STRATEGIES ADOPTED TO ENHANCE FINANCIAL STABILITY AMONG COMMERCIAL BANKS IN KENYA

BY

ANDREW WANGILA

15/00450

A PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE COURSE REQUIREMENT OF MASTER OF SCIENCE IN COMMERCE (FINANCE AND ECONOMICS) AT KCA UNIVERSITY

DECEMBER, 2017

DECLARATION

This dissertation project is my original work and has not been presented for a degree in any other University.

Signature…… Date……..

ANDREW WANGILA

This dissertation project has been submitted for examination with my approval as the University Supervisor:

Signature……. Date……

DR. EDWARD OWINO

Dean, Faculty of Education and Arts.

KCA University

ACKNOWLEDGEMENTS

My special gratitude goes to Almighty God for giving me the strength and wisdom to pursue this course.

I am very grateful to my Supervisor, Dr. Edward Owino who indeed inspired me for his commitment and guidance throughout this project. I appreciate the knowledge and skills that all my other lecturers have imparted in me through coursework.

I must admit humbly that the success of this research has been largely due to collaborative efforts and devotion of many people to who I owe a lot of gratitude. This research would have not been completed without their ultimate support.

May God bless you all.

DEDICATION

I would like to dedicate this project to my parents, siblings and friends. Your encouragement, support and unending belief in me are a source of inspiration to me. All of my achievements would not have been possible without you and it's because of this fact that I salute you. My win is your win. Thank you so much and be blessed.

ABSTRACT

A safe and sound banking system ensures the optimal allocation of capital resources, and regulators therefore aim to prevent costly banking system crises and their associated adverse feedback effects on the real economy. Commercial banks need to proactively study the operating environment and develop relevant strategies that would reduce the severity of their exposure to situations that are likely to affect their financial stability. The general objective of this study was to determine the strategies adopted to enhance financial stability among commercial banks in Kenya.This study was led by the following specific objectives: to determine the effect of innovation on financial stability of the banking industry in Kenya; To establish the effects of competitive pricing of services on financial stability of the banking industry in Kenya; To find out the effects of credit risk management policies on financial stability of the banking industry in Kenya; and to establish the effect of recapitalization on financial stability of the banking industry in Kenya. The study was carried out within the 43 licensed commercial banks in Kenya. Since commercial banks have their head offices in Nairobi. The study covered the period 2010 to 2015 where the banking industry has seen major stability challenges since the onset of financial crisis in the United States.This research problem was studied through a descriptive cross-sectional survey. The target population of this study comprised of all 342 employees in the finance department of the 42 commercial banks and the sample was 86 respondents. The study collected primary. Primary data were collected using questionnaires and secondary data were collected from the annual financial statements of each of the commercial bank in Kenya. The returned questionnaires were checked for consistency, cleaned, and the useful ones coded and analysed using the Statistical Package for Social Scientists (SPSS) computer software. The researcher analysed the quantitative data using descriptive statistics including: frequencies, percentages, means and standard deviations. The qualitative data were coded thematically and then analysed statistically. In addition, the study conducted an inferential statistics in the form of correlation and multiple regression analysis. The study found out that the development of new innovative financial service delivery channels had improved the banks financial stability, pricing of financial services was based on market intelligence information, banks reviewed its credit risk policy from time to time to take into account the changes in the operating environment and banks were well capitalized as per the provisions of the Banking Act. The study concludes that improved financial stability had been realized as result of reduced cost of financial transactions that can be attributed to financial innovation, commercial banks review their credit policy from time to time to take into account the changes in the operating environment and financial recapitalizing does have a positive relationship with financial stability of commercial banks in Kenya although the effect is very minimal. The study recommends that commercial banks should ensure new products introduction, reduction of costs, improved innovation process and conformance to regulations to influence profitability of the bank, there should be efficient ways for mitigating credit risk and bank capitalization should be encouraged in all commercial banks so that stability can be enhanced.

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ABBREVIATIONS AND ACRONYMS

ATMs	Automatic Teller Machine
CBK	Central Bank of Kenya
CR	Credit Risk
CRM	Credit Risk Management
FSRs	Financial Stability Reports
GDP	Gross Domestic Product
KBA	Kenya Bankers Association
MFIs	Microfinance Institutions
RTGS	Real Time Gross Settlement
SACCOs	Savings Credit Co-operative Societies
SSB	Self-Serviced Banking
UAE	United Arab Emirates

DEFINITION OF TERMS

Credit Risk: The possibility that the actual return on an investment or loan extended will deviate from that, which was expected (Conford, 2000).

Financial Stability: The condition where the financial intermediation process functions smoothly thereby building confidence among users (Beck, Levine & Loayza, 2000).

Innovation: Introduction of a new product to a market or the production of an existing one in a new manner (Oke &Goffin, 2001).

Recapitalization: Refers to increasing the amount of long term finances used in financing the organization (Asedionlen, 2004).

Strategy : The pattern or plan that integrates an organization's major goals, policies and action sequences into a cohesive whole (Pearce & Robinson, 2007).

CHAPTER ONE
INTRODUCTION

This chapter presents the introduction of the study where it discusses the background, statement of the problem, objectives of the study, research questions, significance, scope limitations and assumptions.

1.1 Background Information

Stability of the financial system in an economy is an important catalyst for economic growth due to its function in facilitating exchange of value (Swamy, 2014). Through their functions, they facilitate the flow of funds from surplus households to deficit households in a more efficient manner thereby promoting economic growth and development (Tilahun, 2013). Commercial banks need to proactively study the operating environment and develop relevant strategies that would reduce the severity of their exposure to situations that are likely to affect their financial stability. According to Huang and Ratnovski (2011), an adequate regulatory mechanism beyond the traditional reserve requirements needs to be enforced to address and mitigate the systemic component of funding liquidity risk among commercial banks. The reserve ratios made by each bank may not be adequate for the liquidity exposure they face as they are subjectively determined. Ratnovski (2009) argues that some commercial banks set their liquidity levels through mimicking behaviour in liquidity choices which may also arise from learning motives.

According to Azam and Siddiqoui (2012), commercial banks have to learn, adopt and re-orient themselves to the changing environment if they are to be competitive and perform their intermediation function effectively. Like other organizations, the banking industry is faced with turbulence arising from increased globalization, internationalization, advancements in information, communication and technology and trade liberalization. Commercial banks therefore, ought to proactively engage themselves in strategies that will enable them to respond to the environmental challenges in order to gain competitive advantage (Khrawish, 2011).

Several efforts have been undertaken by the Central Bank of Kenya and commercial banks to attain financial stability of the entire banking sector. Some of these measures include the recent interest capping legislation aimed reducing the cost and availability of credit in the economy. Commercial banks on the other hand have largely invested in information technology as one way of enhancing their financial stability (Aduda & Kalunda, 2012).

1.1.1 Financial Stability

Financial stability describes the condition where the financial intermediation process functions smoothly thereby building confidence among users (Beck, Levine & Loayza, 2000). It refers to the smooth operation of the system of financial intermediation processes between households, firms and the government through a range of financial institutions supported by a myriad financial infrastructure (Kaloi, 2004). The financial sector in Kenya has come under distress following the tightening of operational rules by the Central Bank of Kenya. In view of the increasing number of commercial banks not adhering to the set industry stability rules, a number of financial institutions have had their operations interfered with thus leading to massive losses to innocent customers. Commercial Banks in the Country have also developed various mechanisms to strengthen their financial base and reduce operational risks thus remain stable.

Financial stability may be hampered by both internal processes and strong shocks leading to the emergence of weak spots (Alexandru, Genu & Romanescu, 2008). Such shocks may arise from the external environment, domestic macroeconomic developments, main debtors and creditors of financial institutions, economic policies or changes in the institutional environment (Azam & Siddiqoui, 2012). Any interaction between weak spots and shocks can result in the collapse of major financial institutions and disruption of the functions of the financial system as regards financial intermediation processes. In the extreme case, it may even lead to a financial crisis with adverse implications for the economy (Vento & Ganga, 2009).

The stability of commercial banks can be affected by internal and external factors. These factors can be classified into bank specific (internal) and macroeconomic variables. The

internal factors are individual bank characteristics which affect the bank's stability (Azam & Siddiqoui, 2012). These factors are basically influenced by the internal decisions of management and board. The external factors are sector wide or country wide factors which are beyond the control of the company and affect the profitability of banks (Azam & Siddiqoui, 2012).

Bank stability is mostly measured in a negative way by considering individual or systemic distress broadly defined as periods where the banking system is not capable of fulfilling its intermediation function for the economy effectively anymore. Demirguc-kunt & Detragiache (2002) define banking distress as systemic if non-performing assets reach at least 10 percent of total assets at the peak of the crisis; the fiscal cost of the rescue operations. Many central banks through their financial stability reports (FSRs) attempt to assess the risks to financial stability by focusing on a small number of key indicators.

A common measure of stability among commercial banks is the z-score which explicitly compares buffers (capitalization and returns) with risk (volatility of returns) to measure a bank's solvency risk (Demirgüç-Kunt, Detragiache & Tressel, 2008). The z-score is defined as $z \equiv (k+\mu)/\sigma$, where k is equity capital as percent of assets, μ is return as percent of assets, and σ is standard deviation of return on assets as a proxy for return volatility (Čihák & Hesse, 2010). The z-score has a clear (negative) relationship to the probability of a financial institution's insolvency, that is, the probability that the value of its assets becomes lower than the value of its debt (Laeven & Levine, 2009). A higher z-score implies a lower probability of insolvency.

Other approaches to measuring each commercial bank level stability are based on the Merton model. The Merton Model is used to ascertain a firm's ability to meet its financial obligations and gauge the overall possibility of default (Azam & Siddiqoui, 2012). This model treats an institution's equity as a call option on its held assets, taking into account the volatility of those assets. Put-call parity is used to price the value of the "put," which is represented by the firm's credit risk. So, the model measures the value of the firm's assets at the time that the debt holders will "exercise their put option" by expecting repayment (Demirgüç-Kunt et al., 2008).

1.1.2 Strategies of Ensuring Financial Stability

A strategy refers to the pattern or plan that integrates an organization's major goals, policies and action sequences into a cohesive whole (Pearce & Robinson, 2007). Strategies are the set of decisions and actions that result in the formalization and implementation of plans designed to achieve a firm's objectives (Eakins, 2008). It is a game plan developed by an organization to drive its day to day operations towards a set objective (Woods & Joyce, 2003). It creates a match between an organization's resources, skills and the environmental opportunities as well as the risks it faces and the purposes it wishes to accomplish (Thompson & Strickland, 2007). In order to overcome operational challenge and attain the strategic objectives set by an organization, it is important that relevant strategies are formulated and implemented to drive the day to day operations.

Some of the strategies adopted by commercial banks have ranged from mergers and acquisition to implementation of stringent risk management measures. The development in information communication and technology has provided an opportunity for commercial banks to leverage their operations (Carlson, Duygan-Bump & Nelson, 2015). Financial innovation comes with different features which diverge from country to county but a few of the attributes that seems to be common across board for instance: innovation which is the development of new financial products and markets; securitization like moving towards interest rates that are determined by the market and marketable financial instruments as opposed to bank loans; liberalization of the financial market operations through deregulation; and increased competition within the financial sector (Oluitan, Ashamu & Ogunkenu, 2015).

As the operational environment gets tough, commercial banks have realized that they have to engage into among other strategies: competitive pricing, prudent credit risk management policies and recapitalization to realize stability. Credit risk is the oldest and important risk which commercial banks are exposed to in the course of their financial intermediation process. Importance of credit risk management is increasing with time because of some reasons like economic crises and stagnation, company bankruptcies,

infraction of rules in company accounting and audits, growth of off-balance sheet derivatives, declining and volatile values of collateral, borrowing more easily for the small firms, financial globalization and business risk-based capital requirements (Calomiris, Heider & Hoerova, 2015).According to Acemoglu, Ozdaglar & Tahbaz-Salehi (2015), in credit risk management banks use various methods such as credit limits, taking collateral, diversification, loan selling, syndicated loans, credit insurance, and securitization and credit derivatives.

Banking sector reforms is part of government efforts to enact deliberate policy response to correct perceived or impending banking sector crises and subsequent failures. A banking crisis or failure can be triggered by weakness in banking system as a result of persistent illiquidity, insolvency, undercapitalization, high level of non-performing loans and weak corporate governance (Calomiris et al., 2015). Therefore recapitalization as a strategy ensures that a suitable minimum capital base is set to ensure that commercial banks have a strong financial base. Recapitalization is a major reform objective which literarily means increasing the amount of long term finances used in financing the organization (Calomiris et al., 2015). It is believed to be a major driving force of bank reforms and this entails increasing the debt stock of the company or issuing additional shares through existing shareholders or new shareholders or a combination of the two.

1.1.3 Banking Industry in Kenya

The history of banking in Kenya dates back to the colonial period. British commercial banks started operations in Kenya during the 1890s characterized by high degree of concentration, branch banking, an almost exclusive concern with financing external trade and for many decades, a lack of interest in, or involvement with, the African population. Passage of time saw the banks establish themselves in the colony to provide services for financing exports and imports (Nyangosi, Arora & Sing, 2009). Three British banks dominated banking in colonial Kenya: the National Bank of India (later National and Grind lays Bank) began operations in 1896. It was followed in 1910 by the Standard bank of South Africa (later standard Bank and now Standard Chartered), and shortly thereafter the National Bank of South Africa entered the field. The three banks involved themselves

very little in making loans to finance agricultural or industrial development as they were averse to making long-term loans on any basis, and they accustomed, even in Britain, to making loans only against substantial and safe assets. For most of the colonial period, the banks did not feel that the bulk of Kenya's population possessed such assets (CBK, 2015).

In 1930, the colonial state introduced legislation which allowed for the creation of a land bank. Under terms of 1930 legislation, a Land and Agriculture Bank was established the following year. In the more prosperous time after World War II, the three commercial banks expanded their lending capacities, mostly to support commerce and industry and they also increased their number of branches opening for the first time in African districts.

After independence, the number of commercial banks operating in Kenya increases as both local and foreign owned banks entered the scene. In 1968, the government established the Co-operative Bank of Kenya to provide specialized banking services for the members of the growing co-operative movement. In the same year the National bank of Kenya wholly owned by Kenya was established. By the end of the 1980s, it had become Kenya's fourth largest commercial bank with branches in the largest cities. In 1974, moreover, two American banks, the First National Bank of Chicago and the first National City Bank of New York, were established (CBK, 2015).

The Kenyan banking industry is regulated by the Central Bank of Kenya Act, Banking Act, the Companies Act among other guidelines issued by the Central Bank of Kenya (CBK) (CBK, 2015).The local banking industry was liberalized back in 1995 and exchange controls revoked. The banking system comprised 46 commercial banks, 15 micro-finance institutions and 109 forex bureaus at the end of December 2008.The banks have come together under the Kenya Bankers Association (KBA), which works as lobby for the local banking industry. KBA also serves as a forum to address issues affecting the banking sector. The industry has over the past few year enjoyed exponential growth in deposits, assets, profitability and products offering, mainly attributed to automation of services and branch network expansion both locally and regionally(CBK, 2012). Kenya's financial system, however, continues to face challenges. The banking system is

still fragmented, with many small banks serving specific niches, but also contributing to competition in the sector. The outreach of the banking system is still limited with a wide population being either under banked or unbanked (Nyangosi et al., 2009).

The study focused mainly on the licensed commercial banks in Kenya. Currently the banking sector in Kenya is comprised of 41 commercial banks, two mortgage finance companies, 130 foreign exchange bureaus and fifteen micro finance institutions CBK. The companies Act, the Central Bank of Kenya Act Cap 491, the banking Act Cap 488 and the micro finance Act 2006 are the main Acts that govern the banking industry in Kenya. The Acts are used along with prudential guidelines that are issued by the central bank of Kenya. In 1995 the exchange controls were lifted after liberalization of the banking in Kenya (CBK, 2012).

1.2 Statement of the Problem

A safe and sound banking system ensures the optimal allocation of capital resources, and regulators therefore aim to prevent costly banking system crises and their associated adverse feedback effects on the real economy (Huang & Ratnovski, 2011). A dysfunctional financial industry puts pressures on businesses and households thereby adversely affecting the real economy as capital may be prevented from flowing to worthy investments and may lead to credit crunches (Ratnovski, 2008). In order to ensure that financial industry remains sound to perform its financial intermediation role effectively, it is important that individual financial institutions in the industry implement relevant strategies that would ensure their financial stability.

In Kenya, financial stability of the banking sector is enhanced by the Central Bank through several legislations, guidelines and policies. There has been a decline in financial stability in Kenya over the past period. According to the Financial Stability Report (2015), by end December 2015, financial sector‘s assets as a share of nominal GDP was 83.27 per cent compared to 88.41 per cent in 2014, with a decline attributed to exclusion of assets for three banks placed under receivership.

A number of studies have been conducted on financial stability and financial sector responses across the world. For instance, Diaconua and Oanea (2014) examined the main

determinants of bank's stability using the evidence from Romanian Banking Sector. The findings showed that GDP growth and interbank offering rate for three months were two significant factors with positive impact on financial stability for a co-operative bank. This study was undertaken in Romanian Banking sector which has different macro-economic variables from those in Kenya hence limiting application of its findings in Kenya. In another study, Acharya (2009) examined a theory of systemic risk and design of prudential bank regulation. The findings show that regulatory mechanisms such as bank closure policy and capital adequacy requirements commonly based only on a bank's own risk fail to mitigate aggregate risk-shifting incentives, and can accentuate systemic risk. Further, prudential regulation was shown to operate at a collective level, regulating each bank as a function of both its joint (correlated) risk with other banks as well as its individual (bank-specific) risk.

Fadare (2011) examined the determinants of Banking Sector liquidity in Nigeria by assessing the extent to which the various financial crises affected liquidity in deposit money banks. The findings show that only liquidity ratio, monetary policy rate and lagged loan-to-deposit ratio were significant for predicting Banking Sector liquidity. This study concentrated on Nigerian economy with respect to financial crises which may not apply for the Kenyan market due to differences in macroeconomic variables. Senyo, Olivia & Musah (2015) examined income diversification and financial stability of banks in Ghana from the year 2002to 2011 and also considers the risk associated with bank income diversification. The findings show that interest income remained the highest contributor to bank profits in Ghana. This study looked at income diversification and financial stability of banks and not strategies to improve stability. Hence may not directly apply for the current study topic and context.

In Kenya, Opala (2014) examined the effect of financial stability on the stability of deposit taking SACCOs in Nairobi County. The findings show that there were factors that positively influenced the financial stability of Deposit taking SACCOs in Nairobi County, including liquidity, capital adequacy, size of the SACCO and management quality. This study did not review the strategies adopted by commercial banks to ensure financial stability. The SACCO sector though very important, it operates on a different

model from that used by commercial banks. From the above review, it is evident that the existing studies have concentrated on other aspects of financial stability including determinants and effects whereas none of the studies has concentrated on strategies adopted to enhance financial stability among commercial banks in Kenya. This study therefore sought to fill this research gap. This study sought to evaluate the effectiveness of strategies adopted by commercial banks to enhance financial stability.

1.3 Objectives of the Study

1.4.1 General Objective

The general objective of this study was to determine the strategies adopted to enhance financial stability among commercial banks in Kenya.

1.4.2 Specific Objectives

This study was led by the following specific objectives:

i. To determine the effect of innovation on financial stability among the commercial banks in Kenya.
ii. To establish the effects of competitive pricing of services on financial stability among the commercial banks in Kenya.
iii. To find out the effects of credit risk management policies on financial stability among the commercial banks in Kenya.
iv. To establish the effect of recapitalization on financial stability among the commercial banks in Kenya.

1.4 Research Questions

i. How does innovation affect financial stability of the commercial banks in Kenya?
ii. What is the effect of competitive pricing of services on financial stability of the commercial banks in Kenya?
iii. What are the effects of credit risk management policies on financial stability of the commercial banks in Kenya?
iv. How does recapitalization affect financial stability of the commercial banksin Kenya?

1.5 Justification

The Banking sector is an important sector in economic development. Therefore, its financial stability is key if the general public is to have faith in it. In the recent past, several financial institutions have either merged or gone in receivership because of being financially stable. This in return brought high doubts among customers as regards the stability of the Kenyan financial sector in general. This happened following the regulator's quest to tighten the rules and adherence among players to stabilize and strengthen the sector. This study would therefore help in identifying the strategies that commercial banks in Kenya are using to ensure financial stability.

1.6 Significance of the Study

The various banks operating in Kenya would benefit from the study in that they would learn of the various strategies that they can adopt to improve their financial stability and ensure efficient intermediation process for a stable economic growth in Kenya.

The findings of this study would be important to the regulator of the banking industry in Kenya: the Central Bank of Kenya in the formulation of policies and regulations to ensure a stable banking industry. Through the findings of this study, policy makers would develop appropriate policies to ensure stable banking industry.

The findings of this study would be valuable to future researchers and academicians by acting as an empirical source besides suggesting areas for further research. This study would suggest areas for further research where they can extent knowledge on.

1.7 Scope

The study was carried out within the 43 licensed commercial banks in Kenya. Since commercial banks have their head offices in Nairobi. The study was limited to the strategies adopted to enhance financial stability among commercial banks in Kenya. The objectives of the study are innovation, competitive pricing, credit risk and recapitalization. The study covered the period 2010 to 2015 where the banking industry has seen major stability challenges since the onset of financial crisis in the United States.

1.8 Limitation of the Study

During the actual data collection day, respondents were busy with their daily activities. This meant that collection of data could interfere with activities of respondents. To overcome this however, a drop and pick latter methodology was adopted in distribution of questionnaires. By use of this technique, respondents had ample time to fill in questionnaires. The contact information was established and followed was done using appropriately established details.

The other limitation was in respect to the threat the information to be collected could end up to other competitors and this would erode jeopardize competitiveness of the organizations. To overcome this, the researcher assured respondents that information was only to be used for academic purpose. The researcher further sought permission from the management of the studied organization prior to the study. The researcher also carried along with an introduction letter.

1.9 Assumptions

The study assumed that the respondents are knowledgeable on the strategies adopted to enhance financial stability among commercial banks in Kenya.

The study assumes that the researcher received all necessary cooperation from all respondent commercial banks and the respondents were truthful and willing to provide accurate and valid information freely.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of the various works done by various researchers and authors strategies adopted to enhance financial stability among commercial banks. It also presents various theories related to this topic.

2.2 Theoretical Framework

This study is based on the financial intermediation theory which explains the role of commercial banks in an economy. The study further anchored on financial stewardship theory which views financial institutions as stewards of customers' finances. Therefore, in order to instill confidence among its customers, the commercial banking industry has to play a good steward.

2.2.1 Financial Intermediation Theory

Financial intermediation is a process which involves surplus units depositing funds with financial institutions who then lend to deficit units. This theory builds on the notion that intermediaries serve to reduce transaction costs, and informational asymmetry. According to Scholtens & van Wensveen (2003), the role of the financial intermediary is essentially seen as that of creating specialized financial commodities. These are created whenever an intermediary finds that it can sell them for prices which are expected to cover all costs of their production, both direct costs and opportunity costs. Financial intermediaries exist due to market imperfections. As such, in a 'perfect' market situation, with no transaction or information costs, financial intermediaries would not exist. Numerous markets are characterized by informational differences between buyers and sellers.

In financial markets, information asymmetries are particularly pronounced. Borrowers typically know their collateral, industriousness, and moral integrity better than do lenders. On the other hand, entrepreneurs possess inside information about their own projects for which they seek financing (Leland & Pyle, 1977). Moral hazard hampers the transfer of information between market participants, which is an important factor for projects of

good quality to be financed. Faced by the need to make more profits and limited financial capital base, financial institutions can find themselves lending more than they can afford thus leading to liquidity challenges and finally financial distress. This therefore means that commercial banks have to have a stable foundation in order to undertake their duties efficiently

This theory links the innovations developed by commercial banks to leverage their operations for optimal intermediation in an economy. The theory therefore links the first objective of the study to the dependent variable. Innovation can be achieved through financial intermediation and this is likely to affect financial stability among the commercial banks in Kenya.

2.2.2 Financial Stewardship Theory

The financial stewardship theory set objectives of commercial banks as value maximization. The stakeholder theory holds that corporate decisions should consider the interest of shareholders (Sundaram & Inkpen, 2004). The theory involves effectiveness and intellectual aspects of the steward and virtues that can be instilled with education. According to the theory, shareholders expect the stewards to act and make financial decisions in the best interest of the shareholders with the aim of maximizing shareholders value. This theory explains what managers in financial institutions need to do so as to protect the interests of all stakeholders for a smooth commercial bank industry in an economy (Bhimani, 2008).

In the Stewardship Theory, stewards protect and make profits for the shareholders and they are satisfied and motivated when the commercial banks' objectives are attained in a more stable way. It stresses that the executive management are stewards who ensure they operate the banks maximize financial stability as well as shareholders' profits.

The relevance of this theory to the study is that it explains the position enjoyed by commercial banks as stewards of their depositors' money. This therefore means that they have to have a stable financial base to ensure they can manage the risks they take on.

2.2.3 Rational Expectations Theory

This theory holds that agents' predictions of the future value of economically relevant variables are not systematically wrong because all errors are random. Therefore, agents' expectations equal true statistical expected values. An alternative formulation is that rational expectations are model-consistent expectations, in that the agents inside the model assume the model's predictions are valid (Snowdon, Vane & Wynarczyk, 1994).

This theory supports some radical conclusions about economic policymaking which largely affect the way organizations operate. Rational expectations theory is the basis for the efficient market hypothesis (efficient market theory). In such a market, if a security's price does not reflect all the information about it, then there exist "unexploited profit opportunities" as someone can buy (or sell) the security to make a profit, thus driving the price toward equilibrium (Snowdon, Vane & Wynarczyk, 1994). Financial risks exist because of the unsymmetrical information in the market.

This theory links financial stability of commercial banks and their risk management capabilities. In most cases, there is information asymmetry between the banks and loan borrowers leading to bad loans issuance.

2.3.4 The Capital Buffer Theory

The capital buffer theory as advanced by Diamond and Rajan (1999) aim at banks holding more capital than recommended. Regulations targeting the creation of adequate capital buffers are designed to reduce the pro-cyclical nature of ending by promoting the creation of countercyclical buffers (Milne & Whalley, 2001). Moreover these regulations are designed to reduce the pro-cyclical nature of lending by promoting the creation of countercyclical buffers (Khrawish, 2011). The capital buffer is the excess capital a bank holds above the minimum capital required. The capital buffer theory implicates that banks with low capital buffers attempt to rebuild an appropriate capital buffer by raising capital and banks with high capital buffers attempt to maintain their capital buffer. More capital tends to absorb adverse shocks and thus reduces the likelihood of failure. Banks raise capital when portfolio risk goes up in order to keep up with their capital buffer as

sighted by (Marcus, 1984) which appear to relate to determinant of capital adequacy and stability of commercial banks.

This theory explains how recapitalization affects on financial stability among the commercial banks in Kenya. The theory explains how the effect of excess capital a bank holds above the minimum capital required. This excess capital can be minimized through recapitalization.

2.3 Empirical Review

This section looks at the various empirical studies on strategies adopted by commercial banks and how they affect financial stability.

2.3.1 Effect of Innovation on Financial Stability of Commercial Banks in Kenya.

Financial Innovation can be defined as the act of creating and then popularizing new financial instruments, as well as new financial technologies, institutions, and markets (Lerner & Tufano, 2011). Financial innovations occur because market participants are constantly searching for new ways to make greater profits. Financial innovations typically result in a final product that is nonstandard and is structured to meet a customer's specific financial objectives. Bottazzi (2009) argue that new development compel financial firms to concentrate on both sides of the balance sheet to augment business and maximize returns. That is how concept of asset liability management took firm roots in the banking industry. Financial markets are driven by the 'real' economy, and in turn have a profound effect on it. They impact the process of innovation and the way firms in different sectors exploit innovations.

As the world's financial markets become increasingly integrated and globalized, the demand for new types of investments continues to grow. With greater competition brought by deregulation, globalization and widespread mergers and acquisitions taking place in the banking sector, more branches are being closed down and replaced by self-serviced banking (SSB) facilities like the ATMs as part of a larger rationalization exercise (Bottazzi, 2009). Even with the massive branch network, the use of phone banking and Internet banking is strongly promoted by the banks in addition to ATMs.

The capability to innovate is ever more viewed as the single most vital factor in developing and supporting competitive advantage (Ngugi & Karina, 2013). The innovations are sometimes divided into product or process variants, with product innovations exemplified by new derivative contracts, new corporate securities, or new forms of pooled investment products, and process improvements typified by new means of distributing securities, processing transactions, or pricing transactions. In practice, even this innocuous differentiation is not clear, as process and product innovations are often linked. Innovation includes the acts of invention and diffusion, although in point of fact these two are related as most financial innovations are evolutionary adaptations of prior products.

Financial markets are always innovating. Some innovations are driven by broader technological advances. Some are purely a reaction to a profit or business opportunity. There are also innovations which are the result of regulation or other government policy actions. Financial innovation is the generation of new and creative approaches to different financial circumstances (Miller 2006). The scholar also points out that financial innovation represents the adoption of a new idea, process, product or service, developed internally or acquired from the external environment for the purpose of satisfying the clients.

Financial innovations can be grouped as new products (like subprime mortgage) or services (Internet banking) or new organizational forms (like Internet-only banks) (Abor, 2005). Broadly speaking, financial innovation is the act of creating and then popularizing new financial instruments as well as new financial technologies, institutions and markets. The "innovations" are sometimes divided into product or process innovation, with product innovations exemplified by new derivative contracts, new corporate securities or new forms of pooled investment products, and process improvements typified by new means of distributing securities, processing transactions, or pricing transactions.

Financial innovations typically result in a final product that is nonstandard and is structured to meet a customer's specific financial objectives. Financial innovations occur because market participants are constantly searching for new ways to make greater profits. According to Gallegati and Tedeschi (2009) innovation and its consequences

have created new concern about the functioning and management of international and domestic financial systems. Access to safe, easy and affordable credit and other financial services by the poor and vulnerable groups, disadvantaged areas and lagging sectors is recognized as a precondition for accelerating growth and reducing income disparities and poverty.

Several studies have been conducted on financial innovation and financial stability of banks. Mugo (2012) examined the effect of financial innovation on the growth of micro-finance institutions in Kenya and concluded that financial innovation by MFIs lead to an aggregate growth of firm in various dimensions like number of products, market share, loan sales and the overall profitability. Ngigi (2012) examined financial innovation and its effect on financial stability of commercial banks in Kenya. However, this study only concentrated on Value of sector Real Time Gross Settlement (RTGS) transfers and value of sector automated clearing transactions. From the above presentations, it can be concluded that financial innovations improve financial stability of financial institutions.

2.3.2 Effects of Competitive Pricing of Services on Financial Stability of Commercial Banks in Kenya.

Pricing decision is an important part for every company's profitability and long-term survival of commercial banks as prices play a central role for customer satisfaction and profitability. Stark (2015) points out that if effective product development, promotion and distribution sow the seeds of business success, effective pricing is the harvest. Although effective pricing can never compensate for poor execution of the first three elements, ineffective pricing can surely prevent those efforts form resulting in financial success.

During the global financial crisis, there were renewed efforts to find and sustain financial stability in the economy (Davies & Green, 2010). For emerging market economies which experienced many financial crises; the role of financial stability was central in policymaking and in international financial transactions area. Many economists came up with suggestion on what to do to solve recurrent financial crises and among them; the competitive pricing be effected by the central bank. For instance in Chile, the Central Bank's objectives are price and financial stability and their law explicitly establishes that

“the Bank shall have as its purposes to look after the stability of the currency and the normal functioning of internal and external payments This is due to the cost of financial crisis is very expensive and thus economists put in place measures to ensure that there isn’t a situation warranting a crisis that will need to be resolved.

Floyd, Li and Skinner (2015) argues, however, that if the aggregate price level of commodities is stable, or at least if its movements are predictable, then resources will be employed more efficiently and financial distress, regardless of its proximate cause, will be less severe. Furthermore, from history severe episodes of financial distress in U.S. coincided with sharp declines in the rate of inflation after sustained periods of rising prices. And stability was realized after prices of commodities were stabilized. Therefore the commercial banks in the financial industry should strive to have competitive prices in an aim of stabilizing the financial sector. In the end price level stability and financial stability are very much compatible, and not competing goals for monetary policy.

Bös (2015) opines that pricing is the most neglected element of the marketing mix. The pricing objectives of service firms provide directions for action. They range from, for example, maximizing profits, or sales, or market share, to avoiding price wars or achieving social goals. Pricing methods, meanwhile, are explicit steps or procedures by which firms arrive at marketing decisions. They can be cost based (such as adding a profit margin to the average cost of the service), competition based (such as pricing similar to competitors or according to the market’s average prices) or demand based (such as setting the price so as to satisfy the customer’s needs). Shipley and Jobber (2001) suggested that pricing is the only element of the marketing mix that produces revenues for the firm, while all the others are related to expenses; thus they place great importance to the idea of pricing for goods and services for a company. In essence pricing of goods and services of a firm ensures its survival in the long haul, its profitability and stability in the market place.

Kenya’s financial sector has undergone reforms since the late 1980s aimed at achieving; stability so as to ensure that banks and other financial institutions taking deposits can safely handle the public’s savings and ensure that the chances of a financial crisis are kept to a minimum; efficiency in the delivery of credit and other financial services to

ensure that the costs of services become increasingly affordable and that the range and quality of services better caters to the needs of both savers and investing businesses; and improved access to financial services and products for a much larger number of Kenyan households (Nyaoma, 2005). These reforms have undoubtedly strengthened Kenya's banking sector in the last decade or so, in terms of product offerings and service quality, stability and profitability (Kamau, 2011). And even with the reforms the stability realized has not been impressive as the bank's profitability and stability on average has been erratic. Competitive pricing of the banks' products has been seen as an effective way of changing this trend. A review of the studies above reveal that competitive pricing strategies align the financial services of banks with the needs of customers hence control the level of risks thus leading to a stable financial sector.

2.3.3 Effects of Credit Risk Management Policies on Financial Stability of Commercial Banks in Kenya.

Credit risk is the possibility that the actual return on an investment or loan extended will deviate from that, which was expected (Conford, 2000). It is the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with agreed terms. Generally the credit risk is associated with traditional lending activities of banks and it is simply described as risk a loan not being repaid in part or in full. The goal of credit risk management is to maximize a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Commitment to credit risk management is an essential component of a comprehensive technique to risk management and critical to the long-term success to all banking institutions because poor credit risk management strategies leads to rising nonperforming loans which negatively affects profit margins.

Commercial banks need to manage the credit risk inherent in the entire portfolio as well as the risk in individual credit risk and other risks. The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long- term success of any banking organizations. The fundamental dilemma in managing credit risk is overcoming the agency or incentive problems between lenders as outsiders and borrowers as insiders. Banks that managed to

successfully perform its credit risk management finally have a positive impact on their financial stability (Bonfim, 2009).

The goal of credit risk management is to maximize a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Commitment to credit risk management is an essential component of a comprehensive technique to risk management and critical to the long-term success to all banking institutions because poor credit risk management strategies leads to rising nonperforming loans which negatively affects profit margins (Lando, 2009). Banks need to manage the credit risk inherent in the entire portfolio as well as the risk in individual credits or transactions. Banks should also consider the relationships between credit risk and other risks. The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long-term success of any banking organization (Ang & Longstaff, 2013).

Credit management is essential to optimizing the stability of financial institutions. Lending has been, and still is, the mainstay of financial institution, and this is more true to emerging economies of developing countries where capital markets are not yet well developed. To most of the transition economies lending activities have been controversial and a difficult matter. This is because business firms on one hand are complaining about lack of credits and the excessively high standards set by financial institutions, while financial institutions on the other hand have suffered large losses on bad loans (Richard, 2006).

Effective system that ensures repayment of loans by borrowers is critical in dealing with asymmetric information problems and in reducing the level of loan losses, thus the long-term success of any banking organization. Effective Credit Risk Management involves establishing an appropriate Credit Risk environment; operating under a sound credit granting process; maintaining an appropriate credit administration that involves monitoring process as well as adequate controls over CR (Alderweireld, Garcia & Leonard 2006). It requires top management to ensure that there are proper and clear guidelines in managing Credit Risks, i.e. all guidelines are properly communicated

throughout the organization; and that everybody involved in Credit Risk Management understand them.

Considerations that form the basis for sound CRM system include: policy and strategies (guidelines) that clearly outline the scope and allocation of a bank credit facilities and the manner in which a credit portfolio is managed, i.e. how loans are originated, appraised, supervised and collected (Greuning & Bratanovic, 2003). Screening borrowers is an activity that has widely been recommended by, among others (Derban et al. 2005). The recommendation has been widely put to use in the banking sector in the form of credit assessment. According to the asymmetric information theory, a collection of reliable information from prospective borrowers becomes critical in accomplishing effective screening.

Effective credit risk management involves establishing an appropriate credit risk environment; operating under a sound credit granting process; maintaining an appropriate credit administration that involves monitoring process as well as adequate controls over credit risk (McNeil, Frey & Embrechts, 2015). It requires top management to ensure that there are proper and clear guidelines in managing credit risk. All guidelines are properly communicated throughout the organization; and that everybody involved in credit risk management understand them.

Risk management framework is important for banks and other money lending institutions. In conjunction with the underlying frameworks, basic risk management process that is generally accepted is the practice of identifying, analyzing, measuring, and defining the desired risk level through risk control and risk transfer. The increasing variety in the types of counterparties from individuals to sovereign governments and the ever-expanding variety in the forms of obligations from auto loans to complex derivatives transactions has meant that credit risk management has jumped to the forefront of risk management activities carried out by firms in the financial services industry (Bruno & Shin, 2015).

2.3.3.1 Credit Enhancement

When a bank observes that it's too exposed to a certain category of credit risk, it can buy credit protection in the form of guarantees from financial guarantors or via credit derivative products. By the protection, the credit quality of the guaranteed assets is enhanced. This is also known as credit risk mitigation. These principles are translated in the daily organization by written procedures and policies that determine how guarantees are selected, up to which risk exposure and risk profile loans are quasi automatically granted and above which level a human expert evaluation is required (Bessis, 2003). Larger or more complex files are typically discussed at a credit union committee where lending and credit risk that may be involved is discussed for possible transactions to be carried out. Credits that deteriorate and become too weak are put on a watch list, are closely monitored and remedial actions taken when it seems necessary for instance protection purchase.

The current risk position of the banks is communicated regularly to the banks senior management and business lines, which may adjust the current strategy. The risk management strategy is defined as part of the general strategy. In particular, the credit risk management needs to foster a climate for good saving and crediting for union members where prices of their products are in line with the risks taken (Saunders & Allen, 2002). A strong strategic credit risk management avoids important pitfalls like credit concentrations, lack of credit discipline, aggressive underwriting to high-risk counterparts and products at inadequate prices. Four types of credit culture have been identified in; top management's commitment, credit discipline, priority-based incentives and risk-managed lines of business.

2.3.3.2 Portfolio Asset Quality

The credit culture is similar to the value driven, with emphasis on strong credit quality, but for which deviation can be omitted during periods of low credit demand. Dermine & Bissada (2002) indicated that market share and volume growth are the highest priority, which is motivated by the ambition to become or to remain a large player on the market. Front office lenders are demanded to produce new loans and may experience difficulties

with credit risk loan approvers, because of low credit quality and non-adequate pricing. Loan approvers see their influence limited because of the conflicting interests of value and asset quality. Success depends on the strength of the credit risk management to control the approval process and to keep sufficient asset quality in the growing portfolio.

Portfolio asset quality is only guaranteed when the credit risk department has strong policies and risk systems. The optimal risk strategy is the one that is in line with the business strategy. It is not the one that minimizes losses, but the one that provides a good credit quality in line with the business objectives. A good credit culture has strong policies and credit standards, while new markets are selected to conform to the existing culture. The effectiveness of the credit risk management is verified by internal risk control and audit that monitor credit discipline, loan policies, approval policies, facility risk exposure (Bessis, 2003) and portfolio level risk. The credit culture is supported by the top management and by a strong credit risk management.

A sound credit risk management is built upon a good-quality portfolio of performing assets. The pricing of the loans has to reflect the risk. A good selection strategy aims to avoid high losses (Pykhtin, 2005). Credit scoring is a credit risk management technique that analyses the borrower's risk. In its early meaning, credit scores" were assigned to each customer to indicate its risk level. A good credit scoring model has to be highly discriminative: high scores reflect almost no risk and low scores correspond to very high risk, or the opposite, depending on the sign condition. The more highly discriminative the scoring system, the better are the customers ranked from high to low risk. In the calibration phase, risk measures are assigned to each score or score bucket. The quality of the credit scores risk ranking and calibration can be verified by analysing ex-post observed credit losses per score (Bessis, 2003). Credit scores are often segmented into homogeneous pools

2.3.3.3 Credit Scoring Mechanism

In the past, credit scoring focused on measuring the risk that a customer would not fulfil his/her financial obligations and run into payment arrears. More recently, credit scoring evolved to loss and exposure risk as well. Scoring techniques are nowadays used

throughout the whole life cycle of a credit as a decision support tool or automated decision algorithm for large customer bases. With increasing competition, electronic sale channels and recent saving, credit and cooperative regulations have been important catalysts for the application of semi- automated scoring systems. Since their inception, credit scoring techniques have been implemented in a variety of different, yet related settings. A first example is credit approval.

Originally, the credit approval decision was made using a purely judgmental approach by merely inspecting the application form details of the applicant and commonly focused on the values of the 5 Cs of a customer (Pykhtin, 2005), Character which measures the borrower's character and integrity including virtues like reputation and honesty; Capital which measures the difference between the borrower's assets which may include car, house and liabilities for example renting expenses; Collateral measuring the collateral provided in case payment problems occur house hold assets, house, car; Capacity which measures the borrower's ability to pay for example job status, source of income and finally Conditions where the members' borrowing circumstances are evaluated for example market conditions, competitive pressure, and seasonal character (Pykhtin, 2005).

This expert-based approach towards credit scoring is still used nowadays in credit portfolios where only limited information and data is available. The early success of application scorecards drew the attention of the academics and researchers to develop advanced statistical and machine-learning techniques that apply a wide range of explanatory variables or characteristics. An application scorecard then assigns sub scores to each of the values of these characteristics. These sub scores are determined based on the relationship between the values of the characteristics and the default behaviour, and are aggregated into one overall application score reflecting the total default risk posed by the customer (de Servigny & Renault, 2004).

2.3.3.4 Risk identification

Risk identification is vital for effective risk management. In order to manage credit union risks effectively, management of union have to know what risks face the union. The

important thing during risk identification is not to miss any risks out. There are a number of different techniques that can be used in risk identification

The first step in organizing the implementation of the risk management function is to establish the crucial observation areas inside and outside the corporation (McNeil, Frey, & Embrechts, 2015). Then, the departments and the employees must be assigned with responsibilities to identify specific risks. For instance, interest rate risks or foreign exchange risks are the main domain of the financial department (Christen &Pearce, 2005).

It is important to ensure that the risk management function is established throughout the whole corporation; apart from parent company, the subsidiaries too have to identify risks, analyse risks and so on. There are many other approaches for risk identification, for instance, scenario analysis or risk mapping. An organization can identify the frequency and severity of the risks through risk mapping which could assist the organization to stay away from high frequency and low severity risks and instead focus more on the low frequency and high severity risk. Risk identification process includes risk-ranking components where these ranking are usually based on impact, severity or dollar effects (Christen & Pearce, 2005). Accordingly, the analysis helps to sort risk according to their importance and assists the management to develop risk management strategy to allocate resources efficiently.

In relation to commercial banks' practice of risk management, Al-Tamimi (2002) found that the UAE commercial banks were mainly facing credit risk. The study also found that inspection by branch managers and financial statement analysis are the main methods used in risk identification. The main techniques used in risk management are establishing standards, credit score, credit worthiness analysis, risk rating and collateral. The recent study by Al-Tamimi and Al-Mazrooei (2007) was conducted on banks' risk management of UAE national and foreign banks. Their findings reveal that the three most important types of risks encountered by UAE commercial banks are foreign exchange risk, followed by credit risk, then operating risk.

Risk identification is positively significant to influence risk management practices. In the case of banks, studies made especially on risk identification and risk mitigation includes the work of Haron and Hin Hock (2007) on market and credit risk, and Haron (2007) specifically on operational risk. Haron and Hin Hock (2007) explain the inherent risk; credit and market risk exposures in Banks. Also, they illustrate the notion of displaced commercial risk that is important in Banks. They conclude that certain risks may be considered as being inherent in the operations of conventional banks. Although the risk exposures of Banks differ and may be complex than conventional financial institution, the principles of credit and market risk management are applicable to both. In addition, the IFSB's standards on capital adequacy and risk management guiding principles mark the first steps in an ongoing process of developing prudential standards and filling regulatory gaps in the field of finance.

Haron (2007) show that Banks are exposed to a number of operational risks that differ from those that are face conventional banks. They argue that the complexities of a number of their products, as well as their relative novelty in the contemporary financial services market, combined with the fiduciary obligations of the bank when it acts as a custodian, imply that for Banks, operational risk is very important for consideration. Because of that, the IFSB has taken the position while Investment Account Holders may be considered in the absence of misconduct and negligence by the bank to bear credit and market risks of assets in their funds have been invested by the bank, the latter must be considered as being exposed to the operational risk arising from its management of those funds.

Empirical studies made by Khan and Ahmad (2001) found that Banks face some risks arising from profit-sharing investment deposits. Here, the bankers considered these unique risks more serious than conventional risks faced by financial institutions. The results of survey of risk perception in different modes of financing shows that risk level is considered elevated. The high perception of risks may be an indication of the low degree of active risk management due to the absent of risk control through internal processes and control, especially in the case of operational risk (Iqbal & Mirarkhor, 2007).

According to standard economic theory, managers of value maximizing firms ought to maximize expected profit without regard to the variability around its expected value. However, there is now a growing literature on the reasons for active risk management including the work of Stein (1993). Chaibi and Ftiti (2015) lists dozens of contributions to the area and at least four distinct rationales offered for active risk management. These include managerial self-interest, the non-linearity of the tax structure, the costs of financial distress and the existence of capital market imperfections.

2.3.3.5 Risk Analysis and Assessment

There are many conceptual studies made on risk analysis and assessment by reference to measurement and mitigation of risk. In practice, it is useful to classify the different risks according to the amount of damage they possibly cause (Fuser *et al.,* 1999). This classification enables the management to divide risks that are threatening the existence of the corporation from those which can cause slight damages. Frequently, there is an inverse relationship between the expected amount of loss and its corresponding likelihood, that is risks that will cause a high damage to corporation, like earthquakes or fire, occur seldom, while risks that occur daily, like interest rate risks or foreign exchange risks, often cause only relatively minor losses, although these risks can sometimes harm the corporations seriously.

The empirical findings by Al-Tamimi & Al-Mazrooei (2007) highlighted that UAE banks are somewhat efficient in analysing and assessing risk and there is a significant different between UAE national and foreign banks in the practice of risk analysis and assessment. Additionally, the findings show that risk analysis and assessment are influencing risk management practices. It is also mentioned by Drzik (1995) that the BAI Risk Management Survey showed that large bank in the US had made a substantial progress in their development and implementation of risk measures. The measures are used not only for risk control purposes, but also for stability measurements and pricing. In the context of banking, few conceptual studies (Sundararajan, 2007; Jackson-Moore, 2007) discuss the risk measurement aspects particularly on the unique risk.

A comprehensive risk measurement and mitigation methods for various risk arising from financing activities and from the nature of profit and loss sharing in the source of funds especially investment account holders are explained by Sundararajan (2007). He concludes that the application of modern approaches to risk measurement, particularly for credit and overall banking risks is important for Banks. Also, he suggests that the need to adopt new measurement approaches is particularly critical for Banks because of the role they play and the unique mix of risks in finance contracts.

However, (Navajas & Tejerina, 2006) indicates that Banks are perceived not to use the latest risk measurement techniques and Shari'ah compliant risk mitigation techniques due to different Shari'ah interpretation of these techniques. Also, appropriate measurement of credit and equity risks in various finance facilities can benefit from systematic data collection efforts, including establishing credit and equity registry. Jackson- Moore (2007) suggests that bank need to start collecting data, and there can be significant advantages in pooling information and using common definitions, standards, and methodologies for operational risk which is argued can lead to significant losses in all financial institutions. Finally, he found out that risk analysis and assessment particularly on measuring risk in banking institutions is important for risk management practices.

2.3.3.6 Risk monitoring

Effective risk management requires reporting and reviewing structure to ensure that risks are effectively identified, assessed and that appropriate controls and responses are in place (Irm, Airmic & Alarm; 2002). Risk monitoring can be used to make sure that risk management practices are in line and it also helps banks management to discover mistake at early stage (Al-Tamimi & Al-Mazrooei, 2007). Monitoring is the last step in the corporate risk management process. According to them, control has to be established at different levels. The control by the management board will not be enough to ensure the effective functioning of the risk monitoring system, because the management board members do not have time on their hands to exercise extensive control. Hence, the management board will install an independent unit to complete the task of internal supervision. This task is the responsibility of the internal audit. The supervisory board is obliged to control the risk management process and is supported by the auditor. If the auditor discovers a defect, he will have to inform the supervisory board and the management board (Al-Tamimi & Al-Mazrooei, 2007) .

According to Parrenas (2005), the shareholders of the corporation can use their rights to demand information in order to judge the efficiency of the risk management system. The director's report enables the shareholders to assess the status of the corporation knowledgeably and thoroughly. Khan & Ahmad (2001) conducted a survey of risk management practices and found that on average the lowest percentage is on the

measuring, mitigating and monitoring risk that is 69% score as compared to risk management policies and procedures that is 82.4%, and internal control of banks that is 76%. Al-Tamimi & Al-Mazrooei (2007) found that there is significant difference between UAE national and foreign banks in risk monitoring and controlling. The UAE commercial banks have an efficient risk monitoring and controlling system and it has positive influence on risk management practices. In general risk management is an important element of the operations of commercial banks. The level of financial stability is dependent of the extent to which commercial banks are able to manage their exposure to various risks.

2.3.4 Effect of Recapitalization on Financial Stability of Commercial Banks in Kenya.

Recapitalization refers to increasing the amount of long term finances used in financing the organization (Asedionlen, 2004). Recapitalization may raise liquidity in short term but will not guaranty a conducive macroeconomic environment required to ensure high asset quality and good profitability (Imala, 2005). It entails increasing the debt stock of the company or issuing additional shares through existing shareholders or new shareholders or a combination of the two. Low capitalization of the banks makes them less able to finance the economy, and more prone to unethical and unprofessional practices which could lead to bank closure. Well-capitalized banks strengthen the banking system for effective monetary management which boosts customer confidence in the industry. It could even take the form of merger and acquisition or foreign direct investment. Whichever form it takes the end result is that the long term capital stock of the organization is increased substantially to sustain the current economy trend in the global world.

Banking sector reforms and recapitalization have resulted from deliberate policy response to correct perceived or impending banking sector crises and subsequent failures. According to Oyedokun (2013); capital decision could be analyzed within the theoretical framework developed by Baltensperger (1973). In this framework, the individual bank is assumed to maximize its profit by choosing an optimal ratio of capital/debt within a competitive environment and also to resolve the problem of unsound banking and to

enhance efficient management in the banking system so as to enhance profitability of the bank and more importantly maintain financial stability for survival of the bank in future periods. Capitalization is important since banks with strong capital base have the ability to absolve losses arising from non -performing liabilities like personal and business loans and mortgages.

On the other hand re-capitalization is restructuring a company's debt and equity mixture, with the aim of making a company's capital structure more stable. Adegbaju & Olokoyo (2008) stated that recapitalization is a process in which the amount of debt and assets of a particular entity are rearranged in order to meet a financial goal. It refers to any major change in a corporation's paid in capital, resulting from issuance of new shares of stock, reorganization in bankruptcy, or exchange of common stock shares for bonds and notes, as in a leveraged buyout. In banking, it is has been often defined as any restructuring of a troubled bank assisted by a deposit insurance fund, as in a bailout of a failing bank, where the insurance fund pays the acquiring bank the difference between the book value of a troubled bank's assets and the estimated market value. In a bank recapitalization may occur in mergers or acquisitions with a similar entity and it’s done to place the new bank in the best financial position as possible. This is a good way of eliminating weaker banks from the system/industry. Though the idea of recapitalization is normally associated with businesses, the same concept can be applied to non-profit organizations, financial institutions such as banks or mortgage companies, and even to individuals.

Recapitalization appears to be the main driving force of bank reforms. It focuses mainly on restructuring, rebranding and refurbishing the banking system to accommodate the challenges of bank liquidation (Saona, 2011). Obviously, adequate capital base is very crucial to the success of any bank. If a bank intends to increase its profits by increasing leverage, the equity to asset ratio (capital) has to be reduced Apart from its multiplier effect on the economy as a whole; it acts as a buffer and security for banks (Bakare 2011). Since recapitalization provides an avenue for broadening the shareholder base of banks, especially through public listing, thereby improving prospects for good corporate governance.

Studies have been done on recapitalization and financial stability of banking institutions. Osoro (2014) examined the effect of financial restructuring on the financial stability of commercial banks in Kenya and concluded that there exists a positive effect of financial restructuring of the financial stability of commercial banks in Kenya. Garo (2013), did a study on an empirical study of factors influencing financial stability of Islamic versus conventional banks in Kenya; the study found that the macroeconomic determinants such as real GDP growth rate showed positive and strong association to banks profitability, while Inflation have negative and insignificant impacts on profitability and large banks are far much profitable than small and other banks categories. Recapitalization ensures a stable banking industry by allowing commercial banks to extend loans in accordance with their liquidity.

2.4 Knowledge Gap

A number of studies have been conducted on strategies adopted by commercial banks to improve financial stability. Diaconua and Oanea (2014) examined the main determinants of bank's stability using the evidence from Romanian Banking Sector. The findings showed that GDP growth and interbank offering rate for three months were two significant factors with positive impact on financial stability for a co-operative bank. This study was undertaken in Romanian Banking sector which has different macro-economic variables from those in Kenya hence limiting application of its findings in Kenya. Fadare (2011) examined the determinants of Banking Sector liquidity in Nigeria by assessing the extent to which the various financial crises affected liquidity in deposit money banks. The findings show that only liquidity ratio, monetary policy rate and lagged loan-to-deposit ratio were significant for predicting Banking Sector liquidity. This study concentrated on Nigerian economy with respect to financial crises which may not apply for the Kenyan market due to differences in macroeconomic variables.

Senyo, Olivia and Musah (2015) examined income diversification and financial stability of banks in Ghana from the year 2002to 2011 and also considers the risk associated with bank income diversification. The findings show that interest income remained the highest contributor to bank profits in Ghana. Opala (2014) examined the effect of financial

stability on the stability of deposit taking SACCOs in Nairobi County. The findings show that there were factors that positively influenced the financial stability of Deposit taking Saccos in Nairobi County, including liquidity, capital adequacy, size of the SACCO and management quality. This study did not review the strategies adopted by commercial banks to ensure financial stability.

According to Gallegati and Tedeschi (2009) innovation and its consequences have created new concern about the functioning and management of international and domestic financial systems. Access to safe, easy and affordable credit and other financial services by the poor and vulnerable groups, disadvantaged areas and lagging sectors is recognized as a precondition for accelerating growth and reducing income disparities and poverty (Kohn, 2004). Stark (2015) points out that if effective product development, promotion and distribution results into seeds of business success, then effective pricing is the harvest.

Floyd, Li and Skinner (2015) argues that if the aggregate price level of commodities is stable, or at least if its movements are predictable, then resources will be employed more efficiently and financial distress, regardless of its proximate cause, will be less severe. Bös (2015) opines that pricing is the most neglected element of the marketing mix. The pricing objectives of service firms provide directions for action. They range from, for example, maximizing profits, or sales, or market share, to avoiding price wars or achieving social goals. Osoro (2014) examined the effect of financial restructuring on the financial stability of commercial banks in Kenya and concluded that there exists a positive effect of financial restructuring of the financial stability of commercial banks in Kenya. Garo (2013), did a study on an empirical study of factors influencing financial stability of Islamic versus conventional banks in Kenya; the study found that the macroeconomic determinants such as real GDP growth rate showed positive and strong association to banks profitability, while Inflation have negative and insignificant impacts on profitability and large banks are far much profitable than small and other banks categories. As it can be seen from the various studies above, the studies have concentrated on other aspects like strategic management and firm stability and not

stability. This study therefore seeks to build new knowledge on the strategies adopted to enhance financial stability among commercial banks in Kenya

2.5 Conceptual Framework

The study proposes that the strategies adopted to enhance financial stability among commercial banks in Kenya include innovations, competitive pricing, credit risk management policies and recapitalization as captured in figure 2.1.

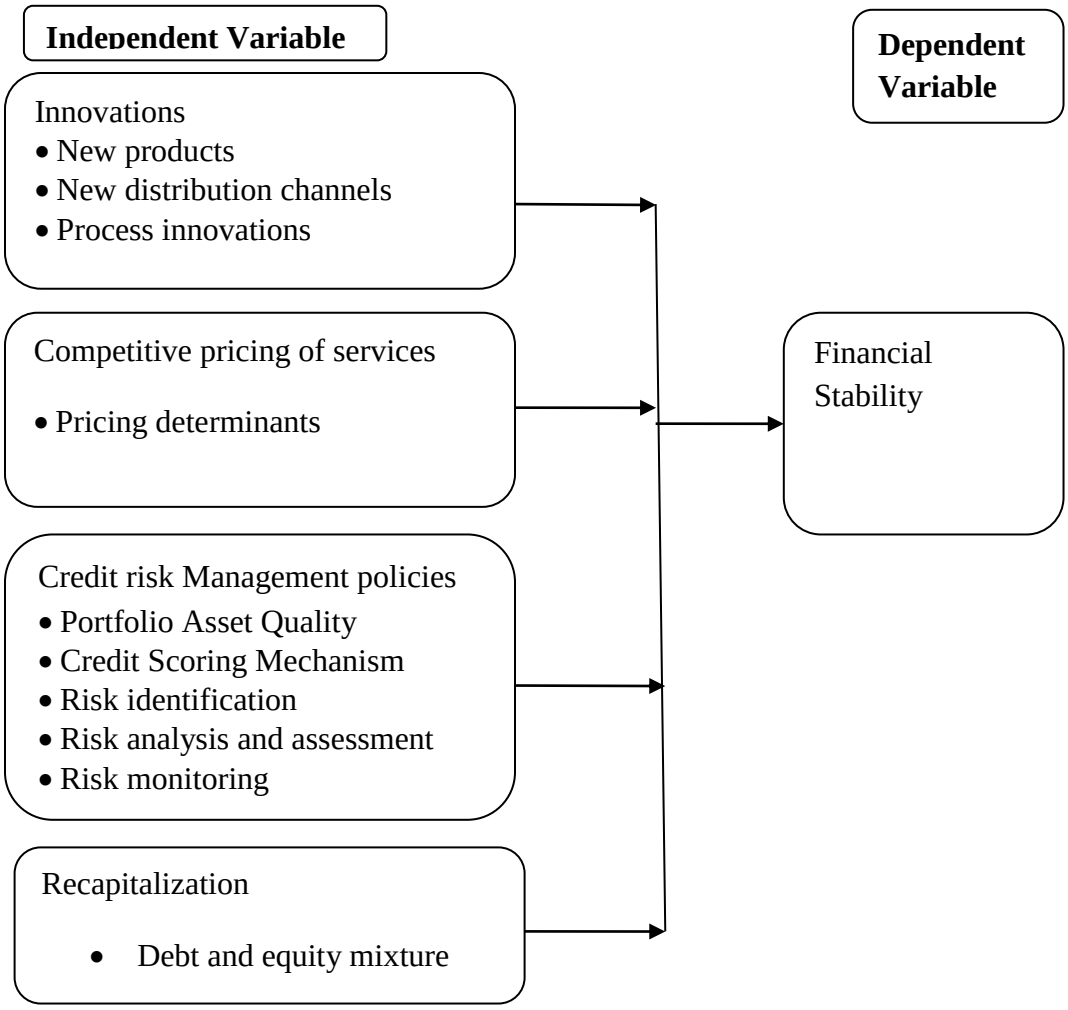

Figure 2.1: Conceptual Framework

Source: Researcher (2016)

2.6 Research Hypothesis

H_{01}: Innovation has no significant effects on financial stability of the commercial banks in Kenya.

H_{02}: Competitive pricing of services has no significant effect on the financial stability of the commercial banks in Kenya.

H_{03}: Credit risk management policies have no significant effect on the financial stability of the commercial banks in Kenya.

H_{04}: Recapitalization has no significant effect on the financial stability of the commercial banks in Kenya.

H05: The strategies adopted by banks have no significant effect on the financial stability of the commercial banks in Kenya.

2.7 Operationalization

Table 2.1: Operationalization of Variables

Objective	**Variable Type**	**Indicators**	**Type of data analysis**
Determine the effect of innovation on financial stability of the banking industry in Kenya	**Independent** innovation	• New products • New distribution channels • Process innovations	Descriptive Correlation Regression
To establish the effects of competitive pricing of services on financial stability of the banking industry in Kenya	**Independent** competitive pricing of services	• Pricing determinants	Descriptive Correlation Regression
To find out the effects of credit risk management policies on financial stability of the banking industry in Kenya	**Independent** Credit Risk Management Policies	• Portfolio Asset Quality • Credit Scoring Mechanism • Risk identification • Risk analysis and assessment • Risk monitoring	Descriptive Correlation Regression
To establish the effect of recapitalization on financial stability of the banking industry in Kenya	**Independent** recapitalization	• Debt and equity mixture	Descriptive Correlation Regression
	Dependent Financial Stability	• z-score is defined as $z \equiv (k+\mu)/\sigma$, where k is equity capital as percent of assets, μ is return as percent of assets, and σ is standard deviation of return on assets as a proxy for return volatility	Descriptive Correlation Regression

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodology that was used to collecting data for the study. It specifically discusses the research design, population size and sample that were used. The researcher also discussed how the data collected was analysed giving details of the models or programmes to be used in examining the strategies adopted to enhance financial stability among Kenyan Banks.

3.2 Research Design

This research problem was studied through a descriptive cross-sectional survey. The design is cross sectional because the study cuts across all the commercial banks in Kenya as at February, 2016. A descriptive design helped the researcher to describe how strategies adopted have enhanced financial stability among commercial banks in Kenya. A cross-sectional survey reports on the situation as it is without changing in any way at the same point in time (Neuman, 2006). Cross-sectional research design has been chosen because it allows for generalization of findings on how the adopted strategies have enhanced financial stability among commercial banks in Kenya. The data obtained was able to be standardized to allow easy comparison. This design is meant to enhance a systematic description that is accurate, valid and reliable as possible regarding the the strategies adopted to enhance financial stability among commercial banks in Kenya.

From the objectives, it is evident that the research is of quantitative nature. Quantitative research is a study whose findings are mainly the product of statistical summary and analysis. A structured questionnaire was used to collect data from a large representative sample, so that the result can be applied to the entire population of the hospitality industry. Also, data was analysed using quantitative and qualitative methods. Effects of contravening (extraneous) variables were overcome through random selection (Saunders et al., 2007).

3.3 Target Population

Population refers to the entire group of people or things of interest that the researcher wishes to investigate (Sekaran, 2010). It is also described as an aggregate of all that conforms to a given specification (Flowers, 2009). It comprises of a selection of members from that particular population. Target population refers to a well-defined or set of people, services, elements, events, group of things or households that are being investigated (Kothari, 2004). Target population is the specific population about which information is desired. The target population of this study comprised all 342 employees in the finance department of the 42 commercial banks operating in Kenya as at December, 2015 (HR Officer of the respective Banks, 2015).

3.4 Sampling Design

Sampling refers to a process of selecting a number of individuals in manner that the selected individuals represent the larger group from which the sample has been selected (Chandaran, 2004). This study adopted stratified random sampling technique because the target population is highly homogenous and well informed of the strategies adopted to improve financial stability of their respective banks. Probability sampling comprises of simple random sampling, systematic random sampling, stratified sampling and clusters sampling (Mugenda & Mugenda, 2003).

Mugenda and Mugenda (2003) argue that if well selected, a sample of between 10-30% of the population is adequate for generalization of study findings to the entire population. This study therefore proposed to adopt a sample of 25% of the target population so as to ensure that sample size is large enough and economical in reducing data redundancy. This therefore meant that two respondents were selected from each of the 43 commercial banks in Kenya. The sample had 86 respondents who were distributed evenly across the banks.

3.5 Instrumentation

The study adopted the use of questionnaire (Appendix I) in primary data collection. The questionnaire contained both open and closed ended questions. Closed ended questions used of a five point Likert scale to standardize the responses. The unstructured questions

were used to encourage the respondents to give an in-depth response where close ended questions are limiting.

The questionnaire was divided into four sections; A, B, C and D. Section A addressed the general information about the respondents, section B addressed the effect of Innovation on financial stability in Banking Industry, section C addressed the effect of competitive pricing of services on financial stability of the banking industry, section D addressed the the effects of credit risk management policies on financial stability of the banking industry while section E addressed the effect of recapitalization on financial stability of the banking industry in Kenya. Secondary data was obtained from literature including: annual bank supervision reports. The questionnaire adopted a five point likert scale where: 1= strongly disagree, 2= disagree, 3= neutral, 4= agree and 5= strongly agree.

3.6 Data Collection

The study collected primary data. Primary data was collected using questionnaires. The questionnaires were administered through a drop and pick later method so as to reduce interruptions in the day to day operations of the banks. The questionnaire is the most commonly used methods when respondents can be reached and are willing to co-operate. This method can reach a large number of subjects who are able to read and write independently.

3.7 Validity and Reliability of Research

This section presents a discussion on the validity and reliability tests that was carried out by the researcher in order to achieve the study's objective which was to establish the strategies adopted to enhance financial stability among commercial banks in Kenya.

Validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are (Joppe, 2000). Validity is high if the study contains what one wants to study and nothing else. Validity takes four forms: face, construct, internal and external. Construct validity refers to data collection, internal validity is a link between theory and empirical research and external validity refers to the domain to which the findings can be generalized. Construct validity was addressed by administering the questionnaires to the microfinance institutions which possess similar

characteristics to the population which will be studied. Internal validity was addressed by considering existing theories and external validity was addressed by studying all the commercial banks in the Kenya.

Reliability demonstrates that the study can be repeated with the same outcome. Joppe (2000) defines reliability as the extent to which results are consistent over time and an accurate representation of the total population under study. If the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable. The researcher used clear and well defined questionnaire as a method of data collection. A question by the respondents was also clarified. This could easily be applicable to another sample to test the reliability of the results. However, subjectivity that may distort responses cannot be over ruled. To measure reliability, the study adopted a Cronchba alpha which has a threshold of 0.7.This ensured that the instrument collect reliable and valid data. Cronbach's alpha of well above 0.7 implies that the instruments are sufficiently reliable for the measurement (Nachmias & Nachmias, 2008).

A pilot study was conducted to test the face validity of the instrument. According to Creswell (2009), a pilot test helps to test the reliability and validity of data collection instruments. If a measurement is valid, it is also reliable (Joppe, 2000). According to Kothari (2004) a pilot study can comprise of between 4-10 members of the target population whose response will be used to improve on the data collection instrument.The pilot test comprised 10 microfinance institutions. However, to ensure that the study findings are not compromised, the respondents who took part in the pilot study were not be included in the final study.

3.8 Data Analysis

The returned questionnaires were checked for consistency, cleaned, and the useful ones coded and analysed using the Statistical Package for Social Scientists (SPSS) computer software. The researcher analysed the quantitative data using descriptive statistics including: frequencies, percentages, means and standard deviations. The qualitative data was coded thematically and then analysed statistically. Content analysis was used for data that is qualitative nature or aspect of the data collected from the open ended questions.

The information was displayed by use of tables, graphs and in prose-form. Measures of central tendency was applied (mean, median, mode and percentages) for quantitative variables.

Pearson's correlations analysis was conducted at 95% confidence interval and 5% confidence level 2-tailed to determine the extent to which the strategies adopted enhance financial stability among commercial banks in Kenya. If the relationship established was found to be positive, then this would indicate that there is a correlation between the strategies adopted and financial stability in the banking industry.

In addition, the study conducted multiple regression analysis using the model below:

$$\mathbf{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon_i}$$

Where **Y** = Financial stability

$\mathbf{X_1}$ = Innovations

$\mathbf{X_2}$= competitive pricing of services

$\mathbf{X_3}$= credit risk management policies (Non-Performing Loans)

$\mathbf{X_4}$= recapitalization (Debt and equity mixture)

$\boldsymbol{\varepsilon}$ = Error Term

$\boldsymbol{\beta_0}$= Constant in the regression model that shows the value of financial stability in the absence of the independent variables.

In measuring financial stability

3.9 Ethical Considerations

Ethics is about norms governing human conduct which have a significant impact on human welfare (Minja & Kirimi, 2009). It involves making a judgment about right and wrong behavior during the research period. The researcher obtained permission from the respective banks to collect data from them. In addition, the researcher obtained an introduction letter from KCA University to confirm to the respondents that the data sought was used for academic purposes only.

CHAPTER FOUR
DATA ANALYSIS, PRESENTATIONS AND DISCUSSION

4.1 Introduction

This chapter presents the research findings on the basis of data collected from the field. The main objective of the study was to determine the strategies adopted to enhance financial stability among commercial banks in Kenya. Data was collected using questionnaires as the data collection instruments and summarized by use of descriptive statistics which involves the use of frequency tables, percentages, mean and standard deviation.

4.1.1 Response Rate

A total of 86 questionnaires were distributed out of which 63 questionnaires were filled and returned giving a response rate of 73%. This response was good enough and representative of the population and conforms to Mugenda and Mugenda (2003) stipulation that a response rate of 70% and above is excellent. These findings are well illustrated in the Figure 4.1.

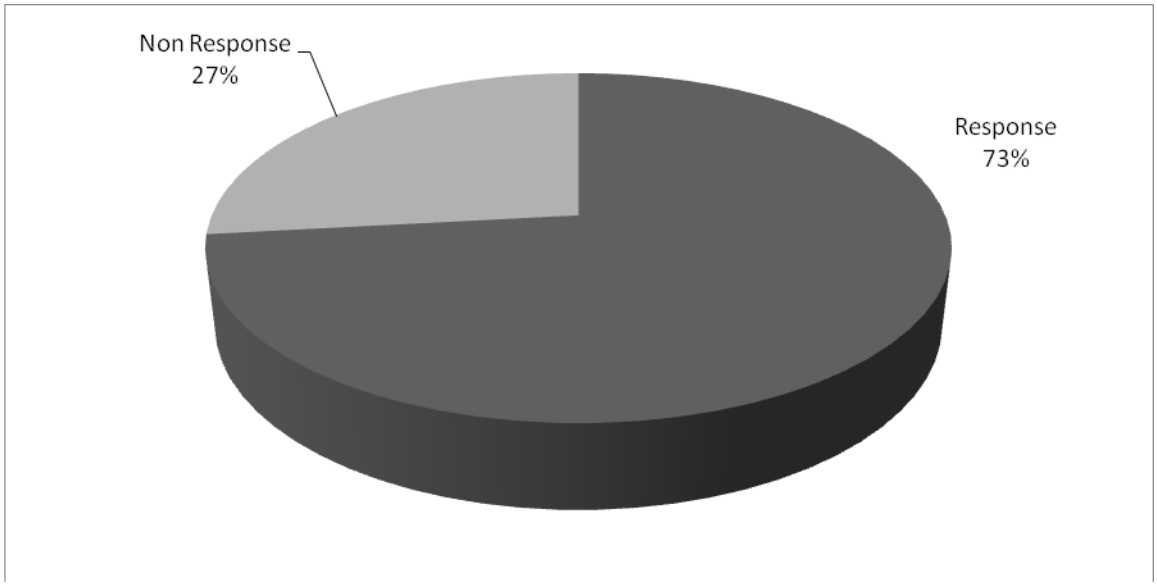

Figure 4.1: Response Rate

4.1.2 Reliability Analysis

A pilot study was carried out to determine reliability of the instrument used in the collection of data. This was to ensure that the instrument collect reliable and valid data. Reliability analysis was subsequently done using Cronbach's Alpha which measures the internal consistency by establishing if certain item within a scale measures the same construct. Cronbach's alpha of well above 0.7 implies that the instruments were sufficiently reliable for the measurement.

Table 4.1: Reliability Analysis

Variable	Cronbach's alpha	No of items
Innovation	.748	9
Competitive Pricing	.920	5
Credit Risk Management	.873	11
Recapitalization	.821	5

Table 4.1 the strategies adopted to enhance financial stability among commercial banks in Kenya. Innovation had α=0.748, Competitive Pricing had α=0.920, Credit Risk Management had α=0.873 and Recapitalization had α=0.821. This illustrates that all the four scales were reliable as their reliability values exceeded the prescribed threshold of 0.7.

4.2 Demographic Information

The study in this section sought to enquire from the respondents' demographic information including, highest level of education attained, the number of years working in the Bank, period working in the Banking industry and position in the Bank. This demographic information is presented in the following subsections.

4.2.1 Highest Level of Education Attained

The respondents were asked to indicate their highest level of education. The findings are shown below in Table 4.2.

Table 4.2: Highest Level of Education Attained

Highest Level of Education Attained	Frequency	Percent
Diploma	10	15.9
Bachelors Degree	30	47.6
Masters	23	36.5
Total	**63**	**100.0**

From the findings on Table 4.2, 15.9% of the respondents had diploma, 47.6% had bachelor's degree, and 36.5% had Masters Degree. This implied that majority of the respondents had relevant knowledge on the strategies adopted to enhance financial stability among commercial banks in Kenya thus they had ease in addressing the question and provided the correct responses hence the data collected was reliable for the study.

4.2.2 Period Working in the Bank

The study sought to determine the period of time the respondents had been working with their respective banks. The findings are shown on Table 4.3.

Table 4.3: Period Working in the Bank

Period Working in the Bank	Frequency	Percent
Below 3 years	22	34.9
3-6 years	23	36.5
6-9 years	6	9.5
10 years and above	12	19.0
Total	**63**	**100.0**

As shown on Table 4.3, majority 36.5% of the respondents had worked for between 3-6 years, 34.9% for between below 3 years, 19% for between 10 years and above and 9.5% for between 6-9 years. This shows that data was collected from individuals who had experience and gave valid information on strategies adopted to enhance financial stability.

4.2.3 Period Working in the Banking Industry

The respondents were requested to indicate the period of time they have been working in the banking industry. The findings are shown in Table 4.4.

Table 4.4: Period Working in the Banking Industry

Period Working in the Banking Industry	Frequency	Percent
Below 3 years	23	36.5
3-6 years	27	42.9
6-9 years	2	3.2
10 years and above	11	17.5
Total	**63**	**100.0**

As indicated in Table 4.4, 36.5% of the respondents had worked for below 3 years, 42.9% for between 3-6 years, 17.5% for 10 years and above. This shows that the respondents had quite sufficient experience in the banking industry and they had vast knowledge in the strategies put in place by commercial banks to enhance financial stability. Thus their responses are dependable and can be used to form an opinion.

4.2.4 Position in the Bank

The study sought to establish the position of the various respondents in their banks. Employees in the banks were divided into three groups; senior management, supervisors and other staff category. Results are shown in Table 4.5.

Table 4.5: Position in the Bank

Position in the Bank	Frequency	Percent
Senior Management	11	17.5
Supervisor	34	54.0
Other staff category	18	28.6
Total	**63**	**100.0**

From the finding in Table 4.5, 17.5% of the respondents were in senior management positions, 54% were supervisors and 28.6% were other staff category. These findings show that the study sought information from various positions thus findings are more reliable for the study.

4.3 Effect of Innovation on Financial Stability

Several statements on innovation and how it affects financial stability among commercial banks were identified and the respondents were asked to indicate the extent to which their bank had adopted each of these financial innovations in attempts to improve financial stability. A scale of 1-5 where 1= No extent, 2= little extent, 3=moderate extent, 4=great extent and 5=very great extent was used. From the responses, mean and standard

deviation were used for ease of interpretation and generalization of findings. The findings are clearly illustrated on Table 4.6.

Table 4.6: Effect of Innovation on Financial Stability

Effect of Innovation on Financial Stability	Mean	Std. Dev
The development of new innovative financial service delivery channels have improved the Banks stability	3.14	.913
The development of new ways of executing tasks in the Bank has improved its financial stability	3.77	1.069
The development of new innovative financial services in the Bank has improved its financial stability	2.61	1.113
Innovations have led to increased self serviced banking facilities in the Bank	2.49	1.162
Financial innovations have led to increased adoption of plastic money among customers	2.04	.850
Innovations have reduced the cash handling ratios in the Bank	3.03	.915
Financial innovations have helped the Bank in managing its operational costs	3.28	.974
Financial innovations have increased the market share of the Bank	2.71	.990
Financial innovations have positively contributed to the overall profitability of the Bank	2.28	1.169

As shown in Table 4.6, the development of new innovative financial service delivery channels have improved the banks stability had a mean of 3.14 with a standard deviation of 0.913 and the development of new ways of executing tasks in the Bank has improved its financial stability had a mean of 3.77 with a standard deviation of 1.069. This shows that the respondents were in agreement with the statements to a great extent which concurs with the finding of Bottazzi (2009) who argue that new development compel financial firms to concentrate on both sides of the balance sheet to augment business and maximize returns.

The development of new innovative financial services in the Bank has improved its financial stability had a mean of 2.61 with a standard deviation of 1.113, innovations have led to increased self serviced banking facilities in the Bank had a mean of 2.49 with a standard deviation of 1.162, financial innovations have led to increased adoption of plastic money among customers had a mean of 2.04 with a standard deviation of 0.850,

innovations have reduced the cash handling ratios in the Bank had a mean of 3.03 with a standard deviation of 0.915, financial innovations have helped the Bank in managing its operational costs had a mean of 3.28 with a standard deviation of 0.974, financial innovations had increased the market share of the Bank had a mean of 2.71 with a standard deviation of 0.990 and financial innovations have positively contributed to the overall profitability of the Bank had a mean of 2.28 with a standard deviation of 1.169. This finding is consistent with that of Frame and white (2004) that define financial innovation as including something that is new in the market, reduces costs of financial intermediation, reduces risks in financial intermediation, provides an improved product features that meets customer demands.

4.3.1 Extent to which Financial Innovation Affect Financial Stability

The respondents were asked to indicate the extent to which financial innovation affected financial stability of in their Bank. The findings are shown in Table 4.7.

Table 4.7: Extent to which Financial Innovation Affect Financial Stability

Extent	Frequency	Percent
little extent	11	17.5
moderate extent	28	44.4
great extent	7	11.1
very great extent	17	27.0
Total	**63**	**100.0**

As shown in Table 4.7, 17.5% of the respondents indicated that financial innovation affected financial stability to a little extent, 44.4% indicated moderate extent, 11.1% indicated great extent and 27% indicated very great extent.

4.4 Competitive Pricing and Financial Stability

Several statements on competitive pricing and how it affects financial stability among commercial banks were identified and the respondents were asked to indicate the extent to which they agree with the statements. A scale of 1-5 where 1= No extent, 2= little extent, 3=moderate extent, 4=great extent and 5=very great extent was used. From the responses, mean and standard deviation were used for ease of interpretation and generalization of findings. The findings are clearly illustrated on Table 4.8.

Table 4.8: Competitive Pricing and Financial Stability

Competitive Pricing and Financial Stability	Mean	Std. Dev
The pricing of financial services is based on market intelligence information	3.95	.869
The Bank prices its financial services competitively in the market	3.57	1.073
The pricing of financial services offered by our Bank has attracted more customers	3.63	.866
The pricing model adopted by our Bank has satisfied more customers leading to high customer loyalty	3.52	1.090
Our Bank uses prices to communicate the quality of financial services to customers	3.50	.948

From the findings in Table 4.8, pricing of financial services is based on market intelligence information had a mean of 3.95 with a standard deviation of 0.869, Banks prices its financial services competitively in the market had a mean of 3.57 with a standard deviation of 1.073, pricing of financial services offered by Bank has attracted more customers had a mean of 3.66 with a standard deviation of 0.866, pricing model adopted by Banks had satisfied more customers leading to high customer loyalty had a mean of 3.52 with a standard deviation of 1.090 and Banks uses prices to communicate the quality of financial services to customers had a mean of 3.50 with a standard deviation of 0.948. The respondent agreed with the statements to a great extent which concurs with the finding of Nyaoma (2005) that stability ensure that banks and other financial institutions taking deposits can safely handle the public's savings and ensure that the chances of a financial crisis are kept to a minimum; efficiency in the delivery of credit and other financial services to ensure that the costs of services become increasingly affordable and that the range and quality of services better caters to the needs of both savers and investing businesses; and improved access to financial services and products for a much larger number of Kenyan households.

4.4.1 Extent to which Competitive Pricing Affect Financial Stability

The respondents were requested to indicate the extent to which competitive pricing affected financial stability of in their Banks. The findings are shown in Table 4.9.

Table 4.9: Extent to which Competitive Pricing Affect Financial Stability

Extent	Frequency	Percent
No extent	2	3.2
little extent	8	12.7
moderate extent	17	27.0
great extent	21	33.3
very great extent	15	23.8
Total	63	100.0

As shown in Table 4.9, 3.2% of the respondents indicated that competitive pricing affected financial stability at no extent, 12.7% indicated little extent, 27% indicated moderate extent, 33.3% indicated great extent and 23.8% indicated very great extent.

4.5 Credit Risk Management Policies and Financial Stability

Several statements on credit risk management policies and how it affects financial stability among commercial banks were identified and the respondents were asked to indicate the extent to which their bank had adopted each of these credit risk management policies in attempts to improve financial stability. A scale of 1-5 where 1= No extent, 2= little extent, 3=moderate extent, 4=great extent and 5=very great extent was used. From the responses, mean and standard deviation were used for ease of interpretation and generalization of findings. The findings are clearly illustrated on Table 4.10.

Table 4.10: Credit Risk Management Policies and Financial Stability

Credit Risk Management Policies and Financial Stability	Mean	Std. Dev
The Bank reviews its credit risk policy from time to time to take into account the changes in the operating environment	3.71	1.069
The bank collects adequate information about a loan applicant prior to loan disbursement	3.79	1.034
The Bank has developed a portfolio in management of its exposure.	2.34	1.152
Our Bank is operating under a sound credit granting process	1.80	1.090
Our Bank maintaining an appropriate credit administration that involves monitoring process	2.19	1.189
Our Bank has clearly set mechanisms of identifying, analyzing, measuring, and defining the desired risk level.	2.47	1.189
Our Bank transfers proportionate risk to insurers	2.74	1.307
The risk position of the bank is communicated regularly to the banks senior management and business lines	2.61	1.183
The Bank maintains a good-quality portfolio of performing assets	2.28	1.210
Our Bank identifies all risks inherent in a transaction prior to its undertaking	2.92	1.096
Our Bank conducts regular risk analysis of its portfolio	2.79	.900

As shown in Table 4.10, banks reviews its credit risk policy from time to time to take into account the changes in the operating environment had a mean of 3.71 with a standard deviation of 1.069 and bank collects adequate information about a loan applicant prior to loan disbursement had a mean of 3.79 with a standard deviation of 1.034. This indicate that the respondents were in agreement with the statements which is in line with the finding of Bonfim (2009) that banks that managed to successfully perform its credit risk management finally have a positive impact on their financial stability.

Bank has developed a portfolio in management of its exposure had a mean of 2.34 with a standard deviation of 1.152, Bank is operating under a sound credit granting process exposure had a mean of 1.80 with a standard deviation of 1.090, Bank maintaining an appropriate credit administration that involves monitoring process had a mean of 2.19 with a standard deviation of 1.189, Bank has clearly set mechanisms of identifying, analyzing, measuring, and defining the desired risk level had a mean of 2.47 with a standard deviation of 1.189, Bank transfers proportionate risk to insurers had a mean of 2.74 with a standard deviation of 1.307, risk position of the bank is communicated

regularly to the banks senior management and business lines had a mean of 2.61 with a standard deviation of 1.183, Bank maintains a good-quality portfolio of performing assets had a mean of 2.28 with a standard deviation of 1.210, Bank identifies all risks inherent in a transaction prior to its undertaking had a mean of 2.92 with a standard deviation of 1.096 and Bank conducts regular risk analysis of its portfolio had a mean of 2.79 with a standard deviation of 0.900. This finding concurs with that of Lando (2009) that commitment to credit risk management is an essential component of a comprehensive technique to risk management and critical to the long-term success to all banking institutions because poor credit risk management strategies leads to rising nonperforming loans which negatively affects profit margins.

4.5.1 Extent to which Credit Risk Management Policies Affect Financial Stability

The respondents were requested to indicate the extent to which credit risk management policies affected financial stability of in their Banks. The findings are shown in Table 4.11.

Table 4.11: Extent to which Credit Risk Management Policies Affect Financial Stability

Extent	Frequency	Percent
No extent	5	7.9
little extent	23	36.5
moderate extent	14	22.2
great extent	18	28.6
very great extent	3	4.8
Total	**63**	**100.0**

As indicated in Table 4.11, 7.9% of the respondents indicated that credit risk management policies affected financial stability of in their Banks to no extent, 36.5% indicated little extent, 22.2% indicated moderate extent, 28.6% indicated great extent and 4.8% indicated very great extent.

4.6 Recapitalization and Financial Stability

Several statements on recapitalization and how it affects financial stability among commercial banks were identified and the respondents were asked to indicate the extent to which they agree with the statements. A scale of 1-5 where 1= No extent, 2= little extent, 3=moderate extent, 4=great extent and 5=very great extent was used. From the responses, mean and standard deviation were used for ease of interpretation and generalization of findings. The findings are clearly illustrated on Table 4.12.

Table 4.12: Recapitalization and Financial Stability

Recapitalization and Financial Stability	Mean	Std. Dev
Our Bank is well capitalized as per the provisions of the Banking Act	2.44	1.376
Our Bank balances its credit extension to loan applicants with its core capital	2.44	1.146
Our Bank has strong capital base to absolve losses arising from non -performing liabilities	1.88	1.151
Our bank has restructured its debt and equity mixture, with the aim of stabilizing its capital structure	2.28	1.223
Our Bank has plans of merging to improve its core capital base	2.52	1.202

From the findings in Table 4.12, Banks are well capitalized as per the provisions of the Banking Act had a mean of 2.44 with a standard deviation of 1.376, Bank balances its credit extension to loan applicants with its core capital had a mean of 2.44 with a standard deviation of 1.146, strong capital base to absolve losses arising from non -performing liabilities had a mean of 1.88 with a standard deviation of 1.151, Bank has restructured its debt and equity mixture, with the aim of stabilizing its capital structure had a mean of 2.28 with a standard deviation of 1.223 and Bank has plans of merging to improve its core capital base had a mean of 2.52 with a standard deviation of 1.202. This shows that agreed with the statements to a moderate extent which is consistent with the finding of Saona (2011) that recapitalization appears to be the main driving force of bank reforms. It focuses mainly on restructuring, rebranding and refurbishing the banking system to accommodate the challenges of bank liquidation.

4.6.1 Extent to which Recapitalization Affect Financial Stability

The respondents were asked to indicate the extent to which recapitalization affected financial stability of in their Banks. The findings are shown in Table 4.13.

Table 4.13: Extent to which Recapitalization Affect Financial Stability

Extent	Frequency	Percent
No extent	9	14.3
little extent	25	39.7
moderate extent	13	20.6
great extent	5	7.9
very great extent	11	17.5
Total	**63**	**100.0**

As indicated in Table 4.13, 14.3% of the respondents indicated that recapitalization affected financial stability of in their Banks to no extent, 39.7% indicated little extent, 20.6% indicated moderate extent 7.9% indicated great extent and 17.5% indicated very great extent.

4.7 Financial Stability

Several statements on financial stability among commercial banks following the various strategies adopted were identified and the respondents were required to indicate the extent to which their bank's financial stability had been improved from each of the various strategies. A scale of 1-5 where 1= No extent, 2= little extent, 3=moderate extent, 4=great extent and 5=very great extent was used. From the responses, mean and standard deviation were used for ease of interpretation and generalization of findings. The findings are clearly illustrated on Table 4.14.

Table 4.14: Financial Stability

Financial Stability	Mean	Std. Dev
Strategies adopted have improved the smooth operation of the Bank	2.65	1.22
The strategies adopted have created a match between the bank's resources, skills and the environmental opportunities	2.30	1.25

From the finding in Table 4.14, strategies adopted have improved the smooth operation of the Bank had a mean of 2.65 with a standard deviation of 1.22 and the strategies adopted have created a match between the bank's resources, skills and the environmental opportunities had a mean of 2.30 with a standard deviation of 1.25.

4.8 Correlation Analysis

In order to establish the strategies adopted to enhance financial stability among commercial banks in Kenya, correlation analysis was used. Pearson's correlations analysis was conducted at 95% confidence interval. Table 4.15 indicates the correlation matrix between the factors (innovation, competitive pricing, credit risk management policies and recapitalization).

Table 4.15: Correlation Analysis

Correlation Analysis		Financial Stability	innovation	Competitive Pricing	Credit Risk	Recapitalization
Financial Stability	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	63				
innovation	Pearson Correlation	.661**	1			
	Sig. (2-tailed)	.000				
	N	63	63			
Competitive Pricing	Pearson Correlation	.212	.076	1		
	Sig. (2-tailed)	.095	.553			
	N	63	63	63		
Credit Risk	Pearson Correlation	.584**	.675**	-.079	1	
	Sig. (2-tailed)	.000	.000	.536		
	N	63	63	63	63	
Recapitalization	Pearson Correlation	.693**	.528**	-.094	.562**	1
	Sig. (2-tailed)	.000	.000	.464	.000	
	N	63	63	63	63	63

Table 4.15 showed that there is a positive correlation between financial stability and the factors (innovation, credit risk management policies and recapitalization) of magnitude 0.661 with innovation, 0.212 with competitive pricing, 0.584 with credit risk management policies and 0.693 with recapitalization. The independent variables also had

a positive correlation relationship with P-values of 0.000 respectively. These findings therefore revealed that a positive relationship existed between the independent variables (innovation, credit risk management policies and recapitalization) and the dependent variable financial stability.

4.9 Regression Analysis

Regression analysis was conducted to establish the relationship between strategies adopted by commercial banks and their financial stability. The statistical package for social sciences (SPSS) was used to code, enter and compute the measurements of the multiple regressions for the study.

Table 4.16: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.813[a]	.661	.638	.43606

Table 4.16 shows a model summary of regression analysis between four independent variables (innovation, competitive pricing, credit risk management policies and recapitalization) and the dependent variable financial stability. The value of R was 0.813; the value of R square was 00.661 and the value of adjusted R square was 0.638. From the findings, 66.1% of changes in the financial stability were attributed to the four independent variables in the study. Positivity and significance of all values of R shows that model summary is significant and therefore gives a logical support to the study model.

Table 4.17: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	21.551	4	5.388	28.334	.000
Residual	11.029	58	.190		
Total	**32.579**	**62**			

ANOVA statistics of the processed data at 5% level of significance shows that the value of calculated F is 28.334 and the value of F critical at 5% level of significance was 2.52 Since F calculated is greater than the F critical (28.334>2.52), this shows that the overall model was significant. The p value p=0.000<0.05 and therefore the model was valid.

Table 4.18: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.092	.350		-.264	.793
innovation	.041	.015	.299	2.744	.008
Competitive Pricing	.034	.011	.245	3.130	.003
Credit Risk	.011	.010	.129	1.170	.247
Recapitalization	.075	.015	.485	5.066	.000

From the regression findings, the substitution of the equation:

$$\mathbf{Y=-0.092+0.041X_1+0.034X_2+0.011X_3+0.075X_4}$$

Where Y is the financial stability, X_1 is innovation, X_2 is competitive pricing and X_3 is the credit risk management policies and X_4 is recapitalization.

From the findings of the regression analysis if all factors (innovation, competitive pricing, credit risk management policies and recapitalization) were held constant, financial stability would be at -0.092. An increase in innovation would lead to an increase in financial stability by 0.041. An increase in the competitive pricing would lead to an increase in financial stability by 0.034. An increase in credit risk management policies would lead to an increase in financial stability by 0.011 and an increase in recapitalization would lead to an increase in financial stability by 0.075. Recapitalization and competitive pricing variables were significant as the P-values were less than 0.05 an indication that the factors was statistically significant.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary of the findings, conclusion and recommendations of the study based on the objective of the study which was to determine the strategies adopted to enhance financial stability among commercial banks in Kenya.

5.2 Summary

This section presents a summary of the findings as per the research objectives and the research questions.

5.2.1 Effect of Innovation on Financial Stability

The study found out that the development of new innovative financial service delivery channels had improved the Banks stability, new ways of executing tasks in the Banks had improved its financial stability and new innovative financial services in the Banks had improved its financial stability. The study further found out that innovations had led to increased self serviced banking facilities in the Banks, increased adoption of plastic money among customers, reduced the cash handling ratios in the Banks, helped the Banks in managing its operational costs, increased the market share of the Banks and positively contributed to the overall financial stability of the Bank.

5.2.2 Competitive Pricing and Financial Stability

The study established that pricing of financial services was based on market intelligence information, Banks prices its financial services competitively in the market, pricing of financial services offered by Bank had attracted more customers, pricing model adopted by Banks had satisfied more customers leading to high customer loyalty and Banks used prices to communicate the quality of financial services to customers.

5.2.3 Credit Risk Management Policies and Financial Stability

The study reveal that banks reviewed its credit risk policy from time to time to take into account the changes in the operating environment, collects adequate information about a loan applicant prior to loan disbursement, developed a portfolio in management of its exposure, Banks were operating under a sound credit granting process exposure, maintained an appropriate credit administration that involves monitoring process, set mechanisms of identifying, analyzing, measuring and defining the desired risk level, transfers proportionate risk to insurers, risk position of the bank was communicated regularly to the banks senior management and business lines, maintains a good-quality portfolio of performing assets, identifies all risks inherent in a transaction prior to its undertaking and conducts regular risk analysis of its portfolio.

5.2.4 Recapitalization and Financial Stability

The study found out that banks were well capitalized as per the provisions of the Banking Act, balances their credit extension to loan applicants with its core capital, had strong capital base to absolve losses arising from non -performing liabilities, banks had restructured its debt and equity mixture with the aim of stabilizing its capital structure had plans of merging to improve its core capital base.

5.2.5 Financial Stability

The study revealed that the strategies adopted had improved the smooth operation of the Banks and created a match between the bank's resources, skills and the environmental opportunities

5.3 Conclusion

The study concludes that there is a positive relationship between financial innovation and financial stability of commercial banks in Kenya. Competition among banks has lead to continuous innovations. Improved financial stability has been realized as result of

reduced cost of financial transactions that can be attributed to financial innovation. Adoption of these financial innovations resulted in the increase of financial stability of commercial banks. Financial innovations also resulted in improvement of the banks products and services. The banks can employ more innovations on customer care and technology. Financial innovation presents more convenience, efficiency and security to commercial banks customers resulting to more demand (uptake) for the new innovations. Demand for traditional payment systems had reduced as customers switch to the more effective payment systems.

The study concludes that commercial banks review their credit policy from time to time to take into account the changes in the operating environment. The most popular method of creating awareness of credit policies to banks were regular training and credit manual. The study further revealed that methods used in credit risk assessment among commercial banks in Kenya were risk adjusted return on capital and linear probability model.

The study concluded that, financial recapitalizing does have a positive relationship with financial stability of commercial banks in Kenya although the effect is very minimal. Different banks however, employed different ways of financial recapitalizing. While some commercial banks resorted into more debt for instance by borrowing, others resorted into dividend payouts and others still into enhancing shareholders equity and merging. All of these however, were geared towards enhancing the financial stability of the different commercial banks.

5.4 Recommendation

The study recommends that the banks should strive to ensure product range extension, product replacement, product improvement, product repositioning and new product introduction to enable the banks to be more productive, grow faster, invest more and earn more profit. The product development strategies can be effectively adopted if there are quality systems in place, good information flow, specialization and management supports.

The study also recommended that commercial banks should ensure new products introduction, reduction of costs, improved innovation process and conformance to regulations to influence profitability of the bank. This will help the tap into customers' needs and the new products generate their own source of marketing momentum.

The study further recommends that there should be efficient ways for mitigating credit risk. Commercial Banks should make more use of check off arrangements, group schemes, loans and guarantees for their customers. Monitoring customer's accounts bahaviour right from the disbursement of the funds and not allowing the accounts going into debit.

The study also recommends that bank capitalization should be encouraged in all commercial banks so that stability can be enhanced. Banks should endeavor to retain earnings to boost up capital rather than paying excessive bonuses. Well capitalized Banks have lower financial risk and thus are more likely to survive financial crisis thus, a well-capitalized banking system will ensure financial stability and make the industry more resilient against external shocks and risk.

5.5 Area for Further Research

The study recommends that another study be done to investigate the factors influencing financial innovations in the financial institutions in Kenya other than only commercial banks. This would include SACCOS, microfinance institutions and Mortgage companies. This would assist in determining the extent to which the financial institutions have been adopted financial innovation and thus enhancing financial stability.

Proper management of credit risk is the key factor for success. The regulatory institution which is Central Bank of Kenya should come up with uniform eligibilities in the financial institutions when it comes to the award of credit. Banks management should enhance the structure of employee teams through providing training and seminars to improve the business knowledge this will ensure effective risk identification and assessment is carried out before disbursement of credit to creditors mitigates the occurrence of credit risk and improves financial stability.

REFERENCES

Acemoglu, D., Ozdaglar, A., & Tahbaz-Salehi, A. (2015). *Networks, shocks, and systemic risk* (No. w20931). National Bureau of Economic Research.

Acharya, V. V. (2009). A theory of systemic risk and design of prudential bank regulation, *Journal of Financial Stability*, 5, 224–255.

Adegbaju A. A. & Olokoyo F. O. (2008). Recapitalisation and Bank's Stability; A Case Study of Nigerian Banks. *African Economic and Business Review*, 6(1), 1 – 4.

Aduda, J., & Kalunda, E. (2012). Financial inclusion and financial sector stability with reference to Kenya: A review of literature. *Journal of Applied Finance and Banking*, *2*(6), 95.

Aduda, J., & Kalunda, E. (2012). Financial inclusion and financial sector stability with reference to Kenya: A review of literature. *Journal of Applied Finance and Banking*, *2*(6), 95.

Ahmed, H., & Khan, T. (2007). Risk management in Islamic banking. *Handbook of islamic banking*, 144.

Alderweireld, T., Garcia, J., & Léonard, L. (2006). A practical operational risk scenario analysis quantification. *RISK-LONDON-RISK MAGAZINE LIMITED-*, *19*(2), 93.

Allen, L., & Saunders, A. (2002). A survey of cyclical effects in credit risk measurement models.

Al-Tamimi, H. A. H. (2002). Risk management practices: an empirical analysis of the UAE commercial banks. *Finance India*, *16*(3), 1045.

Ang, A., & Longstaff, F. A. (2013). Systemic sovereign credit risk: Lessons from the US and Europe. *Journal of Monetary Economics*, *60*(5), 493-510.

Anufriev, M., & Bottazzi, G. (2009). Market Equilibria under Procedural Rationality (revised version of WP 06-02).

Azam, M., & Siddiqui, S. (2012). Domestic and Foreign Banks' Profitability: Differences and Their Determinants. *International Journal of Economics and Financial Issues*, *2*(1), 33.

Babbie, E. (2004). *The practice of social research (10th Ed).* Thomson Belmont CA: Wadsworth Publishing Company.

Bakare, A. S. (2011). The trend and growth implications of bank recapitalization in Nigeria. *African Journal of Business Management*, *5*(14), 5938.

Baltensperger, E. (1973). Optimal bank portfolios: The liability side. *Jahrbücher für Nationalökonomie und Statistik*, 147-160.

Banking act of 1968 and revised in 2009 chapter 488

Barbour, R. (2013). *Introducing qualitative research: a student's guide*. Sage.

Basci, E., & Kara, H. (2011). *Financial stability and monetary policy* (No. 1108).

Basel Committee. (1999). Principles for the Management of Credit risk. *Consultative paper prepared by the Basel Committee on Banking Supervision*

Bessis, J. (2009). *Risk Management in Banking.* West Susex: John Willey & Sons. 792 p.

Bhimani, A. (2008). The role of a crisis in reshaping the role of accounting. *Journal of Accounting and Public Policy*, *27*(6), 444-454.

Blumberg, B. F., Cooper, D. R., & Schindler, P. S. (2014). *Business research methods*. McGraw-hill education.

Bonfim, D. (2009). Credit risk drivers: Evaluating the contribution of firm level information and of macroeconomic dynamics. *Journal of Banking & Finance*, *33*(2), 281-299.

Bös, D. (2015). *Pricing and price regulation: an economic theory for public enterprises and public utilities* (Vol. 34). Elsevier.

Bös, D. (2015). *Pricing and price regulation: an economic theory for public enterprises and public utilities* (Vol. 34). Elsevier.

Brealey, R., Leland, H. E., & Pyle, D. H. (1977). Informational asymmetries, financial structure, and financial intermediation. *The journal of Finance*, *32*(2), 371-387.

Bruno, V., & Shin, H. S. (2015). Capital flows and the risk-taking channel of monetary policy. *Journal of Monetary Economics*, *71*, 119-132.

Bruno, V., & Shin, H. S. (2015). Capital flows and the risk-taking channel of monetary policy. *Journal of Monetary Economics*, *71*, 119-132.

Bryman, A. & Bell, E. (2007). Business Research Methods: Second Edition. Oxford University press: New York.

Bryman, A. & Cramer, D. (2001), Quantitative Data Analysis with SPSS Release 10 for Windows: A Guide for Social Scientists, London: Routledge

Calomiris, C. W., Heider, F., & Hoerova, M. (2014). A theory of bank liquidity requirements. *Columbia Business School Research Paper*, (14-39).

Calomiris, C., Heider, F., & Hoerova, M. (2015). A Theory of Bank Liquidity Requirements. European Central Bank Working Paper

Carlson, M., Duygan-Bump, B., & Nelson, W. (2015). Why do we need both liquidity regulations and a lender of last resort? A perspective from Federal Reserve lending during the 2007-09 US financial crisis. *Bank for International Settlements Working Paper No*. 493.

Chaibi, H., & Ftiti, Z. (2015). Credit risk determinants: Evidence from a cross-country study. *Research in international business and finance*, *33*, 1-16.

Chaibi, H., & Ftiti, Z. (2015). Credit risk determinants: Evidence from a cross-country study. *Research in international business and finance*, *33*, 1-16.

Christen, R., & Pearce, D. (2005). *Managing risks and designing products for agricultural microfinance: Features of an emerging model*. The World Bank.

Cihák, M. & Schaeck, K. (2010). How well do aggregate prudential ratios identify banking system problems? *Journal of Financial Stability*, 6(3): 130-144.

Čihák, M. (2007). Systemic Loss: A Measure of Financial Stability, *Czech Journal of Economics and Finance*, 57 (1-2): 5-26.

Čihák, M., & Heiko H. (2010). Islamic Banks and Financial Stability: An Empirical Analysis, *Journal of Financial Services Research*, 38 (2-3): 95–113.

Cornford, A. (2000). *Commentary on the Financial Stability Forum's Report of the Working Group on Capital Flows* (Vol. 7). UN.

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

Davies, H. & D. Green (2010), *Banking on the Future. The Fall and Rise of Central Banking*, Princeton University Press.

De Servigny, A., & Renault, O. (2004). *Measuring and managing credit risk*. McGraw Hill Professional.

Demirgüç-Kunt, A., Enrica D., & Thierry T. (2008). Banking on the Principles: Compliance with Basel Core Principles and Bank Soundness, *Journal of Financial Intermediation* 17(4): 511–42.

Derban, W. K., Binner, J. M., & Mullineux, A. (2005). Loan repayment stability in community development finance institutions in the UK. *Small Business Economics*, *25*(4), 319-332.

Dermine, J., & Bissada, Y. F. (2002). Asset & liability management: A guide to value creation and risk control.

Diaconu, R. I., & Oanea, D. C. (2014). The Main Determinants of Bank's Stability. Evidence from Romanian Banking Sector. *Procedia Economics and Finance*, *16*, 329-335.

Diamond Douglas & Rajan R. G (2000). A Theory of Bank Capital, *Journal of Finance*, 55, 2431-2465.

Drzik, J. (1995). CFO Survey: Moving Towards Comprehensive Risk Management. *Bank Management*, *71*(4), 34-59.

Duffie, D. (2008). Innovations in credit risk transfer: Implications for financial stability.

Duursma, M. (2004). Community-based microfinance models in East Africa. *Dar es Salaam. Hivos*.

Fadare,S. O. (2011). Banking Sector Liquidity and Financial Crisis in Nigeria, *International Journal of Economics and Finance*, 3(5), 3-11

Floyd, E., Li, N., & Skinner, D. J. (2015). Payout policy through the financial crisis: The growth of repurchases and the resilience of dividends. *Journal of Financial Economics*, *118*(2), 299-316.

Floyd, E., Li, N., & Skinner, D. J. (2015). Payout policy through the financial crisis: The growth of repurchases and the resilience of dividends. *Journal of Financial Economics*, *118*(2), 299-316.

Fowler Jr, F. J. (2013). *Survey Research Methods*. Sage publications.

Frame, W. S., & White, L. J. (2004). Empirical studies of financial innovation: lots of talk, little action?. *Journal of Economic Literature*, *42*(1), 116-144.

Gallegati, M., Tedeschi, G., & Vitali, S. (2012). The dynamic of innovation networks: a switching model on technological change. *Available at SSRN 2160789*.

Garo, G. I. (2013). An empirical study of factors influencing financial stability of Islamic versus conventional banks in Kenya.

Greuning, H. V., & Bratanovic, S. (2003). Analyzing and managing banking risk. *The World Bank*.

Haron, A., & Hock, J. L. H. (2007). Inherent risk: credit and market risks. *Islamic finance: The regulatory challenge*, *2*.

Hassan Al-Tamimi, H. A., & Mohammed Al-Mazrooei, F. (2007). Banks' risk management: a comparison study of UAE national and foreign banks. *The Journal of Risk Finance*, *8*(4), 394-409.

Huang, R., & Ratnovski, L. (2011). The dark side of bank wholesale funding. *Journal of Financial Intermediation*, *20*(2), 248-263.

Jackson-Moore, E. (2007). Measuring operational risk. *Islamic Finance: The Regulatory Challenge*, 237-246.

Kamau, A. W. (2011). Intermediation efficiency and productivity of the banking sector in Kenya. *Interdisciplinary Journal of Research in Business*, *1*(9), 12-26.

Karahasan, B. C. (2011). *Financial Liberalization and Regional Impacts on Entrepreneurial Behavior in Turkey* (No. 29814). University Library of Munich, Germany.

Khan, H. R. (2011). Financial Inclusion and Financial stability: are they two sides of the same coin. *Speech at BANCON*.

Khrawish, H. A. (2011). Determinants of commercial banks stability: evidence from Jordan. *International Research Journal of Finance and Economics*, *81*, 148-159.

Koch, T., & MacDonald, S. (2014). *Bank Management*. Nelson Education.

Kombo, K. &Tromp, C. (2006). *Proposal and Thesis writing: An Introduction.* Nairobi: Pauline publishers.

Laeven, L. & Ross L., (2009), "Bank Governance, Regulation, and Risk Taking *Journal of Financial Economics* 93(2): 259–275.

Lando, D. (2009). *Credit risk modeling: theory and applications*. Princeton University Press.

Lerner, J. & Tufano, P. (2011). The consequences of financial innovation: A counterfactual research agenda. NBER Working Paper Series, 16780, 6.

Levy, P. S., & Lemeshow, S. (2013). *Sampling of populations: methods and applications*. John Wiley & Sons.

Marcus, A.J. (1984). Deregulation and Bank Financial Policy. *Journal of Banking and Finance*, 38:557-565.

Marshall, C., & Rossman, G. B. (2014). *Designing qualitative research*. Sage publications.

McNeil, A. J., Frey, R., & Embrechts, P. (2015). *Quantitative risk management: Concepts, techniques and tools*. Princeton university press.

McNeil, A. J., Frey, R., & Embrechts, P. (2015). *Quantitative risk management: Concepts, techniques and tools*. Princeton university press.

Merga, B. D. (2013). Effects of ownership on the financial stabilitys of commercial banksin Kenya (Doctoral Dissertation, Moi University).

Miller, W. L. (2006). Innovation rules!. *Research-Technology Management*, *49*(2), 8-14.

Milne, A., & Whalley,A.E. (2001). Bank Capital Regulation and Incentives for Risk - Taking. SSRN.

Mishkin, F. S. (2011). *Monetary policy strategy: lessons from the crisis* (No. w16755). National Bureau of Economic Research.

Mugo, J. G. (2012). *The effect of financial innovation on the growth of micro-finance institutions in Kenya* (Doctoral dissertation, University of Nairobi).

Nagle, T.T. & Holden, R.K. (1995), The Strategy and Tactics of Pricing, Prentice-Hall, Englewood Cliffs, NJ.

Navajas, S., & Tejerina, L. (2006). *Microfinance in Latin America and the Caribbean: How large is the market?*Inter-American Development Bank, Sustainable Development Department, Micro, Small and Medium Enterprise Division.

Ngigi, C. N. (2012). Financial innovation and its effects on financial stability of commercial banks in Kenya. *Unpublished MBA Dissertation, University of Nairobi*.

Ngugi, K. & Karina, B. (2013), Effect of Innovation Strategy on stability of Commercial Banks in Kenya, *International Journal of Social Sciences and Entrepreneurship*, 1 (3), 158-170

Nyaoma, G. A. (2005). Risk management in banks. *press statement issued on behalf of Central Bank of Kenya, Nairobi*.

Oluitan, R. O., Ashamu, S. O., & Ogunkenu, O. S. (2015). The Effect of Recapitalization on Bank stability In Nigeria. *International Finance and Banking*, *2*(1), 79.

Oluwatayo, J. A. (2012). Validity and reliability issues in educational research. *Journal of Educational and Social Research*, *2*(2), 391-400.

Opala, J. A. (2014). Effect of financial stability on the stability of deposit taking SACCOs in Nairobi County, Unpublished Thesis, University of Nairobi.

Osoro, P. M. (2014). *The effect of financial restructuring on the financial stability of commercial banks in Kenya* (Doctoral dissertation, University of Nairobi).

Oyedokun A. (2013). Trend Analysis of the Effect of Capital Base Requirement on Profit Generating Capacity and Operational Efficiency of Selected Commercial Banks in Nigeria. *Research Journal of Finance and Accounting*, 4(17), 142 – 153.

Parreñas, J. C. (2005, January). Bank's Risk Management Practices: A Survey of Four Asian Emerging Markets. In *second ADB Institute seminar on Corporate Governance of Banks in Asia*.

Pykhtin, M. (2005). *Counterparty credit risk modelling: risk management, pricing and regulation*. Risk Books.

Ratnovski, L., (2008). Bank Liquidity Regulation and the Lender of Last Resort,*Journal of Financial Intermediation*, 18(4): 541-588.

Richard, E. (2006). *Credit Risk Management Policy and Strategies: The Case of a Commercial Bank in Tanzania* (Doctoral dissertation, Handelshögskolan, Umeå universitet).

Rosman, R. (2009). Risk management practices and risk management processes of Islamic banks: a proposed framework. *International Review of Business Research Papers*, *5*(1), 242-254.

Santomero, A. M. (1993). Banking and Insurance: A Banking Industry Perspective. In *Financial Management of Life Insurance Companies* (pp. 17-43). Springer Netherlands.

Scholtens, B., & van Wensveen, D. (2003). The theory of financial intermediation: an essay on what it does (not) explain. *Chapters in SUERF Studies*, 7-53.

Sekaran, U. (2010) *Research Methods for Business-A Skill Building Approach*. 4th ed. Singapore, John Wiley & Sons.

Senyo, B. D., Olivia, A. and Musah, A. (2015). Income diversification and financial stability of banks in Ghana, International Journal of Business and Social Science, 6(6), 177-184.

Shipley, D.D. and Jobber, D. (2001). Integrative pricing via the pricing wheel, *Industrial Marketing Management*, 30(3), 301-14.

Stake, R. E. (2013). *Multiple Case Study Analysis*. Guilford Press.

Stark, J. (2015). Product lifecycle management. In *Product Lifecycle Management (Volume 1)* (pp. 1-29). Springer International Publishing.

Stein, J. C. (2013). Overheating in Credit Markets: Origins, Measurement, and Policy Responses.

Sundaram, A. K., & Inkpen, A. C. (2004). Stakeholder theory and The corporate objective revisited: A reply. *Organization science*, *15*(3), 370-371.

Sundararajan, V. (2007). Risk characteristics of Islamic products: implications for risk measurement and supervision. *Islamic finance: The regulatory challenge*.

Swamy, V. (2014). Testing the interrelatedness of banking stability measures. *Journal of Financial Economic Policy*, *6*(1), 25-45.

Thorsten, B., Demirgüç-Kunt, A. & Levine, R. (2007). Finance, Inequality and the Poor, *Journal of Economic Growth* 12(1): 27–49.

Vento, G. A., & La Ganga, P. (2010). Inter-bank Market and Liquidity Distribution during the Great Financial Crisis: The e-MID Case. In *New Issues in Financial and Credit Markets* (pp. 82-98). Palgrave Macmillan UK.

Woodruff, H. (1995), Services Marketing, Pitman Publishing, London.

Yin, R. K. (2013). *Case study research: Design and methods*. Sage publications.

Zikmund, W., Babin, B., Carr, J., & Griffin, M. (2012). *Business research methods*. Cengage Learning.

APPENDICES

APPENDIX I: INTRODUCTION LETTER

Dear Respondent,

RE: REQUEST FOR RESEARCH DATA

My name is Andrew Wangila, a postgraduate student Kenya College of Accounting (KCA)University, Nairobi, Kenya. I am carrying out a study "**STRATEGIES ADOPTED TO ENHANCE FINANCIAL STABILITY AMONG COMMERCIAL BANKS IN KENYA**".

I wish to kindly request you to participate in providing information requested below. I appreciate your voluntary participation and your responses will be treated with utmost confidentiality and will be used for academic purposes only.

Yours faithfully,

Andrew Wangila

APPENDIX II: QUESTIONNAIRE

SECTION A: DEMOGRAPHIC INFORMATION

1) Name of the Bank (Optional) _____

2) Your highest level of education attained

Certificate [ ] Diploma [ ]

Bachelors Degree [ ] Masters [ ]

PhD [ ]

3) Please indicate the number of years worked in this Bank

Below 3 years [ ] 3-6 years [ ]

6-9 years [ ] 10 years and above [ ]

4) How long have you worked in the Banking industry?

Below 3 years [ ] 3-6 years [ ]

6-9 years [ ] 10 years and above [ ]

5) What is your position in the Bank?

Senior Management [ ] Supervisor [ ]

Other staff category [ ]

SECTION B: EFFECT OF INNOVATION ON FINANCIAL STABILITY

6) Below are several statements on innovation and how it affects financial stability among commercial banks. Kindly indicate the extent to which your bank has adopted each of these financial innovations in attempts to improve financial stability. Use a scale of 1-5 where 1= No extent, 2= little extent, 3=moderate extent, 4=great extent and 5=very great extent.

Statements	1	2	3	4	5
The development of new innovative financial service delivery channels have improved the Banks stability					
The development of new ways of executing tasks in the Bank has improved its financial stability					
The development of new innovative financial services in the Bank has improved its financial stability					

Innovations have led to increased self serviced banking facilities in the Bank					
Financial innovations have led to increased adoption of plastic money among customers					
Innovations haven reduced the cash handling ratios in the Bank					
Financial innovations have helped the Bank in managing its operational costs					
Financial innovations have increased the market share of the Bank					
Financial innovations have positively contributed to the overall profitability of the Bank					

7) In general, to what extent has financial innovation affected financial stability of your Bank?

Very great extent [ ]

Great extent [ ]

Moderate extent [ ]

Little extent [ ]

No extent [ ]

SECTION C: COMPETITIVE PRICING AND FINANCIAL STABILITY

8) Below are several statements on competitive pricing and how it affects financial stability among commercial banks. Kindly indicate the extent to which your bank has adopted each of these financial innovations in attempts to improve financial stability. Use a scale of 1-5 where 1= No extent, 2= little extent, 3=moderate extent, 4=great extent and 5=very great extent.

Statements	1	2	3	4	5
The pricing of financial services is based on market intelligence information					
The Bank prices its financial services competitively in the market					
The pricing of financial services offered by our Bank has attracted more customers					
The pricing model adopted by our Bank has satisfied more customers leading to high customer loyalty					
Our Bank uses prices to communicate the quality of financial services to customers					

9) In general, to what extent has pricing of financial services affected financial stability of your Bank?

Very great extent	[ ]
Great extent	[ ]
Moderate extent	[ ]
Little extent	[ ]
No extent	[ ]

SECTION D: CREDIT RISK MANAGEMENT POLICIES AND FINANCIAL STABILITY

10) Below are several statements on credit risk management policies and how it affects financial stability among commercial banks. Kindly indicate the extent to which your bank has adopted each of these financial innovations in attempts to improve financial stability. Use a scale of 1-5 where 1= No extent, 2= little extent, 3=moderate extent, 4=great extent and 5=very great extent.

Statements	1	2	3	4	5
The Bank reviews its credit risk policy from time to time to take into account the changes in the operating environment					
The bank collects adequate information about a loan applicant prior to loan disbursement					
The Bank has developed a portfolio in management of its exposure.					
Our Bank is operating under a sound credit granting process					
Our Bank maintaining an appropriate credit administration that involves monitoring process					
Our Bank has clearly set mechanisms of identifying, analyzing, measuring, and defining the desired risk level.					
Our Bank transfers proportionate risk to insurers					
The risk position of the bank is communicated regularly to the banks senior management and business lines					
The Bank maintains a good-quality portfolio of performing assets					
Our Bank identifies all risks inherent in a transaction prior to its undertaking					
Our Bank conducts regular risk analysis of its portfolio					

11) In general, to what extent has credit risk management policies affected financial stability of your Bank?

Very great extent	[ ]
Great extent	[ ]
Moderate extent	[ ]
Little extent	[ ]
No extent	[ ]

SECTION E: RECAPITALIZATION AND FINANCIAL STABILITY

12) Below are several statements on recapitalizationand how it affects financial stability among commercial banks. Kindly indicate the extent to which your bank has adopted each of these financial innovations in attempts to improve financial stability. Use a scale of 1-5 where 1= No extent, 2= little extent, 3=moderate extent, 4=great extent and 5=very great extent.

Statements	1	2	3	4	5
Our Bank is well capitalized as per the provisions of the Banking Act					
Our Bank balances its credit extension to loan applicants with its core capital					
Our strong capital base to absolve losses arising from non -performing liabilities					
Our bank has restructured its debt and equity mixture, with the aim of stabilizing its capital structure					
Our Bank has plans of merging to improve its core capital base					

13) In general, to what extent has recapitalizationaffected financial stability of your Bank?

Very great extent	[ ]
Great extent	[ ]
Moderate extent	[ ]
Little extent	[ ]
No extent	[ ]

SECTION F: FINANCIAL STABILITY

14) Below are several statements financial stability among commercial banks following the various strategies adopted. Kindly indicate the extent to which your bank's financial stability has been improved from each of the various strategies Use a scale of 1-5 where 1= No extent, 2= little extent, 3=moderate extent, 4=great extent and 5=very great extent.

Statements	1	2	3	4	5
Strategies adopted have improved the smooth operation of the Bank					
The strategies adopted have created a match between the bank's resources, skills and the environmental opportunities					

APPENDIX III: LIST OF COMMERCIAL BANKS IN KENYA

1. African Banking Corporation ltd
2. Bank of Africa k Ltd
3. Bank of Baroda Kenya
4. Bank of India Ltd
5. Barclays Bank of K Ltd
6. Citibank N.A.
7. City Finance Bank Ltd
8. Commercial Bank of Africa Ltd
9. Consolidated Bank
10. Co-operative Bank of Kenya
11. Credit Bank Ltd
12. Credit Finance Bank Ltd
13. Chase bank Kenya Ltd
14. Imperial Bank Kenya Ltd
15. Development Bank of K
16. Diamond Trust Bank
17. Ecobank Kenya Limited
18. Equatorial Commercial Bank Ltd
19. Equity Bank Limited
20. Family Finance Bank
21. Fidelity Commercial Bank Ltd
22. First Community Bank
23. Guaranty Trust Bank Ltd
24. Giro Commercial Bank
25. Guardian Bank Ltd
26. Habib Bank A.G Zurich
27. Habib Bank Ltd
28. Investments and Mortgages
29. Jamii Bora Bank
30. Kenya Commercial Bank Ltd
31. K-Rep Bank ltd
32. Middle East Bank
33. National Bank of Kenya
34. National Industrial Credit Bank Ltd
35. Oriental Commercial Bank Ltd
36. Paramount Universal Bank Ltd
37. Prime Bank Ltd
38. South Credit Banking corporation
39. Stanbic Bank Kenya Ltd
40. Standard Chartered Bank of Kenya
41. Trans-National Bank
42. United Bank of Africa
43. Victoria Commercial Bank Ltd

Source: Central Bank of Kenya (2015)