THE EFFECT OF INTERNET BANKING ON KENYA'S ECONOMIC DEVELOPMENT

BY

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DECLARATION

This research project is my original work and has not been submitted for another degree in any other University or Institution of Learning to the best of my knowledge.

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

Signed: ……. Date: ……...

Dr. Aduda Josiah

DEDICATION

This project is dedicated to Borness Taptechok Chepyoset (Batiem), the woman who defined for me education and took me to pre-school.

ACKNOWLEDGEMENT

My gratitude goes to God almighty for the strength, guidance and protection this far I have come.

I am indebted to my supervisor Dr. Josiah Aduda whose guidance and support proved vital to the success of this project.

I would also like to thank my Dad, Mr. Leonard Kirui who provided me with everything I needed.

In addition, I am indebted to my Mum, Mrs. Rhoda Kirui for prayers and moral support.

Lastly, am thankful for my siblings and colleagues for assistance they accorded me during the entire process.

ABSTRACT

The main objective of this study was to establish the effect of internet banking on economic development and establish the status of internet banking in commercial banks in Kenya. Specifically, it examined the investment in ICT, the number of clients using internet baking, the return on assets and the adoption of automated teller machines over the period 2009 – 2013. Economic development was measured by gross domestic product.

The study adopted causal research design and descriptive design where inferential statistics were used in analyzing the data. The primary data was collected by questionaries' from 15 banks. Secondary data was collected using documentary information from CBK and KNBS. The data was analyzed using linear regression model.

The study found that, the fifteen commercial banks have all adopted internet banking and customers access some services online due to enhanced efficiency. The results showed that, there exists a positive relationship between economic development and the number of customers using internet banking, the number of ATMs and return on assets. However, there is a negative relationship between economic development and investment in ICT by the commercial banks.

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ABBREVIATIONS

ATM	Automated Teller Machine
CBK	Central Bank of Kenya
DTM	Deposit Taking Microfinance Institutions
ICT	Information and Communication Technology
ID	Identification Document
IDT	Innovation Diffusion Theory
IT	Information Technology
GDP	Gross Domestic Product
KNBS	Kenya National of Bureau Statistics
MFI	Micro-Finance Institutions
PC	Personal Computer
PEOU	Perceived Ease of Use
PU	Perceived Usefulness
SACCO	Savings and credit Cooperative Societies
SPSS	Statistical Package for Social Sciences
TAM	Technology Acceptance Model
TRA	Theory of Reasoned Action
TV	Television

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Internet banking is becoming the preferred channel. In Kenya e-banking is fast becoming the preferred rather than an alternative, channel for banking customers as banks offer everything from balance enquiries and loan applications to funds transfer and utility bill payments through mobile and internet banking as argued by Guerrero (2011). Over the past two decades internet banking has been growing aggressively globally in the financial sector of the economy. Individuals have now moved from queuing in the brick banks and opting to access their bank inquiries through the internet.

Kenya is responding to technological advancement with the rest of the globe. In Kenya, the banking sector has invested in technology advancement thus improving service quality. It is a period where all transactions are conducted from one's preferential choice. The banking sector calls this the untapped opportunity, for instance collaborating with mobile service providers such as Safaricom's M-shwari in provision of internet and mobile banking services. In reference to this, internet banking has a positive impact on Kenya's economy as it has improved and eased the nature of doing business (Kihiu & Moffat, 2012). However, the significance will be slight.

1.1.1 Internet Banking

Internet banking as defined by Njuguna et al. (2012), is the use of internet as a delivery channel for banking services which includes all traditional services such as balance enquiry, printing statement, fund transfer to other accounts, bills payments

and new banking services such as electronic bill presentment and payment without visiting a bank. Similarly, Hassan et al. (2010) define internet banking as a form of banking where funds are transferred through an exchange of electronic signals between financial institutions rather than the exchange of cash, checks or other negotiable instruments.

According to Atay and Apak (2013), internet banking is a convenient and flexible way of banking with various transaction related benefits. Before the internet banking era, traditional bank services constituted labour intensive activities such as deposit, withdrawal and transferring as well as foreign exchange and trading at the stock exchange. With internet banking, Gathembe, Magutu and Muro (2013) did mention that, the fixed costs in IT investments have become relatively higher and the variable costs relatively lower.

1.1.2 Economic Development

Social development is a product of and instrumental to economic development as stated by Kihiu and Moffat (2012). According to Bousrih (2013), industrial progress and innovation constitute the fundamental impulse in stimulating capitalist incentive as it creates new production methods and new types of industrial organization. Bousrih (2013) using optimization analysis suggested that long term economic growth is linked to an exogenous technological progress growth rate. Bousrih (2013) mentions that this argument was introduced by Koopmans (1965) and Cass (1965) that all economies must converge towards the same income per capita with the same level of preferences, the same growth rate of population and to have access to the same technologies. Some economists have argued that economic growth is

determined by exogenous factors while others argue that it is more linked to some endogenous determinants. In Kenya, economic development will be measured by GDP.

Gross Domestic Product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period, though it is usually calculated on an annual basis as defined by Amiri & Reif (2013). It includes all of private and public consumption, government outlays, investments and exports less imports that occur within a defined territory. Auka (2012) states that, Kenya's banking sector, in terms of GDP at market prices contributes about 40%. In a country where the financial sector is dominated by commercial banks, any failure in the sector has an immense implication on the economic growth of the country due to the fact that bankruptcy that could happen in the sector has a contagion effect that can lead to bank runs, crises and bring overall financial crisis and economic tribulations (Ongore & Kusa, 2013).

At the macro-level, there is a substantial body of evidence that innovation is the dominant factor in national economic growth and international patterns of banking sector. The determinants of production of the innovations in macroeconomic level by considering the macroeconomic institutional variables include; GDP, the expenditure on research and development, patent laws, human capital, education, information and communication technologies, liberalization, market structure and competition level, government policies, (Stratford, 2013).

GDP is a well-accepted and comprehensive measure of economic development that covers the economy as a whole rather than a single sector or market. If one turns to the mixed frequency approach for the disaggregates, there are many similarities to the

direct GDP forecasts although it is also evident that the information employed by coincident and leading indicators help to forecasts some components better than others (Stratford, 2013).

1.1.3 Internet Banking and Economic Development: Expected Relationship

Al-Samadi (2011) argues that, the growth is being fuelled in large part by two factors: more users and faster, more ubiquitous access. The number of users around the globe will rise to a projected three billion in 2016 from 1.9 billion in 2010. Broadening access, particularly via smart-phones and other mobile devices, and the popularity of social media are further compounding the internet's impact. In the developing world in particular, many consumers are going straight to social.

According to Aduda and Kingoo (2012), there is a positive relationship between return on asset and expenditure on e-banking ICT. However, the installed number of ATM's has a negative relation on the return on assets. Aduda and Kingoo (2012), found the correlation coefficient between the number of debit cards issued to customers and the return on assets and expenditure as 0.715 and 0.631 respectively. As such, there is a strong power of relationship between the associated variable on the return on assets.

The conclusion of their research indicated that investments in e-banking has a positive relationship with bank performance at 1% level, which is in line with theory as reflecting financial innovation in the banking development. It proves that ICT investment has had a strong influence on the structure and the activities of the banking sector, thus allowing transactions to be conducted more efficiently and effectively.

Therefore, this proposal theoretically predicts that investments in internet banking will have a positive relationship with economic development in Kenya.

1.1.4 Internet Banking and Economic Development in Kenya

Kimoro (2010) argued that the mode of payment affects the success and growth of business in Kenya. She did examine the extent to which mobile payment services influenced economic growth of small scale businesses in the light of Technology Acceptance Model (TAM). Kimoro (2010) research results showed that low cost, perceived accessibility, convenience, satisfaction, security and support factors had a positive correlation effect with the behavioural intention of using mobile banking.

Also, the behavioural intention to use is significantly correlated with the actual usage. However, there is a low degree of correlation between perceived support and actual usage in that, the small scale enterprises users of mobile payment system expect more support from both the mobile service provider and from the government such as increased minimum daily transactions amounts and reduction in congestion of the service lines.

When all the explanatory variables are zero, Waiyaki (2013), states that there is an increase in GDP inflows by 23.81 percent. It also shows that the level of real GDP improves when the explanatory variables are equal to zero. The level and trend of GDP rise is an increasing function of the variables used. A one percent increase in the broad money supply leads to an increase in the level of real GDP by 0.59 percent. This conforms to the theory that an increase in the level of real GDP by 0.59 percent

implies a rise in liquidity when converted into production and sparking market demand, thus acts as an incentive to real GDP rise in Kenya.

1.2 Research Problem

The rapid rise of internet services has made electronic delivery channels a key priority area for banks. In terms of IT costs, online banking is expected to be the fastest growing area, with an expected 5.3% increase in spending (DB Research, 2011). Online banking is growing in popularity as a delivery channel. The internet has reduced transaction cost and lessened the importance of location. According to DB Research (2011), around 45 percent of all individuals in the world used online banking facilities in 2010. Using extensive electronic channels increases market transparency and consumers are able to compare service offerings easier. Internet bank users are more willing to use also other services on the internet. "Research has suggested that with a successful migration to e-payments, the annual saving will be one per cent of GDP annually" (Atay & Apak, 2013).

Guerrero (2011) argues that internet banking has the potential to generate savings of about one per cent of GDP annually. Recent studies have drawn correlation between GDP and Internet adoption levels between regions. For example one which stated "a 10 percent increase in per capita GDP is associated with a 21.5 percent increase in the number of Internet users per capita" (Andres et al., 2010). Many of these studies have focused specifically on the introduction and growth of ICT in developing countries and its subsequent impact of GDP.

However, there are ambiguous conclusions concerning the link between ICT use and economic growth in developing countries. The issue of the direction of causality needs to be formally addressed. Did ICT endowed countries reach high-income levels as a result of higher use of these technologies or was ICT diffusion caused by higher economic growth (Economist Intelligence Unit, 2012)?

According to Njuguna et al. (2012), the rapid growth and popularity of the internet has created great opportunities as well as threats to companies in various business sectors, to endorse and deliver their products and services using internet as a distribution channel. This has an impact on the GDP as stated by Auka (2012) who found that Kenyans' banking sector, in terms of GDP at market prices contributes about 40%. However, even though Ongore and Kusa (2013) agree that there is an impact played by the commercial banks on the Kenyan economy, they note that internet banking has a slight significance in this role instead it is dominated by mobile banking.

Local studies in Kenya have not linked internet banking to have an effect on economic development with GDP being the measure of this development, as no study is known to the researcher that has been done. Thus, the researcher seeks to close the knowledge gap on the relationship present between internet banking and economic development.

1.3 Objective of the Study

The study will attempt to establish the effect of internet banking on economic development and establish the status of internet banking in Kenya.

1.4 Value of the Study

The banking sector, through the study will be able to know the success they have in the economic growth of Kenya. It enhances the growth success present in implementing internet banking. It will also benefit the Board of Directors and top management in decision making and execution of strategies.

This study will benefit banks in knowing that they contribute positively to the economy through internet banking. Banks with a national economy goal, work towards building national capital, increasing national savings and mobilizing investments in trade and industry. Also, to the bank customer, internet banking facilitates a convenient and effective approach to manage personal finances as it is accessible 24 hours a day and 365 days in a year without visiting the bank and from any locations. In addition, it will enhance the economic benefits of internet banking that include the following; lower operational costs of banks, automated process, accelerated credit decisions, accelerated credit decisions, lowered minimum loan size to be profitable, lower margins in lower cost of entry, expanded financing reach and increased transparency and expand reached through self-service through lower transaction cost, make some corporate services economically feasible for society and make anytime access to accounts and loan information possible.

The development of internet banking in Kenya is having a positive effect on other sectors besides the banking industry. First, on the supply side of other sectors, authentication solutions deployed by the banks are used by other service providers such as public administrations to provide Internet services, so that consumers can use their internet bank ID as an identification or signature tool for other services. Second, on the ICT supply side, the development of Internet banking has stimulated a

competence building process in the ICT industry in innovation areas such as Internet application software and internet security solutions. Third, on the demand side internet banking has started transforming the way people live and interact, and the PC and internet skills developed, investment made and behaviour learned could be transferred to other private and public Internet services, stimulating their use.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section will review three theories and empirical studies on the impact of internet banking on Kenya's economic development. There are three theories arguing in favour of this concept. First, Innovation Diffusion Theory attempts to explore the factors that influence an individual to adopt an innovation (Rogers, 1995). Second, Technology Acceptance Model explains the determinants of information technology acceptance (Davis, 1989). Third, Triandis Model assumes an attitude-intention-behaviour relationship by including a number of variables (Chang & Cheung, 2001). Internet banking has emerged as a key competitive field for the future of financial services. Banks have changed to keep up with the information technology and communication developments. This change includes using the technology of computer and communication to replace manual and paper operations to electronic operations; internet banking is the common method adopted by banks.

2.2 Review of Theories

2.2.1 Innovation Diffusion Theory

The innovation diffusion theory attempts to explore factors that influence an individual to adopt an innovation or a new technology (Rogers, 1995). According to this theory, there are five main beliefs that tend to influence the adoption of a new technology or any innovation; compatibility, relative advantage, trial ability,

complexity and observability as listed by Rogers, (1995). Innovation adoption is thus an uncertainty reduction process. Gathering and synthesising information by individuals and banks tends to reduce uncertainty about the new technology.

First, relative advantage is the degree to which an innovation is perceived as being better than the idea it supersedes. It requires the adopter to analyse the costs and benefits of using an innovation, which can be expressed economically or socially. Secondly, compatibility is the degree to which an innovation is perceived as consistent with the existing values, past experiences and the needs of potential. It is evaluated relative to the adopter's socio-cultural values and beliefs, previously introduced ideas and client needs for innovation. In the context of Internet banking, if technology is consistent with their current ways of doing financial transactions and the technology does not go against their current values, the technology has a higher chance to be accepted.

Thirdly, complexity is defined as the degree to which an innovation is perceived as relatively difficult to understand and use. Complexity reflects the level of physical or mental effort necessary to use an innovation. Fourth, the belief of trial ability that is defined as the degree to which an innovation may be experimented with on a limited basis. This belief allows the adopter to test drive an innovation so that it gives meaning to the adopter. Fifth, belief is observability which is defined as the degree to which the results of an innovation are visible to others.

However, internet banking is tested on the four beliefs of innovation diffusion theory except observability. Observability was excluded by Baraghani (2008) in his study due to the nature of the targeted technology chosen which was related to internet banking. Individuals generally conduct Internet banking transactions privately and

that such transactions would not be observable and visible to others. These four beliefs in the context of Internet banking positively affect an individual's attitude toward using Internet banking and consequently attitude positively affects the intention to use the technology.

2.2.2 Technology Acceptance Model

Davis (1989) introduced the Technology Acceptance Model (TAM) as an adaptation of the Theory of Reasoned Action (TRA) modelled in accepting information system. TAM aims at explaining the determinants of computer acceptance, user behaviour across a broad range of end-user computing technologies and user populations by being both theoretically and parsimonious justified. The main purpose for existence of TAM is to provide a basis for tracing the impact of external factors on internal beliefs, attitudes, and intentions. TAM was formulated in an attempt to achieve these goals by identifying a small member of fundamental variables suggested by previous research dealing with the cognitive and affective determinants of internet acceptance.

TAM argues through two beliefs that perceived ease of use (PEOU) and perceived usefulness (PU) are the main relevance for technology acceptance behaviour as noted by Davis, (1989). Perceived usefulness is the degree to which a prospective user believes that using a particular system would enhance his or her job performance. A system that is high in perceived usefulness such as internet banking, is one for which a user believes in the existence of a positive use-performance relationship. PEOU is the degree to which a prospective user believes that using a particular system would be free of effort. All else being equal, an application perceived to be easier to use than other is more likely to be accepted by users.

2.2.3 Triandis Model

According to Chang and Cheung (2001), Triandis model assumes an attitude-intention-behaviour relationship by including a number of variables. This model considers variables such as facilitating conditions, social factors and habit. It postulates that the probability of performing an act is a function of facilitating conditions, intention to perform the act and habit. The intention of performing a particular behaviour is a function of the social factors, perceived consequences and affect. The facilitating conditions include necessary resources and the support needed in performing behaviour such as money, time, software, network connection, hardware and expertise (Chang & Cheung, 2001). In recent studies, Triandis model has been applied to technology adoption researches, internet adoption and Executive Information Systems.

2.2.4 Comparison of theories

TAM, Triandis and IDT share some similarities. First, according to Baraghani (2008), the perceived usefulness in TAM is similar to relative advantage in IDT and to some extent, the perceived consequences in Triandis model. In respect to this, perceived usefulness, perceived consequences and relative advantage in different models justify the rationale in TRA that the beliefs about the consequences of the behaviour are keys to formulation of attitude towards the behaviour. Secondly, Triandis and TAM assume an attitude intention behaviour relationship, that is, cognitive and normative or effective beliefs form attitude, which, in turn, has influence on behavioural intention and actual usage of behaviour (Baraghani, 2008). Thirdly, perceived behavioural control refers to one’s perception of whether behaviour is under his

control and whether he has access to resources and opportunities required to facilitate behaviour. Fourthly, the construct of perceived ease of use in TAM is close to the complexity construct in IDT.

2.3 Empirical Studies Review

Banking historically has been a sector based on individual or institutional client service. In the last two decades, the delivery of banking services has undergone enormous changes. In today's browser-based competitive finance world, banks need to flourish this client service viewpoint with web-empowered features for keeping clients and attracting prospective ones (Maduku, 2013). Internet banking has emerged as a key competitive field for the future of financial services. Banks have changed to keep up with the information technology and communication developments. According to Ma, Zhao & Li (2013), this change includes using the technology of computer and communication to replace manual and paper operations to electronic operations; internet banking is the common method adopted by banks.

Okiro and Ndungu (2013) found out that, internet banking opportunities lowers the barriers between the large banks and the smaller newcomers**.** Customers have more choice, which decreases their dependence on one financial institution to handle all their banking needs. Finally, online banking is a tremendous time-saver and delivers more accurate and timely financial data. Indeed while internet banking provides the possibility for its customers to have access to their account in every internet connected corner of the world, diverse and conflicting national regulations are creating difficulties for internet banks in terms of reaching every customer in every corner of the world as noted by Amiri & Reif (2013). Internet banking is attempting to

circumvent those regulatory obstacles in order to reach customers across different borders.

Therefore, the main problems banks have faced in encouraging the use of new technology is the ignorance of clients and their unwillingness to shift to the new system. Education plays a major role in influencing the adoption of internet banking. More educated people are more likely to use internet banking facilities as they are more acquainted with a computer and the internet. The usage rate of internet banking is significantly related with the education level. As per Iraki (2012) in outsourcing Vision 2030, education and also income level makes an important difference in the usage of internet banking facilities.

Early advancement in technology has played an important role in the distribution strategy of commercial banks. Banks distribute their products and services not only through a sole channel but instead, through a variety of innovative channels such as internet banking, automated teller machines, mobile banking, phone banking, TV banking etc, (Okiro & Ndungu, 2013). According to the views of Schumpeter (1991), the financial intermediary sector alters the path of economic progress by affecting the allocation of savings and not necessarily by altering the rate of savings. Financial intermediaries play a pivotal role in economic development because they choose which firms get to use society's saving.

Driscoll (2004) did discover that banks may play a special role in the propagation of economic fluctuations. The first role is the endogenous problem, in that one must determine that correlations between output and money are due to output responding to money and not money demand to expectations of future output. Driscoll stated that the positive correlation between output and lending is statistically stronger for

construction and investment loans and on the microeconomic level the impact of a change in bank lending is the most severe on small firms. The research concluded that state-specific money demand shocks have economically and statistically significant effects on the quantity of loans made by banks in that state.

According to Economist Intelligence Unit (2012), the telecommunications sector continues to post brisk growth, led by Tele-banking and the internet. Tele-banking accounts jumped by 42% to 18.9 million in 2011, while the number of estimated internet users surged by 95% to 17.4 million. The mobile networks are mainly providing internet service, following the launch of third generation mobile broadband services in a number of markets. For example, more than 10% of Kenya's GDP now pass through the MPESA mobile banking service which has more than there are bank account holders in the country.

Money can be tapped from one part of Kenya to another in seconds through mobile. It is used by an average of 25% the population or 9.5 million people who transfer an equivalent of 11% of Kenya's GDP annually (Iraki, 2012). Making a money transfer system work smoothly requires a great deal of backstage effort despite the apparent frictionless transfer of money through the air. For instance, the main idea behind Mpesa is that the over 100,000 small retailers in Kenya who already sell mobile phone airtime, in the form of scratch cards, can also register to be mobile money agents, taking in and paying out cash.

The internet has enabled banks and non-traditional players such as mobile phones to find new revenue streams in the emerging markets as stated by Kunur (2009). According to the Global Financial Development Report by World Bank (2013), 2.5 billion adults lack access to a bank account. The World Bank is aiming by 2020 to

provide access to financial services to every working-age adult. One major way of achieving this goal is by replacing traditional banking networks and infrastructure with mobile and internet services. In advanced nations where smart phones are now being used as mobile wallets, substituting services previously provided by major retail banks.

Low-income populations benefit most from technological innovations such as mobile payments and mobile banking. Mobile-commerce / e-commerce makes financial services cheaper and easier to access for the poor, women and rural residents, particularly those living in remote, less populated regions without bricks-and-mortar-bank branches (Wang & Pho, 2009).

In Kenya, Mpesa is its de facto bank. Safaricom, the mobile phone operator has developed a network of 30,000 stores through which its customers can cash-in and cash-out of their Mpesa mobile wallet accounts (Iraki, 2012). It is approximately 200 times more than the number of branches operated by the largest bank in Kenya. Of the 29 million mobile subscribers in Kenya, 65% or 19 million Kenyans are subscribed mobile money services.

Money and banking are highly regulated as such; they may be the last of the information-based sectors to be disrupted by the internet. However, non-banking institutions have stolen an early march on the mobile payments sector in both developing and developed countries. Although banks will continue to provide essential services using their extensive bricks-and-mortar networks in developed economies they now face the significant threat of disruption through the disintermediation of key services currently being undertaken by mobile operators, technology companies and specialist payment providers.

Banks can reduce the cost of acquiring and processing information about firms and potential projects, thus avoiding the problem of duplication and free riding. Kunur (2009) suggests that through easing information friction between savers and borrowers, banks may increase saving and capital accumulation in the economy. Banks foster innovation and efficient resource allocation, after identifying the most worthy projects and firms. Also, banks specialise in monitoring and controlling borrowers, avoiding the duplication and free-riding of individual investors.

Banks lower liquidity risk as argued by Kapingura (2013) that by pooling savings and by investing both in short-term securities and long-term investments, banks can transform the maturity of savings and thus facilitate the commitment of long term resources to investment projects. Banks are able to allow pooling and sharing of risk thus reduces transaction costs, since they are able to diversify idiosyncratic risk. According to Kapingura (2013) this role provides a shift to higher risk higher return projects as he argues that banks facilitate inter-temporal risk diversification.

A strong banking sector is important to every country to stimulate economic growth and maintain financial stability for the whole financial system. Information and technological revolution motivated banks to spend more on technology to maximize return and attract more customers who will not accept less than above-average services. Banks are investing in providing internet banking services as a new cost effective delivery channel, driven by cost reduction, market share increase and customer retention targets (Atay & Apak, 2013). Good economic conditions affect internet banking sector performance positively. As such, the bank should benefit from conditions associated with economic boom as possible to mitigate the negative effects that may be faced by the bank during the economic recession.

2.4 Chapter summary and conclusion

As our connections to information become more and more prevalent in every corner of the world, this access to information will begin to drive our economies, driving productivity and efficiencies, and adding to the value created by each employee and citizen. The ICT revolution can be seen as a large and long-lasting positive supply shock, causing higher and possibly also more stable economic growth without extra inflation (Houben & Kakes, 2002). Accordingly, spending on research and development employment in the economy as a whole or in the financial services sector has positive effects on the return to assets or equity of mixed banks, and reduces their cost income ratios.

In Kenya, research and development spending on internet banking is not a competitive advantage. Expenditure on information technology as a share of GDP does not lead to higher performance in the banking sector; instead, it reduces returns as it boosts costs. However, outlay on communication technologies means; higher long-term interest rates decrease the return to assets of internet banks without increasing their cost to income ratio.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Burns and Grove (2003), state that a research methodology is used by the researcher as a guide in collecting, analyzing and interpretation of data. This chapter will create a blueprint of research design, population, sampling, data collection data analysis so as to be followed.

3.2 Research Design

Research design is defined by Burns and Grove (2003) as a blueprint for conducting an investigation that has maximum control over the factors that may interfere with the findings validity. It is thus a plan that describes the process of collecting and analysis of data. In relation to this study, causal research design was used to establish the cause and effect relationships between Internet banking and GDP as the study variables. It involves a field experiment that is a realistic situation in which one or more independent variables are manipulated by the researcher under carefully controlled conditions as the situation will permit.

3.3 Population

A population can be defined as the entire set of relevant units of analysis or data. It is the aggregate of cases that conform to some designated set of specifications. A finite

population contains a countable number of sampling units. The targeted population used was random customers or employees of a bank or financial institution in Kenya.

3.4 Sampling

Kothari (2003) defines sampling as the process of selecting a sample which is a group that will be used in obtaining data. Stratified or proportional random sampling was used in this study. It involves dividing the population into a homogeneous subgroups and then taking a simple random sample in each subgroup. It is used in assurance that the representation not only for the overall population, but key subgroups of the population. The strata were mutually exclusive in that every element in the population (bank) must be assigned to only one stratum. The researcher used 33 random respondents in Kenya with an assumption that they use banking services.

3.5 Data Collection

Primary and secondary data was collected for the study. The secondary data was generated from Central Bank of Kenya and Kenya National Bureau of Statistics on GDP. This secondary data was used for regression analysis and it consisted of annual data covering the period between 2007 and 2012. Qualitative data was also collected through self-administered questionnaires comprising of close-ended and scale type questions. The 33 respondents were selected purely on judgemental and purposive basis mainly focusing on staff that work in the internet banking department of the commercial banks in Kenya and have some knowledge on internet banking and

economic growth. The questionnaires were also given to bank customers to determine the services they use on internet banking.

3.6 Data Analysis

Data analysis refers to the computation of certain measures along with searching for patterns of relationship that exists among data-groups (Creswell, 2003). According to Kothari (2004), data analysis involves data conversion through editing, coding, recoding, tabulation and classifications for decision making and interpretation purposes. The analysis was conducted using Regression Analysis Model with the help of Statistical Package for Social Sciences (SPSS). The regression model proposed is;

$Y = \beta 0 + \beta 1 X_1 + \beta 2 X_2 + \beta 3 X_3 + \beta 4 X_4 + Ksh$

Y is the economic development impact measured by GDP as per the return on assets (investment in internet banking). It is the dependent variable that represents a quantity that varies from individual to individual throughout the population and it is the main focus. Being a residual term, it represents a composite effect of all the other types of individual differences not explicitly identified in the model. X_1 is the variable investment in internet banking determined by the number of internet banking customers, X_2 is the size variable represented by the banks' total assets, X_3 is the investment on ICT variable and X_4 is the variable economic growth measured by GDP annually.

3.7 Data Validity and Reliability

Data will be assessed for validity as follows; for content validity, which is the extent to which an instrument provides an adequate coverage of topic, a pre-test with open ended questions will be done. For face validity, which is the likelihood that a question may be misunderstood or misinterpreted, the questionnaire will be pre-tested with a few respondents. Direct interviews and brochure information will also be used for further corroboration.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the data analysis results, interpretation of the results and discussion. Data analysis was done using SPSS with the main analysis tool being regression analysis. The study sought to establish the effect of internet banking on Kenya's economic development.

4. 2 Response rate

The study targeted thirty three (33) respondents from random commercial banks in Kenya. The targeted respondents were mainly employees in internet and electronic banking department. Table 4.1 presents the response rate. It shows that 90.91% response rate was achieved and a total of 9.09% did not respond. This could be attributed to the fact that the population was small hence the researcher was able to reach out and succeed with 30 respondents at their convenient time.

Table 4.1: Response rate

Respondents	Target Number	Attained	Response rate (%)
Internet / electronic banking department staff	33	30	90.91%
Unanswered questionnaire		2	6.06%
Spoilt questionnaire		1	3.03%
TOTAL	33	33	100%

4.3 Status of internet banking: how often customers use these services.

Table 4.2: How often customers use these services

Type	Very Often	Often	Sometimes	Never
Check balance online	6.67%	26.67%	26.67%	40%
Download loan application	3.33%	33.33%	13.3%	50%
Seeking product and rate information	20%	10%	23.33%	46.67%
Online bill payment	6.67%	20%	30%	43.33%
Inter-account transfer	16.67%	23.33%	30%	30%
Use credit card online	20%	6.67%	30%	43.33%
Customer care	10%	23.33%	33.33%	33.33%
Salary processing	10%	20%	23.33%	46.67%

The aim of table 4.2 analysis is to find out how frequently customers use the internet banking services. How frequent it is being used was checked against the types of internet banking services available. The percentage of customers checking balance online very often, often, sometimes and never were 6.67%, 26.67%, 26.67% and 40% respectively. Percentage of customers downloading loan application very often, often, sometimes and never was 3.33%, 33.33%, 13.3% and 50% respectively. Percentage of customers seeking product and rate information very often, often, sometimes and

never is 20%, 10%, 23.35% and 46.67% respectively. Percentage of customers paying the bill online very often, often, sometimes and never is 6.67%, 20%, 30%, and 43.33% respectively. Percentage of customers using the inter-account transfer very often, often, sometimes and never is 16.67%, 23.33%, 30% and 30% respectively. Percentage of customers using the credit card online is 20%, 6.67%, 30% and 43.33% respectively. Percentage of customers using the customer care very often, often, sometimes and never is 10%, 23.33%, 33.33% and 33.33% respectively. The percentage of customers who process salaries very often, often, sometimes and who never are at 10%, 20%, 23.33% and 46.67% respectively.

4.4 Variables Descriptive Statistics

This section presents the descriptive statistics for all the variables used. Table 4.2 shows that all the variables increased annually throughout the study period from 2009 to 2013.

Table 4.3: Descriptive Statistics Variables

Year	2009	2010	2011	2012	2013
Customers using internet banking	2,855	5,780	42,490	111,850	235, 680
ICT Expenditure in Ksh' Millions	22	90	153	283.40	445
Gross Domestic	1,394,387	1,475,302	1,539,912	1,610,084	1,686,149

Product in Ksh Millions					
Total Net Assets in Ksh Millions	1,353,499	1,678,112	2,020,818,	2,330,335	2,703,394
Profit after Tax in Ksh Millions	34,523	57,590	63,955	75,039	88,830
Return on Assets	0.025506	0.034318	0.031648	0.032201	0.032859
Customer Deposits in Ksh millions	1,006,021	1,236,549	1,488,168	1,707,834	1,935,661
Number of ATMs	1,717	1,979	2,205	2,381	2,487
Capital in Ksh Millions	196,250	265,806	291,232	362,182	432,178

Source: Research Data.

From the table 4.3 above, Kenya's economic development was measured by the financial intermediation and injections into the financial system through GDP. Financial performance of commercial banks was measured by the return on assets. Internet banking was measured by the number of ATMS and expenditure on ICT investment. The stability of the commercial banks was determined by capital and customer deposits. Return on assets was calculated by dividing commercial banks total profit after taxation by the total net assets held by these commercial banks over the study period: 2009 to 2013. All the variables increased steadily over the years.

4.5 Pearson Correlation Coefficient

Inferential statistics was used to analyse the data with the help of Statistical Package for Social Sciences (SPSS). Data collected was cleaned, sorted, coded and later analysed. Through the descriptive statistics for instance percentages and mean score were calculated and tabulated. Inferential test that includes regression analysis and Pearson Product-Moment correlation coefficient were used in testing the relationship between the variables.

The relationship between two variables is calculated by Pearson's correlation coefficient which is the measure of linear association strength between two variables. A negative correlation means a negative relationship while a positive correlation means a positive relationship. The relationship between internet banking and economic development through the Gross Domestic Product as per the return on assets was examined by Pearson Product Moment Correlation Coefficient.

Table 4.4: Correlation Matrix

	Return on Assets	*ICT expenditure*	*Customers using internet banking*	*ATMs*
Return on Assets	1			
ICT expenditure	0.499865	1		
Customers using internet banking	0.363273	0.982256	1	
ATMs	0.650624	0.933832	0.855549	1

The correlation matrix is an important indicator that tests the linear relationship between the variables. This matrix determines the strength of the variables in that model in that it explains which variable best measures the relationship between internet banking and economic development. Table 4.4 presents the correlation matrix of the variables in the levels. The table shows that there is a positive correlation

between return on assets and expenditure on ICT investment in Kenya shillings, customers using internet banking services and the number of ATMs installed. This means that the return on assets is positively correlated with all the independent variable on the equation. The correlation strength is largely positive on all the variables.

4.6 Regression Analysis

An analysis of the impact of internet banking on bank performance that affects Kenya's economic development was conducted through a regression analysis. Regression analysis was used in analysing that relationship between internet banking on commercial bank performance that in turn impacts the gross domestic product in Kenya's economic development.

Table 4.5: **Variables Entered/Removed**

Model	Variables Entered	Variables Removed	Method
1	ROA, CUSTOMERS, ATMs, ICT[a]	.	Enter

a. All requested variables entered.

Table 4.6**: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	1.000[a]	1.000	.	.	1.000	.	4	0	.

a. Predictors: (Constant), ROA, CUSTOMERS, ATMs, ICT

R-squared is a statistical measure of how close the data are to the fitted regression line. R-squared figure is 100% meaning that all the movements are explained in the index, as such, economic development pattern is in with the entire index. It shows that beta figure has been utilized. This is a good reflection of the true position that part of Kenya's economic development (GDP) can be explained by the number of ATMs, investment in ICT, number of customers using the internet banking and the banks return on assets. Co-efficient of the regression shows that there is a relationship between the strength of an economy with e-banking and financial performance.

***Table 4.7*: ANOVA[b]**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.165E10	4	1.291E10	.	.[a]
	Residual	.000	0	.		
	Total	5.165E10	4			

a. Predictors: (Constant), ROA, CUSTOMERS, ATMs, ICT

b. Dependent Variable: GDP

***Table 4.8*: Coefficients[a]**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	915972.608	.000		.	.	915972.608	915972.608					
	CUSTOMERS	.451	.000	.387	.	.	.451	.451	.925	1.000	.018	.002	440.387

	ICT	-4.607E-5	.000	-.068	.	.	.000	.000	.978	-1.000	-.002	.001	829.795
	ATMs	248.977	.000	.681	.	.	248.977	248.977	.987	1.000	.081	.014	71.321
	ROA	1985668.224	.000	.059	.	.	1985668.224	1985668.224	.609	1.000	.027	.204	4.902

a. Dependent Variable: GDP

***Table 4.9*: Collinearity Diagnostics[a]**

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	CUSTOMERS	ICT	ATMs	ROA
1	1	4.432	1.000	.00	.00	.00	.00	.00
	2	.556	2.823	.00	.00	.00	.00	.00
	3	.009	21.676	.01	.03	.02	.00	.02
	4	.002	46.593	.00	.03	.01	.04	.51
	5	9.007E-5	221.827	.99	.93	.97	.96	.47

a. Dependent Variable: GDP

Estimated equation

$Y = \beta 0 + \beta 1X_1 + \beta 2X_2 + \beta 3X_3 + \beta 4X_4 + Ksh$

$Y = 915972.608 – 4.607E5X_1 + 1985668.224X_2 + 0.451X_3 + 248.977X_4$

On one hand, the above shows that the number of customers using internet banking, the ROA and the number of ATMs have a positive relationship with the economic development measured by GDP. On the other hand, investment in ICT by the commercial banks has a negative relationship with GDP. Since F is significant then the whole model is significant.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter is a synthesis of the entire study. It presents a summary of the research findings, conclusions and recommendations. The chapter is organized as follows; first it presents a summary of the findings presented according to the research objectives. This is followed by conclusions and recommendations.

5.2 Summary of findings

The results reveal that the coefficients number of customers using internet banking, number of ATMs, and the return on assets have a positive relationship while investment in ICT has a negative relationship with Kenya's economic development measured by GDP. This indicates that the number of customers using internet banking has a positive relationship with GDP at 1% level. An increase in number of customers on internet banking by just one customer will lead to an increase of 0.451 Kenya shillings on economic growth in Kenya. This is expected.

In reference to the above, the numbers of customers using internet banking do not have a strong influence on the general economic development; however, they enhance more efficiency in the commercial banks. Similarly, the information technology does not increase the commercial bans profitability but it does change the total net assets and the structure of income that in turn affects the return on assets.

The challenge has been that customers are afraid of exposing their financial information on the internet due to security threats. For internet banking to gain acceptance in the market, it should have some of these characteristics; anonymity, solutions to compensate users in case of theft or loss thus provision of security, high and efficient speed, low transaction costs and liquidity that is subject to wide acceptability.

5.3 Conclusion

The study was guided by the objective; to establish the effect of internet banking on economic development and establish the status of internet banking in Kenya. The results indicated that Kenya's economic development as measured by GDP is explained by investment in ICT, internet banking and the strength of return on assets. This indicates that there exists a positive relationship between internet banking and economic development.

Based on the summary of major findings, the following conclusions are drawn. First the adoption of internet banking in Kenya is increasing and many banks are embracing investment on ICT and the use of internet. Second, internet banking affects positively the returns on assets and GDP. Third, the investment of internet banking is very effective and efficient in several banks. However, banks should evaluate if the investment has any impact on profitability.

In general conclusion, internet banking has made banking transactions to be easier by bringing services closer to its customers hence improving banking industry performance.

5.4 Recommendations

From the conclusions above, the following recommendations were made. First, commercial banks should enhance customer awareness of the entire suite of e-banking services as well as security measures in place. This can be achieved through comprehensive advertising that utilizes various media to reach out to customers. Second, the Central Bank of Kenya should reassure the public of the safety of e-banking. This could be achieved through workshops and advertising.

5.5 Suggestions for further study

Since the present study was only based on internet banking at commercial banks, future studies should seek to improve on the findings of this study by expanding the population to include DTMs, SACCOs and MFIs. These institutions are involved in brining financial services to the poor or marginalized areas and the idea of a virtual branch would be an area of interest to other researchers. Future studies should also focus on factors affecting ICT investment strategies. Lastly, further studies should also focus on using other organizational performance measures such as operational performance as it affects internet banking.

5.6 Limitations of the study

While undertaking this study some challenges were faced. There was bureaucracy on obtaining approval to respond to questionnaires with most institutions insisting that

permission be sought from the top management. This led to delays in obtaining the required responses for data analysis in time.

REFERENCE LIST

Aduda, J. & Kingoo, N. (2012). The relationship between electronic banking and financial performance among commercial banks in Kenya. *Journal of Finance and Investment Analysis*, 1(3), 99-118.

Al-Samadi, O. M. (2011). The impact of E-banking on the performance of Jordanian banks. *Journal of Internet Banking and Commerce*, 16(2), 1-10.

Amiri, S. & Reif, B. (2013). Internet penetration and its correlation to Gross Domestic Product: An analysis of the Nordic countries. *International Journal of Business, Humanities and Technology*, 3(2), 50-60.

Andres, L., Cuberes, D., Diouf, M. & Serebrinsky, T. (2010). The diffusion of the internet: A cross-country analysis. *Telecommunications Policy*, 34(5-6), 323-340.

Atay, E. & Apak, S. (2013). An overview of GDP and internet banking relations in the European Union versus China. *Social and Behavioural Sciences*, 99, 36-45.

Auka, O. D. (2012). Service quality, satisfaction, perceived value and loyalty among customers in commercial banking in Nakuru Municipality, Kenya. *African Journal of Marketing Management*, 4(5), 185-203.

Baraghani, N. S. (2008). Factors influencing the adoption of internet banking. *Theses*.

Bousrih, L. (2013). Social capital, human capital and sustainable economic development. *Economics Review*, 3(13), 42-54.

Burns, N. & Grove, S. K. (2003). *Understanding nursing research*, (3rd ed). Philadelphia, PA: W. B. Saunders.

Chang , M. K. & Cheung, W. (2001). Determinants of the intention to use internet / WWW at work: A confirmatory study. *Information & Management*, 39, 1-14.

Creswell, J. (2003). *Research design: Qualitative, quantitative and mixed methods approaches* (2nd ed). Thousand Oaks, CA: SAGE publications.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use and user acceptance of information technology. *MIS Quarterly*, 1393), 318-339.

DB Research, (2012). Online banking and demography. *Banking & Technology Snapshot*.

Driscoll, J. C. (2004). Does bank lending affect output? Evidence from the U.S. States, *Journal of Monetary Economics*, 51(3), 451-471.

Economist Intelligence Unit, (2012). Broadband network. *Economist Intelligence Unit.*

Gathembe, K. N., Magutu, O. P. Muro, B. M. (2013). Electronic money transfer systems and business process management among commercial banks in Kenya. *European Scientific Journal*, 9(10), 102-118.

Global Financial Report, (2013). Financial development and inclusion. *Global Financial Development*, World Bank.

Guerrero, A. (2011). Building mobile market share in Kenya. *Global Finance*, 25(9), 110.

Hassan A. H. M. Baten, A., Kamil, A. A. & Parveen, S. (2010). *African Journal of Business Management*, 4(13), 2718-2727.

Houben, A. & Kakes, J. (2002). ICT innovation and economic performance: The role of financial intermediation, *Kyklos*, 543-525.

Iraki, X. N. (2013). Outsourcing and vision 2030: An analysis into Kenya's new economic frontier. *African Journal of Business Management*, 7(15), 1218-1223.

Kapingura, M. F. (2013). Finance and economic growth nexus: Complementarily and substitutability between the banking sector and financial markets in Africa, using South Africa as a case. *Journal of Economics and International Finance*, 5(7), 273-286.

Kihiu, E. & Moffat, B. (2012). The relationship between foreign direct investment and economic growth in Kenya. *International Journal of Economics and Business Studies*, 2(2), pp. 11-19.

Kimoro, J. N. (2013). A survey of the foreign exchange reserves risk management strategies adopted by the Central Bank of Kenya. *Thesis*.

Kothari, C. R. (2003). *Research Methodology: Methods and techniques* (2nd ed). New Delhi: New Age International Limited.

Kunur, P. (2009). How mobile technology is changing banking future. Retrieved, March 2014 http://adage.com/article/digital/digital-mobile-technology-changing-banking-s-future/139136/.

Ma, Z., Zhao, J. & Li, M. (2013). The role of trust and ease of use in the development of Internet banking. *African Journal of Business Management*, 7(42), 4336-4343.

Maduku, D. K. (2013). Predicting retail banking customers' attitude towards internet banking services in South Africa. *Southern African Business Review*, 17(3), 76-100.

Njuguna, P.K., Ritho, C., Olweny, T. & Wanderi, M. P. (2012). Internet banking adoption in Kenya: The case of Nairobi County. *International Journal of Business and Social Science*, 3(18), 246-252.

Okiro, K. & Ndungu, J. (2013). The impact of mobile and internet banking on performance of financial institutions in Kenya. *European Scientific Journal*, 9(13), 146-161.

Ongore, V. O. & Kusa, G. B. (2013). Determinants of financial performance of commercial banks of Kenya. *International Journal of Economics and Financial Issues*, 3(1), 237-252.

Rogers, E. M. (1995). *Diffusion of innovation* (4th ed). New York: The Free Press.

Schumpeter, A. J. (1991). Money and currency. *Social* Research, 58(4), 499-543.

Stratford, K. (2013). Now casting world GDP and trade using global indicators. *Topical Articles*, 233-243.

Waiyaki, I. N. (2013). Financial development, economic growth and poverty in Kenya. *Thesis*.

Wang, J. & Pho, T. (2009). Drivers of customer intention to use online banking: An empirical study in Vietnam. *African Journal of Business Management*, 3(11), 669-677.

APPENDIX 1: QUESTIONNAIRE

University of Nairobi,

School of Business,

P.O. Box 30197,

Lower Kabete,

NAIROBI.

15TH April 2014

Dear Sir/ Madam,

I am gathering data for m Research Project towards fulfilment of a Master of Science Degree majoring in Finance and Banking.

My project focuses on '**The effect of Internet Banking on Kenya's Economic Development'.** This part establishes the status of internet banking. To achieve this objective, below is a questionnaire to enable me gather the information.

Kindly take a few minutes to fill it up;

1. Put a tick in the box provided against the correct answer
2. Give your answer briefly in the space provided for the open-ended questions
3. Answer the questions honestly and provide any other information in the space provided.

Any information given will be treated in confidence.

Yours faithfully,

MERCY KIRUI

QUESTIONNAIRE

Section A: General information

1. Your name:……(optional)

2. Your position:…….

TICK APPROPRIATELY;

3. Under which office does your duties and responsibilities fall under?

   Front office ☐

   Middle office ☐

   Back office ☐

4. How long have you been in the Electronic / Internet banking department?

   Less than 2 years ☐

   2- 5 years ☐

   5-10 years ☐

   Over 10 years ☐

Section B: Establishing the status of Internet banking

5. How often do customers use these services?

Type	Very often	Often	Sometimes	Never
Check balance online				
Online bill payment				
Download loan application				
Use credit card online				
Seeking product and rate information				

Inter-account transfer				
Salary processing				
Customer care				