistan while 7,406 branches of 41 different banks it means that only 42.47% branches are providing online services to their customers (Shamshad, 2006).

Nowadays, Malaysia is a multi sector economy and technology development based on the presence of many technological inventions. Traditional banking act as physical bank and delivery channel which give customers to place or get their money out of the bank safety deposit boxes, managing checking or current accounts, paying cheques drawn by customers. E-banking is the automated delivery of new banking services and products directly to customers through electronic, interactive communication channels. E-banking utilizes the internet system as the delivery channel by which to accomplish banking activity, for example, paying bills, transferring funds, viewing checking and savings account balances, paying mortgages and purchasing financial instruments and certificates of deposits (Haque et al, 2009). Furthermore, e-banking in Malaysia has become increasingly popular on developments in information technology and telecommunications. In Malaysia internet banking service (IBS) was established in six years ago (The Star, 2005). IBS is a convenience and new physical banking service which is to attain more potential customers as it allows bankers to deliver banking services to a wider segment of customers through electronic and interactive communication channels (Goi, 2005), with 12 domestic banks offering IBS to 4.5million subscribers currently (Bank Negara Malaysia, 2007). So

surprisingly internet banking has become one of the popular services with 51 percent out of 8,000 of total respondents once a month.

In Turkey, there are over 18% of banking customers using e-banking actively (Jamaluddin, Osman, Sukru and Kemal, 2008). Since 1997 internet banking has been recognized as a feasible alternative distribution channel by Turkish commercial banks due to the deregulation in the financial sector, escalation of computer literacy, the rapid diffusion of electronic commerce, strong commitments to reduce operating costs, changing customer demands for innovative financial products and services and create customer convenience (Hakan, 2008). Due to the low cost of attracting customer to utilize internet banking and retaining existing innovation-demanding customers during the past two decades, most of Turkish commercial banks found it irresistible to invest large amounts in online banking although the customer take up of internet banking appeared to be very slow. In addition, the actual number of utilizing e-banking users appeared to be between 1 and 1.2 million (30%) in 2003 although 2million people (50%) were forecasted to utilize e-banking by 2003 (Akinci, 2004; Celik, 2002; Ozkan, 2003). Furthermore, in turkey the numbers of active internet banking accounts are escalating from 150,000 in 2000 to 5.5 million in 2007 and grew annually by 68 percent (Higgs, 2000). In comparison, although this illustrates that internet banking has experienced strong and sustained growth since its inception, Turkey has a lower internet banking penetration rate than that of many European countries. The research on internet banking by individual customers in the country has been required to improve customer's understanding of how their particular beliefs or motives affect their utilization of the services.

Internet banking growth continued rapidly in Australia with a 26 % increase in the internet banking customer population to 5.5 million users (approximately 34% of the adult population) going on over the 12 months to May 2005 (ACNielsen, 2005). The report stated

there are over 7.2 million consumers accessed 27 million accounts in 2003 which is an increase of 31% compared to 16.2% in 2002 (MISC, 2004). The report showed that users are more efficient in utilizing Internet banking services and transacting more amounts utilizing fewer sessions. Furthermore, internet banking services are increasingly attracted among users. There were 54% of Australian adults that were utilizing telephone banking and an estimated 25% of employed internet banking after a period of strong electronic banking market development between 1997 and 2002. Small and medium banks in USA provide more user-friendly services than larger banks and achieved well in the area of personal internet banking, and website reliability and transactional capabilities while larger banks in Australia offer more variety services than smaller banks. Nevertheless, small and medium sized banks in Australia have found to provide more user-friendly services than larger banks and are successful in offering personal banking services.

Globally, Africa and other developing countries, e-commerce adoption has been inhibited by the quality, availability and the cost of accessing telecommunication infrastructures (Humphrey et al., 2003). Other issues include lack of skilled staff; low internet penetration, low bank account, and lack of timely delivery of physical goods also hinder the growth of e-banking. Commercial banking in Ghana predates colonial times. The literature indicates that the Bank of British West Africa (BBWA) now called Standard Chartered Bank Ghana Limited was the nation's first commercial bank. It was followed by Barclays Bank Ghana Limited, then subsequently the Bank of Ghana and the Ghana Commercial Bank (Woldie *et al.*, 2008). Currently there are 28 banks operating in the Ghanaian banking industry has over 856 bank branches (Ghana Banking Survey, 2011). Most of these banks have adopted new and innovative ways to improve service delivery in a bid to combat competition. One significant means of achieving competitive advantage has been the adoption of e-banking services, (Abor, 2004). The first major cash card, called the `Sika

Card' was a product of Social Security Bank, which was introduced in May 1997 (Abor, 2004). As at today, in addition to ATMs, most of the banks have implemented internet banking, telephone banking, SMS alerts among others to deploy banking services to the customers. Anecdotal evidence however, indicates that the adoption of these electronic services is below expectation in Ghana.

Report on e-banking system in Nigeria reveals that e-payment machinery, especially the card technology is presently enjoying the highest popularity in Nigeria banking market. According to interswitch statistics, Nigeria has 30million ATM card holders who conduct over 100 million transactions on the machines every month. Nigeria's 24 banks operate over 9,000 ATM machines across the country's 36 states and Federal Capital Territory. Also to enhance effective security measure, banks have since early this year been upgrading their ATM cards from the magnetic stripe to the Euro-Visa-Master card standard, popularly known as Verve Card (www.businessdayonline.com). This latter technological device is more fraud resistant because all the data of the customer are recorded on the chip. The union of technology and finance has recorded huge success and has impacted on financial transactions. E-banking system has become the main technology-driven revolution in conducting financial transactions. However, banks have made huge investments in telecommunication and electronic systems, users have also been validated to accept e-banking system as useful and easy to use (Adesina and Ayo, 2010).

The Information and Communication Technologies (ICT) sector holds high promises for small island economies, like Mauritius. From a monocrop economy, based on sugar production, Mauritius has over the years, diversified its economy to manufacturing and services. To date, the services sector contributes to around 68 percent of GDP. The ICT Sector has been contributing a 6 percent of GDP in 2009 and it had been projected that the sector will contribute up to 8 percent of GDP by 2011. The Information Development Index

for Mauritius has improved from 3.30 in 2008 to 3.44 in 2009. This was a direct effect as a result of improvements of ICT infrastructure and access. In 2008, there were nine internet service providers and 67.5 percent of households with computer had access to Internet. The tariff for internet connection per minute using dial up access (off peak time) was Rs 0.27 in 2009. In 2009, the number of internet subscribers attained 286,000, which is an increase of 43.4% relative to 199,500 in 2008. The number of Mauritians using internet banking was 131,628 in June 2010, representing a 21 percent rise relative to December 2009.\

A number of studies have been carried out relating to issues in the wider context of e-banking (Balachandher et al., 2000; Suganthi et al., 2001; Padachi et al., 2008), particularly in relation to the rationales and benefits of internet banking, customer loyalty and service quality.

Kenyan banks have exponentially embraced the use of information and communication technologies in their service provision. They have invested huge amounts of money in implementing the self and virtual banking services with the objective of improving the quality of customer service. By definition, e-banking varies amongst researchers partially because electronic banking refers to several types of services through which a bank customer can request information and carry out most retail banking services via computer, television or mobile phone (Daniel 1999; Sathye, 1999). Burr (1996) describes e-banking as an electronic connection between the bank and customer in order to prepare, manage and control financial transactions. On the other hand, Leow, Hock Bee (1999) state that the terms PC banking, online banking, internet banking, telephone banking or mobile banking refer to a number of ways in which customer can access their banks without having to be physically present at the bank branch. Some of the ICT-based products and services include the introduction of SMS banking, ATMs, Anywhere banking software's, Core banking solution, Electronic clearing systems and direct debit among others. In mid 2005, Kenya's banking

Industry moved a milestone by introducing Real Time Gross and Settlement system (RTGS) which was renamed Kenya Electronic Payment and Settlement system (KEPSS). This has facilitated the inter-bank financial data transfer. The development of e-banking services is expected to decongest banking halls and reduce the incidences of long queues in banking halls. Digital- based financial services have made a significant contribution in covering the cost of offering financial services

1.2 Statement of the problem

In Kenya banking sector has witnessed many changes since the beginning e-banking. In line with rendering qualities and acceptable services, most banks in Kenya are investing large sum of money in information and communication. A number of studies have concluded that IT has positive effects on bank services delivery to customers, bank productivity, and cashier's work, banking transaction and banking investment, (Balachandher, 2001).

In Bungoma County in Kenya, there are 10 commercial banks with majority of population as farmers. Since all these banks offer e-banking products, it is expected that their customers are satisfied with service delivery of e-banking as a channel as this provides a better avenue of accessing banking services without necessarily visiting the banks. Statistics obtained on number of over the counter transactions in these banks in the past one month indicated that indeed, over the counter transactions are still preferred by many clients. The question that is raised then is why? One problem associated with this financial innovation is card fraud, particularly on counterfeit cards. Fraudulently authorized EFTs and RTGSs are the other avenues through which financial losses occur as customers utilize these avenues of service delivery. Frequent system failure especially on ATM machines has also been of concern and affects quality customer service delivery especially during end month and during festive seasons when the service is most needed by customers. In addition, complaints have

also been raised on failures at Point of Sale terminals in stores whenever access to the host bank fails, thus causing inconveniences to customers, sometimes leading to litigations. This gap was being addressed in this study to find out the influence of e-banking services on customer service delivery in this County, and also add to the literature on electronic banking which will pave way for more studies to improve on this study.

1.3 Purpose of the study

The purpose of this study was to establish the influence of electronic banking services to customer service delivery in the banking industry, in Bungoma County, Kenya.

1.4 Objectives of the study

The study will be guided by the following objectives:

1. To determine how Information Communication and Technology influence customer service delivery in banking industry in Bungoma County, Kenya.
2. To evaluate how electronic mobile devices influence customer service delivery in the banking industry in Bungoma County, Kenya.
3. To establish how electronic transactions influence customer service delivery in banking industry in Bungoma County, Kenya.
4. To explore how services offered by bank employees in electronic banking influence customer service delivery banking industry in Bungoma County, Kenya.

1.5 Research questions

1. How does Information Communications and Technology influence customer service delivery in banking industry in Bungoma County, Kenya?
2. How do electronic mobile devices influence customer service delivery in the banking industry in Bungoma County?
3. What is the influence of electronic transactions on customer service delivery in banking industry in Bungoma County, Kenya?
4. How do services offered by bank employees in electronic banking influence customer service delivery banking industry in Bungoma County?

1.6 Significance of the Study

The study attempted to highlight the influence of electronic banking services to banks and other financial institutions in Bungoma County, Kenya. The study would enable the banks executives and indeed the policy makers of the banks and financial institutions to be aware of electronic banking as a product of electronic commerce with a view to making strategic decisions. Good bank policies will help to improve customer confidence to facilitate more transactions that will stir up economic growth in Bungoma County. It's also hoped that gathered information in regards to influence of electronic banking to customer service delivery in the finance industry will be shared in the relevant financial institutions. This will go a long way, if shared by the relevant teams in the departments dealing with electronic banking, in sensitization and strengthening their product packages. Also, it's hoped that the

information will be of great value to the marketing teams of electronic banking services as through the information, they will be able to identify customer needs and desires thus capitalise on them in service delivery.

1.7 Limitations of the Study

Time constraints of the semester required less time than may be ideal for an ethnographic study. By being in an organization for only four hours a week, there were bound to be aspects of leadership practice, organisational culture and team communication that were not revealed during my observations. Being an outsider may have also limited what was revealed to me. The team members might have been guarded in their conversations around me, especially in my initial observations. The researcher encountered difficulties in finding sufficient literature from background information on this topic that is hoped to shade more light on the research problem.

1.8 Delimitations of the Study

The study chose not to observe multiple teams, even though such comparisons would be valuable, in order to allow more depth of understanding regarding the group on which I focused. Additionally, I did not use structured interviews in order to minimise my obtrusiveness and my influence on the team members. This is because I limited my study to the chosen financial institutions in Bungoma County as these institutions wholesomely represent their individual organizations on issues of electronic banking. The location of the study area, Bungoma County was chosen because of its proximity to the researcher. This assisted the researcher to save on costs and make it possible to carry out the research within an appropriate time designed of three months. When carrying out the research, efforts were

made to compare the findings with research carried out in other parts of the country and other parts of the world.

1.9 Basic Assumptions of the Study

The following key assumptions were established in order to create a baseline for the study:

- 1) That the respondents were open up to share their experiences hence giving sincere responses.
- 2) The sampled population selected from the given commercial bank operated in the same environment hence giving related responses that were reliable.
- 3) Other factors not included in this study such as individual's financial status remained constant.
- 4) The sample chosen was a representative of the total population.
- 5) That the outcome of this study was valid if application of government policies, economic condition and security of the country did not change drastically.

1.10 Definition of significant terms as used in the study

Electronic banking: Refers to any transfer of funds initiated or processed using electronic techniques. EFT uses computers, smart phones and electronic technology in place of cheques and other paper transactions. EFTs is initiated through devices like card or codes thus you and those you authorise, access your bank account. Many financial institutions use ATM or credit cards and Personal Identification Numbers (PINs) for this purpose.

Commercial bank: Refers to any organization which provides services such as accepting

deposits, giving business loans and basic investment products and other financial services to their customers.

Customer Service: Any type of activity offered to a customer before, during and after purchase, designed to enhance customer satisfaction thus meeting the customer needs.

Electronic mobile devices: This refers to potable electronic gadgets that are used in e-banking to carry out transactions. Such include point of sale terminals, mobile phones, laptops and others.

1.11 Organization of the study

The study is organised in five chapters. In chapter one, the main title is introduction which is a beginning section that states the internet banking among difference countries. Background of study explaining what about of a particular topic is placed. Problem statement is focus on the attention of the problem solving team. Research objective is writing about the purpose of this research. In significance of study, I shifted from the particular to the general, and presented the importance of the study from target beneficiaries to the people in the community, to the people in the region and nation. Scope of study is focus on the coverage of areas in this research such as commercial banks and their customer. The chapter also included delimitations, the limitation of study is about the restriction that I faced while doing this research, assumptions, definition of significant terms and organization of the study.

Chapter two is literature review, which reviews and introduces the previous journals related age, income, education, gender, convenience, perceived ease of use, reliability, saving time and cost, service or service quality and trust. I focused on how these independent

variables influenced consumers' service delivery in banking industry. There was be an overview of some journals about consumers' adoption toward e-banking that were presented and used to examine the relationship between independent and dependent variables, the conceptual framework, knowledge gaps and summary of the literature review.

Chapter three is about research methodology used in the study, research design, target population, sampling procedure, sample size, research tools, data collection procedure, data analysis technique and operational definition of variables. It is hoped that the findings allow bank managers and policy makers to direct efforts and resources in the most effective and efficient way to increase bank business in the long run and encourage customers to adopt electronic banking channels that will also offer greatest customer service delivery.

In chapter four, data was analyzed, presented, interpreted and discussed. This was in line with the objectives of the study. Demographic characteristics of the correspondents were also looked into in this chapter.

Chapter five included the summary of findings, conclusions and recommendations. This chapter also discussed the contribution of research to the body of knowledge in electronic banking services and customer service delivery.

CHAPTER TWO LITERATURE REVIEW

2.1 Introduction

This chapter considered the review of related literature on influence of electronic banking services on customer service delivery in both international and national arena. More so, it reviewed: the theoretical framework, role of internet, role of people resources (bank employees) as well as the conceptual framework. It relied on literature gathered from various authors of text books, referred journals, magazines and internet. It will also provide a critical review and missing knowledge gap upon which the research sought to add value.

2.2 Electronic banking services offered in the banking industry

An American Bankers Association survey in the summer of 2007 found that only 23% of U.S. consumers use online banking as their primary banking method (Fisher, 2007). Prior research on online banking adoption has principally used survey methods to attribute social and technical dimensions such as attitudes toward new technology, awareness, access and usability to the variation in Internet banking adoption and usage (Karjaluoto, et al., 2001; Gerrard and Cummingham, 2003; Lee, et al., 2004; Lee et al., 2003; Lichtenstein and Williamson, 2006; and Tan and Teo, 2000).

Electronic banking in Malaysia has become increasingly popular on developments in information technology and telecommunications. In Malaysia internet banking service (IBS) was established in six years ago (The Star, 2005). IBS is a convenience and new physical banking service which is to attain more potential customers as it allows bankers to deliver banking services to a wider segment of customers through electronic and interactive communication channels (Goi, 2005),

Globally, Africa and other developing countries, e-commerce adoption has been inhibited by the quality, availability and the cost of accessing telecommunication infrastructures (Humphrey et al., 2003). Other issues include lack of skilled staff; low internet penetration, low bank account, and lack of timely delivery of physical goods also hinder the growth of e-banking. Commercial banking in Ghana predates colonial times. The literature indicates that the Bank of British West Africa (BBWA) now called Standard Chartered Bank Ghana Limited was the nation's first commercial bank. It was followed by Barclays Bank Ghana Limited, then subsequently the Bank of Ghana and the Ghana Commercial Bank (Woldieet al., 2008). Currently there are 28 banks operating in the Ghanaian banking industry has over 856 bank branches (Ghana Banking Survey, 2011). Most of these banks have adopted new and innovative ways to improve service delivery in a bid to combat competition. One significant means of achieving competitive advantage has been the adoption of e-banking services, (Abor, 2004).

The Information and Communication Technologies (ICT) sector holds high promises for small island economies, like Mauritius. From a monocrop economy, based on sugar production, Mauritius has over the years, diversified its economy to manufacturing and services. To date, the services sector contributes to around 68 percent of GDP. The ICT Sector has been contributing a 6 percent of GDP in 2009 and it had been projected that the sector will contribute up to 8 percent of GDP by 2011. The Information Development Index for Mauritius has improved from 3.30 in 2008 to 3.44 in 2009. This was a direct effect as a result of improvements of ICT infrastructure and access. In 2008, there were nine internet service providers and 67.5 percent of households with computer had access to Internet. The tariff for internet connection per minute using dial up access (off peak time) was Rs 0.27 in 2009. In 2009, the number of internet subscribers attained 286,000, which is an increase of

43.4% relative to 199,500 in 2008. The number of Mauritians using internet banking was 131,628 in June 2010, representing a 21 percent rise relative to December 2009.\

A number of studies have been carried out relating to issues in the wider context of e-banking (Balachandher et al., 2000; Suganthi et al., 2001; Padachi et al., 2008), particularly in relation to the rationales and benefits of internet banking, customer loyalty and service quality.

Continuous technology development, particularly information technology revolution of the last two decades of the 20th century has forced the banks to embrace e-banking as a strategy for their sustainable growth in an expanded competitive environment. The internet has changed the operations of many businesses, and has been becoming a powerful channel for business marketing and communication (American Banker, 2000). The banking has followed this trend in recent years, and sometimes called E-Banking referring to all banking transactions now completing through Internet applications (Fugazy 2000). Electronic banking is defined by Barron's Dictionary (2006) as a form of banking where funds are transferred through an exchange of electronic signals between financial institutions, rather than an exchange of cash, checks, or other negotiable instruments. No doubt in the future, the banking environment will be more paperless and will overcome traditional barriers of distance and geographic boundaries. While e-banking has grown rapidly, there is not enough evidence of its acceptance amongst customers. Robinson (2000) reported that half of the people that have tried online banking services will not become active users.

Kenyan banks have exponentially embraced the use of information and communication technologies in their service provision. They have invested huge amounts of money in implementing the self and virtual banking services with the objective of improving the quality of customer service. By definition, e-banking varies amongst researchers partially because electronic banking refers to several types of services through which a bank customer can request information and carry out most retail banking services via computer, television

or mobile phone (Daniel 1999; Sathye, 1999). Burr (1996) describes e-banking as an electronic connection between the bank and customer in order to prepare, manage and control financial transactions. On the other hand, Leow, Hock Bee (1999) state that the terms PC banking, online banking, internet banking, telephone banking or mobile banking refer to a number of ways in which customer can access their banks without having to be physically present at the bank branch.

The Kenyan banking industry has been expanding branch networking amid the introduction of branchless banking system, which include the use of EFTs, ATM cards, Computer banking etc. The annual reports of CBK clearly indicate that, branch network has been slowly expanding since 2002. By the end of December 2006, Kenya had a total branch network of 575, as compared to 486 branches in the period ended December 2002. Banks in Kenya have exponentially embraced the use of information and communication technology both in their service provision and as a strategy to ensure their survival. They have invested huge amounts of money in implementing the self and virtual banking services with the objective of improving the quality of customer service. Some of the ICT based products and services include the introduction of computer banking, ATMs, Anywhere banking software's, Core banking solution, Electronic clearing systems and direct debit among others. The introduction of electronic banking has improved banking efficiency in rendering services to customer. Information and Communication Technology (ICT) is at the centre of electronic banking system in Kenya today (Steven, 2002). Banking industry in Kenya cannot ignore information systems because they play a critical impact in current banking system, they point out that the entire cash flow of most banks are linked to information system. The application of information and communication technology concepts, techniques, policies and implementation strategies to banking services has become a subject of fundamental importance and concerns to all banks and indeed a prerequisite for local and global

competitiveness banking (Connel and Saleh,2004). The advancement in Technology has played an important role in improving service delivery standards in the Banking industry. In its simplest form, Automated Teller Machines (ATMs) and deposit machines now allow consumers carry out banking transactions beyond banking hours.

Kenya's banking Industry moved a milestone by introducing Real Time Gross and Settlement system (RTGS) which was renamed Kenya Electronic Payment and Settlement system (KEPSS). This has facilitated the inter-bank financial data transfer. The development of e-banking services is expected to decongest banking halls and reduce the incidences of long queues in banking halls. Digital- based financial services have made a significant contribution in covering the cost of offering financial services.

Disintegration of internet banking service quality into attributes assists a better understand of the impact of each component of service quality on customer's commitment to internet banking. It also offers bank managers and developers of online systems on how to distribute resources in a way that improves internet banking service quality with useful actionable strategic guidance. The more satisfied customers with IT-based services, the greater they would rate this combined service dimension which had a direct positive effect on perceived service quality and customer satisfaction (Faye, walter and Injazz, 2002).

2.3 Electronic mobile devices and customer service delivery

In Kenya, majority of banks have introduced internet banking, mobile banking and other e-banking facilities, to enhance delivery channels to their customers. It is however, important that the introduction of these products be accompanied with programs to broaden consumer horizon by enhancing their knowledge in the new and more innovative way of conducting banking business. For example, while Internet banking is fast and convenient mode of conducting banking transactions, this is yet to gain acceptance among banking

consumers, due to fears of apprehension in this mode of banking. Electronic banking depends on providing customers, partners, and employees with access to information, in a way that is controlled and secure (Soludo, 2005). Technology must provide security to meet the challenges encountered by E-Banking.

In recent years, and taking advantage of new information technologies, two groups of new payment methods, referred to generically as electronic money (e-money), have been developed and introduced: smart cards and software-based products to make payments over the Internet. Until now, the most revolutionary systems of e-money are still at their infancy, and there is debate concerning the degree of adoption that could take place in the coming years (Soludo, 2005). In the meantime, we are witnessing the introduction of mixed products that coexist with some incipient experiences of pure digital cash. Pre-paid cards can serve as a payment mechanism by loading and storing monetary value in the chip embedded in the card. The value loaded in the card can later be used to pay for goods and services. The introduction of smart cards seeks to replace cash in most of the small transactions for which hard cash is currently used. The introduction of this new payment mechanism will go through different stages. Initially, consumer habits must change. Once reasonable acceptance is attained, point-of-sale terminals would spread rapidly.

According to Connel and Saleh (2004) three different parties are involved in smart card schemes: consumers, businesses and issuers. Consumers: They may adopt this new payment instrument because of its greater convenience. For the instrument to gain acceptance, it should have some of the following characteristics: anonymity, security (reliable authentication procedures, or solutions to compensate users in case of loss, theft or malfunction), liquidity (subject to wide acceptability), low transaction costs (from paper handling and clearing), speed (time saving in transactions, faster balance updating). Businesses: Suppliers of goods and services could benefit from the use of pre-paid cards

because of lower costs of handling cash and no interest lost on cash holdings. Also, substantial savings result from the transition of credit card to smart card payments: while credit cards require connection to a remote machine each time a payment is made, with smart cards all payments are processed jointly at the end of the business day. Card issuers: Both consumers and merchants will be willing to pay for smart cards because of its many conveniences. Until the competitive pressure reduces the extra profits, smart cards can be a good business to entrepreneurs introducing new schemes.

Like many other developing countries, e-banking in Kenya is at its nascent stages. Not many banks have embraced e-banking but majority have at least one or two technology based delivery channels.

2.4 Electronic transactions and customer service delivery

An electronic fund transfer, EFT for short, is basically any sale, withdrawal, transfer of moneys between accounts, and payment initiatives performed electronically. A banking customer, for instance, can make an electronic fund transfer when she deposits a pay cheque. Similarly, a business owner can make an EFT when she withdraws a cash advance from an automatic teller machine to fund discretionary business expenses.

In order for an EFT be completed, a complex suite of communications must take place between the merchant or business and the issuer's account. If a credit card machine is offline, for instance, a customer may still make a delayed electronic fund transfer via a process known as the preauthorization. In this situation, a merchant first vets the banking card via fraud lists and other methods and then debits the account. Later, when the merchant hooks up to an online system, he can finish the transaction via a process known as settlement. Some banking watchdogs have raised concerns over the security of electronic fund transfer mechanisms. Making an EFT banking transfer on an unsecured line, for instance, can lead to

the dispensation of critical personal information or banking account data to unrecognized or inappropriate third parties. Fraud and unethical conduct seems to be running rampant throughout the corporate world. A recent survey in South Africa estimated that white collar crime is costing the country R80 billion a year

The use of computer technology is a significant factor in the commission of fraud and one of the common electronic frauds is the misuse of electronic funds transfer (EFT). Globally, transactions on EFT systems are subject to high risk and exposure to fraudulent activities. Financial gain is one of the key motivations behind frauds, other than the desire to master the EFT process, the thrill of the deed, intellectual challenge and employee revenge. The simplicity of modifying a basic text file to obtain large payments is an inducement to commit fraud. By fraudulent alteration of EFT, an individual could steal large sums of money

Indeed, the computerized nature of modern EFT banking has made it difficult for even veteran banking account patrols to identify and stop certain types of fraud. This isn't to say that using EFT banking initiatives isn't safe; however, the smart banking customer examines her reports regularly to look for inaccuracies. EFTs are a more secure and efficient means of transferring money than, for example, cheques, which are easily lost, stolen and/or altered. However, for EFTs to be effective, the proper controls need to be in place. Many users of EFT systems simply do not understand how such systems operate or the risks to which they are exposed. They will simply assume that the system they have been given by a bank is a good one without appreciating that the system may have weaknesses or that it is only as secure as the people who operate it are trustworthy.

EFT requires highly efficient controls built into the systems, and the process must be controlled both at the sender and recipient sides. Controls need to exist at the intermediary

stages wherever information is passed, stored or processed. Any unauthorised alteration of data (fraud) or even a data input error produces (if not immediately detected or corrected) an alteration of a customer's account balances; hence, preventing unauthorised alteration is vital for these systems. By simply altering payment instructions such as bank account details or payment amounts, employees with access to EFT systems can and do steal very large sums of money

According to Katariina (2006), the rising character of the internet as a service channel has eliminated the locus of power from service providers to consumers, and therefore, cooperation with and learning from consumers as well as adaptation to their individual and dynamic necessitates have become crucial. This paper also investigates the seven dimensions of internet banking service (IBS), such as convenience, security, status, auxiliary features, personal finances, investment, and exploration. These dimensions of IBS have been investigated to enhance our knowledge of consumers' perceptions and opinions about IBS. IBS can provide the result of cluster analysis more clarify and refine the picture of consumers. Meadows and Dibb (1998) stated that a well-planned segmentation permits banks to better understand and serve their customers in the expandable competitive environment. A cluster is which security issues of banking in general were determinant (Alfansi and Sargeant, 2000). Due to the ease of use of the required information that available on the internet, customer will more prefer e-services to office services because, the services quality is better and as a consequence of using IBS, they have additional time to spend with their families, friends and hobbies. Adoption on more future-oriented approach and investment in developing IBS that satisfy the needs of growing consumer cluster of youngsters will be the second possibility.

Brandon and Randall (2006) journal examined that personal aspects of service may be of critical significance in cultivating new customer relationships. Operational service issues is the first dimensions that easily supervised and any problems can be fixed easily and quickly which distinguished through customer complaints and comments. The significant issues were giving full attention to the customer, being respectful, making eye contact and smiling and conveying a measure of importance. Being attentive and illustrating interest in the customer is a key to manufacturing a relationship and verifying whether the customer eventually buys the product (Barnes, 2004). In this research found that employees should be educated to focus more on the interpersonal aspects rather than the service aspects. This may be difficult to do with new customers while employees should observably struggle to be responsive to all customers.

2.5 Services offered by bank employees on e-banking and customer service delivery

In today's global market, the competitive advantage lies in delivering high quality service to the customers. The need to achieve customer satisfaction lies in its ability to deliver better quality products to the customers, (Bateson, 1977). Therefore, customer satisfaction is considered as a pre-requisite for customer retention, loyalty and convenience which ultimately helps in realizing the goals of profitability, market share, growth, return on investment, productivity etc, (Booms and Bitner, 1990). Service quality is one of the highly debatable topics in marketing theory, (Carman & Langend, 1980). In order to judge the link between two, a deep study of both concepts is required.

Nekhmi and Curtin (2005), state that main factors of customers perceive quality of e banking are help-line support, convenience, security, efficiency, low cost and customization through testing and measurement. The factor that drives business satisfaction or dissatisfaction with technology-driven services is suggested by Meuter and his colleagues (2000). Zeithaml & Parasuram (200, 486) defines the gap called as provider gap i.e (Not

Delivering to Service Standards) as a discrepancy between development of customer-driven service standards and actual service performance by company employees. High-quality service is not a certainty, not even when the guidelines and quality standards exist within the company. Standards and guidelines need still appropriate recourses, i.e. people, system and technology. The employees must be measured and compensated based on the performance against the set standards. Even the most accurate standards on customer reflections are useless, if the company do not encourage and require their personnel to follow the standards. The provider gap can be narrowed only by ensuring that all the resources in the company can achieve the standards. (Zeithaml&Parasuranam, 2000, 486.)

Zeithaml and Parasuranam (2000, 486 - 487) have identified many reasons that cause the gap. The employees might not be aware of the role and responsibilities they are to have and perform in the company. Additionally, the employees might also experience a conflict between customer and company management. Also having the wrong employees hired to customer service, inadequate technology in use, inappropriate compensation and recognition, and lack of empowerment and teamwork are some of the reasons leading to provider gap. Avoiding this gap requires expertise from the company's human resource practices. Correct people must be hired to the customer service and employees must get enough and correct training in order to be able to serve customers professionally. Employees should get constructive feedback on their work performance and their working motivation must be looked after by the company.

2.6 Theoretical Framework

Daniel (1999) in his study on provision of electronic banking in UK described electronic banking as the provision of banking services to customers through Internet technology. Other authors (Daniel, 1999; Karjaluoto, 2002a) found out that banks have the choice to offer their banking services through various electronic distribution channels

technologies such as Internet technology, video banking technology, telephone banking technology, personal computer technology. The study of Karjaluoto (2002a) further found that Internet technology is the main electronic distribution channel in the banking industry. A combination of conceptual tools from the economic, service and technology field has resulted into the Theory of Reasoned Action, (TRA) which was developed to better understand relationships between attitudes, intentions and behaviors (Fishbein, 1967). This is one of the most important theories that are used to explain human behaviors (Pedersen, 2005). Behavioral intention to use technology is explained by people's attitudes toward that behavior and subjective norms.

Intensified competition and deregulation has led many services and retail businesses to seek profitable ways to differentiate them; one strategy that has been related to success in these businesses is the delivery of high service quality (Rudie and Wansley 1985). So service quality has become a significant research topic in past decade due to high revenues, increased cross sell ratios, higher customer retention, purchasing behaviors (Cronin and Taylor 1994) and expanded market share. The significance of customer service in the banking sector came to force to compete in a market driven environment. The service sector as a whole is very heterogeneous and what is heterogeneous may hold true for one service and may not hold for another service sector. Due to this differentiation, services in this industry could not be standardized, moreover these services are intangible in nature which could not be compared or seen. The concept of customer satisfaction and service quality is interrelated with each other.

As customers become more sophisticated, therefore, it becomes essential to consider the use of technology to respond to their continuously change. Banking is an industry highly which is highly involved with the customers. Customers in developing economies seem to keep the “technological factors” of services as the yardstick in

differentiating good & bad services and the human factor – the employees seem to play lesser role in discriminating the quality of service for banks. The variation in services offered by the banks develops the excellence for service quality. Banking is no longer regarded as a business dealing with money transaction alone, but it also seem as business related to information on financial transaction (Padwal 1995).

As electronic banking is becoming more prevalent, so is the level of customer service delivery thus the level of customer satisfaction is also changing the scenario of technological environment. Informational technology in form of e-banking plays a significant role in providing better services at lower cost. Increase satisfaction in turn increases the mutual understanding, customer retention and a bond of trust between customer and bank. The banks which are providing these services at large extent to customers are more reputed in the eyes of customers. As the customer satisfaction is the function of customer expectation level and service quality level provided by the organization, e-banking plays a pivotal role in giving satisfaction to the customers because e-banking fills the gap between the expected and perceived service quality. So in order to fill this gap, banks should find ways of making electronic services more accessible and by allowing the customer to verify the accuracy of the e-banking transactions.

2.7 Conceptual Framework

The conceptual framework for this study is provided in figure 1 below. Relationship between dependent and independent variables was depicted as the framework provided e-banking factors that were capable of influencing customer service delivery in the banking industry. Independent variables include: influence of information communication and technology, influence of mobile devices, influence of electronic banking services and influence of bank employees is shown. A government policy is the moderating variable while

cost & fees, convenience, privacy, trust, simplicity and reliability include the intervening variables. The dependent variable was customer service delivery, which was influenced by the independent variables.

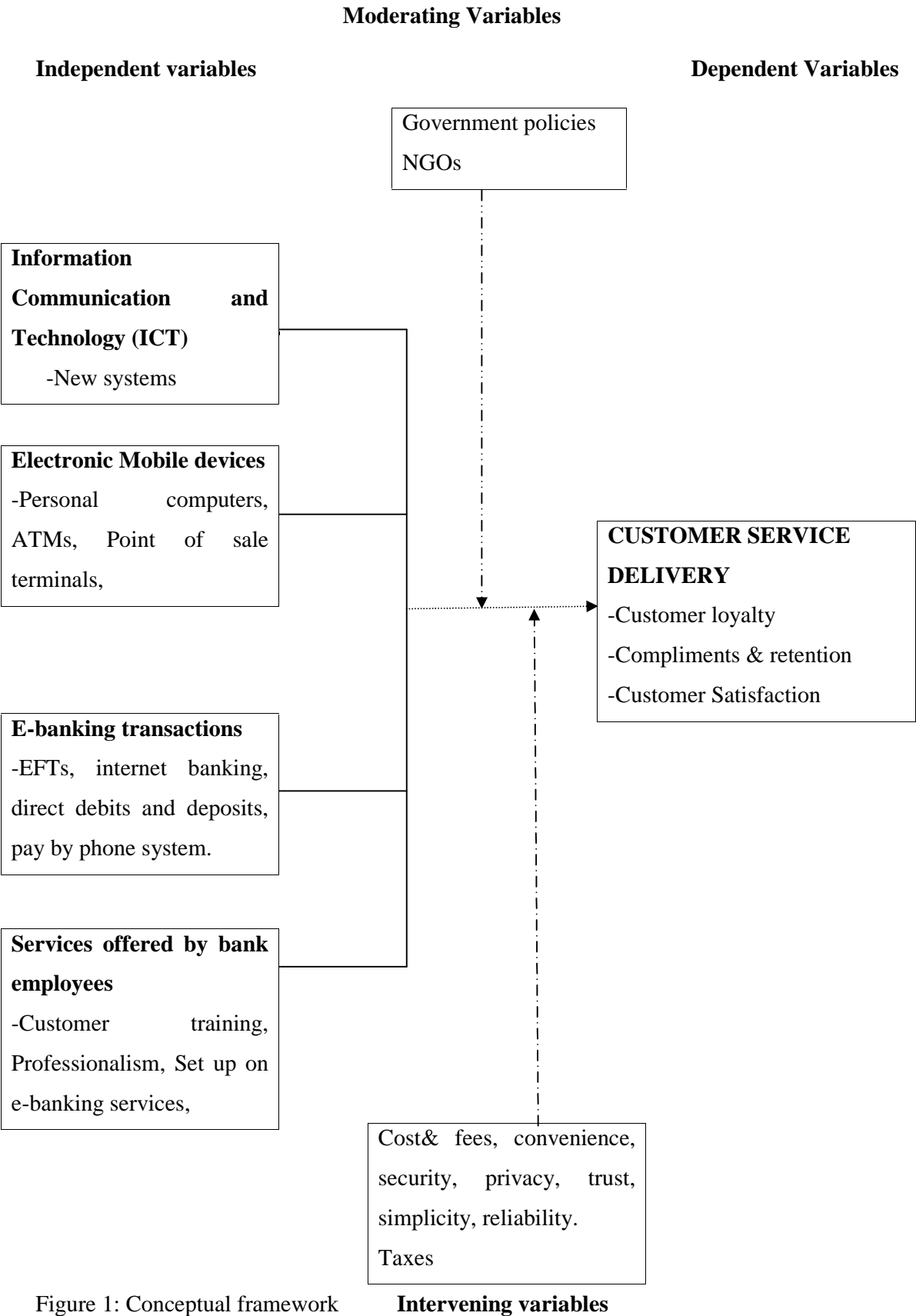


Figure 1: Conceptual framework

2.8 Knowledge gap

Continuous technology development, particularly information technology revolution of the last two decades of the 20th century has forced the banks to embrace e-banking as a strategy for their sustainable growth in an expanded competitive environment. The internet has changed the operations of many businesses, and has been becoming a powerful channel for business marketing and communication (American Banker, 2000). The banking has followed this trend in recent years, and sometimes called E-Banking referring to all banking transactions now completing through Internet applications (Fugazy 2000). Electronic banking is defined by Barron's Dictionary (2006) as a form of banking where funds are transferred through an exchange of electronic signals between financial institutions, rather than an exchange of cash, checks, or other negotiable instruments. No doubt in the future, the banking environment will be more paperless and will overcome traditional barriers of distance and geographic boundaries. While e-banking has grown rapidly, there is not enough evidence of its acceptance amongst customers. Robinson (2000) reported that half of the people that have tried online banking services will not become active users. From literature review, it's not evidenced what research has been done to establish the findings of Robinson (2000). This was the gap identified by the researcher to try and establish influence of e-banking services on customer service delivery.

2.9 Summary

As the customer's demands gradually becoming uncertain, diversified and sophisticated, Electronic Banking services tend to become more complex. This means that, for Banks to remains relevant in the near future, they have to consistently innovate and keep on track with the most recent technology that will put them at bay with other competitors. Cost was once considered as the major competitive priority and a key aspect for the future development in

every organization (Burgess, 1998). Conversely, fierce competition has obliged banks to look for an effective way to differentiate in the market and augment the likelihood of customer satisfaction. Previous studies show that service delivery, such as security, convenience and cost/fees are the major integral determinants of electronic banking services and this reaffirm the study of (Aliyu and Tasmin, 2012).

Empirical evidence suggests that, delivering customer services is indeed an important marketing strategy (Berry and Parasuraman, 1995), because a firm's excellent reputation in terms of customer service delivery surfaces in the repeated and longitudinal comparison against its competitors; and this competitive nature makes it common for banks to earn a distinguished reputation and a high base of loyal customers in the long run. Service delivery is hard to copy because of contingent, tactic and organization-specific know how and practices in customer service delivery; it is a wholesome and yet sophisticated reflection of a Bank's activities (Lee,2012) but the difficulty in defining customer service delivery, as well as problems in deploying to specific contexts current instruments for measuring such constructs, represents important constraints for the banking industry to approach their markets. Today, in the banking industry most models of customer services delivery focus on the comparative judgment of expectations versus perceived performance resulting in the two major evaluative judgments of perceived service quality and customer satisfaction (Bloemeret *al.*, 1998; Murphy, 1996 and Smith, 1992). For example:

- a) Customer's access service delivery by comparing their expectations prior to their service encounters with electronic banking.
- b) Customers also, develop perceptions during the service delivery process and then compare their perceptions with the actual service received from the electronic banking.

Thus, customer expectations are unique because individual constructs, prior to a service, are influenced by customer's evaluation of service performance and customer satisfaction. According to Peter Drucker (1985), electronic banking is the answer to reduce cost/fees, and to solve the tension between sustainability and reaching the very poor. This means that, by creating new channels of delivering financial services at low cost, banks may find that these customers, who once seemed beyond the frontier of formal financial services, are in fact profitable and attractive market. To this extent Mazursky *et al.*, (1987) identified cost/fees as the major factor in brand switching of customer over a giving period of time.

CHAPTER THREE RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research design and the methodology of the study, that is: research design, target population, sampling design and sample size, research instruments, data collection procedures, validity and reliability of the research instruments and data analysis techniques.

3.2 Research Design

A research design refers to the overall conception of the study including description of all concepts, variables and categories, the relational propositions and the methods of data collection and analyses (Mugenda, 2008). A research design will thus work as a systematic plan, where on the outline of the study, the researcher's methods of compilation details on how the study will arrive at its conclusion and limitation of the research (Trochim, 2006).

In this study, a cross-sectional design was used. According to Basha and Hater (1980), "a population is any set of persons or objects that possesses at least one common characteristic". This means that such a design is an efficient method of collecting descriptive data regarding the characteristics of population, current practices and conditions of needs. The cross sectional survey design was used to gather information at in a population at one point at a time (Babble, 1973). The design is mostly suited for this study as it assisted the researcher to collect data on phenomena that cannot be observed directly. Another attribute of this design is that it creates the opportunity for in-depth responses through sharing on the past, present and future possibilities that usually provide a good understanding of the phenomena under study. This design was adopted in this study in order to capture collection of data and discussion of resultant issues from information communication and technology,

influence of electronic mobile devices on e-banking, role of bank employees and e-banking services, on customer service delivery in the banking industry.

3.3 Target Population

A target population refers to the entire group of individuals, objects or things that share common attributes or characteristics and may not be found within the same geographical location. According to Mugenda (2008), target population is the total population that the researcher specifies in his or her research. The target population for this study comprised 308 bank officials who included heads of electronic banking and their line staff in ten commercial banks in Bungoma County, Western region of Kenya. These numbers were obtained as per the login/ attendance registers held at the branches of these commercial banks.

3.4 Sample size and Sampling procedure

The sample size is the number of respondents the researcher selects from the target population to constitute a sample that fulfills the requirements of representativeness of the target population (Kothari, 2008).

To determine the sample size, the Yamane (1967) formula was used thus $n=N/(1+Ne^2)$

Where n = required responses

N = Sample size (responses required)

e^2 = sampling error limit

$N=308$

$e = 0.05$

1 = Designates the probability of the event occurring

Placing the formula for Bungoma County yielded a sample size of;

$$n = n = N / (1 + Ne^2)$$

$$n = 308 / (1 + 308 * 0.05^2)$$

$$n = 174.011$$

$$n = 174$$

The sample size for Bungoma County is 174 bank officials in e-banking departments.

For sampling procedure, proportional sampling was applied to calculate the independent sample size for each bank to ensure equal representation of bank officials from the ten commercial banks since each has a different number of staff involved in e-banking operations. Determination of sample size is indicated in appendix 3. This was followed by simple random sampling in selection of the required bank officials according to the sample size. In this case, names of bank officials in e-banking department were put in a container. One piece of paper was picked from the container and the process repeated for others until the required sample size was reached.

This method of simple random sampling is also called the lottery method and is convenient for the studies involving small samples as it can be tiring when large samples are involved (Mugenda, 2008). With the help of two research assistant, a list of bank officials in Bungoma county was prepared , giving rise to 174 bank officials who were issued with questionnaires for the study.

3.5 Data collection instruments

The researcher used questionnaires, interviews and focussed group discussions as the main tools of data collection. The questionnaires were used to collect more information over a short time and the interviews were for members who had more information than the

questionnaire collection. Selection of these tools was guided by the nature of the data to be collected, objectives of the study as well as time limits. The study was mainly concerned with finding out views, opinions, perceptions, feelings and attitude of respondents. Such information can be captured by use of questionnaires and interviews. These two instruments contained both open and close ended items so as to encourage responses from the respondents. Focussed group discussion enabled the researcher to obtain more comprehensive information from the respondents.

3.5.1 The questionnaire

The researcher used research administered questionnaires. These questionnaires were preferred tools of for this study since they enabled the researcher get views from a larger number of correspondents within a short time, thus making it easier to collect relevant information. The questionnaires contained both open-ended and closed-ended questions. Open-ended questions were be to get the views and opinions of respondents on how electronic funds transfers have contributed to frauds in the banks, while closed-ended questions were used to get the exact information. Matrix questions that utilize the Likert rating scale were used. The researcher administered questionnaires were distributed by the researcher personally to the respondents. This instrument was pre-tested on a small group that is similar to one under study to check its validity and reliability.

3.5.2 The interviews

To compliment questionnaires, interviews were used in getting first hand information and reduce ambiguity in responses. The researcher used both structured and semi-structured interviews. The technique of personal interviewing was undertaken in order to reach the objectives since it is the most versatile and productive method of communication, enabled

spontaneity, and also provided with: “The skill of guiding the discussion back to the topic outlined when discussions are unfruitful while it has the disadvantages of being very costly time consuming and can introduce bias through desires of the respondent to please the interviewer” (Aaker & Day, 1990: 164). For the purpose of this research, semi-structured face to face interviews were conducted involving two interest groups: senior bank officials in electronic banking departments and the junior staff who perform the transactions. The choice was based on researcher’s knowledge about different educational levels among interviewees, their different lifestyles and ages, which made imperative an adoption in questions so that they ensured the comprehension by the interviewee i.e. repeat, or rephrase the question. Interview questions were developed through reading relevant books on the topic of study. The responses were analysed descriptively. This instrument was pretested (piloted) in a smaller sample but from a location not involved in the area of research. In general, two data collection assistants were trained to help in the administration of the instrument.

3.5.3 Focus Group Discussion

This method has been widely used in generating data. Patton (1990) suggests that it is advantageous for generating data in homogeneous groups of participants. Therefore, focus group discussion was appropriate as the subjects of the study were homogeneous. Each group was guided by a structured checklist, of course allowing flexibility in raising questions. This allowed group dynamics and some quality control since they heard each other’s responses and stimulated one another.

3.6 Validity of the research Instruments

Validity is the accuracy and meaningfulness of inferences which are based on the research, results and the degree to which the results obtained from the analysis of data actually represent the phenomenon under study (Mugenda and Mugenda, 2002). Validity also refers to the extent to which an instrument asks the right questions in terms of accuracy. The researcher consulted lecturers who were specialists and experts in the Department of projects planning and management who were experts in item analysis and research methodology. They assessed the relevance of the contents in the questionnaires and gave their opinions and suggestions that were incorporated to improve the validity of the questionnaires.

3.7 Reliability of the research Instruments

Reliability refers to the consistency of the instrument. To check on the reliability of the instrument, the questionnaires were pre-tested through pilot study to ascertain their effectiveness in soliciting information intended. The researcher used test-retest method in order to test reliability of the research instruments. Research instruments were retested on a sample of ten respondents who were representatives draw from five commercial banks in the neighbouring Kakamega County, (Musula, 1990). A Pearson product moment correlation formulae was administered and a correlation coefficient calculated. A score of 0.8 was obtained, an indication of high measure of reliability. The fact that the respondents completed the instrument and expressed their take that required their suggestions proved that the instrument was reliable for the study.

3.8 Piloting of the instruments

The pilot study was conducted in five commercial banks to test the reliability of the instruments used in collecting data for the main study in Bungoma County. Ten bank officials from the five commercial banks were purposively selected from the neighbouring Kakamega County to fill in the questionnaires. Babbie (2003) says that the instruments may be pre-tested on a sample of ten respondents who do not have to be representative. The information received was used to improve the reliability of the questionnaires.

3.9 Data collection procedures

Before proceeding to conduct the study, the researcher obtained an introduction letter from University of Nairobi to enable her get permit from the district commander, Bungoma County. A notification to carry out the research was availed to the Kenya Bankers Association offices.

3.10 Operational definition of variables

In this study, two variables were considered, the independent and dependent variables. The independent variables were: political systems, IT solutions providers, mobile devices and government policies while the dependent variables were technology related frauds. The information is presented in table 3.2 below:

Table 3.2: Operationalization of the variable for the study

Objectives	Independent variable	Measuring scale	Tool of measure
To determine how Information Communication and Technology influence customer service delivery in banking industry in Bungoma County, Kenya	ICT solution	Ordinal	Questionnaires
		Nominal	Focus group discussion
To evaluate how customer service delivery is influenced by mobile devices in the banking industry in Bungoma County, Kenya.	Mobile devices	Nominal	Focus group discussion
		Ordinal	Questionnaires
To establish how electronic banking services influence customer service delivery in banking industry in Bungoma County, Kenya.	Electronic banking services	Nominal	Focus group discussion
			Questionnaires
To explore the influence of bank employees in electronic banking and customer service delivery banking industry in Bungoma County, Kenya.	Bank employees	Ordinal	Questionnaires

3.11 Data analysis techniques

Data analysis refers to examining what has been collected in the field and making deductions and inferences. It involves uncovering the underlying structures, extracting variables, detecting anomalies and testing any underlying assumptions. Responses from all questions were crosschecked to facilitate coding and processing for analysis. Quantitative research involves coding responses into categorical variables followed by application of a method of analysis (Kombo and Tromp, 2006). The questionnaires were evaluated for errors before subjecting them to analysis. They also provided comments and experiences of what will be practically happening in the field.

The findings of the study were analyzed using content analysis method (Mugenda and Mugenda, 2002) which refers to a systematic qualitative description of the objective or units of study (categorical variables) and determines the intensity with which certain themes or phrases have been used. It involved detailed description of the items that comprise the sample.

The results were interpreted using frequency with which the items appeared as a measure of importance, attention or emphasis. The specific classification system used to record the information for this research was designated into content analysis which determines the frequency and trends with which concepts of the objectives was mentioned. This was then interpreted as a measure of direction or bias regarding objectives. Tabulating data and presenting them on a table was used to give a visual display of individual units about which descriptive and explanatory statements was made from the sampled content. Groups of data helped in final compilation of results and interpretations made.

3.12 Summary of Research Methodology

Analysis of collected data was done through content analysis i.e frequencies, percentages, tabulating data and presenting them on a table. The sample size was determined by the Yamane formula (1967). The target population consisted of bank officials in the e-banking departments of commercial banks in Bungoma County

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSIONS

4.1 Introduction

In this chapter, the study discusses the methodology used for data collection, analysis, interpretation and discussion of study findings. The data collected was analysed using descriptive statistics that include the mode, mean and standard deviation. It's presented logically as per the study objectives.

4.2 Questionnaire Return Rate

A total of 174 questionnaires were administered to bank officials in the e-banking departments in the 10 commercial banks identified. Of these, 160 questionnaires were successfully completed and returned by respondents, giving a response rate of 92%. Table 4.1 shows the number of questionnaires dispatched and the number returned thus percentage response rate.

Table 4.2: Questionnaire Return Rate

Bank	Dispatched	Return Rate Received	Percentage
Equity	29	27	93.1%
Co-operative	31	30	96.7%
Kenya Commercial	44	36	81.8%
Barclays	18	16	88.8%
Standard Chartered	12	12	100.0%
National	15	13	86.6%
Bank of Africa	4	4	100.0%
Post bank	6	6	100.0%
Diamond Trust	8	7	87.5%
K-Rep bank	7	6	85.7%
TOTAL	174	160	92.0 %

Most questionnaires given out were returned with an overall return rate of 92 percent. This was a significant number that would give reliable results. Kenya commercial bank had the lowest return rate of 81.8%. This could be attributed to low return from its branch in Kimili due to the proximity to Bungoma town. Post bank, Bank of Africa and Standard chartered bank had a return of 100% and this may be due to the small number of respondents from the said banks.

4.3 Demographic characteristics of the respondents

The study sought to establish demographic characteristics of correspondents based on age and gender.

4.3.1 Distribution of correspondents by age.

Table 4.3.1 below shows the age of correspondents beginning from below 20 up to above 45 who engage themselves in provision of electronic services.

Table 4.3.1: Distribution of correspondents by age

Age (Years)	Number	Percentage (%)
Below 20	3	1.7
20-45	110	63.2
Above 45	61	35.1
Total	174	

Majority of respondents were between ages 20 to 45 which constituted 63.2 % of the most bank employees in e-banking departments in the selected banks. Those below the age of 20 were few as they were still undergoing school education; apart from the represented 1.7 % which constituted pre-university students (i.e. those waiting to join universities for further studies). Those of ages 45 and above constituted only 35.1 %, representing heads of departments and senior banking employees in charge of the e-banking and customer service delivery in the banks. This shows that younger adults are seen to be more interested in using new technologies, like the internet to conduct activities such as looking for new products and product information to compare and evaluate their options.

4.3.2 Gender of respondents.

The study sought to establish the gender of the respondents.

Table 4.3.2 Gender of the respondents

Gender	Number	Percentage (%)
Male	117	67.2
Female	57	32.8
Total	174	

Most of the respondents were males, representing 67.2%. This means that the department of e-banking is dominated by male employees as compared to their female counterparts who were at 32.8%. This may have an effect on customer service delivery. Therefore, gender an important determinant of short-term usage, and can be used to predict sustained usage behavior in individual adoption and continued usage of technology.

4.4 Discussion of the Study Objectives

4.4.1 Influence of Information Communication and Technology in customer service delivery.

Investigation to determine the role of information communication and technology in customer service delivery enlisted the following study findings:

A question was posed to the correspondents to find out if information communication and technology had an influence on customer service delivery of their customers. The study enlisted the following responses; 74.1% (129) respondents said that information communication and technology had a positive influence on customer service delivery while 25.9 % (45) respondents said it had a negative influence.

Table 4.4.1 Information communication and customer service delivery

Responses	Frequency	Percentage (%)	Inter correlation
Positive	129	74.1	0.74
Negative	45	25.9	0.26
Total	174	100.0	1.0

The study sought to establish whether there are benefits accrued by a bank through information communication and technology.

Table 4.4.2: Benefits of information communication and technology to a bank

Response	Frequency	Percentage (%)	Inter correlation
Competitive advantage	14	8.1	0.08
Process efficiency	90	51.7	0.52
Product/ service quality	4	2.3	0.02
Customer satisfaction	66	37.9	0.38
Total	174	100.0	1.0

Table 4.4.2 above try's to give the respondents views about the benefits that the banking industry can benefit from information communication and technology. 51.7 percent indicate that the bank can accrue process efficiency while 37.9 percent indicate that customer satisfaction will be accrued. This means that information communication and technology has a great influence on customer service delivery and should therefore be enhanced in the commercial banks to facilitate good customer service delivery.

4.4.2: Electronic mobile devices and customer service delivery

The respondents were asked to indicate the e-banking services that their banks offered. The available e-banking services offered by the various commercial banks are listed in table 4.4.3 below.

Table 4.4.3: E-Banking Services Offered

E-banking services offered	Frequency	Percentage (%)
Internet Banking	82	47.1
Electronic Funds Transfer	174	100.0
Mobile Banking	141	81.0

The study found that all the banks utilized EFT as one of the e-banking services to its customers. Mobile banking was being offered at 81% while internet banking was being offered by 47.1% of the banks. These findings show that each bank had adopted EFT as an e-banking service while a number had adopted additional e-banking services such as mobile banking and internet banking.

Respondents were asked to estimate, the proportion utility of e-banking services by their customers as presented in Table 4.4.4.

Table 4.4.4: Customer E-Banking Utilization

Customer Utilization	E-banking	Frequency	Percentage (%)	Inter correlation
Less than 20%		49	28.2	0.28
21% - 40%		73	41.9	0.42
41% - 60%		47	27.0	0.27
61% - 80%		5	2.9	0.03
Over 80%			-	-
Totals		174	100	1.0

As indicated in table 4.6, 28.2% of the respondents indicated an e-banking customer utilization level of below 20% while 41.3% of the respondents indicated an e-banking customer utilization level of 21% to 40%. Only 27 % of the respondents indicated an e-banking customer utilization level of between 41% to 60% and 2.9% respondents indicated an e-banking customer utilization level of between 61% to 80%. .This means that customer utilization levels of e-banking services is below moderate.

4.4.3: E-banking transactions and customer service delivery.

The respondents were asked to rate, on a five-point scale, the extent to which they confirmed with statements describing how e-banking was influencing customer service delivery to their clients. The points ranged from 1 for strongly disagree to 5 for strongly agree. The results are given in Table 4.4.5 below;

Table 4.4.5: E-banking transactions and customer service delivery

	Statement	Theme	Frequency	Percentage (%)
1	Awareness of electronic banking services and its benefits has a positive impact on customer's perceived usefulness.	Awareness programs	22	38.28
2	Customer's attitude towards using electronic banking has a significant impact on his/her intention to use it.	Customer intention drivers	2	1.15
3	Customer's perceived usefulness has a positive impact on his/her attitudes towards using electronic banking.	Customer attitude	3	1.72
4	Customer's perceived ease of use has a significant impact on his/her perceived usefulness of electronic banking.	Usefulness of e-service to customer	6	3.45
5	Customer's trust has a positive impact on his/her attitude towards using electronic banking.	Customer Trust	4	2.30
6	Quality of electronic connection and infrastructure has a positive impact on customer's perceived ease of use.	Quality of ICT	33	18.97
7	Security positively influences the perceived ease of use of electronic banking.	Security	44	25.28
8	Customer's perceived ease of use has a positive impact on his/her attitude towards using electronic banking.	Ease of use by customer	5	2.87
9	Income has a significant impact on customer's attitude towards using electronic banking.	Income levels	8	4.60
10	Education has a positive impact on customer's attitude towards using electronic banking	Level of education	7	12.18
11	Age has a significant impact on customer's attitude towards electronic banking. Young customers are more likely to adopt electronic banking.	Age of customer	3	1.72
12	Gender has a significant impact on customer's attitude towards electronic banking. Males are more likely to adopt electronic banking.	Gender of customer	1	0.57
13	Electronic banking adoption has been slow since its introduction in the bank	Customer service delivery	36	20.69
TOTAL			174	

Security was at 25.28 percent. This indicates that the ICT security is the highest factor of E-banking affecting customer service delivery by commercial banks in Kenya. Conversely,

gender is the lowest factor in consideration with 0.57 percent. Quality of ICT was at 18.97 and Awareness programs at 38.28 percent. These two have high percentages which show higher significant influence E-banking services on customer service delivery in Kenya by commercial banks. Customer driven factors such as customer intention drivers, customer attitude, ease of usage by customer, usefulness of e- service to customer and customer trust respectively in the analysis were also rated highly. Age of customer, income levels and level of education had lower percentages signifying lesser impact. Income levels, customer's perceived usefulness and age had 4.6, 3.45 and 1.72 percentage respectively indicating that the banks did not consider it as a determining factor in e-banking that seriously affect customer service delivery. The percentage for slow e-banking adoption was at 20.69 indicating that the respondents agreed that e-banking has a great influence on customer service delivery.

4.4.4: Services offered by bank employees in e-banking services and customer service delivery

Respondents were asked to highlight how bank employees influenced e-banking and customer service delivery and the following was deduced.

Table 4.4.6: Services offered by bank employees in e-banking services and customer service delivery.

Theme statement	Number	Percentage (%)
Lack of in-house IT professionals	117	67.2
ICT industry readiness	57	32.8
Total	174	

The results in table 4.4.6 indicate that lack of in-house IT professional at 67.2 percent has a great influence on customer service delivery followed by ICT industry readiness at 32.8 percent. These findings indicate that lack of in-house IT professional is a challenge that face commercial banks towards provision of e-banking services hence influence on customer service delivery.

CHAPTER FIVE

SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter, findings of the research based on four study objectives are summarized, conclusions and recommendations made for policy adoption and future research respectively.

5.2 Summary of the findings

Since e-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. This is a notable trend in many sectors where customers' needs and preference have become the major component driving product development (Al-Somali et al. 2009, Yiu et al. 2007). A company that ignores customer needs and preferences in its products development would be deemed to fail (Agarwal et al. 2009).

On the influence of ICT on customer service delivery, findings show that ICT has a great influence on customer service delivery. 74.1 % showed that ICT has a positive influence on customer service delivery, while only 25.9% of the respondents showed that ICT has a negative influence on customer service delivery. These findings indicate that banks need to invest a lot in ICT as this will ensure process efficiency, speed and reliability. As a result, customers will be serviced well as per their expectations and this will in turn lead to better customer service delivery. Better system efficiency will also lead to reduced costs on e-banking to the customer, perceived ease of use by the customer and thus better service delivery.

Findings on electronic mobile devices indicate that respondents confirmed their banks offering a number of e-banking services that employ the use of mobile devices. 100% indicated utilization of electronic funds transfers, 81% utilized mobile banking while 47.1% utilized internet banking. From this, it shows that electronic mobile devices such as mobile phones, personal computers, point of sale terminals and laptops have been adopted by many users. Since these devices are portable and can allow one to access their bank accounts at any place at their convenient time without necessarily visiting the bank, then they have a positive influence on customer service delivery. This is more so due to the fact that utilization levels of EFTs and mobile banking rate so highly from the study.

The findings on the influence of electronic transactions on customer service delivery pointed out that some few factors slow down the use of e-banking services as delivery channels. Among them, awareness programmes led with 38.28%, ICT security was ranked at 25.28% while quality of ICT stood at 18.97%. Customer driven factors such as customer intention drivers, customer attitude, ease of use by customer, usefulness of e-banking service to customer and trust were also highly rated in the analysis. These findings show that customer service delivery is greatly influenced by the above factors which are greatly used to determine which delivery channel to use especially in regards to risks associated with each. If for instance a user of e-banking service is comfortable with security of ICT offered, they will be able to adopt and enjoy the service as risks associated with financial losses due to frauds are minimized through the controlled ICT systems. This in turn enhances better customer service delivery. Age of customer and gender rated at 1.72% and 0.57% respectively signify lesser impact of e-banking on customer service delivery.

The study also indicated that services offered by bank employees on e-banking have a great influence on customer service delivery. Results shows that lack of in-house IT professional is at 67.2%. This has a great influence on customer service delivery. This means that employees must be aware of the role and responsibilities they have to perform by the services they offer in the bank to be able to deliver standard customer service. They will however be more valuable if they have the required expertise in IT to be able to train their customers on how to use e-banking services as a delivery channel.

5.3 Discussions

The study to large extent gave findings that are immediate as a result of e-banking services and customer service delivery. Customer service delivery is an immediate output used to create customer loyalty, compliments, satisfaction and retention. Concerning ICT and its influence on customer service delivery, it was observed that ICT security and quality are great determinants. This is due to the fact that bank accounts holders want to be assured of the safety of the transactions to enable them utilize the same without falling into losing their funds to fraudsters. In addition, better ICT quality positively assists in building trust among the users who will utilize the e-banking service. This is in agreement with (Soludo, 2005), who said that electronic banking depends on providing customers, partners, and employees with access to information, in a way that is controlled and secure. As a result this leads to better customer service delivery.

Concerning electronic mobile devices, it's worth noting that majority of users are able transact anywhere using the mobile devices. To customer service delivery, this is of great influence as one does not necessarily have to visit the bank to carry out a transaction on their account. Instead, they can do so anywhere, any time at their convenience with the help of the electronic mobile devises.

About electronic banking transactions, findings show that customer service delivery is greatly influenced by the factors such as ICT security, awareness programmes and quality of ICT. These in turn are used to determine which delivery channel to use especially in regards to risks associated with each. If for instance a user of e-banking service is comfortable with security of ICT offered, they will be able to adopt and enjoy the service as risks associated with financial losses due to frauds are minimized through the controlled ICT systems. This in turn enhances better customer service delivery.

On services offered by bank employees on e-banking, it can be deduced that lack of in-house IT professional has a great influence on customer service delivery. To this, it's noted that unless the bank employees are empowered with necessary skills and knowledge in IT, then they may not be able to assist the customers as deemed necessary. This in turn will affect customer service delivery in that the customers may not be well served and this may compromise the standards of service delivery.

5.4 Conclusions

In conclusion, Governments in developing countries have a big role to play in the success of e-banking in their respective countries. In Kenya, there is need for the government to constantly review and adopt clear and relevant regulations that address the dynamic nature of e-banking. One fundamental decision facing banks in Kenya is how to influence more potential customers to use e-banking services as a customer service delivery channel. In addition, secure and better ICT quality positively assists in building trust among the users who will utilize the e-banking services thus effective customer service delivery which will assist in decongesting banking halls but still serving customers well.

Electronic mobile devices, can aid in effective customer service delivery. This is so because customers do not necessarily have to visit the bank to carry out transactions on their account. Instead, they can do so anywhere, any time at their convenience with the help of the electronic mobile devices. This means that the devices have a great influence on customer service delivery in commercial banks.

Electronic transactions are determined by customer driven factors such as customer intention drivers, customer attitude, ease of use by customer, usefulness of e-banking service to customer and trust were as rated in the analysis. Cost reduction and customer related factors have emerged as the main drivers of e-banking and customer service delivery channels Kenya. Mobile banking growth is expected to continue. Reputational risks increases with an increase in use of e-banking. Internet security remains a major threat in e-banking. Hence banks need to ensure proper controls in e-banking services.

On services offered by bank employees on e-banking, it was noted that lack of in-house IT professional has a great influence on customer service delivery. To this, it's evident that unless the bank employees are empowered with necessary skills and knowledge in IT, then they may not be able to assist the customers as deemed necessary. This in turn will affect customer service delivery standards in that the customers may not be well served and this may compromise the standards of service delivery.

5.5 Recommendations for policy action

This study came up with some recommendations which have both policy as well as academic implications:

- a. Firstly, customer service delivery is a potential threat to electronic banking services.

Thus, the perceptions indicate that the customers may use the effectiveness of

security, convenience and Cost/ fees to determine the functions of customer service delivery presently done via Electronic Banking Services.

- b. Secondly, that, banks should give high priority to customer service delivery and should consider electronic banking as important key drivers towards successful implementation of customer service delivery. It is therefore important that banks constantly improve and upgrade their e-banking system's security. In order to change the perception, the bank will be required to post security provisions on their websites so as to increase confidence and improve trustworthiness of the e-banking systems.
- c. Thirdly, in Electronic transactions, which utilize the PIN, the PIN must be recognized by the Court as being key and crucial to such transaction and there must be a method of upholding its validity in a transaction. An understanding of the factors identified in this study allows bank managers and policy makers to direct efforts and resources in the most effective and efficient way to increase bank business in the long run and encourage customers' to adopt electronic banking.
- d. Fourthly, the study showed that awareness of electronic banking services and its benefits has a positive impact on customer's perceived usefulness. Banks should therefore continually train their employees who will in turn pass the knowledge to their customers hence the issue of perception is dealt with. Training will help improve confidence as well as improve innovation. By training its employees they will realize the benefits of e-banking services both to them and to their customers hence improve on customer service delivery of e-banking services.
- e. Lastly, limited research has been carried out in this area. In this regard, banks need to regularly carry out customer surveys so as to understand what their customer's needs are and as they develop their e-banking strategy then they will formulate consumer driven strategies.

- f. It is therefore recommended that further study be conducted based on the customer's perspective.

5.6 Suggestions for further study

Further research would thus be desirable in investigating influence of e-banking on customer service delivery in banking industry with customers' perspectives.

5.7 Contribution to the body of knowledge

This research seeks to make an original contribution to knowledge by investigating the influence of electronic banking services on the outcomes of customer service delivery in the banking industry. The factors identified are in line with findings reported in previous studies mentioned earlier in the paper. Furthermore, the study shows that service delivery, such as security, convenience and cost/fees are the major integral determinants of electronic banking services and this reaffirm the study of (Aliyu and Tasmin, 2012)

1. It was established that there is a direct relationship between Electronic Banking services and customer service delivery in the banking industry.
2. The empirical results show that the security, convenience and cost/fees all have significant effects of customer service delivery on the intention to use electronic banking.

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APPENDIX 1: LETTER OF INTRODUCTION

Salome Juma,
P.O Box 123-50200, Bungoma.
Date:.....

To the Branch Manager,
XYZ Bank Limited,
P.O Box,
Bungoma.

RE: REQUEST TO BE ALLOWED TO CARRY OUT RESEARCH WITH YOUR STAFF

Dear Sir/ Madam,

I am a master’s student in Projects Planning Management at the University of Nairobi. I hereby kindly write to request your office to allow me to carry out the above said on e-banking with your staff. This will include brief interview sessions with them, administering of questionnaires and brief discussions in groups with the concerned personnel in the e-banking departments. My sessions, if request is granted will not interfere with the normal bank operations as I will fit into your schedules. It will run for a maximum of two hours a day within the business working hours.

Looking forward to a positive response from you, I remain hoping that my request will be put into consideration.

Thanking you in advance,
Yours sincerely,

Salome Juma

APPENDIX 2: QUESTIONNAIRE

Influence of electronic banking services on customer service delivery in banking industry, a case study in Bungoma County.

Introduction

This research is being conducted by Salome Juma, a PPM master’s student in the University of Nairobi. Please answer the following questions honestly in the spaces provided.

Kindly do not write your name, although you can sign the following questionnaire. The pages may be handwritten, typewritten or completed electronically.

Name of Bank under examination.....

Bank’s web site address.....

1. Do you believe that the majority of your customers are aware of the existence of an e-banking website?

Yes No

2. Is the website of your bank reported on the bank’s monthly statement to customers?

Yes No

3. Who is the primary designer of your bank's website?

- a) In-house IT professional Outside IT professional
- b) Help from local community
- c) Help from government
- d) Others

4. How long has the current website been established since the last overall design update?

- a) Less than 1 year
- b) Between 1–2 years
- c) Between 2–3 years
- d) 3 or more years

5. Is your bank's website viewed as user friendly by your customers overall (if information available)?

- a) Yes, totally
- b) Majority
- c) Minority
- d) Not sure
- e) No, not at all

6. Which e-banking service is free of charge at your bank?

- a) Bill payment
- b) Online transfers
- c) Quicken/Microsoft money
- d) Wire transfers

e) All of the above

7. Does your bank offer any of the following services?

- a) Online inquiry and transfers
- b) Online bill-pay
- c) Online mortgage application
- d) Online small business loans
- e) Online trust funds
- f) Online investment and options management
- g) Online deposit accounts

8. Does your bank currently offer any of the following new services?

- a) Online check order
- b) Online order of travelers checks
- c) Online money order

9. What kind of help or assistance is offered to your e-banking customers?

- a) Brochures
- b) Training
- c) Online banking demo
- d) Others (*e.g.*, employee assistance, personal service over the telephone, e-mailed instructions, website 'help' capabilities)

10. Does your bank believe that e-banking services will enhance your competitive position in the market?

- a) Strongly agree

- b) Agree
- c) Disagree
- d) Strongly disagree

11. Has your e-banking services increased the degree of customer satisfaction?

- a) Strongly agree
- b) Agree
- c) Disagree
- d) Strongly disagree

11. Does your bank believe your e-banking services have helped to reduce your banks daily operating cost?

- a) Strongly agree
- b) Agree
- c) Disagree
- d) Strongly disagree

12. Does your bank believe more customer training/customer education is needed in promoting e-banking services?

- a) Strongly agree
- b) Agree
- c) Disagree
- d) Strongly disagree

13. Does your bank believe that the customers' personal information security is better now than it was before?

- a) Strongly agree
- b) Agree
- c) Disagree
- d) Strongly disagree

14. Does your bank believe that senior citizens or rural residents represent recognizable growth potential for e-banking services?

- a) Strongly agree
- b) Agree
- c) Disagree
- d) Strongly disagree

15. Has your bank adopted (or plans to adopt) any new approach that had increased your e-banking users?

- a) Promotion with new customers
- b) On every monthly statement
- c) Mail out brochures to customers that do not use e-banking
- d) Other (please specify)

16. Has your bank adopted (or plans to adopt) any new technique or promotional effort that had increased your e-banking users?

- a) Cell phone internet access

- b) Service outlets in public areas *e.g.*, library, super market
- c) Other (please specify)
- d) None of the above

17. What major challenges and difficulties has your bank faced when dealing with e-banking?

- a) Lack of in-house IT professionals
- b) Lack of interest from customers
- c) Extra workload from processing online banking services
- d) Need for employment training in IT technology
- e) The innovative nature of e-banking
- f) Others (expenses, customers' computer skill, extra workload, user friendliness, user passwords updates)

18. In which direction does your bank believe it will shift to (next ten years)?

- a) Traditional banking will still dominate (*e.g.*, more than 50%)
- b) E-banking will dominate (greater than 50%)

19. How frequently does your bank update your services and websites?

- a) Daily
- b) Weekly
- c) Bi-weekly
- d) Monthly
- e) As needed
- f) None of the above

20. Has your bank established e-banking into your banks future strategic planning?

- a) Strongly agree
- b) Agree
- c) Disagree
- d) Strongly disagree

21. Do employees have access to customer passwords?

Yes No

22. Other than application, are there any types of lending or loan advances done over the internet?

Yes No

23. Are procedures in place to prevent transfers of uncollected funds?

Yes No

24. Are safeguards in place to detect and prevent duplicate transactions?

Yes No

25. Are there procedures for verifying of customer requests for changes to their accounts or customer information?

Yes No

26. Are guidelines for retention of source documents supporting electronic banking activities in place?

Yes

No

Signature of person in charge of electronic banking:

.....

Date signed.....

- Thanks for your co-operation-

APPENDIX 3: DETERMINATION OF SAMPLE SIZE.

Bank	Number of staff in each bank (Ni)	Proportional sampling $Ni=(Ni*n)/N$	Sample size in each bank
Equity	51	$(51*174)/308$	28.81
Co-operative	55	$(55*174)/308$	31.07
Kenya Commercial	78	$(78*174)/308$	44.06
Barclays	32	$(32*174)/308$	18.08
Standard Chartered	22	$(22*174)/308$	12.43
National	26	$(26*174)/308$	14.68
Bank of Africa	6	$(6*174)/308$	3.39
Post bank	11	$(11*174)/308$	6.22
Diamond Trust	14	$(14*174)/308$	7.91
K-Rep bank	13	$(13*174)/308$	7.35
TOTAL	308		174.00