THE EFFECT OF INTERNET BANKING ON CUSTOMER DEPOSITS IN COMMERCIAL BANKS IN KENYA

BY

JEDIDAH WAMBUI NJOGU

D61/64204/2013

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION SCHOOL OF BUSINESS, UNIVERSITY OF BUSINESS

NOVEMBER 2014

DECLARATION

I hereby, declare that this is my original work and has not been submitted for presentation and examination for any award of Degree in this university or any other university.

Signature …… Date……

Jedidah Wambui Njogu

Reg No: D61/64204/2013

This research project has been submitted for examination with my approval as the University of Nairobi supervisor.

Mr. Herrick Ondigo Sign …….. Date……..

Supervisor, Department of Finance and Accounting

ACKNOWLEDGEMENTS

I wish to thank almighty God for giving me the gift of life and the strength and determination to surmount the odds that come with a rigorous programme such as the MBA. More importantly I extend my appreciation to a number of people: First and foremost my supervisor, Mr. Herrick Ondigoand moderator Mr. Mirie Mwangi for their professional guidance and advice throughout this project;

Central bank of Kenya for their kind support which they accorded to me during data collection. More so, my classmates, relentless encourage and moral support during my time of study.

Thanks to the entire academic staff of the school of business for providing a conducive leaning environment.

To my family for their support, commitment and encouragement during the study.

DEDICATION

I dedicate this project to my family and friends for the sacrifice they made for me to complete this project and continuous encouragement and enthusiasm inspired me to achieve this goal.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

ATM - Automated Teller Machine

CBK - Central Bank of Kenya

ICT - Information and Communications Technology

ABSTRACT

Internet banking has gained a lot of attention due to the advantages that are attributable to this resource in the banking industry. The objective of this study was to establish the effect of internet banking on customer deposits of commercial banks in Kenya. The study adopted used a descriptive survey since the study involved a survey of all commercial banks in Kenya. The study population included all 43 commercial banks licensed by Central Bank of Kenya, as at 31st December, 2013. Kothari (2004) notes that population is a total collection of elements. The study collected all the data from all the commercial banks since the population was small, (Appendix).The study used secondary sources of data since the nature of the study to be collected was quantitative. The sources of secondary data were obtained from central bank supervision reports, banks financial statements and annual reports. To achieve an adequate representation, the study will review secondary data for a period of five years (2009-2013) based on availability and accessibility of data. This data to be collected is specifically related to the number of customers who transact using internet sources from commercial banks; the volume of transactions that commercial banks handle based on internet banking technology and the deposits mobilized through internet transactions for example electronic fund transfers. The study focused on two main variables which were classified into dependent and independent variables. The dependent variable was measured using the percentage increase in customer's deposits this will be achieved through checking the trend of customers' deposits. The Independent variables which are; the number of transactions done using ATM per day, the number of transactions done using a phone per day, the amount of money borrowed using internet transactions, level of customer deposits were measured using domestic credit provided by banking system using internet channels as a percentage of GDP. A multiple linear regression analysis was conducted to assist the researcher in establishing the effect of internet banking on customer deposits in commercial banks in Kenya. The results of the regression analysis found that the overall regression model was statistically significant. The model showed a positive relationship between internet banking and customers' deposits. This was explained by the following independent variables: level of customer deposits, amount of money borrowed, number of transactions and the amount of money transferred. The individual independent variables in the above model are, however, significant since all have a p-values are less than 5%. The study recommended that the government should develop and implement appropriate laws and required infrastructures; special legislation is needed and should be set especially for developing security standards and compliance to increase trust of citizens. These laws should fit the needs of each characteristic of e-city. These rules and regulations can be investigated by government in economic and social sectors. Laws regarding to electronic crime, privacy, free flow of information, consumer protection and e-commerce laws. The study further recommended that Kenya Bankers Associations should instigate regulations to ensure that commercial banks adopt internet banking in order to facilitate quick and continuous access to information by customers

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Internet banking is a form of the broad dynamic concept that is financial innovation. Financial innovation can be defined as any new financial service or product which modifies the way in which financial transactions are accomplished. Financial innovation must decrease costs per transaction, risks or deliver an improved service that meets the particular desires of financial system (Mols, 1999). Banks are highly information intensive, this activity highly depends heavily on Information and Communications Technology (ICT) to obtain, process, and provide the information to all relevant consumers. Information technology is not only essential in the information processing, but it provide means for the banking sector to distinguish their products and services.

Hence banks are considering revolutionary approach to deliver their services through the use of internet (Zephirin and Seerattan, 1997). The evolution of internet banking has driven many banks to reconsideration their information technology strategies in order to remain competitive by improving deposits by customers. Internet banking has allowed banks and financial institutions to offer their service by using a widespread public network infrastructure (Ternullo, 1997). The growth of the banking industry in Kenya has experienced various challenges over the last decades. This has been fuelled by the global economic recession that was driven by collapse of the American mortgage firms in year 2008; this led to the collapse of quite a number of banks globally. The financial recession of 2008 was the first to foster globalization (Stiglitz, 2008). The impact of financial crisis negatively impacted on performance of most commercial banks in UK and America although the event was not documented anywhere even in Africa (Silber, 1983).

Despite the global crisis, most commercial banks in Kenya and within the region have has tremendous growth leading to intense competition in growth and outreach laying more focus on product innovation, information communication technology and internet banking leading to increased customer deposits. Liberalization of commercial banks has also attributed to growth and expansion of commercial banks as a result of implementation of financial reforms (Sanya and Gaertne, 2012).

1.1.1 Internet Banking

Internet banking refers to a bank making its services accessible to clients using the internet as its delivery channel. Using internet banking, registered customers are able to log on to the bank's website and carry out banking dealings on their accounts. It is also referred to as online banking (Hernado and Nieto, 2006). Internet Banking is beneficial to banks as well as consumers, whereby there is an improvement of efficiency in services rendered to customers. Internet banking is convenient and cost-efficient. Moreover, the development of Internet banking has transformed the distribution channel structure in bank sector (Kardaras and Papathanassiou, 2001)

The Internet influences the distribution channel structure in two ways. First, Internet is in itself as a new distribution channel for financial services. Second, the Internet banking influence clients. Numerous consumers invest time and resources to learn computer application like use of Internet, but other consumers are not aware with the Internet. Henceforth, several different bank customer fragments may be identified, in the light of Mols (1999), to simplify this, it is assumed that only two significant fragments exist, namely an Internet banking fragment and a branch banking fragment. These two customer fragments are not likely to have the same wants and thus will not be ready to pay the same price for Internet banking. Currently, the branch banking distribution channel is meant at serving the branch

banking segment and Internet banking as a new distribution channel is aimed at serving the Internet banking segment (Hicks and Niehans, 1983).

1.1.2 Customer Deposits

Customer deposits are money placed into a banking institution by account holder for safekeeping. In other words, customer deposits can be understood as the enhancement or increase in the pool of financial services by the banking industries which are tailor-made to all the levels in the society. (Hauner and Peiris, 2005). Customer deposits enable commercial banks to invest in technological innovations, these innovations helps in reducing costs and increasing efficiency in operations of commercial banks this in turn contributes to an increase in customers' deposits. This can play an important role in risk reduction and vulnerability for poor groups, and raising the opportunity for individuals and households to access basic services like health and education, thus having a more direct impact on reduction of poverty in the economy (Shaw, 1973).

Economies that have increased customer deposits have comprehended remarkable benefits. Abayomi and Ikhide (1997) identified some of these benefits as follows: First, existence of customer deposits, result to improved technology systems. The use of Information Technology (IT) has been incorporated in the day to day provision of financial services. Secondly, customer deposits have led to advancement in financial innovations (NannaandDogo, 1998). Many innovations have been apprehended that have helped to renovate the lives of the average investors as well as wider public at large. Thirdly, in financial sector where there is existence of customer deposits is categorized with institutional diversification (Berlyne, 1982).A number of organizations come up come to take advantage of the niche financial innovations comprehended. Lastly, there is an overall improvement in contribution of financial services within the economy (Friedman, 1999).

1.1.3 The Effect of Internet Banking on Customer Deposits

Banking is one of the most information rigorous sectors is an ideal domain for the effective development of e-commerce (Kardaras and Papathanassiou, 2001). Hence many banks have provided clienteles with financial services by use of internet, and competitive pressure have made banks to offer internet banking (Rogers, 1982). This has led to an increase in customer deposits due to reduction of costs and improved efficiency in transactions. Internet banking tends to bring the financial services closer to the consumers and thus increases customer's deposits; this is customers can be able to access financial services more conveniently (McKinnon, 1973).

As a result of technological innovations banks have adopted modern technologies for example information communication technology. This has led to an increase in customer deposits due to increased access of financial services. This development have made it easy to serve the ever changing consumer needs and wants, advanced financial products, deregulation of financial institution, information technology advancements, and the inception of multiple delivery channels are reforming the financial services industry (Sanya and Gaertne, 2012). To persist competitive, banks have continued to enlarge their product lines and add innovative delivery channels to more effective marketing systems and techniques, and boost the quality of service (Prinz, 1999). Use of alternative channels has also improved the level of customers deposits such as online banking remain to be the frontiers upon which banks pursue to improve access to clients as well as differentiating their products (Central Bank of Kenya, 2013). In a study on the impact of mobile and internet banking on performance of financial institutions in Kenya, it was concluded that the adoption of internet banking has enhanced performance of the banking industry due to increased customers' deposits. This is attributable to improved efficiency, effectiveness and productivity (Okiro and Ndungu, 2013).

1.1.4 Commercial Banks in Kenya

The banking sector in Kenya comprises of both local and international banks. It is regulated by the Central Bank of Kenya. Commercial banks are licensed and regulated under the Banking Act Cap 488.According to the regulator of commercial banks in Kenya, Central Bank of Kenya, as at December 31, 2013, the sector comprised 43 commercial banks. The number of banks offering financial services over the internet is increasing rapidly in Kenya (Central Bank of Kenya, 2013).

Commercial banks in Kenya have adopted internet banking as a communication tool. Due to its efficiency and convenience to reach as many customers as possible, this has led to an improvement in customer deposits. Customers' expectations in terms of service delivery have improved in terms of service delivery and other key factors for example convenience. This has made it possible for customers to open and operate bank accounts from their mobile phones. The widespread availability of internet banking is expected to affect the mixture of financial services and financial performance. The growth of Internet banking has changed the dimensions of competition in the retail banking sector this has led to increased pool of tailor made financial services targeting all classes of customers in the market (Central Bank of Kenya, 2013).

By using transactional websites, customers can check account balances, transfer funds, pay and receive bills, apply for loans, and perform a variety of other financial transactions without leaving their home or place of business conveniently has significantly led to an increase in customer deposits. This plays an integral role in enhancing customer deposits among commercial banks, it is therefore important for the bankers to carry out intensive training programs targeting their customers on the benefits of internet banking usage. Managers are making efforts to minimize the level of risk exposure that customers face while

transacting their business online in order to grow and expand financial services to a wider pool of customers increasing their account holding and deposits (Kenya Bankers Association, 2013).

1.2 Research Problem

The growth of technology has open up more opportunities for doing business especially outreach and product marketing this is attributable to enhanced convenience and improved accessibility of products and services. The introduction of internet banking has also redefined the role and functions of commercial banks this has opened up more channels for extra income and improved market share (Bilderbeek, 1994). The tremendous growth of internet banking innovations have been achieved through sound analysis of risks and costs associated to avoid harm on banks performance. This has had a positive impact on growth of customer deposits. Bank performance is directly dependent on efficiency and effectiveness of internet banking and on the other hand tight controls in standards to prevent losses associated with internet banking.

In order not to impair on their prosperity, financial institutions need to strike a balance between tight controls and standards in efficiency of internet banking among commercial banks. This is only possible if the effects of internet banking on financial institutions and its customers are well analyzed and understood (Bhattacharya and Thakor, 1993). The banking industry in Kenya has registered a significant number of commercial banks and the use of internet banking has gained a lot of popularity leading to growth of deposits. Most banks through opening subsidiaries among East African Community countries and creation of investment subsidiaries to address the capital market operations needs for commercial banks this has been made more possible by the use of internet banking since customers can access their accounts and other important information on real time basis. This has highly contributed

to increased access of financial services to most customers leading to an increase in customer deposits (Goodhart, 2000).

Studies have been done locally and globally in relation to internet banking and customer deposits. Caruana (2005) revealed that technology highly contributed to improved access to financial services hence, customers deposits. SantomerandSeater(1997) carried out an investigation on the impact of use of internet on financial services in Europe, a cross sectional survey was conducted out in 55 micro finance institutions; data analysis was carried out using a regression model and the results of the study showed a positive relationship between use of internet and increased accessibility of financial services.

Okun (2012) in his study found that there is a positive and significant relationship between deposits ratio and ROA. The results of this study revealed that commercial banks in Kenya should invest in attracting more low cost deposits by adopting alternative banking channels innovation such as Mpesa and agency banking in order to attract deposits at the lowest cost possible and to reduce costs associated with other forms of deposit mobilization. Kenyoru (2013) concluded that financial innovation has an insignificant positive impact on the increase of access to financial services.Both mobile money innovations and mobile banking have insignificant effects on the increase in access to financial services leading to an increase in customer deposits. Other studies by Njuguna (2013) and Nyasetia (2012) found that there was a positive relationship between the effects of financial innovations on growth of commercial banks in Kenya. From the above studies, little research has been done on internet banking and customer deposits of commercial banks therefore this study attempts to answer the following research question: what are the effects of internet banking on customer deposits in commercial banks in Kenya?

1.3 Research Objective

To establish the effect of internet banking on customer deposits in commercial banks in Kenya.

1.4 Value of the Study

The study will be helpful to the bank managers since they can understand the significance of internet and other banking innovation products and their influence on customer deposits and thus develop competitive strategies that encourage technological innovation to increase access of financial services to the customers.

The study will be relevant to the government and other policy makers in formulating appropriate policies that will enhance innovation and internet banking that facilitates customer deposits in the economy. This has a significant impact on the growth of Gross Domestic product.

The bank executives and financial institutions will be aware of internet banking as a product of internet commerce with a view to making strategic decisions.

The findings of this study will act as a point of reference to researchers and academicians interested in this topic and other related areas. Besides, they can use it a basis for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covers various Theoretical studies on customer deposits and financial innovation which is the general concept behind internet banking. The first section covers theoretical review, empirical evidence and summary of the literature drawn from literature review.

2.2 Theoretical Framework

This study was guided by three theories namely: the diffusion of innovation theory, theory of financial intermediation and financial liberalization. These theories provide the basis on the effect on internet banking on customer deposits in banks.

2.2.1 The Diffusion of Innovation Theory

According to Rogers (1982), diffusion as the adoption of an innovation over time by the given social system hence diffusion processes result in the acceptance or penetration of a new idea, behavior, or physical innovation. Therefore the choice to adopt an innovation depends on, among other factors, the perceptions of the people in the society concerned with five specific attributes of the innovation in question, which are relative advantage; that is the extent to which the innovation is perceived to be superior to what it supersedes (Katz, 1989). Relative advantage results in improved efficiency, economic benefits and enhanced status; compatibility; that is the level to which the innovation is superficial to be dependable with existing values, past experiences and needs, compatibility is also important feature of innovation as conformance with consumer lifestyle can boost a rapid rate of adoption; complexity; that is the extent to which the innovation is assumed to be hard to understand and use; trialability that is the extent to which the innovation can be experimented before adoption; if clienteles are given a chance to try the innovation, it will minimize certain

unknown fears, and lead to adoption and observability; the extent to which one can see and understand the results of adopting the innovation before the full adoption. Hence observability is the ability to access the banking services at any time and from any location without any delay or queue in the context of internet banking (Rogers, 2003).

Silber (1983) advanced constraint-induced financial innovation theory. This theory pointed out that the reason of maximization profit of financial institution is the key rationale of financial innovation. There are some limits which include external handicaps like policy and internal handicaps such as organizational management in the process of pursuing profit maximization (Toews, 2003). Though these restrictions not only guarantee the stability of management, they reduce the efficiency of financial institution, so financial institutions strive toward casting them off. Constraint-induced innovation theory discusses financial innovation from microeconomics, so it is originated and representative. But it emphasizes "innovation in adversity" excessively. So it can't express the phenomenon of financial innovation increasing in the trend of liberal finance commendably (Ryan and Gross, 1973)

2.2.2 The Theory of Financial Intermediation

Caprio, Atiyas and Hanson (1994), financial intermediaries exist to solve three main problems: information problems, transaction costs and regulatory factors. The informational asymmetries generate market imperfections. These imperfections generate specific forms of transaction costs. Financial intermediaries appear to overcome these costs.Patnaik (1999) consider banks as coalitions of depositors that provide households with insurance against shocks that affect their liquidity position. The transaction cost approach contradicts the assumption of complete markets. Here, the financial intermediaries act as coalitions of individual lenders or borrowers who exploit economies of scale in the transaction technology (Stiglitz, 1994).The notion of transaction costs encompasses not only exchange or monetary transaction costs .But also search costs and monitoring and auditing costs. Here the role of

financial intermediaries is to transform particular financial claims into other types of claims. As such, they offer liquidity and diversification opportunities (Quinn, 1997).

The proponents of this theory argue that the third approach is based on the regulation of money production and of saving in and financing of the economy. Regulation affects solvency and liquidity within the financial institution (Robin, 2008). Shaw (1973) notes that bank capital affects bank safety, the bank's ability to refinance, and the bank's ability to extract repayment from borrowers or its willingness to liquidate them (Stiglitz, 1994). Many view financial regulation as something that is completely exogenous to the financial industry (Spiegel, 2008). Thus, to summarize, according to the modern theory of financial intermediation, financial intermediaries are active because market imperfections prevent savers and investors from trading directly with each other in an optimal way (Stiglitz and Weiss, 1981). The most important market imperfections are the informational asymmetries between savers and investors. Financial intermediaries, banks especially, fill as agents and as delegated monitors' information gaps between ultimate savers and investors. They screen and monitor investors on behalf of savers. To ensure the sustainability of financial intermediation, safety and soundness regulation has to be put in place (Spiegel, 2008).

The third group consists of conservative advocates for liberalization, who suggest that there are several conditions, not yet met by most developing countries, which are necessary to ensure the success of liberalization. Aghion, Bacchetta and Banarjee(2000) develop a mathematical model to show that economies at an intermediate level of financial development are more susceptible to macroeconomic shocks. Full liberalization in such economies may lead to destabilization, characterized by chronic phases of growth and capital flight. Rodrik and Velsasco (1999) argue that openness to international capital flows can harm a country if appropriate controls, bundled with a strong macroeconomic and regulatory

environment, are not in place. Johnston (1997) argues that governments should develop strong institutions for monetary policy and exchange rate management pre-liberalization. With this background, we develop a comprehensive growth model meant to capture the possible effects of liberalization on South Africa's economy.

2.3 Determinants of the Level of Customer Deposits in Commercial Banks

There are various factors that affect customer deposits in commercial banks; this affects the extent of accessibility of financial services to customers. These determinants are namely; internet banking, demographic factors, inflation and other factors.

2.3.1 Internet Banking

Internet banking is a determinant of customer deposits, it is a product that is mostly used by banks in making internet related transactions, internet banking provides internet based platforms that enables the user to transact with the bank conveniently. Internet banking transactions are measured using the number of transaction conducted through internet sources expressed as a percentage of gross domestic products (Hernando, 2006).

2.3.2 Demographic Factors

The other determinant of customer deposits is demographic factors; Santomero&Seater (1997) examined the determinants of private savings behavior of industrial and developing countries and found that demographic factors were important in determining the saving rates.

2.3.3 Inflation

Inflation is another determinant of customer deposits; consumer price index is used as a proxy for inflation. Inflation may influence saving through several reasons. Theory postulates that greater uncertainty should rise saving since risk-averse consumers set resources aside as a precaution against possible adverse changes in income and other factor. Hence, when inflation raises uncertainty regarding future income growth, risk-adverse consumers may increase their precautionary saving (Silber, 1983).Secondly, savings may rise in inflationary environment if consumers mistake an increase in the general price level for an increase in some relative prices and refrain from buying (Spiegel, 2008). Inflation could also influence saving through its impact on real wealth. If consumers attempt to maintain target level of wealth or liquid assets relative to income, saving will rise with inflation.

2.3.4 Lending Rates

The rate of lending is another determinant of customer deposits, central bank regulates the lending rates by commercial banks this however may affect the level of customer deposits by commercial banks. If the lending rate is very high, it may discourage borrowers from borrowing money from commercial banks this may negatively impact on customer deposits (Nyasetia, 2012).

2.3.5 Other Factors

Other factors such as GDP growth, real interest rate, and changes in the term of trades were found to be positively related to savings in both groups of countries. However, the magnitude

of the relationship was slightly different. In contrast, the level of foreign savings was found to have an inverse relationship with savings in the developing countries (Silber, 1983).

2.4 Empirical Review

A number of studies have been conducted locally and internationally to investigate on the link between internet banking and customer deposits. Santomer&Seater(1997) carried out an investigation on the impact of use of internet on financial services in Europe, a cross sectional survey was conducted out in 55 micro finance institutions; data analysis was carried out using a regression model and the results of the study showed a positive relationship between use of internet and increased accessibility of financial services.

Ndebbio (2004) did an investigation on the effects of globalization on financial deepening of commercial banks; a sample of 50 banks was used, secondary sources of data were used and a multiple regression equation was applied for data analysis. The results of the analysis showed that there was a positive relationship between globalization and financial deepening among commercial banks in Italy.

A descriptive survey was conducted by Caruana (2005) on the role of technology on financial deepening among all classes of customers in 50 micro credit financial institutions in Turkey. A regression model was used for data analysis and the results for of the analysis revealed that technology highly contributed to financial deepening leading to an increase in customer deposits.

Hernando and Nieto (2006) evaluated the relationship between internet delivery channels and financial services. A survey of a sampled survey of 30 micro credit firms was carried out and secondary data was used for data analysis. The study found that internet adoption was an important tool in delivery leading to improved financial services. The study also revealed that multichannel banks presented statistically significant evidence of efficiency gains, that

is, reduction in general overheads per unit of output which enhanced financial services to customers.

A study was conducted in China by Chan and Jia (2011) on the effects of mobile banking on financial deepening of banks. A sampled survey of 50 commercial banks was used; a regression model was used for data analysis and the results of the analysis revealed a significant positive relationship between mobile banking and customer deposits.

The study by King'ori (2008) on the determinants of income velocity of money in Kenya studied financial institutions across Kenyan financial sector. Findings indicated that innovations and changes are taking over the Kenyan financial sector by storm. As a result of all these changes, the sector has become very competitive. Access to banking and financial services has improved greatly and charges are coming down. The greater circulation of money also means more businesses are coming up and helps investors feel a little bit more comfortable about investment prospects.

Nyasetia (2012) tried to establish the implications of financial deepening on savings and investments in Kenya whereby he used a causal research design. Secondary data was used to evaluate financial deepening indicators, savings and investments from 2006-2011. Regression analysis was used to conduct his studies to establish the relationship and establish a strong positive correlation between savings and investments which established that in case of proper financial deepening, the level of savings and investments in Kenya also get better. In case if interest rates are not favorable, if the stock market is not efficient, and also if deposits in banking institutions are not on the rise, then there will be slow growth and improvement in savings and investments.

Maiyo (2013) conducted a study on the effect of electronic banking on the performance of commercial banks in Kenya; the study found that the adoption of e-banking has enhanced

performance of commercial banks due to increased efficiency, effectiveness and productivity. A descriptive survey was used; data analysis was conducted using a regression, the study revealed that fees and commission from debit cards, credit cards and mobile banking has a significant effect on returns on asset whereas fees and commission from internet banking as well as the amount of money that commercial banks invest in electronic banking to install, train staff and maintain the platforms has no or minimal effect on return on assets.

Kenyoru (2013) sought to examine empirically the link between financial innovations and financial deepening by assessing the effect of increasing financial innovations in Kenya on financial sector development. The data collected was analyzed using regression method and the analysis was presented in frequency and descriptive tables and graphs. The study concluded that financial innovation has an insignificant positive impact on customer deposits. Both mobile money innovations and mobile banking have insignificant effects on financial deepening leading to an increase in customer deposits.

In his study, Njuguna (2013) investigated the effects of financial innovations on growth of commercial banks in Kenya. Specifically the study sought to establish the effects of mobile banking, online banking, automated cheques clearing and agency banking on growth of commercial banks in Kenya. This study adopted descriptive design. The population of study consisted of all the licensed commercial banks that were registered with Central Bank of Kenya by December 2013. The study adopted a census study approach since the population was small and the institutions were easily assessable to be reached, hence the sample size was all commercial banks. The study collected secondary data only; these data included past and immediate income statements, statements of the financial position, cash flow statements, budget records, books and other publications in relation to banking industry in Kenya. Data collected was from financial year 2007 to 2012. A multiple regression model was adopted to

establish the form of relationship between growth and the financial innovations. The study found out that majority of the banks had adopted mobile banking and online banking while a number of banks had adopted automated cheques clearing and agency banking which have been one of the recent innovations among commercial banks in Kenya.

Otieno (2013) conducted a study on customer deposits and Profitability of Commercial Banks in Kenya. The study targeted all the commercial banks in Kenya. Secondary data was collected from the Kenya National Bureau of Statistics, Central Bank of Kenya and websites of licensed Commercial banks in Kenya. The study used both explanatory research design and inferential statistics to investigate the effect of financial deepening on profitability of commercial banks. The findings of the study revealed that financial deepening affects bank profitability positively.

2.5 Summary of the Literature Review

Several empirical studies have been done both locally and internationally with similar variables but they are either subjective or unconvincing. King'ori (2008) the findings indicated that innovations and changes are taking over the Kenyan financial sector by storm. As a result of all these changes, the sector has become very competitive. Access to banking and financial services has improved greatly and transaction costs have declined due to adoption of technology and internet services by banks. The study contributed to the long term study of the impact of internet banking on customer deposits. The weakness of this study is that it did not address on the effects of internet banking and customer deposits of listed commercial banks in Kenya. This study addressed this gap by trying to establish the relationship between internet banking and customer deposits of listed commercial banks in Kenya.

The empirical evidence from a number of studies showed that there was a positive relationship between technological innovations and improved access to financial services. A study by Caruana (2005) and Kenyoru (2013), however, the weakness of these studies is that they did not address issues related to internet banking and its effect on customer deposits among commercial banks in Kenya. Therefore, this study found it necessary to investigate the relationship between internet banking and customer deposits among listed commercial banks in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology introduces the logical framework to be followed in the process of data collection. It covered the research design, the population of study, sampling techniques, method of data collection and lastly the methods for data analysis.

3.2 Research Design

This study used a descriptive survey since the study involved a survey of all commercial banks in Kenya. Kothari (2004) asserts that a survey is a means of collecting information about a large group of elements referred to as a population. A survey has three characteristics: to produce quantitative descriptions of some aspects of the study population in which case it is concerned either with relationships between variables, or with projecting findings descriptively to a predefined population; data collection is done by asking people structured and predefined questions and data is collected from a fraction of the target population (Cooper and Schindler, 2006).

3.3 Population

The study population included all 43 commercial banks licensed by Central Bank of Kenya, as at 31st December, 2013. Kothari (2004) notes that population is a total collection of elements. The study collected all the data from all the commercial banks since the population was small, (Appendix).

3.4 Data Collection

The study used secondary sources of data since the nature of the study to be collected was quantitative. The sources of secondary data were obtained from central bank supervision reports, banks financial statements and annual reports. To achieve an adequate representation,

the study reviewed secondary data for a period of five years (2009-2013) based on availability and accessibility of data. This data to be collected is specifically related to the number of customers who transact using internet sources from commercial banks; the volume of transactions that commercial banks handle based on internet banking technology and the deposits mobilized through internet transactions for example electronic fund transfers.

3.5 Data Analysis

The data collected was coded, cleaned and sorted and then analyzed using Statistical Packages for Social Sciences (SPSS). The study focused on two main variables which were classified into dependent and independent variables. The dependent variable was measured using the percentage increase in customer's deposits this was achieved through checking the trend of customers' deposits.

The Independent variables which are; the number of transactions done using ATM per day, the number of transactions done using a phone per day, the amount of money borrowed using internet transactions, level of customer deposits were measured using domestic credit provided by banking system using internet channels as a percentage of GDP.

A multiple linear regression analysis was conducted to assist the researcher in establishing the effect of internet banking on customer deposits in commercial banks in Kenya. Below is the analytical model that was used by the researcher to determine the effect of internet banking on customer deposits of commercial banks in Kenya.

Below is the analytical model that was adopted by the researcher to achieve the objective of the study as follows:

$$Y_F = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + €$$

Where:

Y_F = percentage increase in customer deposits of commercial banks

X_1 = the amount of money transferred using internet banking.

X_2 = the number of transactions through bills payments.

X_3 = the amount of money borrowed using internet transactions.

X_4 =level of customer deposits was measured using domestic credit provided by banking system using internet channels as a percentage of GDP.

β_0 = gradient of the regression measuring the amount of the change in Y associated with a unit change in X

ϵ = Error term within a confidence interval of 5%

3.5.1 Diagnostic Tests

The significance of the above model in explaining the extent of customer deposits through the independent variables was measured through the T-test. The analyzed data was then presented using tables. A correlation analysis was significant in explaining the relationship between the variables in the model.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This section provides that the analysis of the findings that was conducted to determine the effect of internet banking on the customer deposits among commercial banks in Kenya.

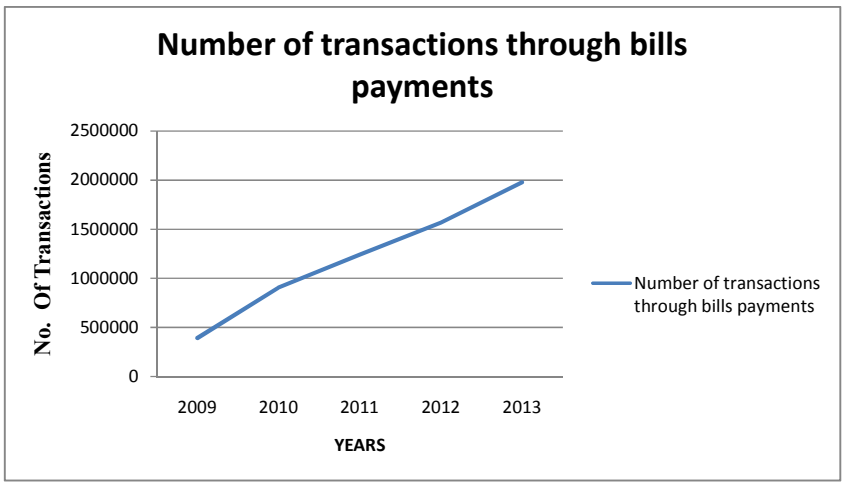
4.2 Descriptive Statistics

Descriptive statistics is the discipline of quantitatively describing the main features of a collection of information, or the quantitative description itself (Kothari, 2005). The objective of this study was to determine the effect of internet banking on customer deposits of commercial banks in Kenya. Below is the analysis of findings as provided below:

4.2.1 Number of Transactions through Bills Payment

The study sought to determine the number of transactions through bills payment in order to establish the extent to which internet led to the increase in customer deposits among commercial banks in Kenya.

Figure 4.1 Number of Transactions through Bills Payments



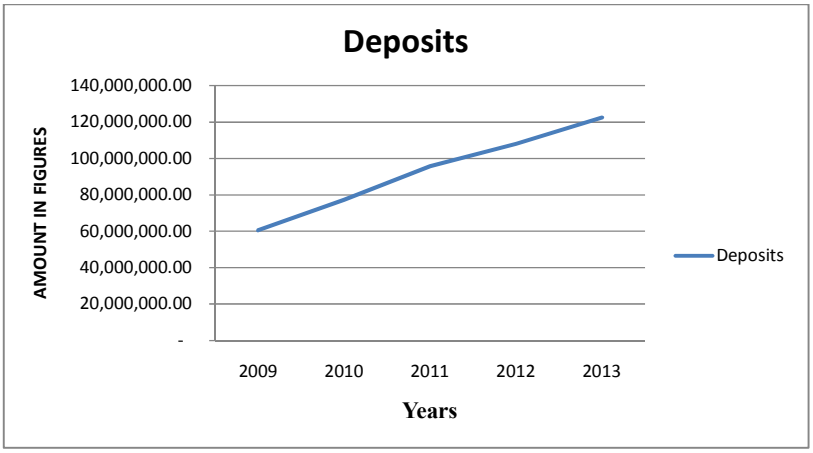
Source: Research Findings

From the findings in figure 4.1 above, there was a rapid increase in the number of transactions from year 2009 to 2010, in between the year 2010 and 2011 this was followed by a steady increase in customer deposits in year 2012.This was followed by a rapid increase in customer deposits by the year 2013.This increase can be explained by the adoption of modern technologies for example ICT by commercial banks that have led to an increase in customer deposits.

4.2.2 Deposits

The study examined the amount of deposits within a period of five years with the objective of finding out if the adoption of internet banking by commercial banks in Kenya impacted on customer deposits.

Figure 4.2 Deposits



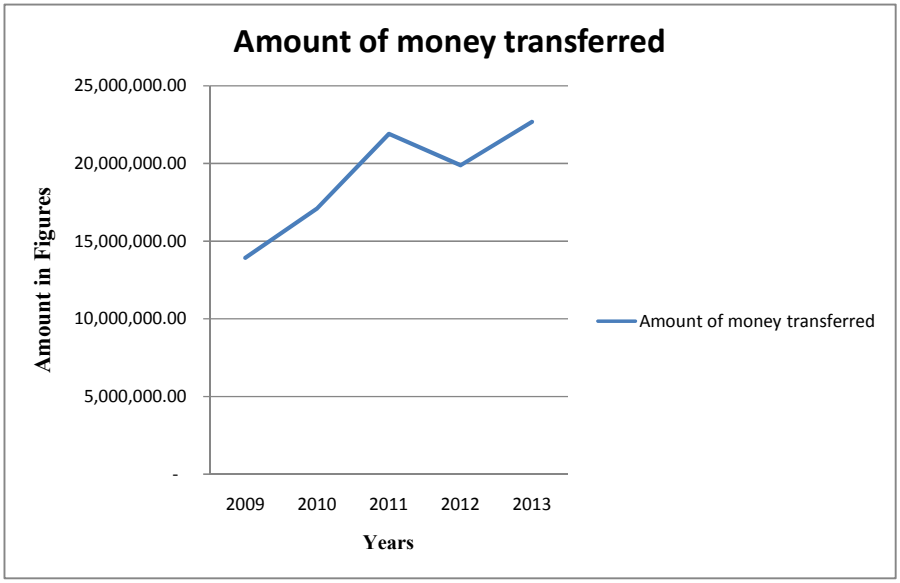
Source: Research Findings

From the above findings in figure 4.2, the findings revealed that between years 2009/2010 there was a gradual increase in customer deposits in year 2010/2011, this was followed by a rapid increase in the number of customers' deposits. In the year 2011 and 2012 a sharp increase in deposits was exhibited followed a regular increase in deposits between year 2012 and 2013. This increment was attributed to the increased usage in mobile banking that enables customers to access bank services at their convenience using internet resources. This has however led to an increase in customer deposits among commercial banks in Kenya.

4.2.3 Amount of Money Transferred

The study evaluated the amount of money transferred to commercial banks with the help of internet sources. This was intended to find out the amount of money transferred in figures in a period of five years as a result of internet banking.

Figure 4.3 Amount of Money Transferred



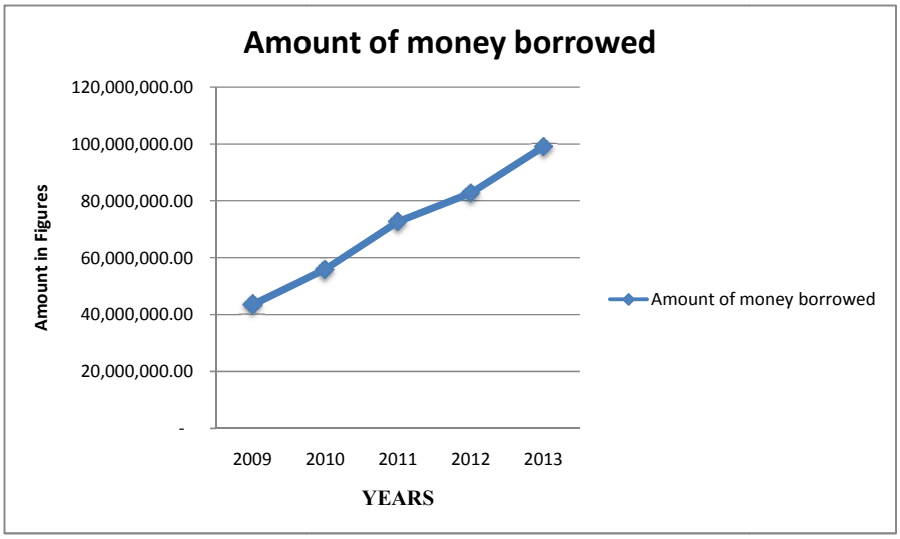
Source: Research Findings

The findings in figure 4.3 above reveals that there was a rapid increase in the amount of money transferred between the years 2009-2011, this was then followed by a slight decline in the amount of money borrowed between year 2011/2012.In the year 2012 and 2013 the amount of money transferred increased to a tune of KES 24M. The study concluded that the decline between year 2011 and 2012 was as a result of challenges of adapting to the new technologies that changed the way of doing things amongst the customers. Later, the customers got used to the new technology and this resulted to a tremendous increase in customer deposits by the year 2013.

4.2.4 Amount of Money Borrowed

In order to establish the effect of internet banking on customer deposits, the researcher reviewed the amount of money borrowed by customers from commercial banks using internet sources. The findings are presented in the table 4.4 below:

Figure 4.4 Amount of Money Borrowed



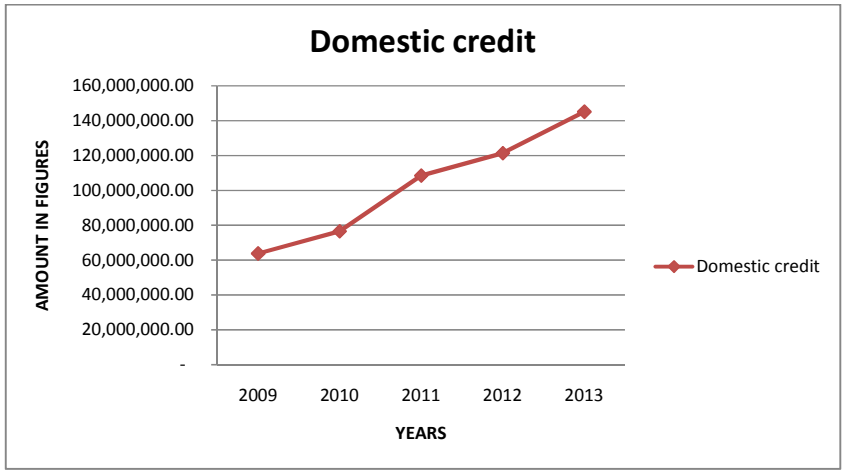
Source: Research Findings

From the findings provided in figure 4.4, it was found that the amount of money borrowed from commercial banks in Kenya using internet sources increased progressively from year 2009-2011.Between the year 2011-2012 the increase slight slowed then this was followed by a rapid increase between year 2012-2013. This could have been as a result of introduction of more efficient and effective ways of accessing banking financial services.

4.2.5 Domestic Credit

To determine the extent to which internet banking impacted on customer deposits, the study determined the trend of domestic credit focusing on a five year trend between year 2009-2013.The results of this findings are as provided below in figure 4.5

Figure 4.5 Domestic Credit



Source: Research Findings

The findings in the above figure 4.5 revealed that there was a steady increase in amount of domestic credit from year 200/2010.This was followed by a rapid increase in year 2010/201, this was then slowed down between year 2011/2012 and a progressive in increase in the amount of domestic credit was exhibited between year 2012-2013.This increase is attributable to the extent of access and availability of internet sources among customers.

4.3 Regression Analysis

Regression analysis is a statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, the focus is on the relationship between a dependent variable and one or more of the independent variables. To

achieve the objective of the study which was to determine the effect of internet banking on customers' deposits among commercial banks, the researcher used a regression analysis to establish the relationship between the two variables (independent variables) internet facilities and (Dependent variable) which is customer deposits among commercial banks in Kenya.

4.3.1 Model Summary

The model summary table provides information about the regression line's ability to account for the total variation in the dependent variable (Customer Deposits).Further, the model summary for the regression model has a correlation coefficient of 0.458 when the variables of amount of money transferred using internet banking; the number of transactions through bills payments, the amount of money borrowed using internet transactions and the level of customer deposits are considered. The correlation coefficient increases by a unit as a result of a corresponding increase in the independent variables.

Table 4.1 Model Summary and the Controlling Variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.458(a)	.210	.0.51	.0234

Source: Research Findings

4.3.2 Analysis of Variance

Analysis of variance provides a statistical test of whether or not the means of several groups are equal, and therefore generalizes the t-test to more than two groups. To achieve the objective of this study, the researcher used analysis of variance to establish the effect of

internet banking on customers' deposits among commercial banks in Kenya. Below are the findings presented in the table 4.2 below:

Table 4.2 ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	0.217	4	0.054	3.077	.001(a)
	Residual	0.418	16	0.026		
	Total	0.635	20			

Source: Research Findings

The study found that the overall regression model in the table 4.2 is significant. This means that the independent variables of; the number of transactions through bills payments, the amount of money borrowed using internet transactions and the level of customer deposits considered together significantly explain the level of customer deposits among commercial banks as a result of the application of internet sources used by customers based on the extent of availability and access of internet resources as shown in the table 4.2 above where the p-value is 0.001. With the help of the F-test table, the F (5%, 4, 16) tabulated was 3.06 which was more than F= 3.077 which as well indicated that the model was statistically significant.

4.3.3 Test for Coefficients

The researcher conducted the tests of coefficients in order to determine the level of significance between the variables both dependent (Customer Deposits) and the independent variables namely: (the number of transactions through bills payments, the amount of money

borrowed using internet transactions and the level of customer deposits).Below are the results of the findings as provided in the table 4.3 below:

Table 4.3 Test for Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.104	0.142		1.10	.009
	Level of Customer Deposits	.107	.012	-.201	.249	.001
	Money Borrowed	.225	.015	.078	-.245	.004
	Number of Transactions	.321	.104	.487	.109	.005
	Money Transferred	.081	.120	.191	.131	002
a. Dependent Variable: Customer Deposits						

Source: Research Findings

From the findings in table 4.3 above, the model show a positive relationship between internet banking and customers' deposits. Holding all factors constant an increase in one of the independent variables (the number of transactions through bills payments, the amount of money borrowed using internet transactions and the level of customer deposits and money transferred) results into a corresponding increase in the dependent variable which is Customer Deposits in this case.

Customer Deposits $=4.104+0.107X_1+0.225X_2+0.321X_3+0.81X_4$

Using this model above, it is possible to determine the effect of the level of customer deposits as a result of internet banking among commercial banks in Kenya. This is explained by the

following independent variables: level of customer deposits, amount of money borrowed, number of transactions and the amount of money transferred. The individual independent variables in the above model are, however, significant since all have a p-value of less than 5%.

4.4 Interpretation of the Findings

The study sought to determine the number of transactions that was attributable to internet banking, from the findings in figure 4.1 above shows that there was a rapid increase in the number of transactions from year 2009 to 2010, in between the year 2010 and 2011 this was followed by a steady increase in customer deposits in year 2012.This was followed by a rapid increase in customer deposits by the year 2013.This increase can be explained by the adoption of modern technologies for example ICT by commercial banks that have led to an increase in customer deposits.

To establish the effect of internet banking on customer deposits, it was found that in between the year 2009/2010, there was a gradual increase in customer deposits in year 2010/2011, this was followed by a rapid increase in the number of customers' deposits. In the year 2011 and 2012 a sharp increase in deposits was exhibited followed a regular increase in deposits between year 2012 and 2013. This increment was attributed to the increased usage in mobile banking that enables customers to access bank services at their convenience using internet resources. This has however led to an increase in customer deposits among commercial banks in Kenya.

To determine the amount of money transferred through internet transactions, the findings revealed that there was a rapid increase in the amount of money transferred between the years 2009-2011; this was followed by a slight decline in the amount of money borrowed between 2011-2012. In the year 2012 and 2013 the amount of money transferred increased to a tune of

KES 24M. It was concluded that the decline between year 2011 and 2012 was as a result of challenges of adapting to new technologies that changed the way of doing things amongst the customers.

To find out the amount of money borrowed through internet transactions, the study reviewed a five year period and established that the amount of money borrowed from commercial banks in Kenya using internet sources increased progressively from year 2009-2011.Between the year 2011-2012 the increase slight slowed then this was followed by a rapid increase between year 2012-2013. This could have been as a result of introduction of more efficient and effective ways of accessing banking financial services.

The study also examined the effect of internet banking on domestic credit in a period of five years. The findings in the above figure 4.5 revealed that there was a steady increase in amount of domestic credit from year 200/2010.This was followed by a rapid increase in year 2010/201, this was then slowed down between year 2011/2012 and a progressive in increase in the amount of domestic credit was exhibited between year 2012-2013.This increase is attributable to the extent of access and availability of internet sources among customers.

The results of the regression analysis found that the overall regression model in the table was significant. This means that the independent variables of; the number of transactions through bills payments, the amount of money borrowed using internet transactions and the level of customer deposits considered together significantly explain the level of customer deposits among commercial banks as a result of the application of internet sources used by customers based on the extent of availability and access of internet resources as shown in the table 4.2 above where the p-value is 0.001. With the help of the F-test table, the F (5%, 4, 16) tabulated was 3.06 which was more than F= 3.077 which as well indicated that the model was statistically significant. These results are coherent and consist with these studies: Maiyo

(2013) who concluded that fees and commission from debit cards, credit cards and mobile banking has a significant effect on returns on asset whereas fees and commission from internet banking as well as the amount of money that commercial banks invest in electronic banking to install, train staff and maintain the platforms has no or minimal effect on return on assets. Other researchers: Kenyoru (2013) also concluded that financial innovation has an insignificant positive impact on customer deposits. Both mobile money innovations and mobile banking have insignificant effects on financial deepening leading to an increase in customer deposits.

CHAPTER FIVE

SUMMARY, CONLUSION AND RECOMMENDATIONS

5.1 Introduction

This section covers the summary of the findings, conclusions, policy recommendations, limitations of the study and suggestions for further study

5.2 Summary

The findings in relation to the number of internet transactions revealed a tremendous increase from year 2009 to 2010, in between the year 2010 and 2011 this was followed by a steady increase in customer deposits in year 2012.This was followed by a rapid increase in customer deposits by the year 2013.It was further established that between the year 2009/2010, there was a gradual increase in customer deposits in year 2010/2011, this was followed by a rapid increase in the number of customers' deposits. In the year 2011 and 2012 a sharp increase in deposits was exhibited followed a regular increase in deposits between year 2012 and 2013.

The findings in relation to the amount of money transferred through internet transactions revealed that there was a rapid increase in the amount of money transferred between the years 2009-2011; this was followed by a slight decline in the amount of money borrowed between 2011-2012. In the year 2012 and 2013 the amount of money transferred increased to a tune of KES 24M.

The study further revealed that the amount of money borrowed through internet transactions, using internet sources increased progressively from year 2009-2011.Between the year 2011-2012 the increase slight slowed then this was followed by a rapid increase between year 2012-2013. The study findings in the above figure 4.5 revealed that there was a steady increase in amount of domestic credit from year 200/2010.This was followed by a rapid increase in year 2010/201, this was then slowed down between year 2011/2012 and a

progressive in increase in the amount of domestic credit was exhibited between year 2012-2013.

The results of the regression analysis found that the overall regression model was statistically significant. The independent variables of; the number of transactions through bills payments, the amount of money borrowed using internet transactions and the level of customer deposits considered together significantly explain the level of customer deposits among commercial banks as a result of the application of internet sources used by customers based on the extent of availability and access of internet resources as shown in the table 4.2 above where the p-value is 0.001.The model showed a positive relationship between internet banking and customers' deposits. This is explained by the following independent variables: level of customer deposits, amount of money borrowed, number of transactions and the amount of money transferred. The individual independent variables in the above model are, however, significant since all have a p-values are less than 5%.

5.3 Conclusion

The study concludes that there has been a tremendous increase in customer deposits within the period of study. This increase however can be explained by the adoption of modern technologies for example ICT by commercial banks in Kenya. The increment in customer deposits could be attributed to the increased usage in mobile banking that enables customers to access bank services at their convenience using internet resources. This has however led to an increase in customer deposits among commercial banks in Kenya.

It was also concluded that the decline between year 2011 and 2012 was as a result of challenges of adapting to new technologies that changed the way of doing things amongst the customers. This could have been as a result of introduction of more efficient and effective

ways of accessing banking financial services. This increase however is attributable to the extent of access and availability of internet sources among customers.

5.4 Recommendationsfor Policy

Central bank of Kenya should set polices that are essential in providing basic context and terms for transfer of funds and credits through internet sources which is essential to establish and promote e-commerce and e-cities but to establish and create electronic city. This will create an enabling environment to enhance financial deepening through customers' deposits.

The government should develop and implement appropriate laws and required infrastructures; special legislation is needed and should be set especially for developing security standards and compliance to increase trust of citizens. These laws should fit the needs of each characteristic of e-city. These rules and regulations can be investigated by government in economic and social sectors. Laws regarding to electronic crime, privacy, free flow of information, consumer protection and e-commerce laws.

Kenya Bankers Associations should instigate regulations to ensure that commercial banks adopt internet banking in order to facilitate quick and continuous access to information by customers. This will promote reduced costs in accessing and using the bank services, increased comfort and timesaving transactions can be made 24 hours a day, without requiring the physical interaction with bank.

Kenya Bankers Association should encourage commercial banks to adopt internet banking to enhance efficiency through improved cash management procedures. I-banking facilities speed up cash cycle and increases of business processes as large variety of cash management instruments are available on Internet sites of banks. Customers can download their history of different accounts and decide before any other new transactions. This will lead to better funds management among commercial banks leading to increased financial performance.

Recently, the rate of fraud among commercial banks has been increasing at an alarming rate and internet related cases of fraud are one of them. The study further recommends that commercial banks should design and develop protective measures to secure their customers money. This can be achieved through the following: to protect the initiation of internet payments, as well as access to sensitive payment data, by strong customer authentication; limit the number of log-in or authentication attempts, define rules for internet payment services session "time out" and set time limits for the validity of authentication; establish transaction monitoring mechanisms designed to prevent, detect and block fraudulent payment transactions; implement multiple layers of security defenses in order to mitigate identified risks and to provide assistance and guidance to customers about best online security practices, set up alerts and provide tools to help customers monitor transactions.

5.5 Limitations of the Study

The limitation of this study is that the regression model adopted concentrated on four variables only namely: the amount of money transferred using internet banking, the number of transactions through bills payments, the amount of money borrowed using internet transactions and the level of customer deposits. Future studies can adopt a more comprehensive model through incorporating other variables that largely affect customer deposits for example: growth in deposits in foreign accounts that are transacted using internet banking services.

The other limitation of this study is that it covered a period five years that is 2009-2013, technology is very dynamic and it keeps on changing, therefore after a period of ten years the results obtained above may not apply. It is appropriate for another study to be conducted after 5 years then findings, conclusions and recommendations can be obtained.

This study was conducted within a limited time frame and resources which constrained the scope and depth of the study. This necessitated the adoption of a census design hence these findings cannot be used to make generalizations on the effects of internet banking on customer deposits in the finance sector in Kenya.

The study used secondary data, in most cases secondary research is not undertaken specifically for one company. Instead it is made available to many either for free or for a fee. Consequently, there is rarely an "information advantage" gained by those who obtain the research since this information is prone to duplication as compared to primary information.

The study used a descriptive study which may not necessary give a comparison on findings with other firms in the finance sector. Therefore, it can be difficult to conclude that the results obtained from commercial banks is a clear reflection of what happens in either microfinance institutions or SACCOS among other firms in the finance sector.

Also, most of the financial statements are reaffirmed in the preceding years meaning that material misstatements of firms' performance can create room for prior year's adjustments and this may not be brought to the attention of the public. This means the pattern depicted may affect the relationship established since the data may not be 100% accurate.

5.6 Suggestions for Further Research

The study recommends that a study should be conducted on the same variables that is internet banking and customers deposits in deposit taking microfinance institutions then results and findings can be compared and conclusions drawn and hence make recommendations based on the findings of the study.

The study further recommends that a similar study should be conducted in another country for example East African region. The findings of this study will be beneficial since it will

shed more light on the extent of implementation of internet banking in other countries with Kenya and its effect on customers' deposits. Therefore, conclusions can be drawn on the most appropriate way of increasing customer deposits among commercial banks.

REFERENCES

Abayomi, A. &Ikhide, I. (1997). Why should financial Liberalization Induce Financial: *Crisis Savings and Development*, 21, 261-274

Acemoglu, D. & Johnson, S. (2005).Unbundling Institutions, *Journal of Political Economy*, 113 (5): 949-995.

Acosta, P., Fajnzylber, P. & Lopez, H. (2007).The impact of remittances on poverty and human capital: Evidence from Latin American household surveys*, Policy Research Working Paper No.4247*, World Bank, Washington, D.C.

Adams, H., & Page, J. (2005). Do International Migration and Remittances Reduce Poverty in Developing Countries, *World Development*, 33(10): 1645-1669.

Aghion, P., Bachetta, P. & Banerjee, A. (2000).Capital Markets and the Instability of Open Economies, *CEPR Discussion Paper No.: 2083. London*, UK: Center for Economic Policy

Amoroso, B.,Gallina, A. &Zupi, M. (2004). Two case studies in Morocco and Tunisia, *FEMISE Research Report, No. FEM21-08, FEMISE*, Marseille

Beck, T. &Demirguç-Kunt, A. (2009).Financial Institutions and Markets across Countries and over Time: Data and Analysis, *Policy Research Working Paper No. 4943*, World Bank, Washington,

Berlyne, D. E. (1982).Uncertainty and Epistemic Curiosity.*British Journal of Psychology*, 53, 27-34

Bhattacharya, S. &Thakor, A. (1993).Contemporary Banking Theory, *Journal of Financial Intermediation* 3: 2-50.

Bilderbeek, R. (1994).Case studies in innovative and knowledge- intensive business services.TNO Report.STB/94/041.*Research project for the EC DG XIII*, print EIMS Programme

Caprio, G., Atiyas, I., & Hanson, J. (1994). *Financial Reform Theory and Experience.*CambridgeUniversity Press

Caruana, J. (2005) Monetary Policy, Financial Stability and Asset Prices. *Bank of Spain Occasional Paper Series*

Central Bank of Kenya (2013).*Bank Supervision Report. Nairobi:* Central Bank of Kenya

Chan, A. &Jia, T. (2011).The Role of Mobile Banking in Facilitating Rural Finance: *Reducing inequality in Financial Services between urban and rural areas*. Accenture Institute for High Performance Series.

Cooper, D. R., & Schindler, P. S. (2006). *Business research methods*. Boston, Mass. [u.a.: McGraw-Hill.

Friedman, B, (1999).The Future of Monetary Policy: *The Central Bank as an Army with Only a Signal Corps International Finance*, 2(3):321-338.

Giuliano, P. and M. Ruiz-Arranz (2009).Remittances, Financial Development, and Growth, *Journal of Development Economics*, 90(1): 144-152.

Goodhart, E. (2000). Can Central Banking Survive the IT Revolution: International Finance, 3(2):189-209.

Hauner, D. & S. J. Peiris (2005). Bank Efficiency and Competition in Low-Income Countries: *The Case of Uganda. International Monetary Fund Working Paper WP/05/240*

Hauner, D. (2008).Credit to Government and Banking Sector Performance, *Journal of Banking and Finance*, 32(8):1499-1507.

Hermes, N. &Lensink, R. (2003).Foreign Direct Investment, Financial Development and Economic Growth, *Journal of Development Studies*, 40(1): 142-163.

Hernando I, Nieto M (2006). Is the internet delivery channel changing banks Performance.The case of Spanish banks.*Working Paper n.0624, Banco de Espana.*

Hicks, D. &Niehans J. (1983).Financial Innovation, multinational banking and Monetary Policy. *Journal of banking and Finance*, 537-551.

Johnson, R.(1997). Sequencing Capital Account Liberalization: Lessons from Experiences in Chile, Indonesia, Korea, and Thailand, Working Paper, WP/97/157, *International Monetary Fund, Washington*, D.C.

Kardaras, D. & Papathanassiou, E, (2001).Electronic Commerce*, International Journal of bank Marketing*, 19(7):292-298.

Katz, E. (1989). The Two-Step Flow of Communication: an Up-To Date Report on a Hypothesis. *The Public Opinion Quarterly, 21* (1): 61-78.

Kenya Bankers Association (2013): One Industry Transforming Kenya: *http://www.kba.co.ke/*

Kenyoru, O. (2013). Effect of Financial Innovations on Financial Deepening In Kenya, *Unpublished MBA Project*, University of Nairobi

King'ori, Z. (2008). The Determinants of Income Velocity of Money in Kenya.*Unpublished MBA Project*, 108, 717-737

Kothari, C.R. (2004).*Research Methodology Methods & Technique, Second Edition*, New Delhi: New Age International publisher.

La Porta, R. Lopez-de-Silanes, F. & Shleifer, A. (2002).Government Ownership of Banks, *Journal of Finance*, 57(1): 265-301.

Maiyo, J. (2013).The Effect of Electronic Banking on Financial Performance of Commercial Banks in Kenya, *Unpublished Project*, University Nairobi

Mckinnon, R. (1973). *Money and Capital in Economic Development*, Washington D.C

Mols, N.P. (1999).The Internet and banks' strategic distribution channel decisions, *International Journal of Bank Marketing*, 17(6):295-300

Nanna, O. J., &Dogo, M. (1998). Structural Reform, Monetary Policy and Financial Deepening: *Financial Review*, 36(2):1-29.

Ndebbio, E.U. (2004). Financial Deepening, Economic Growth and Development: Evidence of Selected Saharan African Countries, *African Economic Research Consortium (AERC), Research Paper 142*: Nairobi

Njuguna, M.(2013). The Effect of Financial Innovations on Growth Of Commercial Banks In Kenya, *Unpublished MBA Project*, University of Nairobi

Nyasetia, L. (2012).Financial deepening and its implications on savings and investments in Kenya, *Unpublished MBA. University* of Nairobi, Kenya

Okiro, K. & Ndungu, J. (2013).Financial Deepening *European Scientific Journal May 2013 edition*.9 :(13)

Okiro.K. (2013).The Impact of Mobile and Internet Banking on Performance of Financial Institutions in Kenya, *Published MBA Project*, University of Nairobi

Okun, M. (2012). The effect of level of deposits on financial performance of Commercial Banks in Kenya, *Unpublished MBA Project*, University of Nairobi

Otieno, A. (2013). Financial Deepening and Profitability Of Commercial Banks In Kenya, *Unpublished MBA Project*, University of Nairobi

Pagano, M. &Volpin, P. (2001).The Political Economy of Finance, Oxford Review of Economic Policy, Winter, 17(4): 502-519

Patnaik, P. (1999). The Real Face of Financial Liberalisation. *Frontline 16(4)*:13-26.

Prinz, A.(1999).Money n the Real and the Virtual World*: E-Money, C-Money, and the Demand for CB-Money*,(1):11-35

Quinn, D.P. (1997).The correlates of change in international financial regulation. *American Political Science Review* 91(3): 531–551.

Robin, I. A., (2008). Financial liberalization: What has really been achieved in Bangladesh, *Published Master's Thesis*, Institute of Social Studies.

Rodrik, D. & Velasco. A. (1999).Short-term Capital Flows, *Working Paper No.:7364*.Cambridge, Mass. National Bureau of Economic Research.

Rogers, E. (2003). *Diffusion of Innovations*.Fifth Edition. Free Press: New York.

Rogers, E.M. (1982). *Diffusion of Innovations*, The Free Press, New York.

Ryan & Gross (1973).The Diffusion of Hybrid Seed Corn in Two Iowa Communities, *Rural Sociology 8* (March): 15

Santomero, M. &Seater, J. (1997).Alternation Monies and the Demand for Media of Exchange, *Journal of Money: Credit andBanking*,.28: 942-960

Sanya, S. &Gaertne, M. (2012) Assessing Bank Competition within the East African Community.*Working Paper Series* WP/12/32.

Shaw, E. (1973). *Financial deepening in economic development*, New York: Oxford University Press.

Silber W. (1983).The Process of Financial Innovation.*American Economic Review*, 73 (2):89-95

Spiegel, M. (2008). *Financial Globalization and Monetory Policy Discipline:A survey with New Evidence from Financial Remoteness.* Federal Reserve Bank of San Francisco.

Stiglitz, E. Weiss A (1981) Credit rationing in markets with imperfect information. *American Economic Review*, 71(3): 393–410.

Stiglitz, J. (2008).Crises today and the Future of Capitalism.The 10th D. T. Lakdawala Memorial Lecture .*Institute of Social Sciences*, New Delhi December.

Stiglitz, J. E. (1994). The role of the state in financial markets, *Proceedings of the World Bank*

Ternullo, G. (1997). Banking on the Internet: New Technologies, New Opportunities *http://www.fdic.gov/indehm*

Toews, D. (2003).The New Trade: Sociology after the End of the Social *Theory Culture & Society 20* (5), 81-98

Zephirin, G. &Seerattan, D. (1997).Financial Innovations in the Caribbean. *Caribbean Centre for Monetary Studies*, University of the West Indies.

APPENDIX I: COMMERCIAL BANKS IN KENYA AS AT 31ST DECEMBER 2013

COMMERCIAL BANKS IN KENYA	
1	African Banking Corporation Ltd.
2	Bank of Africa Kenya Ltd.
3	Bank of Baroda (K) Ltd.
4	Bank of India
5	Barclays Bank of Kenya Ltd.
6	CFC Stanbic Bank Ltd.
7	Charterhouse Bank Ltd
8	Chase Bank (K) Ltd.
9	Citibank N.A Kenya
10	Commercial Bank of Africa Ltd.
11	Consolidated Bank of Kenya Ltd.
12	Co-operative Bank of Kenya Ltd.
13	Credit Bank Ltd.
14	Development Bank of Kenya Ltd.
15	Diamond Trust Bank Kenya Ltd.
16	Dubai Bank Kenya Ltd.
17	Ecobank Kenya Ltd
18	Equatorial Commercial Bank Ltd.
19	Equity Bank Ltd.
20	Family Bank Limited
21	Fidelity Commercial Bank Ltd
22	Fina Bank Ltd
23	First community Bank Limited
24	Giro Commercial Bank Ltd.
25	Guardian Bank Ltd

26	Gulf African Bank Limited
27	Habib Bank A.G Zurich
28	Habib Bank Ltd.
29	Imperial Bank Ltd
30	I & M Bank Ltd
31	Jamii Bora Bank Limited.
32	Kenya Commercial Bank Ltd
33	K-Rep Bank Ltd
34	Middle East Bank (K) Ltd
35	National Bank of Kenya Ltd
36	NIC Bank Ltd
37	Oriental Commercial Bank Ltd
38	Paramount Universal Bank Ltd
39	Prime Bank Ltd
40	Standard Chartered Bank Kenya Ltd
41	Trans-National Bank Ltd
42	UBA Kenya Bank Limited
43	Victoria Commercial Bank Ltd

Source: Central Bank of Kenya (2013)

APPENDIX II: SECONDARY DATA

	2,009	2,010	2,011	2,012	2,013
Variables	**Kshs '000'**	**Kshs '000'**	**Kshs '000'**	**Kshs '000'**	**Kshs '000'**
Customer deposits	60,463,447.82	77,211,767.55	95,783,258.64	108,075,127.45	122,482,079.36
Amount of money transferred	13,925,395.00	17,100,730.00	21,893,810.00	19,879,567.00	22,668,978.00
Number of transactions through bills payments	390.737	904.717	1241.533	1568.125	1977.887
Amount of money borrowed	43,490,071.60	55,919,819.40	72,715,667.80	82,695,482.60	98,950,282.40
Domestic credit	63,780,897.40	76,528,458.60	108,437,546.80	121,324,110.00	145,084,862.80
Customer deposits					
African Banking Corporation Ltd	126,282,019.00	128,305,790.00	130,442,446.00	133,487,403.12	159,617,694.37
Bank of Africa Kenya Ltd	130,811,750.00	153,018,114.00	171,363,429.00	196,293,896.00	204,430,586.00
Bank of Baroda (K) Ltd	35,692,125.00	49,842,963.00	69,842,963.00	74,620,593.00	89,254,263.76
Bank of India	13,820,055.00	18,796,143.00	23,772,231.00	37,592,286.00	43,592,286.00
Barclays Bank kenya Ltd	1,225,869.00	1,223,826.00	1,224,207.00	1,237,915.00	1,251,125.00
CFC Stanbic Holdings Limited	161,474,379.00	171,425,115.00	174,007,134.00	174,906,763.00	394,727,839.00
Charterhouse Bank Ltd	92,010,838.00	98,621,380.36	121,374,338.00	127,031,175.00	135,792,125.00
Chase Bank (K) Ltd	3,593,617.00	4,456,447.00	6,952,883.00	7,795,938.00	8,418,675.00
Citibank N.A Kenya	17,014,614.00	22,237,346.00	28,620,593.00	35,692,125.00	43,761,732.00
Commercial Bank of Africa Ltd	57,492,717.00	65,355,881.00	82,224,797.00	103,169,486.00	129,048,885.00
Consolidated Bank of Kenya Ltd	4,881,920.00	8,008,438.00	12,010,250.00	12,087,215.00	13,620,477.00
The Co-operative Bank of Kenya Ltd	92,529,000.00	129,226,000.00	144,514,000.00	163,149,000.00	175,425,121.00
Credit Bank Ltd	44,759,148.00	55,031,306.00	67,234,765.00	77,321,109.00	96,842,963.00
Development Bank of Kenya Ltd	31,987,588.00	38,101,360.00	44,571,810.00	59,997,868.00	63,048,658.32
Diamond Trust Bank (Kenya) Ltd	52,834,395.00	66,196,600.00	85,986,399.00	106,975,254.00	128,788,398.00
Dubai Bank Kenya Ltd	212,219,449.00	215,943,341.00	218,671,586.00	222,937,649.00	226,807,204.00

Ecobank Kenya Ltd	97,728,818.00	124,620,593.00	130,293,896.00	140,446,501.00	165,213,923.56
Equatorial Commercial Bank Ltd	113,968,266.00	114,635,357.00	115,916,534.00	156,975,254.00	174,401,456.00
Equity Bank Limited	169,842,963.00	204,430,586.00	240,446,501.00	265,812,458.00	394,720,593.00
Family Bank Limited	56,037,527.00	74,810,649.00	95,386,379.00	154,789,310.00	195,875,395.00
Fidelity Commercial Bank Ltd	15,109,876.00	18,218,084.00	21,003,360.00	36,718,360.00	43,560,231.00
Fina Bank Ltd	44,759,148.00	68,208,428.00	85,212,904.00	87,774,149.00	97,445,568.00
First community Bank Limited	11,141,156.00	16,888,926.00	17,234,765.00	19,205,790.00	20,608,642.14
Giro Commercial Bank Ltd	124,130,074.00	140,321,410.00	164,911,210.00	168,421,569.00	170,963,623.31
Guardian Bank Ltd	16,566,403.00	21,475,301.00	36,910,438.00	39,182,340.00	43,823,792.00
Gulf African Bank Limited	26,043,616.00	45,053,213.00	54,089,433.00	63,654,714.00	72,713,167.80
Habib Bank A.G Zurich	30,988,110.00	46,731,049.00	64,231,476.00	78,301,921.00	99,803,136.16
Habib Bank Ltd	16,493,841.00	18,308,000.00	20,069,206.00	20,419,778.00	21,457,177.00
Imperial Bank Ltd	55,092,376.00	65,821,685.00	75,168,092.00	88,561,021.00	92,873,136.16
I &M Holdings Limited	77,902,880.00	115,814,201.00	162,008,349.00	200,254,070.00	215,558,717.00
Jamii Bora Bank Limited	54,052,120.00	60,080,255.00	89,248,674.00	100,278,130.00	109,348,706.14
Kenya Commercial Bank Ltd	163,029,350.00	196,974,651.00	259,308,849.00	288,037,367.00	308,659,189.00
K-Rep Bank Ltd	35,215,897.00	60,927,935.00	74,233,988.00	90,150,422.00	108,973,341.00
Middle East Bank (K) Ltd	10,866,266.00	14,495,208.00	17,122,740.00	19,503,400.00	22,982,079.36
National Bank Of Kenya Ltd	41,995,446.00	47,804,607.00	56,728,163.00	55,191,425.00	77,992,820.00
NIC Bank Limited	39,514,275.00	48,492,224.00	66,293,053.00	83,379,576.00	191,565,005.00
Oriental Commercial Bank Ltd	114,765,130.00	130,353,074.00	183,568,809.00	126,731,049.00	131,968,523.00
Paramount Universal Bank Ltd	31,870,916.00	47,389,377.00	60,956,577.00	75,819,333.00	96,572,836.00
Prime Bank Ltd	14,037,451.00	17,690,740.00	18,568,371.00	17,814,951.00	29,939,367.00
Standard Chartered Bank Kenya Ltd	180,773,652.00	200,504,065.00	222,323,049.00	240,524,846.00	254,720,011.00
Trans-National Bank Ltd	11,844,938.00	13,010,470.00	16,451,636.00	16,451,636.00	184,778,341.30
UBA Kenya Bank Limited	3,378,232.00	4,301,921.00	6,823,792.00	7,965,319.00	9,916,711.00
Victoria Commercial Bank Ltd	1,516,384.00	3,378,988.00	5,906,502.00	7,560,894.00	14,831,596.36

Amount of money transferred					
African Banking Corporation Ltd	6,922,989.00	9,195,747.00	11,875,122.00	13,316,555.00	14,106,635.00
Bank of Africa Kenya Ltd	9,589,967.00	10,664,328.00	11,748,470.00	12,936,727.00	15,523,652.00
Bank of Baroda (K) Ltd	6,922,989.00	9,195,747.00	11,875,122.00	13,316,555.00	14,106,635.00
Bank of India	3,912,000.00	6,922,989.00	9,195,747.00	11,875,122.00	13,316,555.00
Barclays Bank kenya Ltd	21,514,697.00	22,441,555.00	23,506,475.00	24,711,136.00	24,779,584.00
CFC Stanbic Holdings Limited	21,682,330.00	21,867,275.00	22,812,359.00	24,465,857.00	27,167,922.00
Charterhouse Bank Ltd	11,843,923.00	12,543,235.00	14,169,411.00	18,945,309.00	23,664,971.00
Chase Bank (K) Ltd	3,118,581.00	5,963,608.00	6,697,731.00	8,683,721.00	11,425,115.00
Citibank N.A Kenya	4,588,088.00	6,079,464.00	8,603,450.00	10,336,492.00	13,653,458.00
Commercial Bank of Africa Ltd	17,104,647.00	21,998,217.00	25,462,779.00	26,021,103.00	29,727,224.00
Consolidated Bank of Kenya Ltd	9,336,000.00	13,194,000.00	16,561,302.00	20,775,000.00	26,192,000.00
The Co-operative Bank of Kenya Ltd	19,466,550.00	23,366,583.00	25,081,964.00	30,627,842.00	34,714,199.00
Credit Bank Ltd	1,548,394.00	1,630,838.00	1,711,803.00	1,868,735.00	1,948,919.00
Development Bank of Kenya Ltd	19,329,127.00	20,341,602.00	24,768,615.00	27,240,888.00	32,425,791.00
Diamond Trust Bank (Kenya) Ltd	7,703,907.00	13,869,483.00	16,333,157.00	19,231,485.00	22,744,510.00
Dubai Bank Kenya Ltd	6,998,163.00	8,939,503.00	16,522,162.00	11,593,302.00	20,950,855.00
Ecobank Kenya Ltd	8,039,250.00	16,078,500.00	22,279,616.00	27,342,393.00	33,419,424.00
Equatorial Commercial Bank Ltd	13,581,000.00	15,656,000.00	18,651,981.00	21,980,000.00	24,498,000.00
Equity Bank Limited	19,493,754.00	21,059,626.00	25,556,484.00	35,558,146.00	33,674,186.00
Family Bank Limited	14,770,067.00	17,510,816.00	21,759,818.00	23,600,177.00	19,281,501.00
Fidelity Commercial Bank Ltd	3,378,232.00	5,301,921.00	9,997,868.00	8,823,792.00	12,561,032.00
Fina Bank Ltd	3,502,951.00	5,520,548.00	7,697,864.00	9,139,095.00	10,968,436.00
First community Bank Limited	1,632,331.00	2,300,706.00	4,606,902.00	8,727,304.00	6,510,816.00
Giro Commercial Bank Ltd	5,067,930.00	7,757,593.00	9,571,819.00	14,479,282.00	12,320,427.00
Guardian Bank Ltd	2,193,646.00	3,995,719.00	8,901,980.00	12,704,252.00	10,083,705.00

Gulf African Bank Limited	3,739,749.00	4,802,374.00	7,565,694.00	9,401,613.00	13,395,120.00
Habib Bank A.G Zurich	1,354,435.00	2,482,170.00	2,996,726.00	4,067,978.00	5,230,754.00
Habib Bank Ltd	2,965,031.00	3,751,423.00	4,187,231.00	5,901,398.00	6,012,384.00
Imperial Bank Ltd	4,013,943.00	6,879,246.00	8,930,638.00	11,508,861.00	13,650,136.00
I &M Holdings Limited	19,867,416.00	22,394,096.00	24,510,816.00	27,560,351.00	23,922,667.00
Jamii Bora Bank Limited	5,998,163.00	8,939,503.00	11,593,302.00	16,522,162.00	20,950,855.00
Kenya Commercial Bank Ltd	21,149,291.00	23,519,513.00	26,847,863.00	29,996,483.00	28,847,834.00
K-Rep Bank Ltd	14,756,635.00	17,356,692.00	22,284,824.00	19,039,929.00	23,627,766.00
Middle East Bank (K) Ltd	1,904,603.00	1,982,011.00	2,010,659.00	2,020,546.00	2,109,433.00
National Bank Of Kenya Ltd	13,544,350.00	15,251,430.00	20,995,645.00	23,041,176.00	23,482,170.00
NIC Bank Limited	12,033,068.00	16,027,379.00	18,478,603.00	19,674,901.00	22,143,719.00
Oriental Commercial Bank Ltd	8,440,212.00	10,474,119.00	13,039,929.00	16,197,346.00	19,104,185.00
Paramount Universal Bank Ltd	12,184,722.00	13,987,588.00	14,101,360.00	16,228,764.00	18,500,359.00
Prime Bank Ltd	7,377,692.00	9,147,045.00	11,399,952.00	13,528,363.00	12,009,965.00
Standard Chartered Bank Kenya Ltd	14,518,135.00	17,520,351.00	20,461,412.00	25,760,214.00	24,718,312.00
Trans-National Bank Ltd	14,364,103.00	15,932,471.00	21,901,308.00	18,450,013.00	20,394,194.00
UBA Kenya Bank Limited	4,359,233.00	7,166,639.00	13,273,755.00	18,301,921.00	15,692,125.00
Victoria Commercial Bank Ltd	3,037,108.00	4,630,379.00	6,844,530.00	9,995,719.00	10,321,096.00
Number of transactions through bills payments					
African Banking Corporation Ltd	317.28	568.65	776.25	1,072.30	1,382.97
Bank of Africa Kenya Ltd	237.52	427.84	671.45	1,169.90	1,442.48
Bank of Baroda (K) Ltd	143.87	377.23	580.93	915.41	1,407.81
Bank of India	240.24	396.34	621.74	1,155.14	1,398.71
Barclays Bank kenya Ltd	759.77	859.68	1,032.12	1,364.31	1,674.66
CFC Stanbic Holdings Limited	456.50	992.40	1,070.63	1,271.47	1,523.10
Charterhouse Bank Ltd	230.01	752.89	1,033.38	1,343.91	1,587.41
Chase Bank (K) Ltd	245.52	321.41	567.41	849.32	1,646.50
Citibank N.A Kenya	307.31	356.32	539.13	1,308.74	1,651.75

Commercial Bank of Africa Ltd	569.23	825.92	1,136.58	1,352.43	1,574.21
Consolidated Bank of Kenya Ltd	477.00	764.15	1,129.23	1,379.75	1,763.30
The Co-operative Bank of Kenya Ltd	725.61	1,271.24	1,427.84	1,428.67	1,682.74
Credit Bank Ltd	204.20	332.10	523.32	731.41	891.43
Development Bank of Kenya Ltd	395.43	764.15	844.48	1,257.39	1,472.51
Diamond Trust Bank (Kenya) Ltd	364.19	651.81	987.73	1,147.32	1,324.74
Dubai Bank Kenya Ltd	453.72	790.09	1,104.98	1,314.72	1,809.26
Ecobank Kenya Ltd	553.31	650.10	881.68	1,371.35	1,574.32
Equatorial Commercial Bank Ltd	489.29	613.76	897.13	1,074.21	1,241.74
Equity Bank Limited	969.66	1,232.07	1,342.48	1,692.00	1,857.73
Family Bank Limited	671.47	770.58	1,036.60	1,347.21	1,624.32
Fidelity Commercial Bank Ltd	271.46	407.13	685.21	957.41	1,142.86
Fina Bank Ltd	188.65	280.21	373.23	475.21	651.42
First community Bank Limited	245.41	375.62	632.47	918.74	1,023.74
Giro Commercial Bank Ltd	219.77	394.37	670.74	842.52	1,234.74
Guardian Bank Ltd	217.10	403.95	762.20	964.14	1,475.32
Gulf African Bank Limited	363.28	587.48	741.32	935.73	1,145.48
Habib Bank A.G Zurich	267.36	397.12	515.16	746.21	987.42
Habib Bank Ltd	214.59	375.47	567.75	619.20	874.23
Imperial Bank Ltd	335.43	696.34	938.41	1,217.61	1,472.84
I &M Holdings Limited	624.85	725.88	1,039.86	1,319.47	2,219.71
Jamii Bora Bank Limited	356.97	797.60	933.12	1,187.28	1,378.65
Kenya Commercial Bank Ltd	930.73	1,608.00	1,810.36	2,010.81	2,238.41
K-Rep Bank Ltd	291.54	412.34	689.77	974.21	1,243.47
Middle East Bank (K) Ltd	152.93	284.37	439.74	745.46	987.21
National Bank Of Kenya Ltd	595.66	707.71	1,191.62	1,374.21	1,574.21
NIC Bank Limited	796.44	827.70	1,179.16	1,474.31	1,859.20
Oriental Commercial Bank Ltd	223.78	416.37	718.41	941.32	1,174.51
Paramount Universal Bank Ltd	218.36	387.67	578.15	814.67	1,012.32

Prime Bank Ltd	356.12	642.32	837.22	1,142.52	1,564.21
Standard Chartered Bank Kenya Ltd	607.84	953.19	1,187.98	1,385.74	1,589.31
Trans-National Bank Ltd	354.20	606.24	1,077.82	1,570.20	1,910.45
UBA Kenya Bank Limited	276.52	321.17	689.71	828.56	972.32
Victoria Commercial Bank Ltd	181.56	290.72	397.18	547.41	741.85
Amount of money borrowed					
African Banking Corporation Ltd	7,988,560.00	11,534,028.00	14,984,582.00	16,012,960.00	19,365,870.00
Bank of Africa Kenya Ltd	10,235,824.00	13,730,002.00	16,907,146.00	18,574,636.00	21,480,353.00
Bank of Baroda (K) Ltd	93,543.00	87,147.00	99,072.00	104,204.00	118,362.00
Bank of India	221,805.00	393,755.00	546,060.00	877,198.00	411,628.00
Barclays Bank kenya Ltd	44,759,148.00	68,208,428.00	85,212,904.00	87,774,149.00	97,145,568.00
CFC Stanbic Holdings Limited	45,840,448.00	58,984,961.00	64,256,754.00	66,149,841.00	69,133,492.00
Charterhouse Bank Ltd	8,983,963.00	10,562,856.00	16,723,817.00	19,367,691.00	23,677,956.00
Chase Bank (K) Ltd	7,462,920.00	13,360,254.00	14,616,804.00	17,789,828.00	21,910,159.00
Citibank N.A Kenya	6,552,914.00	9,031,131.00	12,718,823.00	15,166,671.00	19,227,362.00
Commercial Bank of Africa Ltd	34,478,744.00	38,642,621.00	47,364,854.00	53,120,504.00	70,759,781.00
Consolidated Bank of Kenya Ltd	555,132.00	776,380.00	5,031,131.00	10,077,068.00	10,855,492.00
The Co-operative Bank of Kenya Ltd	66,620,000.00	90,965,000.00	114,101,000.00	123,824,000.00	143,190,690.00
Credit Bank Ltd	8,983,963.00	9,484,091.00	12,325,705.00	14,576,541.00	18,434,467.00
Development Bank of Kenya Ltd	36,882,153.00	50,882,153.00	71,572,650.00	87,774,149.00	96,200,544.00
Diamond Trust Bank (Kenya) Ltd	41,518,135.00	51,260,068.00	71,297,721.00	87,707,243.00	110,945,439.00
Dubai Bank Kenya Ltd	40,765,987.00	50,660,693.00	68,461,052.00	92,866,971.00	103,493,833.00
Ecobank Kenya Ltd	28,640,005.00	52,802,453.00	63,526,481.00	74,974,956.00	92,362,039.00
Equatorial Commercial Bank Ltd	38,490,548.00	48,785,818.00	69,379,021.00	71,919,067.00	72,126,897.00
Equity Bank Limited	63,378,232.00	78,301,921.00	113,823,792.00	135,692,125.00	171,363,429.00
Family Bank Limited	24,560,365.00	36,800,135.00	44,246,010.00	63,374,427.00	70,593,497.00

Fidelity Commercial Bank Ltd	3,468,275.00	4,635,357.00	5,416,534.00	13,968,266.00	16,325,705.00
Fina Bank Ltd	730,839.00	1,711,967.00	3,291,392.00	9,016,937.00	11,770,145.00
First community Bank Limited	1,688,664.00	1,937,580.00	3,308,068.00	4,238,908.00	6,168,488.00
Giro Commercial Bank Ltd	4,485,009.00	5,430,761.00	6,457,997.00	8,430,119.00	12,165,790.00
Guardian Bank Ltd	3,655,414.00	7,267,979.00	8,316,125.00	10,772,270.00	13,604,948.00
Gulf African Bank Limited	4,425,440.00	5,483,868.00	6,831,580.00	7,267,979.00	10,522,953.00
Habib Bank A.G Zurich	4,332,080.00	5,074,031.00	7,500,288.00	8,300,659.00	9,916,824.00
Habib Bank Ltd	3,243,652.00	4,792,176.00	5,502,788.00	6,213,399.00	8,888,399.00
Imperial Bank Ltd	42,984,148.00	58,997,784.00	67,316,640.00	96,692,383.00	110,467,574.00
I &M Holdings Limited	22,570,212.00	39,129,771.00	44,365,027.00	53,339,559.00	63,354,966.00
Jamii Bora Bank Limited	38,119,239.00	46,206,401.00	50,331,122.00	63,992,155.00	76,773,652.00
Kenya Commercial Bank Ltd	172,207,623.00	212,226,429.00	286,351,132.00	314,039,726.00	327,496,613.00
K-Rep Bank Ltd	17,968,455.00	17,968,455.00	28,501,387.00	32,984,286.00	43,082,218.00
Middle East Bank (K) Ltd	3,332,393.00	4,366,706.00	4,774,794.00	5,081,110.00	7,638,114.00
National Bank Of Kenya Ltd	85,125,000.00	90,250,000.00	177,955,000.00	181,000,000.00	190,929,611.00
NIC BANK LIMITED	47,558,241.00	59,013,922.00	78,984,005.00	108,348,593.00	121,062,739.00
Oriental Commercial Bank Ltd	32,746,249.00	42,973,924.00	53,709,938.00	60,336,829.00	75,012,421.00
Paramount Universal Bank Ltd	51,404,408.00	60,026,694.00	67,178,607.00	68,664,516.00	92,555,717.00
Prime Bank Ltd	14,096,015.00	19,530,837.00	21,915,166.00	26,851,195.00	27,738,719.00
Standard Chartered Bank Kenya Ltd	158,208,042.00	167,097,083.00	177,075,000.00	180,667,318.00	190,312,516.00
Trans-National Bank Ltd	10,788,668.00	13,156,455.00	16,849,231.00	19,566,678.00	24,346,668.00
UBA Kenya Bank Limited	7,738,719.00	9,530,837.00	13,203,531.00	15,575,491.00	18,425,564.00
Victoria Commercial Bank Ltd	3,688,137.00	5,539,533.00	7,300,361.00	9,073,812.00	12,003,258.00
Domestic credit					
African Banking Corporation Ltd	17,954,954.00	19,038,008.00	25,060,618.00	28,429,453.00	33,319,648.00
Bank of Africa Kenya Ltd	11,135,141.00	15,141,355.00	20,559,046.00	25,148,620.00	28,961,410.00

Bank of Baroda (K) Ltd	14,953,214.00	18,794,942.00	21,016,941.00	25,287,531.00	35,198,166.00
Bank of India	18,962,191.00	20,192,676.00	24,193,524.00	32,980,604.00	40,494,630.00
Barclays Bank kenya Ltd	41,311,598.00	54,626,092.00	79,206,640.00	92,535,049.00	107,450,534.00
CFC Stanbic Holdings Limited	70,922,412.00	75,224,630.00	94,884,596.00	78,483,828.00	103,847,691.00
Charterhouse Bank Ltd	23,736,372.00	30,691,382.00	38,039,832.00	47,257,540.00	61,159,185.00
Chase Bank (K) Ltd	12,802,808.00	14,295,870.00	16,015,643.00	19,295,870.00	23,964,362.00
Citibank N.A Kenya	6,826,654.00	8,598,591.00	10,357,576.00	14,069,551.00	17,958,699.00
Commercial Bank of Africa Ltd	98,255,971.00	112,301,576.00	131,567,701.00	148,961,552.00	169,597,220.00
Consolidated Bank of Kenya Ltd	973,820.00	1,041,014.00	3,483,040.00	10,183,421.00	12,121,695.00
The Co-operative Bank of Kenya Ltd	102,046,941.00	113,562,072.00	129,833,357.00	147,017,943.00	166,412,067.00
Credit Bank Ltd	12,869,679.00	19,538,966.00	22,288,065.00	25,127,810.00	32,849,387.00
Development Bank of Kenya Ltd	96,692,834.00	101,649,560.00	109,687,453.00	119,021,873.00	273,938.00
Diamond Trust Bank (Kenya) Ltd	48,910,160.00	59,190,706.00	72,805,137.00	95,429,995.00	119,731,471.00
Dubai Bank Kenya Ltd	92,699,408.00	102,230,784.00	116,786,429.00	120,664,700.00	153,201,471.00
Ecobank Kenya Ltd	112,945,160.00	150,566,885.00	160,993,289.00	173,144,873.00	180,673,282.00
Equatorial Commercial Bank Ltd	17,081,796.00	23,347,841.00	29,967,781.00	35,820,165.00	46,902,578.00
Equity Bank Limited	66,757,220.00	80,689,770.00	115,558,717.00	145,689,993.00	178,422,945.00
Family Bank Limited	43,800,362.00	56,285,013.00	77,157,755.00	81,565,139.00	90,620,430.00
Fidelity Commercial Bank Ltd	14,328,632.00	16,797,126.00	19,060,809.00	23,286,487.00	31,250,136.00
Fina Bank Ltd	11,074,320.00	15,409,089.00	19,381,669.00	24,540,381.00	35,828,442.00
First community Bank Limited	13,559,599.00	15,222,095.00	17,722,192.00	20,652,388.00	26,451,195.00
Giro Commercial Bank Ltd	4,933,235.00	5,344,508.00	6,360,245.00	8,093,073.00	12,157,062.00
Guardian Bank Ltd	28,121,673.00	32,684,166.00	45,974,304.00	50,372,909.00	60,445,725.00
Gulf African Bank Limited	20,689,655.00	34,570,024.00	54,789,128.00	62,949,665.00	78,865,102.00
Habib Bank A.G Zurich	17,846,663.00	19,183,214.00	23,751,932.00	25,029,481.00	36,773,652.00
Habib Bank Ltd	13,992,155.00	18,331,122.00	20,694,456.00	30,752,814.00	36,206,401.00
Imperial Bank Ltd	73,275,029.00	81,730,854.00	94,224,526.00	103,865,059.00	121,413,799.00

I &M Holdings Limited	101,358,801.00	122,531,640.00	135,723,968.00	159,125,885.00	187,144,143.00
Jamii Bora Bank Limited	54,100,625.00	61,562,500.00	89,843,750.00	91,520,764.00	106,133,703.00
Kenya Commercial Bank Ltd	131,726,922.00	158,324,372.00	224,534,003.00	222,085,791.00	248,131,185.00
K-Rep Bank Ltd	69,055,000.00	78,727,875.00	99,055,000.00	108,039,250.00	134,432,877.00
Middle East Bank (K) Ltd	6,447,471.00	7,337,278.00	8,115,564.00	9,851,294.00	13,742,202.00
National Bank Of Kenya Ltd	13,323,132.00	20,856,748.00	30,649,627.00	28,346,668.00	47,367,842.00
NIC Bank Limited	69,786,817.00	82,415,127.00	103,352,168.00	164,599,942.00	184,184,779.00
Oriental Commercial Bank Ltd	18,787,329.00	23,358,440.00	26,095,887.00	30,450,260.00	32,458,670.00
Paramount Universal Bank Ltd	35,403,790.00	38,074,781.00	43,620,000.00	56,270,000.00	71,829,000.00
Prime Bank Ltd	84,766,516.73	104,191,063.00	107,897,000.00	161,615,484.00	189,536,002.00
Standard Chartered Bank Kenya Ltd	58,187,053.00	63,580,697.00	98,640,250.00	115,068,103.00	131,770,871.00
Trans-National Bank Ltd	48,210,640.00	63,913,390.00	72,174,108.00	88,921,914.00	105,426,614.00
UBA Kenya Bank Limited	6,607,254.00	7,872,096.00	10,240,075.00	14,304,972.00	18,119,239.00
Victoria Commercial Bank Ltd	12,111,073.00	13,281,861.00	13,543,137.00	14,719,558.00	15,875,580.00

Source: Central Bank of Kenya Report as at 31/12/2013