EFFECT OF ENTREPRENEURIAL BANKING PRODUCTS ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA. PERSPECTIVE OF BANK MANAGEMENT

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DECLARATION

This thesis is my original work and has not been submitted for a degree in any other university.

Signature ……………………………………….. Date ………………………..

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This thesis has been submitted for examination with our approval as the university supervisors.

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DEDICATION

First and foremost I dedicate this work to the Almighty God for giving me an opportunity to live and pursue this study. This work is also dedicated to my family who provided me with the motivation, care and sacrifice throughout my studies.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ACRONYMS

CBK	Central Bank of Kenya
CEO	Chief Executive Officer
CRM	Customer Relationship Management
DFID	Department of International Development
DTM	Deposit-Taking Microfinance Institution
EFInA	Enhancing Financial Innovation and Access
EFT	Electronic Funds Transfer
FAQ	Frequently Asked Question
GDP	Gross Domestic Product
HRPSC	Human Resource Professionals' Social Competencies
HRPW	Human Resource Professionals' Willingness
ICT	Information and Communications Technology
IFRS	International financial reporting standards
IOE	Industrial organizational Economics Theory
KCB	Kenya Commercial Bank
LC	Loan Commitments
LIBOR	The London Inter-Bank Offered Rate
NBI	Non-Banking Financial Institution
NPL's	Non-Performing Loans
PAT	Profit after Tax
PATEI	Profit after Tax and Exceptional Items
ROA	Return on Assets ROE - Return on Equity
RoE	Return on earnings
RoA	Return on Assets
PoA	Profit after tax
EPS	Earnings per share
RTGS	Real Time Gross Settlement
SCA	Sustainable Competitive Advantage
SCF	Survey of Consumer Finance
SPSS	Statistical Package for Social Sciences

DEFINITION OF TERMS

Commercial bank :   is a financial institution that provides services, such as accepting deposits, giving business loans and auto loans, mortgage lending, and basic investment products like savings accounts and certificates of deposit. The traditional commercial bank is a brick and mortar institution with tellers, safe deposit boxes, vaults and ATMs. However, some commercial banks do not have any physical branches and require consumers to complete all transactions by phone or Internet. In exchange, they generally pay higher interest rates on investments and deposits, and charge lower fees (Business Dictionary, 2011)

Entrepreneurial Bank: A bank that would withstand future global and regional economic crises and be at the forefront of advancing the technological revolutions. Like the venture capitalists, entrebanks will be forward looking and not backward looking. They will know how to discern and take the right risks (Nanda, 2010).

Off -Balance Sheet Products: Off-Balance Sheet products are also referred to as contingent liabilities. Off -balance sheet products, their effects on financial performance are not always obvious since there are reported cases of reverse causality between their effects and performance. Off -balance sheet products also referred to as contingent liabilities should be analyzed as part of banks overall risk management assessment (Thakor, 2007).

Financial innovation: This is the unanticipated improvement in the array of financial products and instruments that are stimulated by unexpected change in customer needs and preferences, tax policy, technology and regulatory impulses (Bhattacharyya & Nanda, 2010).

Loan Commitments: Loan commitment is a legally binding agreement by a bank promising that certain amount of funds will be available to a borrower over a given time at a given period (Greenbaum, 2011).

Standby letters of Credit : These are guarantees sold by financial institutions to undertake some performance. They are used to facilitate trade where the bank guarantees payment to an exporter on receipt of shipping documents. (Mathisen, 2005)

Loan Sales : Financial institutions originate loan on their balance sheet but sell to outside investors rather than holding them to their maturity (Melnik, 2007).

Financial options: Financial options are claims without any liability or a claim upon the occurrence of certain conditions (Black *et al.,* 2009). They are contract that gives the holder the right, without any obligation, to buy or sell an asset at an agreed price on or before a specified time period.

Non-Interest Income: The contribution of non-interest income to institutional performance can be measured by comparing it with total operating income, i.e., Non-interest/Operating Income. Fee income is also independent of the unpredictable day to day deposit inflows and outflows hence it provides diversification benefits by reducing variability in cash flows. (Morgan, 2009)

Interest Income :.   This is income from the core intermediation role of a bank. (Soffianos, 2013)

Recourse: The ability to put an asset on loan back to the seller if the credit quality of that asset deteriorates. (Savona, 2010).

Underlying Asset: The asset on which the put or call option is created (Black et al., 2009).

Fair value: Price that would be received to sell an asset of paid to transfer a liability in an orderly transaction between market participants at the measurement date (IFRS 13, 2011)

ABSTRACT

The aim of the study was to determine the effect of entrepreneurial banking products on the financial performance of commercial banks in Kenya as key players in the banking sector over a period of four years. Specifically the study sought to determine the effect of loan commitments, financial swaps, standby letters of credit and financial options on the financial performance of entrepreneurial commercial banks in Kenya. The study used descriptive and qualitative research design targeting two senior managers in 43 commercial banks in Kenya making a sample size of 86 respondents. The study used primary data collected through administered questionnaires and secondary data from published central banks' annual reports. The independent variables were the off-balance sheet products unique to commercial banks while dependent variable was the consolidated financial performance of the commercial banks. The internal consistency of the questionnaire was tested by using Cronbach alpha and ranged between 0.735 and 0.877 indicating that the values were reliable and acceptable. Data was analyzed using descriptive statistics, factor analysis, principal component analysis, correlation analysis and regression analysis in SPSS to determine the relationship between the independent variables and the dependent variable. The results showed that loan commitments positively and significantly affected the financial performance of commercial banks in Kenya; Loan arrangement ($r^2 = 0.050$, p <0.05, Credit access ($r^2 = 0.069$ p< 0.05) and locking fixed mark up over reference interest rates ($r^2 = 0.055$, p<0.05). Financial swaps were also found to affect the financial performance of commercial banks in Kenya; Portfolio management as one of the indicators of financial swaps significantly and positively affected the financial performance of commercial banks in Kenya ($r^2 = 0.060$, p<0.05) similar to speculation on financial swaps ($r^2 = 0.046$ p< 0.05). Standby letters of credit and financial options also showed a similar trend of contributing positively and significantly to the financial performance of commercial banks in Kenya. Standby letters of credit were found to be significantly and positively affecting the financial performance of commercial banks ($r^2 = 0.051$, p< 0.05). Financial options were also found to be significantly and positively affecting the financial performance of commercial banks in Kenya ($r^2 = 0.046$, p<

0.05). It is therefore concluded that loan commitments, financial swaps, standby letters of credit and financial options positively and significantly influences the financial performance of entrepreneurial commercial banks in Kenya.The study therefore recommends that commercial banks should promote loan commitment, financial swaps, standby letters of credit and financial options as off balance-sheet products as approaches towards improving their financial performance.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

According to Malakolunthu and Rengasamy (2012), banks play very important role in the economic development of nations as they largely wield control over the supply of money in circulation and are the main stimuli of economic progress. Banking industry in Kenya has got 43 registered and licensed commercial banks that provide banking and financial services to customers across Kenya and East Africa region and beyond (CBK, 2015). This is one of the fastest growing sectors of the economy having registered significance growth in the past two decades.

Commercial banks in Kenya provide the payment services and financial products that enable households and firms to participate in the broader economy. Through its intermediary activities, the banking sector foster the production, distribution, exchange and consumption processes in the economic system (Siraj K., 2014). By offering vehicles for investment of savings, extension of credit, and risk management, they fuel the modern capitalistic society. While the essential functions performed by commercial banks have remained relatively constant over the past several decades, the structure of the industry has undergone dramatic change. Liberalized domestic regulation intensified international competition, rapid innovations in new financial instruments, and the explosive growth in information technology fuel this change (Tidd & Hull, 2003).

With this change has come increasing pressure on managers and workers to dramatically paced industry where firms must change in order to survive. Jurman (2005) report that the development and deregulation of the financial markets, improvements in financial innovation and decreases in banks' margins, as a result of low-quality loan applicants, encourage the banks to offer new products and services to increase their profits .Off -Balance Sheet products also referred improve productivity and financial performance. Competition has created a fast- to as

contingent liabilities as examples of financial innovations in the banking industry have been spurred on by the forces described by Noyer (2007).

Changes in global financial markets and related financial innovations have led to the increasing use of derivative instruments (such as forwards, futures, swaps, and options) to hedge risk exposure arising from changes in both exchange rates and interest rates. The main problems with these instruments is that accounting standards have not kept pace with these changes; it is, however, very important to improve financial information about derivatives and related activities (Wilson & Smith, 1997). According to Hassan (2007), off- balance-sheet activities have both risk-increasing and risk-reducing attributes. In addition, off-balance-sheet activities are now an important source of fee income for many commercial banks.

1.1.1 Global trends in the banking sector.

Over the past few decades the banking industry's products has gone through significant changes in line with financial globalization, and as a result accounting concepts appear to be undergoing transformation. In a continuously changing business environment accounting information have to be useful to achieve relevant and faithful representation on the financial position of business entities. Because of the challenges in measuring certain balance-sheet items, the valuation method is much more based on fair value rather than on book value, in order to increase the usefulness of annual reports. In recent years the shift in accounting measurement has been driven by market-based measures, especially in the case of financial instruments. The two main standard setters, the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) also underline the importance of incorporating market values in accounting information systems. Improving the conceptual framework for financial reporting is directed towards better performance of both functions within the conventional accrual system of accounting through the use of fair value (Rayman, 2007).

Growing international trade has resulted in increased import and export activities, and the horizons of investors and borrowers have become global, which has increased the level of their risks. One of the most important risks associated with international trade and investments is uncertainty about future foreign currency exchange rates and interest rates. Practices and markets have developed which help firms manage the added risks of doing business abroad (Crawford *et al*., 2007).

The main problems with these instruments is that accounting standards have not kept pace with these changes; it is, however, very important to improve financial information about derivatives and related activities (Wilson & Smith, 1997). Reinstein AND Lander (2000) also emphasize that the accounting for derivatives has also created uncertainties for preparers, auditors, regulators, and users of financial statements. Because of the complexity and variety of these instruments, reporting on derivatives is difficult. Developing consistent accounting rules is extremely challenging since derivative instruments under the different accounting systems may be carried at historical cost, fair value, or some hybrid of fair value and historical cost (Reinstein & Lander, 2000).

Over the past decade the increasing use of derivative financial instruments and the challenges of the global financial system have intensified and sharpened debates about whether derivative instruments increase or decrease the risk of banks, affecting faithful representation based on their financial statements and decision usefulness of the reported information. According to Hitz (2007) opponents of fair value measurement criticize the relevance of fair value measures, since if there are no market prices available, they mainly rely on management's expectations and projections; however the use of fair value accounting has grown considerably in financial reporting in the last decade. The movement towards global accounting convergence has been a driving force behind the increased use of fair value, especially in the case of financial instruments (Reinstein, 2000).

1.1.2 Commercial banks in Kenya

Commercial banks are the dominant financial institutions in most economies and well-functioning commercial banks accelerate the rate of economic growth while poorly functioning commercial banks are an impediment to economic progress (Richard, 2011). Commercial banks give loans and advances to various individuals, business organizations as well as government so as to enable them to embark on investment and various development activities as a mean of aiding their growth in particular thus contributing toward the economic development of a country in general (Han, 2008).

In Kenya, commercial banks play an important role in mobilizing financial resources for investment by extending credit to various businesses and investors. Kenya's financial sector is mostly dominated by commercial banks, though the level of bank penetration is still low. Commercial Banks are licensed and regulated pursuant to the provisions of the Banking Act and the Regulations and Prudential Guidelines. By December 2012 there were 43 registered commercial banks (Central Bank, Financial Stability Report, 2012). As at 31st December 2011, the banking sector comprised the Central Bank of Kenya, as the regulatory authority, 44 banking institutions, four representative offices of foreign banks, six Deposit-Taking Microfinance Institutions, 118 Forex Bureaus and two Credit Reference Bureaus (CBK, 2011). According to Kumar (2003) facilities offered by Kenya Commercial Banks include: Money telegraphic transfer by mail, Standing order payments, Foreign exchange transactions services, Issue of traveller's cheques, discounting of bills of exchange and promissory notes, providing documentary credit to overseas trade, providing credit status information to customers, Offering share brokerage services i.e. buying and selling of shares and stock on behalf of their customers, operation of safe deposits, operation of trust departments, dealing with confidential share purchases, offering business advisory services, acceptance of various deposits like fixed and regular deposits and providing loans and advances.

The profitability of commercial banks depends heavily on the net of income generating activities and the related activities expense. Due to the problem of profitability and stiff competition in the industry, commercial banks have changed their behavior of income sources, by increasingly   diversifying into non-intermediation income generating activities as opposed to the traditional   inter-mediation income generating activities (Teimet *et al.,* 2011). Misati, *et al.,* (2010) reports that financial products have increased, activities and organizational forms have also improved and the overall efficiency of the financial system has increased.

1.1.3 Off- balance sheet products

In economic terms, off-balance-sheet items are contingent assets and liabilities that affect the future   rather than the current shape of a commercial bank's financial statements and do not appear on the banks financial statements, rather they appear as notes to the financial statements. They directly affect future profitability and solvency (Berger, 2009). According to Hassan (2007),   off-balance-sheet activities have both risk-increasing and risk-reducing attributes. In addition, off-balance-sheet activities are now an important source of fee income for many commercial banks.

Banks could engage in a variety of off-balance sheet activities which include bank acceptances, unused commitments, financial standby letters of credit, Performance standby letters of credit, commercial and similar letters of credit, securities, credit derivatives, spot foreign exchange contracts, interest rate contracts, foreign exchange contracts, equity derivative contracts and commodity derivative contracts. These different types of off-balance sheet items present heterogeneous characteristics and thus could impact differently bank risk taking behavior, bank operations which could also affect the banks chances of survival(Nachane & Ghosh, 2002).

As regular part of their operation, banks are involved in originating financial contracts that may result in the acquisition of certain assets and liabilities at some future date, under certain conditions (Mirza & Holt, 2011). Generally accepted accounting principles do not consider these contracts in themselves as assets or

liabilities and thus do not recognize them on the face of the balance sheet. These Off-Balance Sheet Products are quite diverse in nature and purpose and include such instruments as loan commitments, Letter of credit and standby letters of credit, Futures and forward contracts, loan sales, options and financial swaps.

As the industry has provided more ways for banks to use off balance sheet products, they have added significant risks to each institution. A need to combat these risks resulted in a major use of off balance sheet products to mitigate the effects of these risks thereby increasing their revenue base. Now, after adding significant products through diversification, banks have realized that the key to profitability is through revenue enhancement (Cainelli *et al.,* 2004). Banks are now forced to consider new ways to drive revenue through Off -Balance Sheet products.

1.2 Statement of the Problem

Traditionally the main source of commercial banks income were balance sheet products which include account charges, fees associated with electronic fund transfers, fees from loan commitment agreement, foreign exchange transactions and commissions on syndicated loan sales (Mirza & Holt, 2011). However, the performance of commercial banks is not only dependent on these products but also on off balance sheet products which include but not limited to: loan commitments, standby letters of credit, futures and forward contracts, loan sales, options and financial swaps. Formal commitments are used to back many commercial and industrial loans, construction and land development loans, leveraged buyouts, mergers, and acquisitions. Commitments facilitate the funding of multilateral projects for which some of the funding must be in place in advance to assure other parties. Also included under this motive is protection against general "credit crunches," assuring funds availability when credit market conditions are tight.

Morgan (1989) showed theoretically how commitments can solve a credit rationing problem, and in addition to this Sofianos, Wachtel, and Melnik, (1990) demonstrated empirically that commitments appear to insure against general credit crunches. In furtherance to this Thakor and Udell (1987), Foos *et al*., 2010; Jiménez and Saurina, 2006; ss *et al*., 2009) (Campello al.,2010,2011, 2012; Ivashina & Schrafstein,2010) reports that multiple fee structures on commitments (up-front fee, usage fee, and interest rate) can solve some adverse selection problems on spot loan contracts by inducing self-selection, provided that takedown probabilities are related to risk. Similarly, Kanatas (1987) finds that up-front fees on lines of credit that back up commercial paper sales can reduce adverse selection problems by revealing risk. In addition to commitments the typical application of interest rate swap is synthetic financing (Kuprianov, 1987). The long-term (fixed-rate) debt is synthesized by using the short-term (variable rate) debt accompanied by a swap.

Changes in global financial markets and related financial innovations have led to the increasing use of derivative instruments (such as forwards, futures, swaps, and options) to hedge risk exposure arising from changes in both exchange rates and interest rates. The main problems with these instruments is that accounting standards have not kept pace with these changes; it is, however, very important to improve financial information about derivatives and related activities (Wilson & Smith, 2007). Most of the studies undertaken have relied on balance products to determine the banks performance. However in Kenya little has been done to determine the effects of off balance sheet products on the financial performance of commercial banks. The study thus seeks to find the extent to which these off-balance sheet products affect the financial performance of the commercial banks in Kenya.

1.3 Objectives of the study

1.3.1 General Objective

To determine the effects of entrepreneurial banking products on the financial performance of commercial banks in Kenya.

1.3.2 Specific Objectives

1. To determine the effect of loan commitments on the financial performance of commercial banks in Kenya.
2. To determine the effect financial swaps on the financial performance of commercial banks in Kenya.
3. To determine the effect of standby letters of credit on the financial performance of commercial banks in Kenya.
4. To determine the effect of financial options on the financial performance of commercial banks in Kenya.

1.4 Research Hypothesis

The study was guided by the following null hypothesis:

Ho₁: Loan commitments as an off- balance sheet product does not significantly affect the financial performance of commercial banks in Kenya.

H_{O2}: Financial swaps off- balance sheet product does not significantly affect the financial performance of commercial banks in Kenya.

H_{O3}: Standby letters of credit as off- balance sheet product does not significantly affect the financial performance of commercial banks in Kenya.

H_{O4}: Financial options as off- balance sheet product do not significantly affect the financial performance of commercial banks in Kenya.

1.5 Justification of the Study

This study provides more insight on the effect of financial innovation on performance of commercial banks and this will be helpful to the policy makers at the national level. It bridges the gap between theory and practice by providing the management of commercial banks and firms in financial services with more insight on the importance of financial innovation. Findings from this study will also

improve financial inclusion to drive economic development towards attainment of vision 2030 as well as providing a base for further research.

1.6 Scope of the Study

This study focused on 43 commercial banks operating in Kenya at their Headquarters. The head quarter of every bank had all the details of all its branches which made it convenient for the researcher. The commercial banks were selected for the study and not other financial institutions like Saccos because commercial banks are highly exposed to financial risks and are highly dynamic in product portfolios. The survey involved the two top managers of these banks, that is, the relationship manager and credit manager as they have more insight of the banks' operations.

1.7 Limitations of the study

There were some unwillingness to give information about the operations of the banks by some of the respondents but these was mitigated by the fact that the data requested was purely for research and that the data was to be treated with a lot of confidentiality. Some respondents turned down the request to fill questionnaires and this called for the researcher to kindly request them to be assisted by their assistants. As banks operate on tight schedules, some respondents were not able to complete the questionnaire in good time and this overstretched the data collection period having to make quite a number of follow-ups.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Literature review is an attempt to identify, locate and put together /synthesis completed research articles, books and other materials about the specific problems of a research topic (Mugenda, 2003). Literature review enables a research to establish a relationship between a specific research problem and the greater topic. This chapter reviews on the concepts of derivative financial instruments on banks, discusses key theories underlying financial derivatives, relevance and faithful representation, entrepreneurship, off balance sheet products and their effects on the performance of commercial banks.

2.2 Theoretical Framework

A theoretical framework is a structure that can hold or support a theory of a research study. The theoretical framework introduces and describes the theory that explains why the research problem under study exists (Swanson, 2013) .Theories are formulated to explain, predict, and understand phenomena and, in many cases, to challenge and extend existing knowledge within the limits of critical bounding assumptions. According to Trochim (2006); Aguilar (2009); Tormo (2006), a theoretical framework guides research, determining what variables to measure, and what statistical relationships to look for in the context of the problems under study. This study is informed by entrepreneurship and innovation theories i.e Diffusion of innovation theory, equilibrium destruction theory, Kirzner's "alert" Entrepreneur Theory, Competence - based theory, Heterogeneous demand theory, Differential advantage theory, Industrial organizational Economics Theory (IOE) and theory of portfolio management. According to Dollinger (2009) these theories explain how entrepreneurial firms themselves build their businesses from the resources they currently possesses or can realistically acquire in order to gain a sustained competitive advantage.

2.2.1 Diffusion of Innovations Theory

According to Lumpkin (2006), diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system. He further point out that there are four main elements in the diffusion of new ideas i.e innovation, communication channels , time and the social system. Certain innovations spread more quickly than others and some banks will adopt and lead the same than others. Such innovation, to spread and be adopted usually shows characteristics which determine an innovation's rate of adoption which include: relative advantage, compatibility, complexity, trialability and observability to those people within the social system.

Scherr (2009) defines a social system as a set of interrelated units that are engaged in joint problem-solving to accomplish a common goal . The members or units of a social system may be individuals, informal groups, organizations, and/or subsystems. The social system constitutes a boundary within which an innovation diffuses.

2.2.2 The discovery and opportunity theory of entrepreneurship (equilibrium destruction theory*).*

This theory is based on Schumpeter's work (1949) and looks at entrepreneurship as innovation and not imitation. Schumpeter's entrepreneur is an innovator in the entrepreneurship arena. In this Schumpeterian theory, the entrepreneur moves the economy out of the static equilibrium. Marz, (1991), states that "Schumpeter hardly denied that the process of accumulation is the ladder to social power and social prestige; but he thought the very mainspring of the exercise of the entrepreneurial function is the powerful will to assert economic leadership. The entrepreneur is not (necessarily) the one who invents new combinations but the one who identifies how these new combinations can be applied in production. This line of reasoning implies that a business owner is considered an entrepreneur only if he is carrying out new combinations. The entrepreneur moves the economic system out of the static equilibrium by creating new products or production methods thereby rendering others obsolete. This is the process of "creative destruction"(creating uncertainty)

which Schumpeter saw as the driving force behind economic development (Schumpeter, 1949).

2.2.3 Kirzner's "alert" Entrepreneur Theory (Kirzner, 1997)

Kirzner (1997) realizes that markets are not always clear, there is no perfectly informed representative agent and for change to occur the entrepreneurs need incentives and these incentives comes from the difference among agents in terms of information and knowledge. According to Kirzner, an improvement in the technique of production or a shift in preferences leads to change (disequilibrium) in the market where initially there was equilibrium. If there is equilibrium in the market there is nothing for the entrepreneur to do and no exchange and profit opportunities for them since everybody will be able to carry out his initially determined exchange plans. But whenever the change has occurred, some planned activities will not be realized. He further states, there is no room for entrepreneurial discovery and creativity: the course of market events is foreordained by the data of market situation and for the system to create profit opportunities for entrepreneur there is need for an exogenous shock to the system.

Kirzner argues that the economy is in a constant state of disequilibrium due to shocks constantly hitting the economy. Furthermore, economic agents suffer from "utter ignorance"--they simply do not know that additional information is available. In this world, the alert entrepreneur discovers and exploits new business opportunities and eliminates (some of the) "utter ignorance" and thus moves the economy toward equilibrium, which is the state where no more information can be discovered. Kirzner's analysis of entrepreneurship identifies a disequilibrium that can only be corrected (to equilibrium) by alert entrepreneurs who produce and exchange, but the emphasis is on the exchange opportunities and progress that comes mainly from this part. He postulates that entrepreneurial progress does not depend on a "great man" but it does depend on many great men, many players in the business arena. Profits from an entrepreneurial venture may not usually be very large and in some cases before the break-even point is established, the returns maybe negative. Since there is a lot of uncertainty in the business environment,

profits is always a speculative affair by the entrepreneurs and therefore entrepreneurship is an act of risk taking. Seeing risk and grabbing them may be considered too certain and requires an extra talent of people who can see the extra ordinary things.

2.2.4 Competence - based theory

Competitiveness ultimately comes from producing better (more demanded) products more quickly. Such products should be unanticipated by competitors (Kausar, 2014). To keep ahead, a firm uses its core competences. A competency is anything that allow access to a wide variety of markets, offers real and perceivable benefits to buyers, is difficult or expensive for competitors to imitate and is extendable to other markets or products in the future. In a sense the entrepreneurial banks have to recognize that core competencies are necessary to exploit the off balance sheet products to in their achievement and to sustain them (Wickham, 2006). Competencies such as specialized skill to handle risks inherent in the managers from risk management as well as the ability to predict future outcomes in the banking sector helps to reduce risks exposure hence the application of the theory.

2.2.5 Heterogeneous demand theory

Heterogeneous demand theory points that firms within a particular industry do not offer homogenous products at a market dictated price. Rather they actively market products by distinguishing them to appeal to a particular group of buyers, often with the intention of sustaining a price premium over market norms (Dollinger, 2009). The analysis on the marginal contribution of individual banks to the systemic risk suggests that too-big-to-fail" is a valid concern from a macro prudential perspective of bank regulation (Keffala & Peretti, 2013). Increases in off-balance sheet activities by financial institutions have generated a recent surge of interest in these activities. In its Application the Heterogeneous demand theory theoretically focused on the risk to banks from commitment contracts and how this risk may be affected by the processes that determine which borrowers receive these contracts (Sugrue & Scherr, 2009).

2.2.6 Differential advantage theory.

This theory suggests that an entrepreneur is fundamentally a marketer. He/she looks for what particular groups of buyers want from a product, identifies how existing products fail them and innovates new products that will serve them better. The entrepreneur does not just invent. He/she positions products within a market to maximize their difference from competing products and to appeal to targeted buyer groups, (Clark, 2010). Banks have different backgrounds ranging from financial, competencies and risk profiling strategies and hence apply different methods in their operations for competitive advantage. The theoretical model focused on the risk to banks from commitment contracts and how this risk may be affected by the processes that determine which borrowers receive these contracts.

2.2.7 Industrial Organizational Economics Theory (IOE)

Different firms and different industries make different levels of profits. IOE is essentially based on the idea that excess profits arise due to market imperfections. Market imperfections occur when classical assumptions fail to occur (Brian *et el.,* 2008). The role of an entrepreneur is seen slightly differently at each stage at each stage of IOE. In the first stage an entrepreneur is someone who perceives an opportunity to acquire, mould and manage resources in a way that supports the right conduct given the structural imperfections in the markets in which his/her venture is situated. The second stage suggests that entrepreneurs recognize their conduct possibilities and seek out the opportunities presented by available market imperfections. The last stage does not dissent from this, rather, it adds the idea of the entrepreneur being not just a decision maker, but also a predictor of competitors' decisions and a refiner of strategic approach given their likely responses (Wickham, 2006).

2.2.8 Theories of Portfolio Management

The main aim of a commercial bank is to seek profit like any other institution. Its capacity to earn profit depends upon its investment policy. Its investment policy, in turn, depends on the manner in which it manages its investment portfolio (Park *et al.,* 2009). Thus "commercial bank investment policy emerges from a straight forward application of the theory of portfolio management to the particular circumstances of commercial bank." Portfolio management refers to the prudent management of a bank's assets and liabilities in order to seek some optimum combination of income or profit, liquidity, and safety.

When a bank operates, it acquires and disposes of income-earning assets. These assets plus the bank's cash make up what is known as its portfolio (Park *et al.,* 2009). A bank's earning assets consist of (a) securities issued by the central and state governments, local bodies and government institutions, and (b) financial obligations, such as promissory notes, bills of exchange, etc. issues by firms. These earning assets constitute between one- fourth and one-third of a commercial bank's total assets. Thus a bank's earning assets are an important source of its income. The manner in which banks manage their portfolios, that is acquiring and disposing of their earning assets, can have important effects on the financial markets, on the borrowing and spending practices of households and businesses, and on the economy as a whole.

2.3 Innovative Entrepreneurship in the Banking Sector

2.3.1 The Entrepreneurial Bank

Financial crisis and the internet boom have taught the banking industry that conservative policies are not shields from financial ruin. They not only can lead to problems but more importantly, they can also hide opportunities (Hitz, 2007). A new kind of bank in the new millennium has to be invented - the entrepreneurial bank or "entrebank" - a bank that would withstand future global and regional economic crises and be at the forefront of advancing the technological revolutions. Like the venture capitalists, entrebanks will be forward looking and not backward

looking. They will know how to discern and take the right risks (Crawford et al., 2007).

2.3.2   Inventing the entrepreneurial bank. A local perspective

Entrebanks are less cash flow and less collateral oriented. They give more importance to the quality of the business of the borrower than to the quality of its collateral. They can look beyond the obvious, the tangible, and the past. Rather than invest in systems and people to track and manage the borrowers' credentials, cash flows, and collateral, the entrebank use these resources to develop industry specific expertise so that it can correctly evaluate the business potential of its clients and guide them accordingly. Enterbanks serve as proactive business consultants rather than overly protective custodians of public money (Crawford et al., 2007).

Entrebanks are organized according to clients' total needs rather than according to products or functions (Wilson & Smith, 2007). Like the modern consumer marketing companies, entrebanks shift from managing brands to managing categories of customer services. They have a total approach to clients needs by developing customized total solutions- covering loans, deposits, credit cards, securities, treasury bills, and other financial instruments and services. In short, the enterbank will look at the client as the profit center and not the specific products (Koppenhaven, 2007).

2.4 Entrepreneurial aspects of Derivative Financial Instruments on Bank Risks, Relevance and Faithful Representation

In a continuously changing business environment accounting data have to provide useful information in order to achieve relevant and faithful representation in financial statements. Since global markets have changed radically, growing international trade means the horizons of investors and borrowers have now become global, which has increased the level of their risks. Modern managers have changed their way of doing business by introducing new products in thier banks which will increase or improve their balance sheets(Kopenhave, 2007).

Changes in financial markets have increased the use of derivative instruments (such as forwards, futures, swaps, and options) to hedge risk exposure worldwide, while the related accounting standards have not kept pace with those changes. Because of the complexity and variety of these instruments, reporting on derivatives faces many difficulties, since a different framework and different accounting concepts are required to present useful financial information (Hull, 2009). For these reasons the growing use of derivative financial instruments and the challenges of the global financial system have intensified and sharpened debates about whether derivative instruments increase or decrease the risk of banks, affecting faithful representation based on their financial statements and decision usefulness of the reported information.

Other derivatives have a negative effect on bank risks as well. There is some evidence that the relationship between the use of derivatives and overall risk is not significant; hence the banks in the sample are not put at risk by using different derivatives. In sum, it can be concluded that fair valuation of these instruments satisfies the fundamental requirements of useful financial information.

2.5 Relevance and Presentation

Over the past few decades accounting has gone through significant changes in line with financial globalization, and as a result accounting concepts appear to be undergoing transformation. In a continuously changing business environment accounting information have to be useful to achieve relevant and faithful representation on the financial position of business entities (Koppenhaven,2007). Because of the challenges in measuring certain balance-sheet items, the valuation method is much more based on fair value rather than on book value, in order to increase the usefulness of annual reports. In recent years the shift in accounting measurement has been driven by market-based measures, especially in the case of financial instruments. The two main standard setters, the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) also underline the importance of incorporating market values in accounting information systems. Improving the conceptual framework for financial reporting is

directed towards better performance of both functions within the conventional accrual system of accounting through the use of fair value (Rayman, 2007:211).

Over the last few decades global markets have changed radically. Growing international trade has resulted in increased import and export activities, and the horizons of investors and borrowers have become global, which has increased the level of their risks. One of the most important risks associated with international trade and investments is uncertainty about future foreign currency exchange rates and interest rates. Practices and markets have developed which help firms manage the added risks of doing business abroad (Angusman, 2008). Weinstein and Lander (2000) also emphasize that the accounting for derivatives has also created uncertainties for preparers, auditors, regulators, and users of financial statements. Because of the complexity and variety of these instruments, reporting on derivatives is difficult. Developing consistent accounting rules is extremely challenging since derivative instruments under the different accounting systems may be carried at historical cost, fair value, or some hybrid of fair value and historical cost (Reinstein and Lander, 2000). Over the last decade the increasing use of derivative financial instruments and the challenges of the global financial system have intensified and sharpened debates about whether derivative instruments increase or decrease the risk of banks, affecting faithful representation based on their financial statements and decision usefulness of the reported information. According to Hitz, (2007) opponents of fair value measurement criticize the relevance of fair value measures, since if there are no market prices available, they mainly rely on management's expectations and projections; however the use of fair value accounting has grown considerably in financial reporting in the last decade.

2.6 Value-based accounting for derivative instruments

Today's challenges and transformations in accounting could be captured in the move towards value-based accounting from traditional cost-based accounting, since in a historical perspective fair value measurement of financial instruments might be regarded as one specific form of value-based accounting, which is predominantly focused on available-for-sale financial assets and derivative financial instruments

(Ishikawa, 2005; Mirza & Holt, 2011). By analyzing the economic background of accounting for these instruments, it can be concluded that their usage embodies a different type of capital, which, unlike industrial or commercial capital, represents financial claims.

Similarly to Shortridge and Smith (2009), Ishikawa (2005) also emphasizes that the original accounting (conceptual) framework with its emphasis on historical cost and realization was essentially designed to capture the flow of real capital (i.e. the production and sale of goods and services), and a different framework and different accounting concepts are required to adapt to the quantitative and qualitative development of capital markets in the information economy. Derivative financial instruments exactly tailored to avert risk in the marketplace represent a further stage in this development (Ishikawa, 2005). In sum, the challenge of accounting for derivatives was a vital transformative facilitator in the history of fair value because it required a return to fundamentals and was a test case for the objectivity and coherence of conceptual frameworks for accounting (Power, 2010).

Operating and financial assets involve different processes in creating value. The value of operating assets is created and realized through a firm's operations, while in the case of financial assets the returns and risks are determined by market expectations and macroeconomic trends, and they are subject to larger risks caused by changes in the market environment. Currently fair valuation of certain financial instruments has become a leading trend, but there is no ultimate theoretical agreement on how to recognize and measure the value and returns of financial assets - which are different from real assets such as plant, property and equipment - and how to present them accurately in the balance sheet and income statement. For this reason, the valuation and income recognition of financial assets cannot be undertaken by an extension of the traditional accounting framework and concepts; consequently it requires an alternative framework in order to provide useful information on the underlying economic activity.

This kind of framework is better able to raise the level of transparency and the faithfulness of financial transactions, the effectiveness of corporate governance, and the efficiency of capital markets (Ishikawa, 2005). In the International Financial Reporting Standards (IFRS) Framework useful financial information is relevant and represented faithfully. This usefulness is enhanced if it is comparable, verifiable, timely and understandable.

Relevance and faithful representation are the fundamental qualitative characteristics in financial reporting (IFRS Framework, 2010). Landsman (2007) finds that disclosed and recognised fair values are informative for investors, but the level of in formativeness is affected by the amount of measurement error and by the source of the estimates - i.e. from management or external appraisers. In practice, when an active market for the asset or liability does not exist, fair value may not be well defined. In this situation, it becomes difficult to separate an asset or liability's fair value from its value-in-use to the business entity. For example, the estimated fair value of a non-traded swap instrument to a bank depends on the existing assets and liabilities on the bank's balance sheet (Landsman, 2007). Blakespoor *et al.* (2013) prove that the fair values of banks' investment securities, loans, and derivatives are informative for their historical cost equivalents in explaining share prices.

Their findings demonstrate that the relationship between credit risk and leverage becomes stronger as the number of financial instruments measured at fair value increases, and fair values are most highly associated with credit risk determinations (Blakespoor et al., 2013). Nowadays many different types of forwards, futures, options, swaps, and other derivatives are regularly traded worldwide by financial institutions, fund managers, and corporate treasurers. A derivative can be defined as a financial instrument whose value depends on the value of other underlying variables. Usually the variables underlying derivatives are the prices of the traded assets (Hull 2009). Derivatives are basically designed to achieve an economic result when an underlying security, index, interest rate or commodity moves in price. Futures are standardized contracts in which the purchaser is allowed to buy or sell a specific quantity of a commodity, financial instrument, or index at a specified price. Forward contracts are similar to futures contracts, but they are not traded on an

exchange. A swap is an exchange of payment streams between two parties for a certain period of time. An option contract offers the holder the right, and not the obligation, to sell or buy an item at a specified price during an indicated time period (Crawford *et al.,* 1997:).

In accordance with IAS (International Accounting Standards) 32 (Financial Instruments: Presentation) a financial instrument can be defined as "any contract that gives a rise to a financial asset of one entity and a financial liability or equity instrument of another entity" (Mirza & Holt, 2011). IAS 39 (Financial Instruments: Recognition and Measurement) requires derivatives to be measured at fair value to provide more useful information in the balance sheet (Mirza & Holt, 2011). IFRS 13 (Fair Value Measurement) defines fair value as a "price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date" (IFRS 13, 2011). A published price quotation in an active market is the best evidence of fair value. For assets and liabilities that are not quoted in active markets, fair value is determined by different valuation techniques, such as discounted cash flow models (Mirza & Holt, 2011).

Siregar et al. (2013) examine **the** value relevance of derivative disclosures in U.S. commercial banks; their findings confirm that recognitions of derivatives are value relevant, and quantified derivative disclosures is negatively associated with the value of firms. Keffala and Peretti (2013) find that forwards and swaps decrease bank risk, while options positively affects bank risk, and futures have a mildly significant effect on bank risk in emerging and recently developed countries. According to Yong et al. (2009) the use of derivatives appears to decrease Asia-Pacific banks' short-term interest rate exposure but not their long-term exposure. The results of Augusman et al. (2008) indicate that surveyed Asian countries firm-specific risk is more important than systematic risk. Instefjord (2005) concludes that a financial innovation in the credit derivatives market may raise bank risk. Park et al. (2009) present findings that value differences in available-for-sale and held-to-maturity securities (fair less book value) explain the value of bank equity. Venkatachalam (2006) suggests that fair values have incremental explanatory power over and above the notional amounts of derivatives. Finally, Chaudhry et al.

(2000) study the impact of different types of contingent foreign currency claims, and find that options increase all types of bank risk for all banks.

2.7 Innovation

Innovation is defined as all the scientific, technological, organizational, financial, and commercial activities necessary to create, implement, and market new or improved products or processes (OECD, 1997). Kline and Rosenberg (1986) outlines a chain-linked innovation model representing the technical activities occurring in the innovation process, the external forces of the market place, as well as the complex interactions between the various stages of the process (figure 2.1). They further explains that uncertainty is a key concept in innovation and defines innovation as an exercise in the management and reduction of uncertainty.

Research
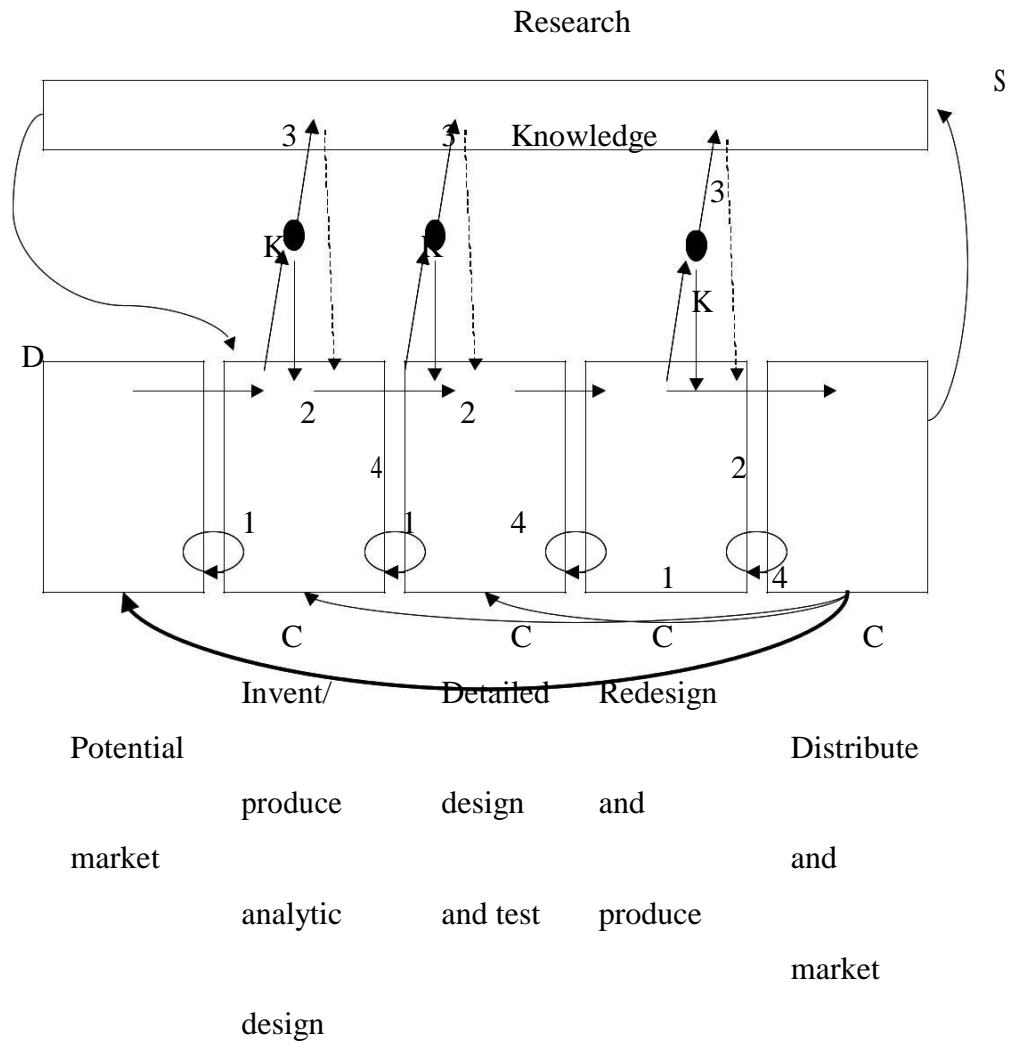
Figure 2.1: Chain-linked Innovation Model

Source: Kline and Rosenberg, 1986

The model relates to two aspects; the technical performance of the innovation and the market response to its introduction. The model identifies five major paths of innovation processes: the central chain of innovation (C) starts with the invention/ production of a design, based on market signals, that is then developed, produced and marketed. The process includes feedback loops (F, f) iterating the steps and controlling for perceived market signals and users' needs, and linkages between science and innovation (K), representing the recourse to various knowledge stocks

accompanying the whole process. The two other linkages represent the (rare) case where new science makes possible a radical innovation (D), and finally the feedback from innovation results back to science (S).

In the model, "market-pull" and "technology push" aspects of innovation are interdependent. Perceived demand will be met only if the appropriate knowledge and technology are available, and an innovation will be realized only if there is a market for it.

2.7.1 Innovation and balance sheet products

Lumpkin and Dess (2006) concept proposed that entrepreneurship consists of five dimensions; innovativeness, risk taking, proactive-ness, autonomy and competitive aggressiveness. Autonomy represents an individual or group creation of a new idea or vision that is then implemented independently. Competitive aggressiveness refers to the firm's propensity to challenge its competitors directly and is important in new market inter-firm competition. Lumpkin and Dess (2006) differentiate proactiveness from competitive aggressive-ness by explaining that proactiveness relates to market entry, and competitive aggressiveness refers to the position of a firm relative to its competitors. These authors indicate that proactiveness is more closely related to innovativeness and that these two dimensions may co-vary, as in the case of new product introductions. The traditional products that form the balance sheet include the assets, capital and liabilities (Ishikawa, 2005). These products exist inform of current assets, non-current assets, current liabilities, long-term liabilities and owners' equity. These products are meant to yield interest income which has proved inadequate to meet the banks financial obligations due to increasing competition and economic conditions that have the commercial banks to diversify their product base (Melnik, 2010).

This has necessitated the banks to become innovative through the introduction of new product areas to generate non-interest income. These products include loan commitments, ,standby letters of credit, futures & forward contracts, loan sales, options and financial swaps. Studies undertaken by Buchs and Mathisen (2005), Morgan, (2014); Sofiano et al., (2014) has shown that as regular part of their

operation, banks are involved in originating financial contracts (off balance sheet products) that may result in the acquisition of certain assets and liabilities at some future date, under certain conditions.

2.7.2 Relationship between financial innovations and the growth of commercial banks

Financial innovation is the unanticipated improvement in the array of financial products and instruments that are stimulated by unexpected change in customer needs and preferences, tax policy, technology and regulatory impulses (Bhattacharyya & Nanda, 2010). The developments in the financial sector have not only led to the increase in the number of financial institutions, but also the development in level of sophistication with new payment systems and asset alternatives to holding money. This has resulted mainly from technological advancement and increase in competition as the number of institutions increase.

According to Noyer (2007), financial innovation has not only opened up new opportunities for the sector participants, but also increased new market players arising from new products in the financial market. These developments have increased the range of financing and investment opportunities available to economic agents besides changing the role of banks with expanded diversification choices in terms of portfolio and sources of financing. Such developments affect the speed and strength of the channels of monetary policy transmission mechanism in the economy.

2.8 Balance sheet products and financial performance

Commercial banks have successfully reduced transaction and information costs in their provision of financial services (Buchs, & Mathisen, 2005). Commercial banks in their quest to add more revenue streams and offer more competitive services have exploited the area of Off-Balance Sheet products' offering.

2.9 Off balance sheet products and performance

Ordinarily, the main source of commercial banks' income has been interest income. Competition, economic conditions and other banking conditions have led to financial institutions diversifying their product base and particularly enter in to new products areas that generate non-interest income (Mirza & Holt, 2011). The new product areas have provided new opportunities to financial institutions. The major non-interest income includes account charges, fees associated with electronic fund transfers, fees from loan commitment agreements, foreign exchange transactions and commissions on syndicated loan sales.

2.9.1 Loan Commitments
2.9.1.1 Formal commitments

Formal commitments are used to back many commercial and industrial loans, construction and land development loans, leveraged buyouts, mergers, and acquisitions. Anecdotal evidence suggests two major motives behind their use. The liquidity/flexibility motive is that commitments allow the loan paperwork and evaluation to be performed in advance, permitting funds to be obtained quickly and cheaply exactly when expenditures are required. In some cases, commitments facilitate the funding of multilateral projects for which some of the funding must be in place in advance to assure other parties. Also included under this motive is protection against general "credit crunches," assuring funds availability when credit market conditions are tight. Morgan (2009) showed theoretically how commitments can solve a credit rationing problem, and Sofianos, Wachtel, and Melnik, (2010) demonstrated empirically that commitments appear to insure against general credit crunches.

The other major motive for formal commitments is that of risk-averse firms insuring against a potential decline in their creditworthiness. A firm can lock in an interest rate consistent with its current risk class (e.g., prime plus 1 percent), obligating the bank to lend in the future at that rate even if the firm's risk class worsens (e.g., to prime plus 2 percent). In the limit, a commitment contract may insure funds availability when a firm's decline in credit worthiness would otherwise result in it being denied a loan altogether. This risk-sharing motive was discussed by Campbell (2008). Evidence from a recent survey (Board of Governors of the Federal Reserve System [2008]) is

consistent with these motives. The most highly ranked reasons given for revolving commitments were "general convenience and minimizing loan arrangement costs," and "protection against general credit crunches," both of which are consistent with the liquidity flexibility motive. The next most highly ranked reasons were "to ensure credit access against a creditworthiness deterioration," and "to lock in a fixed markup over reference interest rate," both of which are consistent with the risk aversion motive.

A bank can escape its obligation to lend on a formal commitment only if the borrower's condition has suffered "material adverse change," or if the borrower has violated some other covenant in the commitment contract. Although material adverse change clause what vague, banks may nevertheless honor commitments to borrowers to whom they would otherwise refuse credit or charge a higher rate in order to maintain the bank's reputation for future commitments or to avoid legal costs. Note that if banks did not generally lend under commitment when circumstances would dictate different spot market loan terms or rationed credit, then commitments would lose much of their insurance value and firm would not purchase otherwise refuse credit or charge a higher rate in order to maintain the bank's reputation for future commitments or to avoid legal costs, Berkovitch and Greenbaum (2010). Note that if banks did not generally lend under commitment when circumstances would dictate different spot market loan terms or rationed credit then commitments would lose much of their insurance value and firm would not purchase them for the protections cited above. Confirmed line of credit is the other broad category of loan commitment (one-third of the total dollars).

These are expressions of a bank's willingness to lend to a customer that are normally extended in order to insure liquidity or to provide third-party guarantees for the commercial paper market or other lenders. Confirmed lines have much lower fees than formal commitments and are generally viewed as much less risky because (1) they usually are issued to higher quality borrowers, (2) they often confer no interest-rate guarantees, and (3) they are taken down much less frequently than formal commitments.

2.9.1.2 Loan Commitments and Bank Risk Exposure

Campbell *et al.,* (2008) reiterates that commitments arise primarily as contingent contracts that help to perfect financial markets.   He continues to assert that commitments acts as solutions to moral hazard and adverse selection problems that arise in spot loan markets. Boot *et al.,* (2007) and Berkovitch and Greenbaum (2000) adds on this and in their two-part pricing structure model of commitments (an up-front fee plus a loan interest rate) allows a bank to charge a lower loan interest rate without violating the zero-profit competitive constraint. This lower interest rate reduces moral hazard by encouraging the borrower to take into account a higher proportion of the investment returns.

 According to Thakor and Udell (2007), multiple fee structures on commitments (up-front fee, usage fee, and interest rate) can solve some adverse selection problems on spot loan contracts by inducing self-selection, provided that takedown probabilities are related to risk. Similarly, Kanatas (2007) finds that up-front fees on lines of credit that back up commercial paper sales can reduce adverse selection problems by revealing risk.

2.9.2   Interest-rate swaps

Interest-rate swaps have become an integral part of the fixed-income market. These derivative contracts, which typically exchange or swap fixed-rate interest payments for floating-rate interest payments, are an essential tool for investors who use them to hedge, speculate, and manage risk (Mirza & Holt, 2011). An interest rate swap is an agreement between two parties to exchange one stream of interest payments for another, over a set period of time. Swaps are derivative contracts and trade over-the-counter. The most commonly traded and most liquid interest rate swaps are known as "vanilla" swaps, which exchange fixed-rate payments for floating-rate payments based on LIBOR, the interest rate high-credit quality banks (AA-rated or above) charge one another for short-term financing. LIBOR, "The London Inter-Bank Offered Rate," is the benchmark for floating short-term interest rates and is set daily.) Although there are other types of interest rate swaps, such as those that

trade one floating rate for another, plain vanilla swaps comprise the vast majority of the market.

Investment and commercial banks with strong credit ratings are swap market-makers, offering both fixed and floating-rate cash flows to their clients. The counterparties in a typical swap transaction are a corporation, a bank or an investor on one side (the bank client) and an investment or commercial bank on the other side. After a bank executes a swap, it usually offsets the swap through an interdealer broker and retains a fee for setting up the original swap. If a swap transaction is large, the interdealer broker may arrange to sell it to a number of counterparties, and the risk of the swap becomes more widely dispersed. This is how banks that provide swaps routinely shed the risk, or interest-rate exposure, associated with them, Melnik and Plaut (2006).

Melnik and Plaut (2006) continues to argue that interest rate swaps help corporations manage their floating-rate debt liabilities by allowing them to pay fixed rates, and receive floating-rate payments. In this way, corporations could lock into paying the prevailing fixed rate and receive payments that matched their floating-rate debt. (Some corporations did the opposite - paid floating and received fixed - to match their assets or liabilities.) However, because swaps reflect the market's expectations for interest rates in the future, swaps also became an attractive tool for other fixed-income market participants, including speculators, investors and banks.

The "swap rate" is the fixed interest rate that the receiver demands in exchange for the uncertainty of having to pay the short-term LIBOR (floating) rate over time. At any given time, the market's forecast of what LIBOR will be in the future is reflected in the forward LIBOR curve. At the time of the swap agreement, the total value of the swap's fixed rate flows will be equal to the value of expected floating rate payments implied by the forward LIBOR curve. As forward expectations for LIBOR change, so will the fixed rate that investors demand to enter into new swaps. Swaps are typically quoted in this fixed rate, or alternatively in the "swap spread," which is the difference between the swap rate and the U.S. Treasury bond yield (or equivalent local government bond yield for non-U.S. swaps) for the same maturity (Melnik and Plaut 2006). Because swap rates incorporate a snapshot of the forward expectations for

LIBOR and also reflect the market's perception of credit quality of these AA-rated banks, the swap curve is an extremely important interest rate benchmark.
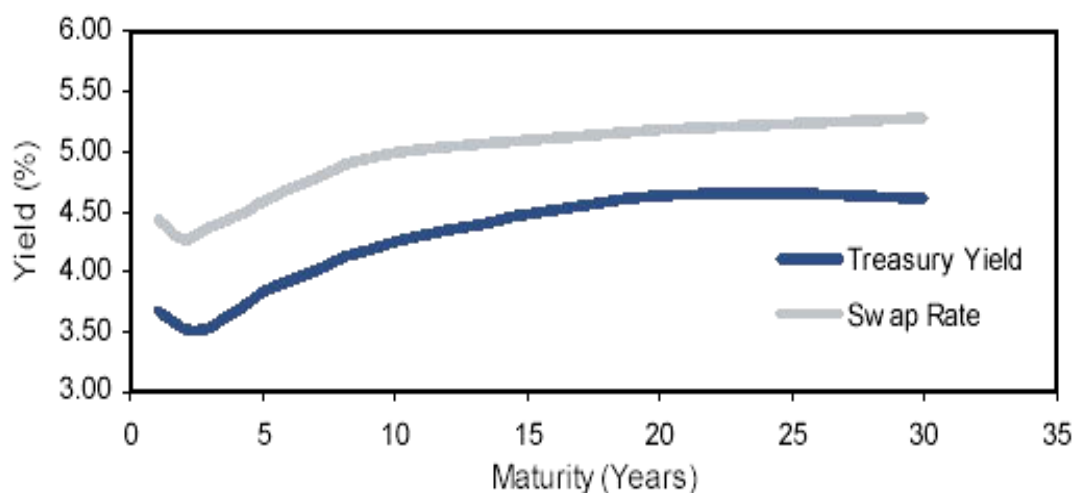
Source: Federal Reserve

Figure 2.2: Swap curve

Although the swap curve is typically similar in shape to the Treasury yield curve, outright swap rates are generally higher than Treasury yields with corresponding maturities, as the chart above illustrates. This premium, or "swap spread" at any given maturity, mostly reflects the incremental credit risk associated with the banks that provide swaps compared to Treasuries, which are viewed as risk-free. While the swap spread can be also be driven by short-term supply and demand fundamentals and other factors within the swap market, the overall level of swap spreads across maturities can also offer a broad reading of the creditworthiness of the major banks that provide swaps (Thakor & Udell, 2007). Because the swap curve reflects both LIBOR expectations and bank credit, then, it is a powerful indicator of conditions in the fixed income markets. In certain cases, the swap curve has supplanted the Treasury curve as the primary benchmark for pricing and trading corporate bonds, loans and mortgages. Swaps are used in Portfolio management, Speculation, Corporate finance, Risk management and in Rate-locks on bond issuance as well as reducing Risks Associated with Interest Rate Swaps. However, the forward LIBOR curve changes constantly. Over time, as interest rates implied by the curve change and as credit spreads fluctuate, the balance between the gray zone and the blue zone will shift. If interest rates fall or

stay lower than expected, the "receiver" of fixed will profit (gray area will expand relative to blue). If rates rise and hold higher than expected, the "receiver" will lose (blue expands relative to gray).

When an investor enters into a swap, the difference between the fixed rate payments and the expected future floating rate payments should be zero (the blue zone equals the gray zone.)

Source: PIMCO
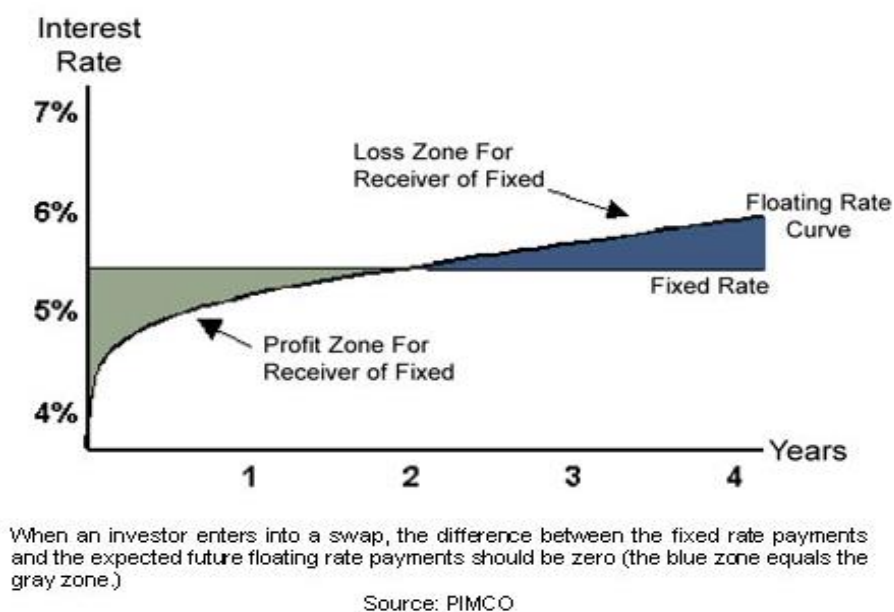
Figure 2.3: Typical swap transaction inception

2.9.3 Standby letters of credit and banks performance

Commercial credits come in all shapes and sizes. Some involve multiple banks, numerous documents, and specialized terms that perform such functions as providing financing for the buyer or the seller (Mirza and Holt, 2011). Other credits involve only one bank and a few documents. In general, the terms and conditions (as well as the cost) of a commercial credit vary depending on the value of the underlying transaction, the political and economic risks associated with the transaction. Standby letters of credit are also Formal commitments used to back many commercial and industrial loans, construction and land development loans, leveraged buyouts, mergers, and acquisitions. The relative bargaining power of the buyer and the seller, and other factors.

2.9.4   Financial options

Financial products and instruments are stimulated by unexpected change in customer needs and preferences, tax policy, technology and regulatory impulses (Bhattacharyya & Nanda, 2010). Financial options are claims without any liability or a claim upon the occurrence of certain conditions (Black *et al.,* 2009). It's a contract that gives the holder the right, without any obligation, to buy or sell an asset at an agreed price on or before a specified time period. An option to buy an asset is called a call option and the option to sell an asset is called a put option. The price at which option can be exercised is called an exercise price or a strike price. The asset on which the put or call option is created is referred to as the underlying asset. Generally accepted accounting principles do not consider these contracts in themselves as assets or liabilities and thus do not recognize them on the face of the balance sheet.

2.10   Financial Performance measurement

Financial performance measures how well a firm is generating value for the owners. It can be measured through various financial measures such as profit after tax, return on assets (ROA), return on equity (ROE), earnings per share and any market value ration that is generally accepted. Generally, the financial performance of banks and other financial institutions has been measured using a combination of financial ratios analysis, benchmarking, measuring performance against budget or a mix of these methodologies (Ahmad et al, 2011).

Firm performance is a multidimensional construct that consists of four elements (Alam *et al.*, 2011). Customer-focused performance, including customer satisfaction, and product or service performance; financial and market performance, including revenue, profits, market position, cash-to-cash cycle time, and earnings per share; human resource performance, including employee satisfaction; and organizational effectiveness, including time to market, level of innovation, and production and supply chain flexibility. Consistent with the theoretical foundations in the capabilities and resource-based perspectives, it is argued that organizational capabilities are rent-generating assets, and they enable firms to earn above-normal returns. For example,

performance management capability influences various measures of firm performance by allowing business leaders to review and take corrective actions on any potential or actual slippages proactively and in a timely manner (Athanasoglou et al, 2008). Likewise, prior studies in marketing and strategy argue that customer management capability (Alam et al, 2011) and process management capability (Ahmad *et al,* 2011) influence several dimensions of firm performance.

The financial statements of financial institutions commonly contain a variety of financial ratios designed to give an indication of the corporation's performance. Simply stated, much of the current bank performance literature describes the objective of financial organizations as that of earning acceptable returns and minimizing the risks taken to earn this return (Alam *et al*, 2011). There is a generally accepted relationship between risk and return, that is, the higher the risk the higher the expected return. Therefore, traditional measures of bank performance have measured both risks and returns.

The increasing competition in the national and international banking markets, the changeover towards monetary unions and the new technological innovations herald major changes in banking environment, and challenge all banks to make timely preparations in order to enter into new competitive financial environment. Aburime (2009) investigated the effectiveness of Nigerian banks based on their political affiliation. He further found that political factors were a major determinant of performance of Nigerian banks. Profit after tax has been widely used as measures of banks' performance. Regarding factors affecting bank performance, different factors have been used by researchers such as: shareholders' equity; liquid assets to assets; total loans to total deposits; fixed assets to total assets; total borrowed funds to total assets; reserves for loans to total assets; market concentration; the market size; labor productivity; bank portfolio composition; capital productivity, bank capitalization; financial interrelation ratio; the level of capitalization; age of the bank; per capita Gross Domestic Product (GDP), the cost to-income ratio and customer satisfaction (Athanasoglou *et al,* 2008).

Financial performance of banks is usually expressed as a function of internal and external determinants. The internal determinants originate from bank accounts (balance sheets and/or profit and loss accounts) and therefore could be termed micro or bank-specific determinants of performance. The external determinants are variables that are not related to bank management but reflect the economic and legal environment that affects the operation and performance of financial institutions. A number of explanatory variables have been proposed for both categories, according to the nature and purpose of each study (Alam *et al*, 2011). Studies dealing with internal determinants employ variables such as size, capital, risk management and expenses management, human resource and bank innovativeness. External determinants of bank profitability include factors such as inflation, interest rates and cyclical output, and that represent market characteristics (Alam *et al*, 2011). He related the effects of off balance sheet products on financial performance based on financial ratios which will include but not limited to the following. Liquidity ratios measured by current ratio, quick ratio and cash ratio. Leverage ratios measured by debt ratio and debt-equity ratio Activity ratios measured by inventory turnover, debtor's turnover. Profitability ratios measured by gross profit margin and return on investment.

2.11   Conceptual framework

A conceptual framework is a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation (Kombo &Tromp, 2009). It represents the relationships between variables in the study and shows the relationship graphically or diagrammatically. Figure 2.4 shows the conceptual framework for the current study identifying the various independent variables and their effects on the financial performance of commercial banks in Kenya.

Loan Commitments
- Loan arrangements
- Credit access
- Locking fixed mark up

Financial Swaps
- Portfolio management
- Speculation

34

Financial Performance
- Liquidity
- Leverage Ratios
- Activity Ratios
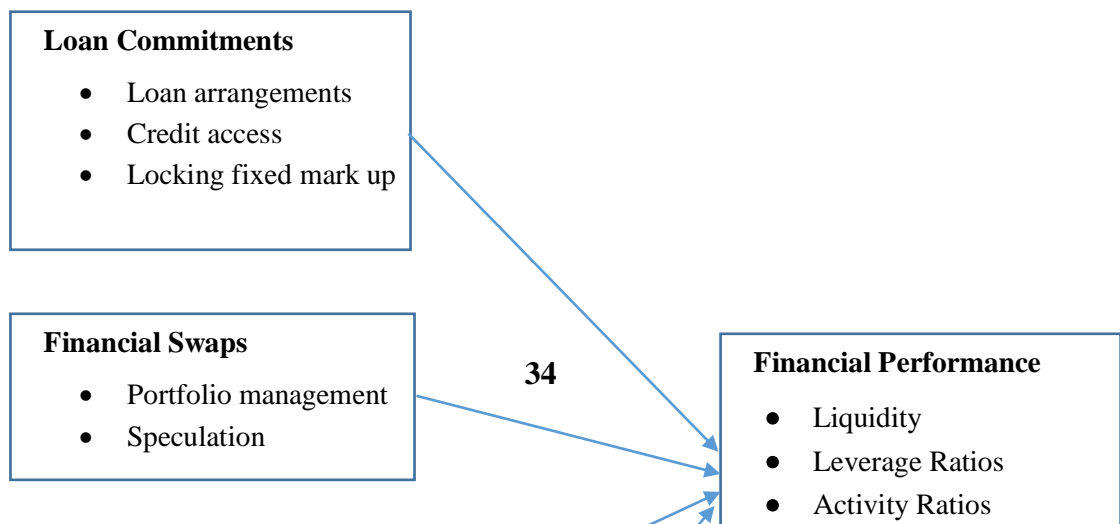
Dependent variable

Independent variables

Figure 2.4: Conceptual framework

2.12   Research Gap

Off-balance sheet items are an asset or debt that does not appear on a company's balance sheet and are generally ones in which the company does not have legal claim or responsibility for. But nevertheless they are off-balance sheet, there is always some exposition of the issuing bank to the credit risk associated with the transferred items. Regarding the definition of off-balance sheet items, we started from what is commonly said: that a greater credit risk exposure arising from the pool, should make banks more risk-averse and encourage them to shift their portfolios towards items of lower credit risk (e.g. reduce risk) (Casu et al., 2011).

An overview of the related literature shows that several articles have studied the effect of derivatives on bank risks in different countries and regions. Siregar et al. (2013) examine the value relevance of derivative disclosures in U.S. commercial banks; their findings confirm that recognitions of derivatives are value relevant, and quantified derivative disclosures is negatively associated with the value of firms. Keffala and Peretti (2013) found that, letters of credit, forwards and swaps decrease bank risk, while options positively affects bank risk, and futures have a mildly significant effect

on bank risk in emerging and recently developed countries. According to Yong et al., (2009) the use of derivatives appears to decrease Asia-Pacific banks' short-term interest rate exposure but not their long-term exposure. The results of Augusman et al. (2008) indicated that surveyed Asian countries firm-specific risk is more important than systematic risk. Instefjord (2005) concluded that a financial innovation in the credit derivatives market may raise bank risk. Park et al. (1999) presented findings that value differences in available-for-sale and held-to-maturity securities (fair less book value) explain the value of bank equity. Venkatachalam (2006) suggested that fair values have incremental explanatory power over and above the notional amounts of derivatives. Finally, Chaudhry et al. (2000) studied the impact of different types of contingent foreign currency claims, and found that options increase all types of bank risk for all banks liabilities the company has that are denominated in a foreign currency, the greater the translation risk (Lessard 2009).

Ultimately, for financial reporting, the parent company will report its assets and liabilities in its home currency. So when the parent company is preparing its financial statements, it must include the assets and liabilities it has in other currencies. When valuing the foreign assets and liabilities for the purpose of financial reporting, all of the values will be translated into the home currency. Therefore foreign exchange rate fluctuations actually change the value of the parent company's assets and liabilities. This is essentially the definition of accounting exposure (Hollensen, 2007).

The risk that a company's equities, assets, liabilities or income will change in value as a result of exchange rate changes. This occurs when a firm denominates a portion of its equities, assets, liabilities or income in a foreign currency. Type of exposure comes about as a result of converting financial statements which are expressed in foreign currencies into the home currency (Hollensen, 2007) When a firm consolidates the results of all its foreign subsidiaries, it has to present a final report to shareholders and the numbers in this document should be expressed in one currency (Lessard, 2009). All foreign currency denominated assets and liabilities as well as revenues and costs have to be translated into one basic currency (Hollensen, 2007).

Bartram et al. (2013) are of the opinion that indeed assets, liabilities as well as equity on a balance sheet are expressed in historical values and the foreign exchange rate at which the currencies trade at the end of the accounting period is most probably not the same foreign exchange rate when the accounts were booked. In this regard therefore when a company does the normal thing of carrying out the conversion at a new foreign exchange rate, there is a likelihood of exchange rate losses or profits. Thus the question that begs to be answered is at what exchange rate the accounts should be translated. It could be at the rate of exchange at the balance sheet date, at the rate of exchange at the time when the assets were acquired or the liability incurred, or at the rate of exchange mid-way through the trading year (Lessard, 2009).

According to Schuetz (2011) banks that report performance both on balance sheet products and off balance sheet products perform better than those which do not and further explain why there is a focus on why commitments exist. Most studies argued that commitments arose primarily as contingent contracts that helped to perfect financial markets. Some recent articles motivated commitments as solutions to moral hazard and adverse selection problems that arise in spot loan markets. Although a lot have being conducted on firm performance much of this have been done on balance sheet products and less on off balance sheet products.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explain how the research was done. This includes the research design, target population, sample size and sampling technique, data collection procedure, reliability and variability, measurement and analytical techniques.

3.2 Research Design

Research design refers to the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in the procedure (Babbie, 2002). The study adopted mixed method design where both the descriptive and qualitative research designs were used. According to Creswell (2003), descriptive survey designs are used in preliminary and exploratory studies to allow researchers to gather information, summarize, present data, and interpret it for the purpose of clarification. It involves using questionnaires and generalizing the results of the sample to the population from which it is drawn. Kothari (2004), states that descriptive survey design is flexible enough to provide opportunity for considering different aspects of a problem under study. The study involved all the commercial banks as listed in Appendix III.

3.3 Target Population

Mugenda and Mugenda (2003) describes population as the entire group of individuals or items under consideration in any field of inquiry and have a common attribute. This study targeted all the 43 commercial banks operating in Kenya. From each of the 43 commercial banks, senior management employees were targeted to give the views of the banks they represented.

3.4 Sample and Sampling Technique

This study involved a total of 43 commercial banks in Kenya focusing on top managers because they are well equipped with the operations of the banks. According to Mugenda and Mugenda (2003), a sample of 10- 30 % is good enough if well-chosen and the elements in the sample are more than 30. Based on the population, the sample were drawn using the purposive sampling method where at least 2 members of the senior management such as the manager, credit manager and relationship manager from each bank at the head quarter were selected. This resulted to 86 respondents.

3.5 Measures

A well-structured questionnaire with a Likert scale was used to measure both the dependent and independent variables. Each questionnaire consisted of statements or questions answered on a five-point scale, varying from very little extent (10%-20%), little extent (21%-40%), average extent (41%-60%) great extent (61%-80%) to very great extent (81%-100%).

3.6 Measurement of Variables

The financial performance of commercial banks (dependent variable) variable was measured through liquidity ratios (current ratio, quick ratio and cash ratio), leverage ratios (debt ratio and debt equity ratio), activity ratios (inventory turnover and debtor's turnover) and profitability ratios (gross profit margin and net profits) ratios. The independent variable (financial swaps) bycommercial banks was assessed by determining the extent to which portfolio management, and financial swaps speculation affects the financial performance of the of commercial banks. In measuring both the dependent and independent variables, questions were designed with alternative answers expressed in a Likert scale from 10% - 20%- very little extent; 21%- 40% - little extent; 41%-60% - average extent; 61% - 80% - great extent and 81% - 100% -very great extent.

3.7 Data Collection Instruments

Questionnaires were the main tool for the collection of primary data. This questionnaires comprised of both structured and unstructured questions. Copper and Shindler (2003), state that structured questions necessitate getting as much information as possible from the limited space on the form. Unstructured questions provide the respondents with an opportunity to express their opinions, ideas and thoughts freely. Thus the questionnaires were unstructured to enable the researcher get information, ideas, opinions and thoughts freely from the senior managers of the various banks. The respondents were also encouraged to give an in-depth response without feeling held back in revealing any information. The study also used an interview guide and an observation checklist which was analogous to the questionnaire. Personal interview method and structured observation were also used. In addition, secondary data was collected from literature material available.

3.8 Pilot testing

To ascertain the validity and reliability of questionnaire, a pilot survey was performed on 4 commercial banks selected at random. This pilot testing enabled for the establishment of the accuracy and appropriateness of the research design and instrumentation and provided proxy data for selection of a probability sample (Saunders et al., 2007).To maximize on the reliability of the questionnaire, the approach to research design construction included framing each question tightly and clearly to reduce ambiguity and avoid any demand bias; sequencing onerous questions towards the end of the survey; keeping open questions to a minimum; devising response scales that will increase the variability of response, thereby ensuring high statistical value from data as stated by Cooper and Schindler (2003).

3.8.1 Reliability

Internal consistency of the data collection instrument was tested through the Cronbach's alpha method (Cronbach, 1951). Using item inter-item correlation matrix as a guide, items that strongly contributed to alpha, and whose content were not critical, were eliminated as guided by Mugenda, (2008); Cooper and Schindler (2003)

argues that Cronbach's alpha has the most utility for multi-item scales at the interval level of measurement, requiring only a single administration and provides a unique, quantitative estimate of the internal consistency of a scale. Sekaran (2003) reports that reliabilities less than 0.6 are considered to be poor, those in the 0.70 range, acceptable, and those over 0.80 good.

3.8.2 Validity

The content validity were considered suitable because quality items will be obtained from a review of the literature and the Powell model, and a pilot test. On the other hand, validity is the extent to which differences found with a measuring tool reflect true differences among respondents being tested (Copper & Schindler 2003). Validity can be measured by the extent the data obtained accurately reflects the theoretical or conceptual concepts; that is if the measurements gotten are consistent with the expectations. Consistency of the results and expectations were checked by carrying out a pre-test of the questionnaire on 5 respondents from commercial banks in Kenya. Neuendorf (2002) suggested that when human coders are used in content analysis, reliability translates to the amount of agreement or correspondence among two or more coders. Secondary data will be obtained from CBK reports. Reliability in content analysis were ensured by analyzing the amount of agreement or correspondence among the key informants.

3.9 Data Analysis and Presentation

Data analysis was done using SPSS version 16.0. The data was checked for errors through data screening and the scale reliability test was applied to check the reliability of the scale developed to undertake the present research. Descriptive information was analysed using dominant responses technique to determine common reactions and consistencies that cut across majority of the respondents. Descriptive measures such as percentages and frequencies were used to draw inferences and make conclusions. Statistical information was analysed using linear regression model to give inferences to the data obtained, multiple regressions to determine the form of the relationship between the dependent variable and the independent variables and ANOVA to analyze the significance of the findings.

3.10   Operationalization Model

The study adopted multiple regression model shown in equation 1 to establish the effects of portfolio management and financial swaps speculations on the performance of commercial banks in Kenya.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

Where: Y   = dependent variable (Financial performance of commercial banks)

α = constant term

$\beta_1 - \beta_4$ = Coefficients for the independent variables

$X_1 - X_4$ = Independent variables

e   = Error term (standard error)

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.1 Introduction

This chapter gives the findings and discussion of the study presented chronologically as per the objectives of the study. This study was guided by five objectives which are: To determine the effect of loan commitments on the financial performance of commercial banks in Kenya; to determine the effect financial swaps on the financial performance of commercial banks; to determine the effect of standby letters of credit on the financial performance of entrepreneurial commercial banks and to determine the effect of financial options on the financial performance of commercial banks in Kenya.

4.1 Sample Characteristics

A total of 43 commercial banks were visited and their characteristics are as shown in Table 4.1. From each of the 43 commercial banks, 2 senior management officials were interviewed making the total questionnaires administered to be 86. Out of the 86 questionnaires administered, 85 were returned representing 99% response rate. Mugenda and Mugenda (2003) opine that a response rate of above 70% is acceptable in research**.** Both medium (56.5%) and large (43.5%) commercial banks were considered in this study with most of them (57.6%) having been in operation for over 15 years.

Table 4.1: Sample characteristics

Characteristics	Category	Frequency	%
Size of organization	Medium (500 employees)	48	56.5
	Large (Over 500 employees)	37	43.5
Age of organization	11-15	36	42.4
	Above 15 years	49	57.6

4.2 Descriptive Statistics

This study aimed at determining the impact of loan arrangement, credit access, locking fixed mark up over interest rate, financial swaps, standby letters of credit and financial options on the financial performance of commercial banks in Kenya. Results for the descriptive statistics for both the dependent variable (financial Performance) and the independent variables (loan commitment- credit access, locking fixed mark up over interest rate, financial swaps, standby letters of credit and financial options) are presented as shown in section 4.2.1 to 4.2.5.

4.2.1   Loan commitments

On the determining the effect of loan commitments on the financial performance of commercial banks, loan commitments was expressed in form of loan arrangement, credit access and fixed mark-up on interest rates. Respondents' opinion on each of these variables are as detailed in sub-sections 4.2.1.1 to 4.2.1.3.

4.2.1.1 Loan Arrangements

Table 4.2 shows respondents' opinions on the impact of loan arrangements on the financial performance of commercial banks. It is indicative that majority of the respondents agrees that loan arrangements improves the financial performance of commercial banks in Kenya to a great extent (mean = 4).

Table 4.2: Descriptive statistics on loan Commitment

	N	Minimum	Maximum	Mean	Std. Deviation
Loan arrangements improves current ratio	85	2	4	3.61	.599
Loan arrangements improves debt ratio	85	2	4	3.46	.665
Loan arrangement have improved inventory turnover	85	2	5	3.42	.770
Loan improvement have improved the debt equity ratio	85	2	5	3.56	.680

1= very little extent; 2 = little extent; 3 = average extent ; 4 = great extent; 5 = very

great extent.

4.2.1.2 Credit Access

Response on the impact of credit access on the financial performance of commercial banks revealed that most banks agreed to a great extent (mean = 4) that access to credit facilities help to improve the performance of commercial banks in Kenya (Table 4.3).

Table 4.3: Descriptive statistics on credit access

Statement	N	Minimum	Maximum	Mean	Std. Deviation
Credit access have improved current ratio	85	2	5	3.75	.615
Credit access have improved quick ratio	85	2	5	3.74	.639
Credit access have improved cash ratio	85	2	5	3.73	.679
Credit access have improved debt ratio	85	2	5	3.65	.702
Credit access have improved debt equity ratio	85	2	5	3.69	.708
Credit access have improved current inventory turnover	85	2	5	3.58	.605
Credit access have improved debtors turnover	85	3	5	3.54	.524
Credit access have improved gross profit margin	85	3	5	3.98	.597

1= very little extent; 2 = little extent; 3 = average extent ; 4 = great extent; 5 = very great extent.

4.2.1.3 Fixed mark up

As shown in Table 4.4, all the respondents agreed to a great extent (mean = 4) on the positive contribution of fixed mark up over interest rates on banks' financial performance.

Table 4.4: Descriptive statistics on Fixed mark up

Statement	N	Minimum	Maximum	Mean	Std. Deviation
Locking fixed markup over reference interest rates have improved quick ratio.	83	2	4	3.57	.609
Locking fixed markup over reference interest rates have improved cash ratio.	85	2	5	3.52	.750
Locking fixed markup over reference interest rates have improved debt ratio.	85	2	5	3.74	.774
Locking fixed markup over reference interest rates have improved debt equity ratio.	85	2	5	3.52	.868
Locking fixed markup over reference interest rates have improved inventory turnover ratio.	84	2	5	3.88	.762
Locking fixed markup over reference interest rates have improved debtors ratio.	85	2	5	3.65	.702
Locking fixed markup over reference interest rates have improved gross profit margin.	85	2	5	3.55	.646
Locking fixed markup over reference interest rates have improved return on investment.	85	2	5	3.58	.605

1= very little extent; 2 = little extent; 3 = average extent ; 4 = great extent; 5 = very great extent.

4.2.2 Financial Swaps

On the determining the effect of financial swaps on the financial performance of commercial banks, loan commitments was expressed in portfolio management and speculations on financial swaps. Respondents' opinion on each of these variables are as detailed in sub-sections 4.2.2.1 to 4.2.2.2.

4.2.2.1 Portfolio Management

Table 4.5 shows respondents' views on the impact on portfolio management on the financial performance of commercial banks. It shows that all the respondents perceive portfolio management as a factor that improves the financial performance of commercial banks in Kenya to a great extent (mean = 4).

Table 4.5: Descriptive statistics on Fixed mark up on interest rates

Statement	N	Minimum	Maximum	Mean	Std. Deviation
Portfolio management has improved the current ratio	85	2	5	3.74	.601
Portfolio management has improved the cash ratio	85	2	5	3.74	.657
Portfolio management has improved the quick ratio	85	2	5	3.74	.693
Portfolio management has improved the debt equity ratio	85	2	5	3.60	.676
Portfolio management has improved the inventor turnover ratio	85	2	5	3.69	.724
Portfolio management has improved the debtors ratio	85	2	5	3.58	.605
Portfolio management has improved the gross profit margin	85	3	5	3.52	.526
Portfolio management has improved the return on investment	85	3	5	3.95	.615

1= very little extent; 2 = little extent; 3 = average extent; 4 = great extent; 5 = very great extent.

4.2.2.2 Speculations on financial swaps

Response on the impact of financial swaps speculations on the financial performance of commercial banks revealed that most banks agreed to a great extent (mean = 4) that speculation on financial swaps helps to improve the performance of commercial banks in Kenya (Table 4.6).

Table 4.6: Descriptive statistics on Speculations on financial swaps.

Statement	N	Minimum	Maximum	Mean	Std. Deviation
Speculation on swaps has led to adjustment of interest rate exposure posed by interest rate volatility leading to improved liquidity	85	2	5	3.74	.693
Speculation on swaps has improved the offsetting of the risk posed by interest rate volatility to improved liquidity	85	2	5	3.61	.656
Speculation on swaps has reduced the duration posed by in leading to improved liquidity	85	2	5	3.69	.724
Speculation on swaps on interest rate movements have avoided the cool of long and short positions in treasuries d leading to improved liquidity	85	2	5	3.58	.605
Speculation on swaps has reduced the duration posed by interest rate volatility leading to improved leverage	85	3	5	3.52	.526
Speculation on swaps has led to adjustment of interest rate exposure posed by interest rate leading to improved leverage	85	2	5	3.74	.693
Speculation on swaps on interest rate movements have avoided the cool of long and short positions in treasuries d leading to improved leverage.	85	2	5	3.55	.664
Speculation on swaps has reduced the duration posed by interest rate volatility leading to improved liquidity	85	2	5	3.69	.724

1= very little extent; 2 = little extent; 3 = average extent; 4 = great extent; 5 = very great extent.

4.2.3 Standby Letters of credit

Response on the impact of standby letters of credit on the financial performance of commercial banks revealed that most banks agreed to a great extent (mean = 4) that speculation on financial swaps helps to improve the performance of commercial banks in Kenya (Table 4.7).

Table 4.7: Descriptive statistics on standby letters of credit

	N	Minimum	Maximum	Mean	Std. Deviation
The standby letters of credit have reduced the risk associated with non-performance in a contract leading to improved liquidity	85	2	5	3.73	.625
The standby letters of credit have improved the prompt payment leading to improved profitability	85	2	5	3.62	.771
The standby letters of credit have improved credit substitution leading to profitability.	85	2	5	3.74	.639
The standby letters of credit have shifted litigation costs leading to improved leverage.	85	2	5	3.71	.704
The standby letters of credit have improved the shifting of the forum lading to improved activity ratios.	85	2	5	3.59	.660
The standby letters of credit have reduced time cost and money leading to improved profitability	85	2	5	3.69	.756
The standby letters of credit have reduced time cost and money leading to improved profitability	85	2	5	3.55	.646
The electronic data interchange has reduced time cost and money leading to improved profitability	85	3	5	3.51	.526
The Electronic Letters Of Credit have reduced time cost and money leading to improved leverage	85	2	5	3.73	.697

1= very little extent; 2 = little extent; 3 = average extent ; 4 = great extent; 5 = very great extent.

4.2.4 Financial Options

Respondents' opinions on the impact of financial options on the financial performance of commercial banks revealed that most banks agreed to a great extent (mean = 4) that speculation on financial swaps helps to improve the performance of commercial banks in Kenya (Table 4.8).

Table 4.8: Descriptive Statistics on Financial options

Statement	N	Minimum	Maximum	Mean	Std. Deviation
The call options have improved the current ratio	85	2	5	3.75	.615
The put options have improved the quick ratio	85	2	5	3.74	.693
The index options have improved the debt ratio	85	2	5	3.61	.656
The call options have improved the inventory turnover	85	2	5	3.72	.717
The put options have improved the gross profit margin	85	2	5	3.58	.605
The index options have improved return on investment	85	3	5	3.52	.526
The call options have improved the debtors turn over	85	2	5	3.74	.693
The loan put options have improved the cash ratio	85	2	5	3.55	.664
The index options have improved the debt equity ratio	85	2	5	3.68	.711

1= very little extent; 2 = little extent; 3 = average extent ; 4 = great extent; 5 = very great extent.

4.2.5 Financial Performance

Response on the impact of financial off- balance sheet products on the financial performance of commercial banks revealed that most banks agreed to a great extent (mean = 4) that speculation on financial swaps helps to improve the performance of commercial banks in Kenya (Table 4.9).

Table 4.9: Descriptive Statistics on financial performance

	N	Minimum	Maximum	Mean	Std. Deviation
Standby letters of credit have improved liquidity ratio of banks	85	2.00	5.00	3.68	.640
Standby letters of credit have improved the activity ratio of banks	85	2.00	5.00	3.67	.679
Standby letters of credit have improved the activity ratio of banks	85	2.00	5.00	3.78	.725
Financial options have improved the liquidity ratios of commercial banks	85	2.00	5.00	3.73	.714
Financial options have improved the leverage ratios of commercial banks	85	2.00	5.00	3.69	.655
Financial options have improved the activity ratios of commercial banks	85	2.00	5.00	3.71	.704

1= very little extent; 2 = little extent; 3 = average extent ; 4 = great extent; 5 = very great extent**.**

4.3 Reliability Analysis

The reliability findings in Table 4.10 shows that all the variables were reliable and acceptable with all the Cronbach's alpha values greater than 0.7 as recommended by Bryman and Bell (2015). Hair *et al.* (2006) states that Cronbach's alpha value range between 0 and 1.0; where 1.0 indicates perfect reliability and value 0.70 is deemed to be the lower level of acceptability.

Table 4.10: Reliability Analysis

Variable	Cronbach Alpha	No. of items
Bank performance	0.877	6
Loan Arrangement	0.708	4
Credit Access	0.825	8
Fixed Mark up	0.741	8
Portfolio Management	0.831	8
Speculation on Financial Swaps	0.735	8
Stand by Letter of credit	0.700	9
Financial options	0.790	9

4.4 Diagnostic tests

To ascertain whether the data obtained was normally distributed, a normality test was carried out as detailed in sub-section 4.4.1

4.4.1 Normality Test

Table 4.11 shows the normality test result for both dependent and dependent variables. Based on the skewness and kurtosis statistics values, the data is assumed to be normal. George & Mallery (2010), opines that values for asymmetry (skewness) and kurtosis between -2 and +2 are considered acceptable in order to prove normal univariate distribution.

Table 4.11: Normality Test

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Loan Arrangement	85	2	5	3.42	.777	.027	.261	-.348	.517
Credit Access	85	3	5	3.98	.597	.007	.261	-.102	.517
Fixed Mark up	85	2	5	3.88	.762	-.292	.261	-.199	.517
Portfolio Management	85	3	5	4.13	.704	-.186	.261	-.941	.517
Speculation on Financial Swaps	85	2	5	3.69	.724	.156	.261	-.484	.517
Stand by Letter of credit	85	2	5	3.71	.704	-.143	.261	-.097	.517
Financial options	85	2	5	3.68	.711	.141	.261	-.417	.517
Bank performance	85	2	5	3.79	.725	-.611	.261	.574	.517

4.5 Correlation Analysis

Pearson's Correlation which is a measure of linear association between two variables was used to establish the relationship between the study variables. Results in table 4.12 shows that loan arrangement is positively but weakly correlated with financial performance ($r = 0.224$, $p < 0.05$). Access to credit also showed a positive weak correlation with financial performance ($r = 0.63$, $p < 0.05$) similar to fixed mark up, financial swaps, speculation on financial swaps, standby letters of credit and financial options . Hair *et al.,* (2006) reports that correlation coefficient (r) ranging from .81 and 1.0 are considered very strong; from .61 to .80 are strong; from .41 to .60 moderate; from .21 to .40 weak; and from .00 and .20 indicates no relationship.

Table 4.12: Correlation Analysis Results

	Loan Arrangement	Credit Access	Fixed Mark up	Portfolio Management	Speculation on Financial Swaps	Stand by Letter of credit	Financial options	Financial performance
Loan Arrangement	1							
Credit Access	-.004	1						
	.972							
Fixed Mark up	-.035	.046	1					
	.747	.675						
Portfolio Management	.225*	.177	.029	1				
	.038	.104	.794					
Speculation on Financial Swaps	.000	.671**	.085	.172	1			
	.998	.000	.439	.115				
Stand by Letter of credit	-.074	.295**	.023	.054	.172	1		
	.500	.006	.831	.625	.116			
Financial options	.031	.683**	.062	.202	.689**	.168	1	
	.779	.000	.573	.063	.000	.124		
Financial performance	.224*	.263*	.234*	.244*	.215*	.226*	.214*	1
	.039	.015	.031	.026	.048	.037	.049	

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

4.6 Regression Analysis

To establish the form of the relationship between dependent and independent variables, linear regression analysis was done.

4.6.1 Effect of Loan commitment on Financial performance

In this study, the impact of loan commitment on the performance commercial banks was assessed by determining the impacts of loan arrangement, credit access and locking fixed mark up over reference interest rates on performance of commercial banks a detailed in sub-sections 4.6.1.1 to 4.6.1.3. Stoner (2003) as cited in Turyahebya (2013), defines financial performance as the ability to operate efficiently, profitably, survive, grow and react to the environmental opportunities and threats.

4.6.1.1 Effect of loan arrangement on financial performance

Based on the findings in table 4.13, the regression model was statistically significant (r^2 = 0.050, p < 0.05) indicating that loan arrangement contributes 5% of the variation observed in financial performance of commercial banks in Kenya. Nzotta (2004) point out that credit management greatly influences the success or failure of commercial banks and other financial institutions. He attributes this to a large extent by the quality of credit decisions and thus the quality of the risky assets.

Table 4.13: Model Summary on loan arrangement

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.224[a]	.050	.039	.71105

a. Predictors: (Constant), Loan arrangements

Achou and Tenguh (2008) while studying the relationship between bank performance and credit risk management found out that there is a significant relationship between financial institutions performance (in terms of profitability) and credit risk management (in terms of loan performance)

Anova results in table 4.14 indicates that the model is statistically significant ($p <$ 0.05).

Table 4.14: ANOVA[b] on Loan arrangements

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.224	1	2.224	4.398	.039[a]
	Residual	41.965	83	.506		
	Total	44.188	84			

a. Predictors: (Constant), Loan arrangements

b. Dependent Variable: Financial performance

The standardized Beta value of 0.224 implies that there is 0.224 significant increase in financial performance for each unit increase in loan commitment (Table 4. 15).

Table 4.15: Regression Coefficients[a] on loan Arrangements

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.072	.350		8.769	.000
	Loan Arrangement	.209	.100	.224	2.097	.039

a. Dependent Variable: Financial Performance

The equation connecting financial performance of commercial and loan arrangement is therefore given by::

$$Y = 3.072 + 0.209X_1 + 0.1$$

Where y = Financial performance, X_1 is the loan arrangement.

4.6.1.2 Effect of credit access on financial performance

Hypothesis 1 on loan commitment stated that loan commitments as an off- balance sheet product do not affect the performance of commercial banks in Kenya. Based on the findings in Table 4.16, the regression model was statistically significant (r^2 = 0.069, p < 0.05) indicating that credit access contributes to 6.9% the variation observed in the performance of commercial banks in Kenya. According to Nkurunziza (2010), while taking a study on Kenya manufacturing sector for the period 1992-1994 showed a positive and significant coefficient on access to credit in a firm growth equation implying that firms with access to credit recorded higher growth rates than those without access to credit. In a similar study, Gatti and Love (2008) found strong evidence that access to credit is associated with high productivity.

Table 4.16: Model Summary on credit Access

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.263[a]	.069	.058	.70392

a. Predictors: (Constant), Credit access

Access to credit can also influence productivity by enabling firms to take advantage of new business opportunities (World Bank, 2008). Osei-Assibey (2013) states that credit influences productivity by acting as an enabler for the drivers of productivity which include managerial and technical skills, investment in better technology, innovation, and competition.

Anova results in Table 4.17 indicates that the model is statistically significant (p < 0.05) an indication that access to credit significantly affects the financial performance of commercial banks in Kenya.

Table 4.17: ANOVA[b] Results – Credit Access

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.062	1	3.062	6.179	.015[a]
	Residual	41.126	83	.495		
	Total	44.188	84			

a. Predictors: (Constant), Credit Access

b. Dependent Variable: Financial performance

Wolf (2007) also reports that firms facing credit constraints would not be able to invest in new equipment, reorganize their production processes, enhance research and development activities, gain access to high quality inputs, train workers or improve their products, all of which are necessary for productivity improvement. The standardized Beta value of 0.263 implies that there is 0.263 significant increase in financial performance for each unit increase in credit access (Table 4. 18).

Table 4.18: Regression Coefficients[a] - Credit Access

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.517	.517		4.867	.000
	v.pb.6.8	.320	.129	.263	2.486	.015

a. Dependent Variable: Financial performance

The equation connecting financial performance of commercial and credit access becomes:

$$Y = 2.517 + 0.32X_2 + 0.129$$

Where Y is the financial performance and X_2 is the credit access.

4.6.1.3 Locking fixed mark up over reference interest rates

Based on the findings in table 4.19, the regression model was statistically significant ($r^2 = 0.055$, $p < 0.05$) indicating that locking fixed mark up over reference interest rates contributes 5.5% the variation observed in the performance of commercial banks in Kenya. This therefore led to the rejection of the null hypothesis and instead conclude that locking fixed mark up over reference interest rates as one of the constructs of loan commitment significantly affects the financial performance of commercial in Kenya.

Table 4.19: Regression Model Summary - Locking fixed mark up over reference interest rates

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.234[a]	.055	.044	.70934

a. Predictors: (Constant), Locking fixed mark up over reference interest rates

In a similar study, Kipngetich (2011) while using regression model to investigate the relationship between interest rates and ROE with financial performance as the independent variable and interest rate as the dependent variable established that there is a positive relationship between the two variables though the effect of interest rates on profitability was not significant in the all the banks.

Anova results in table 4.20 indicates that the model is statistically significant ($p < 0.05$) an indication that access to credit significantly affects the financial performance of commercial banks in Kenya.

Table 4.20: ANOVA[b] Results - Locking fixed mark up over reference interest rates

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.426	1	2.426	4.821	.031[a]
	Residual	41.763	83	.503		
	Total	44.188	84			

a. Predictors: (Constant), Locking fixed mark up over reference interest rates
b. Dependent Variable: Financial performance

The standardized Beta value of 0.234 implies that there is 0.234 significant increase in financial performance for each unit increase in Locking fixed mark up over reference interest rates (table 4. 21).

Table 4.21: Regression Coefficients[a] - Locking fixed mark up over reference interest rates

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.923	.402		7.279	.000
	Locking fixed markup over interest rates	.223	.102	.234	2.196	.031

a. Dependent Variable: Financial performance

The equation connecting financial performance of commercial and locking fixed markup over reference interest rates is: given by:

$$Y = 2.923 + 0.223X_3 + 0.102$$

where Y = Financial performance and X_3 is the fixed markup over reference interest rates

Hypothesis 1 on loan commitments stated that loan commitments as an off- balance sheet product do not affect the financial performance of commercial banks performance in Kenya. Based on the findings of this study, loan arrangement, Credit access and locking fixed mark up over reference interest rates significantly and positively affected the performance of commercial banks in Kenya. This therefore led to the rejection of the null hypothesis and instead conclude that loan commitments as an off- balance sheet product positively and significantly affects the financial performance of commercial in Kenya.

4.6.2 Effect of financial swaps on Financial performance

Hypothesis 2 stated that financial swaps as an off- balance sheet product do not significantly affect the financial performance of commercial banks in Kenya **.** In this study, financial swaps were represented by portfolio management and speculations on financial swaps and their findings are as shown in sub-section 4.6.2.1 to 4.6.2.2.

4.6.2.1 Portfolio management

Results in in table 4.22, reveals that the regression model was statistically significant ($r^2 = 0.060$, p < 0.05) which implies that financial swaps contributes 6% variation observed in the performance of commercial banks in Kenya. The null hypothesis is therefore rejected and instead conclude that portfolio management as an attribute of financial swaps significantly and positively affects the financial performance of commercial in Kenya. As indicated by Allayannis and Ofek et al. (2011) firms making use of derivatives are likely to have a higher market value. Similarly, Graham & Rogers (2012) on their part argues that firms that employ the use of derivatives are highly leveraged. In a similar study Mugi (2015) points out that a unit increase in cross currency swaps, while holding other factors constant, will lead to an increase in ROA by 4.728 (p = .037).

Table 4.22: Regression Model Summary on portfolio management

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.244[a]	.060	.048	.708

a. Predictors: (Constant), Portfolio management

Ana Lozano et al. (2011) argues that OBS activities have a large and positive effect on profit productivity and only a small effect on cost productivity, improve somewhat profit efficiency, and have a large impact on improving best practice for profit. Vashishtha and Kumar (2010) notes that effective use of derivatives can save on cost, and it can increase returns for the organizations.

Anova results in Table 4.23 indicates that the model is statistically significant ($p < 0.05$).

Table 4.23: ANOVA[b] Results on Portfolio management

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.634	1	2.634	5.260	.024[a]
	Residual	41.555	83	.501		
	Total	44.188	84			

a. Predictors: (Constant), Portfolio management

b. Dependent Variable: Financial performance

The standardized Beta value of 0.244 implies that there is 0.244 significant increase in financial performance for each unit increase in Locking fixed mark up over reference interest rates (Table 4. 24).

Hassan and Khasawneh (2009) tested the impact of different derivatives on the riskiness of several U.S. bank holding companies. They found that among the derivatives contracts, swaps are the major contracts that are incorporated in market risk valuation. Results show that such contracts are viewed as risk reducing tools.

Table 4.24: Regression Coefficients[a] - Portfolio management

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.651	.502		5.283	.000
	Portfolio managemei	.288	.125	.244	2.293	.024

a. Dependent Variable: Financial performance

4.6.2.2 Effect of speculation of financial swaps on financial performance

Based on the findings in Table 4.25, the regression model was statistically significant ($r^2 = 0.046$, $p < 0.05$) indicating that speculation on financial swaps contributes 4.6% of the variation observed in the performance of commercial banks in Kenya. According to Ilyina, (2004) the use of derivatives can promote the financial risk exposure management because they enable investors to transfer and unbundle financial risk.

Table 4.25: Regression Model Summary on speculation of financial swaps

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.215[a]	.046	.035	.71255

a. Predictors: (Constant), Speculations on financial swaps

Anova results in Table 4.26 indicates that the model is statistically significant ($p < 0.05$). According to Khambata (2001), engagement in the off-balance sheet activities also help to improve the commercial banks' scope of operations, and diversification of product lines and earnings.

Table 4.26: ANOVA[b] Results - Speculations on financial swaps

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.046	1	2.046	4.030	.048[a]
	Residual	42.144	83	.508		
	Total	44.188	84			

a. Predictors: (Constant), Speculations on financial swaps

b. Dependent Variable: Financial performance

The standardized Beta value of 0.215 implies that there is 0.215 significant increase in financial performance for each unit increase in speculations on financial swaps (Table 4.27). Hartarska and Shen (2013) indicated that during the 2008 financial crisis derivatives assisted agricultural banks boost their profitability and lower their sensitivity to credit risk and interest risk.

Table 4.27: Regression Coefficients[a] - Speculations on financial swaps.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.992	.404		7.405	.000
	Speculation on financial swaps	.216	.107	.215	2.008	.048

a. Dependent Variable: Financial performance

Karim and Chan (2007) in their report note that incorporation of off-balance sheet activities in valuation of credit risk of commercial banks reduces and diversifies the risk portfolio.

4.6.3   Effect of standby letters of credit on financial performance

Hypothesis 3 stated that standby letters as an off- balance sheet product do not affect the financial commercial banks performance in Kenya. Results in table 4.28, reveals that the regression model was statistically significant (r^2 = 0.051, p < 0.05) which implies that standby letters of credit contributes 5.1% variation observed in the performance of commercial banks in Kenya. The null hypothesis is therefore rejected and instead conclude that financial swaps significantly affects the financial performance of commercial in Kenya.

Table 4.28: Regression Model Summary on Standby letters of credit

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.226[a]	.051	.040	.71073

a. Predictors: (Constant), Standby letters of credit

Anova results in Table 4.29 indicates that the model is statistically significant (p < 0.05).

Table 4.29: NOVA[b] Results - Standby letters of credit

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.262	1	2.262	4.478	.037[a]
	Residual	41.926	83	.505		
	Total	44.188	84			

 a. Predictors: (Constant), Standby letters of credit
a. Predictors: (Constant), Standby letters of credit

The standardized Beta value of 0.226 implies that there is 0.226 significant increase in financial performance for each unit increase in standby letters of credit (Table 4.30). Duran and Lozano (2012) reports use that off-balance sheet products by commercial can increase risk but notes that the crisis is scaled off by the improved profitability and diversified risk portfolios and if all the commitments are honoured by the banks clients' liquidity is also improved from increased income.

Table 4.30: Regression Coefficients[a] - Standby letters of credit

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.925	.415		7.041	.000
	v.s3.15.4	.233	.110	.226	2.116	.037

a. Dependent Variable: Financial performance

The equation connecting financial performance of commercial and standby letters of credit is given by: :

$$Y = 2.925 + 0.233X_4 + 0.110$$

where Y is the financial performance and X_4 are the standby letters of credit.

4.6.4 Effect of financial options on financial performance

Hypothesis 4 stated that financial swaps as an off- balance sheet product do not affect the financial performance of commercial banks performance in Kenya. Results in in Table 4.31, reveals that the regression model was statistically significant ($r^2 = 0.046$, $p < 0.05$) which implies that financial swaps contributes 4.6% variation observed in the performance of commercial banks in Kenya. The null hypothesis is therefore rejected and instead conclude that financial swaps significantly affects the financial performance of commercial in Kenya.

Table 4.31: Regression Model Summary on financial options

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.214[a]	.046	.034	.71268

a. Predictors: (Constant), financial Options

Anova results in Table 4.32 indicates that the model is statistically significant ($p < 0.05$).

Table 4.32: ANOVA[b] Results - financial options

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.031	1	2.031	3.999	.049[a]
	Residual	42.157	83	.508		
	Total	44.188	84			

a. Predictors: (Constant), Financial options

b. Dependent Variable: Financial performance

The standardized Beta value of 0.214 implies that there is 0.214 significant increase in financial performance for each unit increase in Locking fixed mark up over reference interest rates (Table 4.33). However in a similar study Doran (2004) indicated that off-balance sheet activities do not have a significant impact on the banks' leverage ratios in term of debt to equity and liquidity ratio and thus the liquidity of the bank is not affected.

Table 4.33: Regression Coefficients[a] on financial options

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.983	.410		7.270	.000
	Financial options	.219	.109	.214	2.000	.049

a. Dependent Variable: Financial performance

The equation connecting financial performance of commercial and financial options is therefore expressed as:

$$Y = 2.983 + 0.219X_4 + 0.109$$

Where Y is the financial performance of the commercial banks and X_4 represents the financial options.

Table 4. 34 shows the summary of the hypothesis tested in this study with all the four (4) null hypothesis tested rejected. It is therefore concluded that funding Loan commitments, Financial swaps, Standby letters of credit and Financial options as off-balance sheet products positively and significantly affects the financial performance of commercial banks in Kenya.

Table 4.34: Summary of hypothesis testing

Hypothesis	Statistics	Remark
Ho1: Loan commitments as an off-balance sheet product does not significantly affect the financial performance of commercial banks in Kenya.	Loan arrangement: $r^2 = 0.05$, $p<0.05$; Credit Access: $r^2 = 0.069$, $p< 0.05$; Locking up mark-up over reference interest rates: $r2 = 0.055$, $p< 0.05$;	Rejected
Ho2: Financial swaps as off-balance sheet product does not significantly affect the financial performance of commercial banks in Kenya.	Portfolio management: $r^2 = 0.06$ $p< 0.05$; Speculations: $r^2 = 0.46$, $p<0.05$	Rejected
Ho3: Standby letters of credit as off-balance sheet product does not significantly affect the financial performance of commercial banks in Kenya.	$r^2 = 0.051$, $p<0.05$;	Rejected
Ho4: Financial options as off-balance sheet product do not significantly affect the financial performance of commercial banks in Kenya	$r^2 = 0.046$, $p<0.05$;	Rejected

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1   Introduction

The chapter gives summary of the major findings, conclusions and recommendations based on the findings of the study. It also presents the proposed areas for further research.

5.2   Summary of the findings

The main objective of this study was to determine the effect of banking products on the financial performance commercial banks in Kenya. Specifically the study aimed at determining the effect of loan commitments, financial swaps, standby letters and financial options on the financial performance of commercial banks in Kenya. Descriptive statistics and inferential statistics – correlation and regression analysis were used to establish the relationship between the dependent and independent variables. Sub-section 5.2.1 to 5.2.4 presents the main findings of the study.

5.2.1   Loan commitment

Descriptive statistics on loan commitment showed that the respondents agreed to a great extent that loan commitments improves on financial performance of commercial banks. Loan commitment was found to be positively and significantly affecting the performance of commercial banks. Specifically, loan arrangement positively and significantly influence the financial performance of commercial banks in Kenya. ($r^2 = 0.050$, p <0.05). Credit access significantly and positively influences the performance of commercial banks in Kenya in Kenya ($r^2 = 0.069$ p< 0.05). Locking fixed mark up over reference interest rates significantly and positively affects the performance of commercial banks in Kenya ($r^2 = 0.055$, p<0.05).

5.2.2 Financial swaps

Based on the finding of this study, financial swaps affected the performance of commercial banks in Kenya . Portfolio management as one of the indicators of financial swaps significantly and positively affected the performance of commercial banks in Kenya (r^2 = 0.060, p<0.05). Speculation on financial swaps was also found to be significantly and positively affects the performance of commercial banks in Kenya (r^2 = 0.046 p< 0.05).

5.2.3 Standby Letters of credit

Standby letters of credit was found to be significantly and positively affecting the performance of commercial banks in Kenya (r^2 = 0.051, p< 0.05). Opinions of the respondents revealed that the use standby letters of credit by commercial banks in Kenya improves their financial performance to a great extent.

5.2.4 Financial options

Financial options were also found to be significantly and positively affecting the performance of commercial banks in Kenya (r^2 = 0.046, p< 0.05). This indicates that the use of the financial options in Kenyan commercial banks has contributed towards improving the financial performance.

5.3 Conclusion

Based on the findings of this study, the following conclusions are made:
1. Loan commitments (loan arrangements, credit access and positively and locking fixed mark up over reference interest rates) positively and significantly affects the financial performance of commercial banks in Kenya.
2. Financial swaps (portfolio management and speculations on financial swaps) positively and significantly affects the financial performance of commercial banks in Kenya

3. Standby letters of credit positively and significantly and the influences the performance of commercial banks in Kenya.

4. Financial options significantly and positively affects the performance of financial performance of commercial banks in Kenya.

5.4 Recommendations

The following recommendations are made based on the findings of the study:

1. Kenya commercial banks should consider promoting loan commitment as an off balance sheet product as an approach of improving their financial performance. Specifically the banks should promote loan arrangements, credit access and locking fixed mark-up over reference interest rates in their daily operations.

2. Commercial banks in Kenya should promote financial swaps in their operations as means of improving their performance especially the portfolio management and speculation on financial swaps.

3. Commercial banks should promote standby letters of credit in their financial operations as means of improving their performance especially the employing credit substitution strategies and by use of electronic letters of credit.

4. Commercial banks should promote financial options in their operations as means of improving their performance more especially by use of call options, put options and index options.

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APPENDICES

Appendix I:Introduction Letter

JOMO KENYATTA UNIVERSITY OF

AGRICULTURE AND TECHNOLOGY,

P.O. BOX 6200-00200,

NAIROBI.

Feb 2016

TO IT MAY CONCERN

Dear Research Participant,

RE: RESEARCH CONSENT

My name is Peter Maku a doctoral student at Jomo Kenyatta University of Agriculture and Technology. My doctoral research is premised on "The Effects of Off Balance Sheet Products on Financial Performance of Commercial Banks in Kenya".

I humbly request you to respond to the attached semi structured questionnaire. The information provided by you will be strictly used for the purpose of this study and your organization.

Please note that your participation in this research is completely voluntary and without any punitive objective.

For any clarification the researcher can be reached on Pone No. 0726 610 876 or via email petermaku17@gmail.com.

Thank you.

PETER MAKU

Appendix II: Research Questionnaire

PART A: BACKGROUND

1. What is the name of your organization?

2. What is the size of your organization?

Medium up to 500 employees	
Large over 500 employees	

3. What is the age of your organization?

5 years and less	
5 - 10 years	
11- 15	
above 15 years	

PART B:

SECTION ONE: LOAN COMMITMENTS ON FINANCIAL PERFORMANCE

a). Loan Arrangements : Loan Arrangements on banks Performance

4. To what extent do you agree with the following statements concerning the effects of loan arrangements on banks performance? Where 10% - 20%, very little extent 21%- 40%, = little extent 41%-60% to an average extent = ,61% - 80% great extent = and 81%- 100% very great extent.

S/No	Statement	Percentage (%)				
		10-20	21- 40	41-60	61- 80	81-100
1.	The loan arrangements have improved the current ratio					
2.	The loan arrangements have improved the quick ratio					
3.	The loan arrangements have improved the debt ratio					
4.	The loan arrangements have					

	improved the inventory turnover					
5.	The loan arrangements have improved the gross profit margin					
6.	The loan arrangements have improved return on investment					
7.	The loan arrangements have improved the debtors turn over					
8.	The loan arrangements have improved the cash ratio					
9	The loan arrangements have improved the debt equity ratio					

5.   Describe in your opinion whether the loan arrangements have affected;

a. The amount of funding on multilateral projects

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b. The general convenience and minimizing loan arrangement costs.

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b). **Credit Access on Banks Performance**

6. To what extent do you agree with the following statements concerning the effects on banks performance? Where10% - 20%, very little extent 21%-40%,= little extent 41%-60% to an average extent = ,61% - 8 great extent 0%= and 81%- 100% very great extent

S/No	Statement	Percentage (%)				
		10-20	21- 40	41-60	61- 80	81-100
1.	The credit access have improved the current ratio					
2.	The credit access have improved the quick ratio					
3.	The credit access have improved the cash ratio					
4.	The credit access have improved the debt ratio					
5.	The credit access have improved the debt equity ratio					

6.	The credit access have improved the current inventory turnover					
7.	The credit access have improved the debtors turnover					
8.	The credit access have improved the gross profit margin					
9	The credit access have improved the gross profit margin					

7.   Describe the factors that have the banks credit access against credit worthiness over the last four years.

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8.   Describe the factors that influence the success of general credit crunches against the   moral hazard and adverse selection in your bank.

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c). Locking Fixed Mark Up Over Reference Interest Rate On Banks Performance

9. To what extent do you agree with the following statements concerning the effects on banks performance? Where 10% - 20%, very little extent 21%- 40%,= little extent 41% 60% to an average extent = ,61% - 8 great extent 0%= and 81%- 100% very great extent.

S/No	Statement	Percentage (%)				
		10-20	21- 40	41-60	61- 80	81-100
2.	Locking fixed mark up over reference interest rate have improved the quick ratio					
3.	Locking fixed mark up over reference interest rate have improved the cash ratio					
4.	Locking fixed mark up over reference interest rate have improved the debt ratio.					
5.	Locking fixed mark up over reference interest rate have improved the debt equity ratio					
6.	Locking fixed mark up over reference interest rate have improved the inventory turnover ratio					

			10-20	21-40	41-60	61-80	81-100
7.	Locking fixed mark up over reference interest rate have improved the debtors ratio						
8.	Locking fixed mark up over reference interest rate have improved the gross profit margin						
9	Locking fixed mark up over reference interest rate have improved the return on investment						

10.   Describe the factors that affect the process of locking fixed mark up over libor

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SECTION TWO:

FINANCIAL SWAPS ON FINANCIAL PERFORMANCE

11.   To what extent do you agree with the following statements concerning the effects on banks performance? Where 10% - 20%, very little extent 21%- 40%,= little extent 41% 60% to an average extent = ,61% - 8 great extent 0%= and 81%- 100% very great extent.

a)   Portfolio Management

S/No	Statement	Percentage (%)				
		10-20	21- 40	41 60	61- 80	81-100

1.	Portfolio management has improved the current ratio					
2.	Portfolio management has improved the cash ratio					
3.	Portfolio management has improved the quick ratio					
4.	Portfolio management has improved the debt ratio					
5.	Portfolio management has improved the debt equity ratio					
6.	Portfolio management has improved the inventor turnover ratio					
7.	Portfolio management has improved the debtors ratio					
8.	Portfolio management has improved the gross profit margin					
9	Portfolio management has improved the return on investment					

12. Describe the factors that enhance portfolio management in your bank

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b). **Effect of Speculation on Financial Swaps on Financial Performance of Commercial Banks**

13. To what extent do you agree with the following statements concerning the effects on banks performance? Where 10% - 20%, very little extent 21% - 40%,= little

extent 41%-60% to an average extent = ,61% - 8 great extent 0%= and 81%-
100% very great extent.

S/No.	Statement	Percentage (%)				
		10-20	21- 40	41 60	61- 80	81-100
2.	Speculation on swaps has led to adjustment of interest rate exposure pose by interest rate volatility leading to improved liquidity					
3.	Speculation on swaps has improved the offsetting of the risk posed by interest ra volatility to improved liquidity					
4.	Speculation on swaps has reduced the duration posed by in leading to improve liquidity					
5.	Speculation on swaps on interest rate movements have avoided the cool of lon and short positions in treasuries d leading to improved liquidity					
6.	Speculation on swaps has reduced the duration posed by interest rate volatility leading to improved leverage					
7.	Speculation on swaps has led to adjustment of interest rate exposure pose by interest rate leading to improved leverage					
8.	Speculation on swaps on interest rate movements have avoided the cool of lon and short positions in treasuries d leading to improved leverage.					
9	Speculation on swaps has reduced the duration posed by interest rate volatility leading to improved liquidity					

14. Describe the factors that enhance speculation on financial swaps in your bank.

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SECTION THREE:

STAND BY LETTERS OF CREDIT ON FINANCIAL PERFORMANCE

15. To what extent do you agree with the following statements concerning the effects on banks performance? Where 10% - 20%, very little extent 21%-40%,= little extent 41%-60% to an average extent = ,61% - 80% great extent and 81%- 100% very great extent.

S/No	Statement	Percentage (%)				
		10-20	21- 40	41 60	61- 80	81-100
1.	The standby letters of credit have reduce the risk associated with non-performance a contract leading to improved liquidity.					
2.	The standby letters of credit have improve the prompt payment leading to improve profitability					
3.	The standby letters of credit have improve credit substitution leading to profitability.					
4.	The standby letters of credit have shifte litigation costs leading to improved leverag					
5.	The standby letters of credit have improve the shifting of the forum lading to improve activity ratios.					
6.	The standby letters of credit have reduce time cost and money leading to improve profitability					
7	The standby letters of credit have reduce time cost and money leading to improve profitability					
8	The electronic data interchange has reduce time cost and money leading to improve profitability					
9	The Electronic Letters Of Credit hav reduced time cost and money leading improved leverage					

16. From your own point discuss the factors that enhance the use of standby letters of credit   in your bank.

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SECTION FOUR

FINANCIAL OPTIONS ON FINANCIAL PERFORMANCE

17. To what extent do you agree with the following statements concerning their effects on banks performance? Where 10% - 20%, very little extent 21%- 40%,= little extent 41%-60% to an average extent = ,61% - 80% great extent and 81%- 100% very great extent.

S/No	Statement	Percentage (%)				
		10-20	21- 40	41 60	61- 80	81-100
1.	The call options have improved the current ratio					
2.	The put options have improved the quick ratio					
3.	The index options have improved the debt ratio					
4.	The call options have improved the inventory turnover					
5.	The put options have improved the gross profit margin					

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6.	The index options have improved return on investment					
7.	The call options have improved the debtors turn over					
8.	The loan put options have improved the cash ratio					
9	The index options have improved the debt equity ratio					

18. From your own point discuss the factors that enhance the use of financial options in your bank.

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SECTION FIVE

OPERATIONALIZATION OF INDEPENDENT VARIABLES ON FINANCIAL PERFORMANCE

17. Overall To what extent do you agree with the following statements concerning their effects on banks performance? Where 10% - 20%, very little extent 21%- 40%,= little extent 41%-60% to an average extent = ,61% - 80% great extent and 81%- 100% very great extent.

S/No	Statement	Percentage (%)				
		10-20	21- 40	41 60	61- 80	81-100

1.	Loan commitments have improved the liquidity ratios of the bank between 2010 and 2014				
2.	Loan commitments have improved the leverage ratios of the bank between 2010 and 2014.				
3.	Loan commitments have improved the activity ratios of the bank between 2010 and 2014.				
4.	Loan commitments have improve the profitability ratios of the bank between 2010 and 2014.				
5.	Financial swaps have improved the improved the liquidity ratios of the bank between 2010 and 2014				
6.	Financial swaps improved the leverage ratios of the bank between 2010 and 201				
7.	Financial swaps improved the activity ratios of the bank between 2010 and 201				
8.	Financial swaps improved the profitability ratios of the bank between 2010 and 2014				
9	Stand by letters of credit have improved the improved the liquidity ratios of the bank between 2010 and 2014.				
10	Stand by letters of credit have improved the improved the leverage ratios of the bank between 2010 and 2014				
11	Stand by letters of credit have improved the improved the activity ratios of the bank between 2010 and 2014.				

12	Stand by letters of credit have improved the improved the profitability ratios of th bank between 2010 and 2014					
13	Financial options have improved the improved the liquidity ratios of the bank between 2010 and 2014.					
14	Financial options have improved the improved the leverage ratios of the bank between 2010 and 2014.					
15	Financial options have improved the improved the activity ratios of the bank between 2010 and 2014					
16	Financial options have improved the improved the profitability ratios of the bank between 2010 and 2014					

Appendix III: List Licensed Commercial Banks in Kenya

1.	ABC bank (Kenya)	23.	Guaranty Trust Bank Kenya
2.	Bank of Africa	24.	Gurdian Bank
3.	Bank of Baroda	25.	Gulf African Bank
4.	Bank of india	26.	Habib Bank
5.	Barclays bank of Kenya	27.	Habib Bank AG Zurich
6.	CFC Stanbic Holdings	28.	Housing Finance Company of Kenya
7.	Chase Bank Kenya		
8.	Citibank	29.	I&M Bank
9.	Commercial Bank Of Kenya	30.	Imperial Bank of Kenya
10.	Consolidated Bank Of Kenya	31.	Jamii Bora Bank
11.	Credit Bank	32.	Kenya Commercial Bank
12.	Development Bank Of Kenya	33.	K- Rep Bank
13.	Cooperative Bank Of Kenya	34.	Middle East Bank Kenya
14.	Diamond Trust Bank	35.	National Bank of Kenya
15.	Dubai Bank Of Kenya	36.	NIC Bank
16.	Ecobank Kenya	37.	Oriental Commercial Bank
17.	Equatorial Commercial Bank	38.	Paramount Universal Bank
18.	Equity Bank	39.	Prime Bank (Kenya)
19.	Family Bank	40.	Standard Chartered Kenya
20.	Fidelity Commercial Bank Limited	41.	Trans National bank Kenya
		42.	United bank of Kenya
21.	First Community Bank	43.	Victoria Commercial Bank
22.	Giro Commercial Bank		

Source: CBK 30th June 2015