THE EFFECT OF INNOVATION STRATEGIES ON THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

BY

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DECLARATION

Declaration by Student

This is my original work and has not been presented for examination in any other university.

Signature..... **Date…….**

ELIZABETH M MBEVI

D61/67970/2013

This research project has been presented to University of Nairobi with my approval as University of Nairobi Supervisor.

Signature..... **Date…….**

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DEDICATION

I Elizabeth Mueni Mbevi, hereby declare that this is my original work. It is submitted in partial fulfillment of the requirement for the award of the degree of Master of Business Administration, School of Business University of Nairobi. It has not been submitted before any degree or examination in any other university.

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ACRONYNS AND ABBREVIATIONS

ACH	-	Automated Clearing House
ATM	-	Automated Teller Machine
CBK	-	Central Bank of Kenya.
DFID	-	Department of International Development
EFT	-	Electronic Funds Transfer
IT	-	Information Technology
KEPSS	-	Kenya Electronic Payments and Settlement System
MICR	-	Magnetic Ink Character Recognition
MVNO	-	Mobile Virtual Network
NSE	-	Nairobi Securities Exchange
R&D	-	Research & Development
ROE	-	Return on Equity
ROA	-	Return on Assets
ROI	-	Return on Investment
RTGS	-	Real Time Gross Settlement
USA	-	United States of America

ABSTRACT

Current and future challenges and opportunities facing business organizations are in the fields of sustainable development; e-Commerce; and new product development. One way to achieve growth and sustain performance is to foster and encourage creativity and innovative practices internally within the organization. Naturally, there must be a commitment from senior management to facilitate this kind of innovative working environment. This study was aimed at determining the relationship between innovation strategies and financial performance of commercial banks in Kenya. The study was descriptive research design for it portrays an accurate profile of situations. The population of this study consisted of 43 commercial banks in Kenya. The study used a questionnaire to collect the required data. A questionnaire consisted of list of structured questions, un-structured questions and Likert rating scales relating to the field of inquiry with space provided for selection of choices and explanatory answers. The collected data was well examined and checked for completeness and comprehensibility. The data was then summarized, coded and tabulated. Descriptive statistics such as means, standard deviation and frequency distribution were used to analyze the data. The study concludes that firm size affect the rate of future organizational change, and firm profitability to a very great extent. Also the study concludes that most of the banks uses; product improvement, new product introduction, and product replacement to a great extent as product innovation strategies. Further the study concludes that most of the banks uses new products introduction and improved innovation process. In addition, the study concludes that most of the banks use customer satisfaction and retention and availability of resources and capabilities as their marketing innovation strategies

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The ability to innovate is increasingly viewed an important factor in developing and sustaining competitive advantage (Tidd, 2001). It is no longer adequate to do things better; it's about "doing new and better things. Much emphasis has been placed on building innovative organizations and the management of the innovation process, as essential elements of organizational survival (Brown, 1997).

Innovations arise due to several reasons. Gorton and Metrick (2010) summarize the reasons behind the growth of modern financial innovation as; reduction in bankruptcy costs, tax advantages, reduction in moral hazard, reduced regulatory costs, transparency and customization. Highly turbulent environment leads to successful innovation creating a unique competitive position and competitive advantage and lead to a superior performance (Roberts and Amit, 2003). This can only be maintained by ceaseless innovation and improvement of the product and the process (Porter, 2004).According to Ignazio (2007), financial innovation has not only opened up new opportunities for the sector participants, but also increased new market players arising from new products in the financial market.

One way to achieve growth and sustain performance is to foster and encourage creativity and innovative practices internally within the organization. Naturally, there must be a commitment from senior management to facilitate this kind of innovative working environment. Drucker (1985) defined innovation as the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or service. It is capable of being presented as a discipline, capable

of being learned, and capable of being practiced. Betz (1997) assumed that innovation is to introduce a new or improved product, process, or service into the marketplace.

Schumpeter (1934) argued that organization should innovate in order to renew the value of their asset endowment. The term innovation may not have been used extensively, processes that are associated with innovation and economic and technological change were perceived as being important (Schumpeter, 1934). Zahra and Covin (1994) suggest that Innovation is widely considered as the life blood of corporate survival and growth.

1.1.1 Innovation Strategy

Innovation is concerned with exploration of new technology and is fundamentally different from incremental innovation that is concerned with exploitation of existing technology. Radical innovation is a product, process, or service with either unprecedented performance features or familiar features that offer potential for significant improvements in performance and cost. It creates such a dramatic change in processes, products, or services that they transform existing markets or industries, or create new ones (Barney, 1991). Roger (1983) defines innovation as sometimes used in a limited sense to refer only to inventions of products, services, or administrative procedures that no other firm has introduced.

Innovation strategy directing the innovation process was documented by Griffin (1997) and Cooper, Scott, and Kleinschmidt (2002). Innovation strategy gives a clear direction and concentrates the effort of the whole organization on a common innovation end. Currently, most of the firms are adopting products innovations, process innovations, market innovations and stimulus innovations and these innovation strategies should specify how the significance of innovation will be

communicated to all the employees to attain their buy-in and must openly reflect the significance that management places on innovation. The management of high performing institutions was tangibly and visibly committed to new product development and overtly formulated and communicated the institution's new product development strategy (Bessant and Francis, 1999).

According to Tufano (2002), financial innovation is the act of creating and then popularizing new financial instruments as well as new financial technologies, institutions, and markets. According to Lawrence (2010), financial Innovation involves the design, the development and the implementation of innovative financial instruments and processes, and the formulation of creative solutions to problems in finance. Beaver (2002), believes that innovation is an essential element for economic progress of a country and competitiveness of an industry.

Innovation is also considered as an effective way to improve firm s productivity due to the resource constraint issue facing a firm (Lumpkin and Dess, 1996). According to Ignazio (2007), financial innovations can be grouped as new products (e.g., adjustable rate mortgages; exchange-traded index funds); new services (e.g., on-line Securities trading; Internet banking); new "production" processes (e.g., electronic record-keeping for securities; credit scoring); or new organizational forms (e.g., a new type of electronic exchange for trading securities; Internet-only banks). Financial innovation has not only opened up new opportunities for the sector participants, but also increased new market players arising from new products in the financial market (Noyer, 2007).

Other innovations in banking and financial sector are RTGS, EFT, ACH, MICR, Retail Banking free advisory services, implementation of standing instructions of

customers, payments of utility bills, fund transfers, internet banking, telephone banking, mobile banking, selling insurance products, issue of free cheque books, travelers cheques and many more value added services across the same industry or to compare industries or sectors in aggregation (CBK report, 2013).

1.1.2 Financial Performance

Financial performance measures how well a firm is generating value for the owners. It can be measured through various financial measures such as profit after tax, return on assets (ROA), return on equity (ROE), earnings per share and any market value ration that is generally accepted. Generally, the financial performance of banks and other financial institutions has been measured using a combination of financial ratios analysis, benchmarking, measuring performance against budget or a mix of these methodologies (Ahmad et al; 2011). The financial statements of financial institutions commonly contain a variety of financial ratios designed to give an indication of the corporation's performance. Simply stated, much of the current bank performance literature describes the objective of financial organizations as the earning acceptable returns and minimizing the risks taken to earn return (Alam et al; 2011). There is a generally accepted relationship between risk and return, that is, the higher the risk the higher the expected return. The traditional measures of bank performance have measured both risks and returns.

External parties normally evaluate a firms' ability based on its performance (Bonn, 2000). This implies why performance is like a mirror to a firm. The level of goal accomplishment generally defines a firm s performance (Achrol and Etzel, 2003). Firm performance is the outcomes achieved in meeting internal and external goals of a firm (Lin et al., 2008). As a multidimensional construct, performance has several names, including growth, survival, success and competitiveness. The concept of firm

growth was introduced in the early 1930s known as the Law of Proportionate Effect (sometimes called Gibrat's rule of proportionate growth). The Law of Proportionate Effect is frequently used as a benchmark for many studies to determine business growth. Gibrats (1931) explains a firm s growth rate does not depend on the size of a firm.

Firm performance is a multidimensional construct that consists of four elements (Alam et al. 2011). Customer-focused performance, including customer satisfaction, and product or service performance; financial and market performance, including revenue, profits, market position, cash-to-cash cycle time, and earnings per share; human resource performance, including employee satisfaction; and organizational effectiveness, including time to market, level of innovation, and production and supply chain flexibility.

Using organizational goals as a basis, different methods are adopted by different firms to measure their performance. This performance indicator can be measured in financial and non-financial terms (Bagorogoza and Waal, 2010; Bakar). Most firms' prefer to adopt financial indicators to measure their performance (Grant et al, 1988). Return on assets (ROA), average annual occupancy rate, net profit after tax and return on investment (ROI) are the commonly used financial or accounting indicators by firms (Tavitiyaman et al., 2012).

Some other common measures are profitability, productivity, growth, stakeholder satisfaction, market share and competitive position (Bagorogoza and Waal, 2010). However, financial elements are not the only indicator for measuring firm performance. It needs to combine with non-financial measurement in order to adapt to the changes of internal and external environments (Krager and Parnell, 1996).

Supporting this opinion, Rubio and Aragon (2009) divided business performance into four dimensions, that is internal process, open system, rational goal and human relations, where each dimension is measured by any changes in its own variables.

1.1.3 Innovation Strategies and Financial Performance

Studies from the early period of research on innovation have typically reported a positive relationship between innovation and measures of firm performance. In a new generation of models studying the impact of innovative activities on firm performance, the focus has shifted to the complex innovation process and channels through which the innovation inputs are transformed into better performance (Loof; et al., 2006; Kemp; et al., 2003).

The significance of financial innovation is described by Roberts and Amit (2003) as a means leading to a competitive advantage and superior financial performance. As revealed in many studies, financial innovation and firm financial performance have a positive relationship (for examples Zahra and Das, 1993; Calantone et al., 1995; Han et al., 1998). Innovation would appear in product, process, market, factor and organization (Kao, 1989), but the first three dimensions are more familiar in the innovation literature (Johne and Davies, 2000; Otero-Neira et al., 2009).

Innovation generally does seem to have positive effects in raising financial performance of innovators (Boot & Thakor, 2007). Crepon et al. (1998) used a four-equation model, to link the innovation decision of firms to their performance through the impact of innovation input on innovation output and the innovation output on productivity and better performance. Their findings confirm the positive relationship between innovation activities and productivity at the firm level and provide further evidence on the relationship between size and innovation activities.

1.1.4 Commercial Banks in Kenya

The Banking industry in Kenya is governed by the Companies Act, the Banking Act, the Central Bank of Kenya Act, and the various prudential guidelines issued by the Central Bank of Kenya (CBK). Central Bank of Kenya publishes information on Kenya's commercial banks and non-banking financial institutions, interest rates and other publications and guidelines (CBK, 2011).

The banking sector in Kenya is comprised of 43 commercial banks, two mortgage finance companies, 130 foreign exchange bureaus and fifteen micro finance institutions (CBK, 2012). 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 regulators and governors of 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 liberization of the banking in Kenya.

Today banking is known as innovative banking. Financial innovation associated with technological change has totally changed the banking philosophy and that is further tuned by the competition in the banking industry in Kenya. Challenging business environment within the banking system has created more innovation in the fields of product, process and market. Information technology has given rise to new innovations in the product designing and their delivery in the banking and finance industries. Customer services and customer satisfaction are their prime work. Current banking sector has come up with a lot of initiatives that oriented to providing a better customer services with the help of new technologies. Banking through internet has emerged as a strategic resource for achieving higher efficiency, control of operations and reduction of cost by replacing paper based and labour intensive methods with automated processes thus leading to higher productivity and profitability.

Innovations in the Kenyan banking sector include: increased use of paper money instead of cash. Cheques are the main paper based mode of payment accounting for 48% of non-cash payments. Use of Magnetic Ink Character Recognition (MICR) ensures clearing of cheques speedily and efficiently. The Central Bank of Kenya launched a Real Time Gross Settlement (RTGS) system known as the Kenya Electronic Payments and Settlement System (KEPSS) in July 2005 in an effort to modernize the country s payment system in line with global trends. E credit services e.g M-SHWARI has revolutionized the banking sector.

Opportunities in the banking industry still exist in the next few years with the focus areas being expanding current product offering, increasing product penetration, bringing the unbanked to financial system and capitalizing on the new consumer class by developing innovative services and channels offerings and innovations have been overly underpinned as a tool for enhancing competitive advantage (Rogers, 1995).

The role of innovation orientations on efficiency and cost reductions in the banking sector is paramount to the successful and profitable service delivery in the sector. According to Yasuharu (2003) innovation orientations play a significant role in improving the efficiency of the banking sector as well as reducing the costs of banking transactions for customers. The banking sector has, for the past decade, witnessed various improvements and new innovation orientations with the main purpose of improving the service delivery of the banking sector. A fundamental assumption of much recent research in operations improvement and operations learning has been that innovation orientations has a direct bearing on performance improvements (Bijker et al, 2007). Strategic management in the banking sector demand that banks should have effective systems in place to counter unpredictable events that can sustain their operations and minimize the risks involved through

innovation orientations. Only those organizations that is able to adapt to the changing environment and adopt new ideas and ways of doing business that can be guaranteed hope of survival.

1.2 Research Problem

Current and future challenges and opportunities facing business organizations are in the fields of sustainable development; e-Commerce; and new product development. According to Porter and Stern (1999) has shown the three identified domains above to be of critically important interest to today's governments and many organizations. The power of the innovation capability construct is that it is generally realizable to all these domains, as it relates to the organizational potential to convert new ideas into commercial and community value. Drucker (1998) is very explicit in stating that innovation is work rather than genius; successful innovation requires hard, focused, and purposeful work. The process of innovation in banks can incorporate both incremental and radical change. Incremental innovation produces small continual changes and is often visible in organizations in the form of continuous improvement (Bessant and Caffyn, 1997).Banks consider that the cumulative gains in efficiency are much greater overtime than those, which come from occasional radical changes (Raymond, 1998).However, many of these short-and medium term gains are quickly eroded and absorbed into the industry standard and therefore cannot be depended upon as a prerequisite for survival and growth. The banking industry in Kenya has undergone phenomenal growth over the last decade.

The notable innovations in banking and financial sector include the emergence of RTGS, EFT, ACH, MICR, Retail Banking, free advisory services, implementation of standing instructions of customers, payments of utility bills, internet banking, telephone banking, mobile banking, and many more value added services (CBK

report, 2013). Over the last five years, the banking sector has witnessed a continued upsurge in financial innovations. This can be attributed to the introduction of Value capping , agent banking model , Cheque Truncation System (CTS) , T+1 (cheques clearing in one day) and more recently the Mobile Network Virtual Network (MVNO) which is currently being rolled out .The relationship between the growing investment in technology based bank innovations and bank financial performance in Kenya needs to be studied. There is need to establish whether innovations have contributed to the financial performance of commercial banks in Kenya. This study will therefore seek to fill this knowledge gap by answering the question what is the effect of innovation strategies on performance of commercial banks?

Previous research studies have concentrated on the adoption of innovation strategies adopted by various institutions like banks. Gitonga (2003) carried out the research on innovation processes and the perceived role of the CEO in the banking industry while Odhiambo (2008) studied innovation strategies at the Standard Chartered Bank (Kenya) Limited. There is no known study that has focus on extent determining effects of innovation strategies on performance of commercial bank in Kenya.

1.3 Research Objective

This study was aimed at determining the relationship between innovation strategies and financial performance of commercial banks in Kenya.

1.4 Value of the Study

This research will contribute to the enhancement of financial innovation theory. The study's results on the influence of financial innovation on performance of commercial banks will provide strong empirical evidence on the ongoing debates on the sustainability of the firm's performance in face of stiff competition and high regulation. By demonstrating that the market, production and financial performance

have strong positive relationship with financial innovation, the results will provide point of reference to support the argument that financial innovation buffers financial performance.

The study's findings will be of great significance to the government, policy makers and industry players. By demonstrating that financial innovation accounts for a high proportion of the organizational performance, the results will compel the policy makers to realign their strategies. The study s findings will be a point of reference for the government policymakers in formulating solid, broad and balanced policies that lay foundation for financial innovation.

The policies will enhance global competitiveness of the country, resilient economy and attainment of essential national goals. To the industry players, policies formulated will enhance stability, growth and performance in the banking sector. The research findings will be of significance to the management practice.

The findings will demonstrated whether that strategic innovation is a major driver of organizational performance. The findings will enable an organization to achieve a comprehensive growth through financial innovation along all the organizational performance dimensions. By therefore relying on these findings, the management can embrace desirable financial innovations that will steer organizations to greater performance.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter presents discussion of the relevant literature to the study. This chapter is divided into smaller section which include; Theoretical and Empirical reviews.

2.2 Theoretical Review

The literature on innovation is extensive, covering a wide range of topics, with increasing attention paid to neglected forms of innovation (e.g. organizational innovation) and locations of innovation (e.g. service industries). Innovation studies have traditionally been dominated by industrial economists and geographers but there appears to be a trend towards cross-disciplinarily, since understanding the processes and outcomes of innovation requires analysis from many angles. Still, the study of innovation is weighted toward the market sectors of the economy, with less attention to innovation in public services (despite a blizzard of research into e-government and e-health) and less still to voluntary organizations and communities as sources and users of innovation (Nugroho and Miles,2009).

Tufano (2003) provides an excellent survey of the literature on financial innovation. The standard explanation for financial innovation is that it helps correct some kind of market inefficiency or imperfection. For example, if markets are incomplete then financial innovation can improve opportunities for risk sharing. If there are agency conflicts, then new types of security can improve the alignment of interests. Other important motivations for financial innovation are to lower taxes or to avoid the impact of regulations. Since both issuers and buyers must benefit from an innovation

for it to be successfully introduced, the traditional view of financial innovation has been that it is desirable.

2.2.1 Diffusion of Innovation Theory

According to Lieberman and Montgomery (1988), inventions are by definition, only introduced by one firm, or at most by a small handful of firms that bring a new product or service to market simultaneously. Companies that succeed in commercializing an invention are sometimes known as first movers. If an invention involves proprietary technology then the first firm to obtain the patent or copyright wins the exclusive right to market the product.

Chandler (1990), states that preemption of scarce assets can sometimes provide an advantage to one or a few first movers that will not be available to those that adopt the innovation later. According to Rogers, (1983), the creation of buyer switching costs can also provide an advantage to one or a few first movers that are denied to followers. Firms seeking to gain one or another of these advantages are sometimes referred to as first movers. Those that do not aim for invention, but innovate by adopting an invention that appears to be a winner, can be said to be late movers. Even if an innovation is clearly incremental rather than radical, the first mover is introducing or seeking change to a greater degree than the late mover, who waits until an invention no longer seems new to the market or the industry before adopting it (Tushman and Anderson, 1986).

Both supply and demand side factors influence the decision to adopt. From the demand perspective, there is some consumer demand for this facility. On the supply side, protection of reputation, competition, cost savings, mass customization, enhancement of marketing and communication activities, and retention and attraction

of consumers have been cited as influential factors on the diffusion of Internet depositing (Daniel and Storey, 1997).

2.2.2 Schumpeter Theory of Innovation

Schumpeter (1934) argued that entrepreneurs, who could be independent inventors or R&D engineers in large corporations, created the opportunity for new profits with their innovations. In turn, groups of imitators attracted by super-profits would start a wave of investment that would erode the profit margin for the innovation. However, before the economy could equilibrate a new innovation or set of innovations, conceptualized by Schumpeter (1934) as Kondratiev cycles, would emerge to begin the business cycle over again. Schumpeter (1934) emphasized the role of entrepreneurship and the seeking out of opportunities for novel value generating activities which would expand and transform the circular flow of income, but it did so with reference to a distinction between invention or discovery on the one hand and innovation, commercialization and entrepreneurship on the other. This separation of invention and innovation marked out the typical nineteenth century institutional model of innovation, in which independent inventors typically fed discoveries as potential inputs to entrepreneurial firms. The author further saw innovations as perpetual gales of creative destruction that were essential forces driving growth rates in a capitalist system. Schumpeter s thinking evolved over his lifetime to the extent that some scholars have differentiated his early thinking where innovation was largely dependent on exceptional individuals/entrepreneurs willing to take on exceptional hazards as an act of will.

2.2.3 Theory of Imperfect/Asymmetric Information

Markets are imperfect, according to this paradigm, because the ultimate parties who operate in the markets have insufficient information to conclude a transaction by

themselves. Thus, to summarize, according to the modern theory of financial intermediation, financial intermediaries are active because market imperfections prevent savers and investors from trading directly with each other in an optimal way. The most important market imperfections are the informational asymmetries between savers and investors.

Financial intermediaries, banks specifically, fill – as agents and as delegated monitors. Information gaps between ultimate savers and investors. This is because they have a comparative informational advantage over ultimate savers and investors. They screen and monitor investors on behalf of savers. This is their basic function, which justifies the transaction costs they charge to parties. They also bridge the maturity mismatch between savers and investors and facilitate payments between economic parties by providing a payment, settlement and clearing system. Consequently, they engage in qualitative asset transformation activities. To ensure the sustainability of financial Intermediation, safety and soundness regulation has to be put in place. Regulation also provides the basis for the intermediaries to enact in the production of their monetary services.

2.3 Determinants of Financial Performance of Commercial Banks

The determinants of bank performances can be classified into bank specific (internal) and macroeconomic (external) factors (Al-Tamimi, 2010). These are stochastic variables that determine the output. Internal factors are individual bank characteristics which affect the banks performance. These factors are basically influenced by internal decisions of management and the 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.

2.3.1 Size

Kenya in the last two decade has been improving. However, this doesn't mean that all banks are profitable, there are banks declaring losses (Oloo, 2010). Studies have shown that bank specific and macroeconomic factors affect the performance of commercial banks (Flamini et al. 2009). In this regard, the study of (Olweny, 2011) in Kenya focused on sector-specific factors that affect the performance of commercial banks. Yet, the effect of macroeconomic variables was not included. Moreover, to the researcher's knowledge the important element, the moderating role of ownership identity on the performance of commercial banks in Kenya was not studied. Thus, this study was conducted with the intention of filling this gap. Bank Specific Factors/Internal Factors the internal factors are bank specific variables which influence the profitability of specific bank. These factors are within the scope of the bank to manipulate them and that they differ from bank to bank. These include capital size, size of deposit liabilities, size and composition of credit portfolio, interest rate policy, labor productivity, and state of information technology, risk level, management quality, bank size, ownership and the like: Product innovation, management efficiency, earnings ability and liquidity.

2.3.2 Product Innovation

Different terminologies have been used to describe product development. Crawford (1983) for example, embraces two distinct activities: old product development, which involves updating and improving existing products, and new product development, which involves a greater degree of innovational challenge. Meyer (1996) similarly categorized product development into primary and secondary innovations. Primary innovations were broadly concerned with the development of new markets and relate to instances where there is a high degree of technical and a commensurate change in

consumer behavior. Secondary innovations, on the other hand, are basically business or company focused and typically involve improvements to an existing market (Gaynor, 2002).

According to Storey and Easingwood, (1998), product innovation provides the most obvious means for generating revenues. Process innovation, on the other hand, provides the means for safeguarding and improving quality and also for saving costs. Improved and radically changed products are regarded as particularly important for long-term business growth. The power of product innovation in helping companies retain and grow competitive position is indisputable. Products have to be updated and completely renewed for retaining strong market presence

2.3.3 Process Innovation

According to Cumming (1998) process innovation embraces quality function deployment and business process reengineering. An efficient supplier who keeps working on productivity gains can expect, over time, to develop products that offer the same performance at a lower cost. Such cost reductions may, or may not, be passed on to customers in the form of lower prices (Constable and McCormick, 1987).

Process innovation is important in both the supply of the core product as well as in the support part of any offer. Both components of an offer require quality standards to be met and maintained. In the case of services, which by their very nature rely on personal interactions to achieve results, the management of process innovation is a particularly challenging activity (Johne and Storey, 1998).

2.3.4Market Innovation

Market innovation is concerned with improving the mix of target markets and how chosen markets are best served. Its purpose is to identify better (new) potential markets; and better and new ways to serve target markets. Market segmentation, which involves dividing a total potential market into smaller more manageable parts, is critically important if the aim is to develop the profitability of a business to the full. Incomplete market segmentation will result in a less than optimal mix of target markets, meaning that revenues, which might have been earned, are misread (Kimberly, 1981).

It is the prime responsibility of marketing specialists to provide such insights. Sometimes this responsibility is seen to cover solely the identification of present and future geographical market opportunities. A very wide range of possible criteria exists for segmenting, stretching from objective criteria based on demographic data through to subjective criteria based on life style interpretations of consumer and business buying behavior (Anderson, 1996).

2.4 Empirical Literature Review

The significance of financial innovation is widely recognized. Many leading scholars, including Miller (1986) and Merton (1992), have highlighted the importance of new products and services in the financial arena. Empirically, Tufano (2002) showed that of all public offerings in 2000, 18% (on a dollar-weighted basis) consisted of securities that had not been in existence in 1994. These innovations are not just critical for firms in the financial services industry, but also impact other companies: for instance, enabling them to raise capital in larger amounts and at a lower cost than they could otherwise.

Nader (2011) analyzed the profit efficiency of the Saudi Arabia Commercial banks during the period 1998- 2007. The results of his study indicated that availability of phone banking, number of ATMs and number of branches had a positive effect on profit efficiency of Saudi banks. On the contrary he found that the number of point of sale terminals (POSs).

Innovation in the financial sector is key to financial inclusion according to a review on Kenyan mobile financial services (Njuguna, 2011). In Kenya, mobile banking services have been the landmark of financial innovation. The Department of International Development (DFID) gave Vodafone a grant of £1 million. This funded Safaricom (the network affiliated with Vodafone in Kenya) to create a competitive financial service, that ultimately brought 12 million people into formalized financial markets. Kagan et al (2005) in their study on whether internet banking affects the performance of community banks found that banks that provide extensive online banking services tend to perform better. They further found out that online 45 banking helps community banks improve their earning ability as measured by return on equity and improved Product innovation by reducing the proportion of overdue and underperforming assets.

Shirley and Sushanta (2006) studied the impact of information technology on the banking industry and analyzed both theoretically and empirically how information technology related spending can affect bank profits via competition in financial services that are offered by the banks. Using a panel of 68 US banks for a period of over 20 years to estimate the impact of IT on profitability of banks, they found out that though IT might lead to cost saving, higher IT spending can create network effects lowering bank profits. They further contend that the relationship between IT expenditures and banks financial performance is conditional to the extent of network

effect. They say that if network effect is too low, IT expenditures are likely to; reduce payroll expenses, increase market share, and increase revenue and profit.

Mwangi (2007) carried out a study on factors influencing innovation of companies listed of the Nairobi Securities Exchange. The findings concluded that the laws protecting investors was the major factor influencing financial innovation. He also observed that. The absence of automated trading system as a technical factor was found to have influence on innovation. In addition, he postulated that financial competition and integration had an influence on financial innovation with increased financial competition amongst financial institution influencing innovation the most.

Githikwa (2009) carried out a study on the relationship between financial innovation and profitability of commercial banks in Kenya. The findings concluded that banks conceptualize financial innovation as a means to create impact in the profit performance. In addition, the study revealed that implementation of financial innovation requires more banks to have a great deal of resources and reduce costs of operations, reduce cost per transaction and equally enable banks to satisfy the customer needs. Implementing product, process and institutional innovation makes the commercial banks to become more flexible in their operations and it leads to acquisition of qualified personnel in the bank, quality products and allows bank expansion.

Waweru (2012) carried out a study on the effects of financial innovation on risk management of commercial banks in Kenya. The study concluded that financial innovations have exposed commercial banks in Kenya to various risks e.g. credit risks, liquidity risk, interest rate risk, country risk, compliance risk and reputational risks. All of these risks should therefore inform overall risk management of

institutions through realistic risk index factors at any period. The researcher recommended a more robust risk mitigation practices and policies to ensure that all elements of risks are captured in the risk index factors of commercial banks.

Mwangi (2013) carried out a research on Innovations and financial performance in the financial industry in Kenya. The findings revealed that bank innovations had statistically significant influence on income, return on assets, profitability and customer deposits of commercial banks in Kenya and tests for significance also showed that the influence statistically significant. The findings also revealed that mobile phones had a higher moderating effect than internet services on the bank innovations when influencing financial performance of commercial banks in Kenya. Based on the findings of the study, the researcher concluded that bank innovations influence financial performance of commercial banks in Kenya positively.

2.5 Summary of Literature Review

From reviewed relevant literature, it has come out strongly from several studies (Walker, 2004: Damanpour and Subramanian & Nilakanta, 1996) indicate that innovations have positive impact on performance indicators. They have agreed on the transformational effects of innovations on bank performance and operational efficiency. However other scholars (Capon, 1990 and Chandler & Hanks, 1994) found out that innovations have negative effects on performance indicators. These mixed results and alternative views from different countries and writers are mainly as a result of lack of comprehensive analysis of multiple innovations and performance indicators. There is concentration of innovation-performance studied on profitability and mostly in developed and emerging economies leaving a paucity of innovation performance literature for Africa and Kenya specifically. This literature gap will be addressed by this comprehensive study.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter discussed the methodology that the research used to carry out the study and collect data. It also discussed the research design, the target population, sample and sampling procedures, data collection instrument and data procedure, analysis and preservation of data.

3.2 Research Design

The study was descriptive research design for it portrays an accurate profile of situations. According to Kothari (2008) this is a design used to describe the characteristics of a particular phenomenon in a situation. The study employed descriptive research design because it portrays an accurate profile of situations (Cooper, 1999). This was designed to describe the characteristics of a particular phenomenon in a situation. It was used to obtain information concerning the current status of the industry, to survey what exits with respect to the conditions in a situation.

The design helps the researcher to obtain information concerning the current status of the strategies being used by the sector and thus relate it to the objective of the research and therefore make it relevant to the research question. The design helped the study in obtaining information concerning the current status of the effects of innovation strategies on performance in commercial banks in Kenya.

3.3 Population

The target population is defined as the collection of elements or objects that possess the information sought by researchers. The population of this study consisted of 43

commercial banks in Kenya. (see Appendix II). The study period covered five year period (2010-2014).

3.4 Data Collection Method

The study used a questionnaire to collect the required data. (see appendix I) A questionnaire consist of list of structured questions, un-structured questions and Likert rating scales relating to the field of inquiry with space provided for selection of choices and explanatory answers. Close ended questions has the advantage of collecting viable quantitative data while open-ended questions allows the respondents freedom of answering questions and the chance to provide in-depth responses. Questionnaire method is preferred because it is efficient, cheap and easy to be administered. The questionnaires were administered through drop and pick to identify respondents with a brief explanation on their purpose and importance. The respondents for this study were senior bank managers from each of commercial banks making a total of 43respondents.

3.5 Data Analysis

The collected data was well examined and checked for completeness and comprehensibility. The data was then summarized, coded and tabulated. Descriptive statistics such as means, standard deviation and frequency distribution were used to analyze the data. Data presentation was done by the use of pie charts, bar charts and graphs, percentages and frequency tables. This ensured that the gathered information was clearly understood by describing the situation. The qualitative data was analyzed using content analysis and finding presented in prose form.

3.5.1 Analytical Model

Regression model was used to establish the relationship between the variables. Multiple regression models were used in this study as it allows simultaneous investigation of the effect of two or more variables (Zikmund, 2003). The model established the relationship between innovation strategies and financial performance. In regression terminology, the variable that is predicted is called dependent variable while the variable used to predict the value of dependent variable is called independent variable. In this study, dependent variable was financial performance while independent variables were product innovation, process Innovation, and market Innovation. For the variables in this study, an average was computed for each year and then simple average for all 5 years was computed. The equation representing the algebraic expression of multiple regression model of the form below was applied;

Financial Performance = (Innovation strategies)

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 \varepsilon$

Where;

Y = Financial Performance which was the dependent variable measured by ROA

ε = Constant which defines long term interest rate without inclusion of independent variables

Independent variables were,

X_2= Product innovation measured by question 6

X_3= Process Innovation measured by question 7

X_4= Market Innovation measured by question 8

While the moderating variable was,

X_1= Size measured by the log (Total Asset)

e = Error Term 1 -K Regression coefficients- define the amount by which Y is changed for every unit change in independent variable.

The values of X_2 to X_4 were calculated from the mean score response on each likert scaled data. The mean score was thus obtained for the respective variable. These values were then utilized for regression analysis. The value of Y (Financial Performance) was an average for the five year period.

3.5.2 Test of Significance of the Model

The test of significance helps us to decide whether we can reject the null hypothesis, (Mugenda & Mugenda 2003). An independent variable is said to be a significant predictor of the dependent variable if the absolute t-value of the regression coefficient associated with that independent variable is greater than the absolute critical t-value. Regression analysis also yields an F-statistics and its probability level. The F-statistics tells the researcher whether one or more of the independent variables significantly predicts the dependent variable at the selected probability level. The researcher examined the t-values for each independent variable and their probability levels to determine which of the independent variables are significant predictors of the dependent variable.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter entails analysis and findings of the study as set in the research objectives and methodology. The study findings are presented on the effect of innovation strategies on the financial performance of commercial banks in Kenya.

4.2 General Characteristics

4.2.1 Category of the bank as per CBK guidelines

The study sought to establish from the respondents about the category of the bank as per CBK guidelines. Study findings are as shown in figure 4.1 below

Table 4.1: Category of the bank as per CBK guidelines

Bank	Frequency	Percentage
Locally owned	35	53.0
Foreign Owned	23	34.8
Government Owned	8	12.1
Total	66	100.0

Based on the findings in table 4.1 above, most of the respondents53% (35)indicated that most of the banks are locally owned, 34.8% (23)indicated that they are foreign owned while the remaining 12.1% (8) indicated that they are government owned. This implies that most of the banks are locally owned.

4.3 Size influence on financial performance

The study sought to establish the extent to which Size qualities influence the financial performance in the banks. The respondents were asked to indicate the extent to which they agreed with statements in relation to this. The responses were placed on the five likert scale where 1= no extent; 2= a little extent; 3= moderate; 4 = great extent; and 5= very great extent

Table 4.2: Size influence on financial performance

	Mean	Std. Deviation
Firm size affects the rate of future organizational change	4.1860	.98212
Firm size influence firm profitability.	4.1860	.82392
Large firm can get a better interest rate and also a better discount rate due to a large quantity that it buys	3.3721	1.02407
Firms size affects credit portfolio	3.4186	1.11766
Firms size affects deposit liabilities	3.7674	1.30634

Based on the findings in Table 4.1 Above, most of the respondents agreed to a verygreat extent that firm size affect the rate of future organizational change, and firm profitability (Mean=4.1860) respectively. Firms size affects deposit liabilities (Mean=3.7674, Firms size affects credit portfolio (Mean=3.4186), and that Large firm can get a better interest rate and also a better discount rate due to a large quantity that it buys (Mean=3.3721). This implies that firm size affect the rate of future organizational change, and firm profitability to a very great extent.

4.4 Product Innovation

The study sought to establish the extent to which product innovation influence the financial performance in the banks. The respondents were asked to indicate the extent to which they agreed with statements in relation to this. The responses were placed on the five likert scale where 1= no extent; 2= a little extent; 3= moderate; 4 = great extent; and 5= very great extent

Table 4.3: Product Innovation

	Mean	Std. Deviation
Product improvement	3.6977	1.03590
Product range extension	3.5349	1.18219
Product costs revision/improvement	3.5349	1.16187
Product replacement	3.5814	.93178
New product introduction	3.6512	.97306
Product repositioning	3.4186	1.41812

According to the findings in table 4.2 above, most of the respondents agreed to a great extent that their banks uses; product improvement (mean=3.6977), new product introduction (mean=3.6512), product replacement (mean=3.5814), product range extension, and product costs revision/improvement (mean=3.5349). Respondents also indicated that their banks used product repositioning (mean=3.4186). This implies that, most of the banks uses; product improvement, new product introduction, and product replacement to a great extent.

4.5 Process Innovation

The study sought to establish the extent to which process innovation influence the financial performance in the banks. The respondents were asked to indicate the extent to which they agreed with statements in relation to this. The responses were placed on the five likert scale where 1= no extent; 2= a little extent; 3= moderate; 4 = great extent; and 5= very great extent

Table 4.4: Process Innovation

	Mean	Std. Deviation
Reduction of costs	3.6977	1.01266
Improved innovation process	3.8837	1.07370
Conformance to regulations	3.2558	1.19708
New products introduction	3.9070	1.21133

According to the findings in table 4.3 above, most of the respondents agreed to a very great extent that their banks uses; new products introduction (mean=3.9070), and improved innovation process (mean=3.8837). In addition, the respondents agreed to a great extent that their banks uses reduction of costs (mean=3.6977), and conformance to regulations (mean=3.2558). This implies that most of the banks uses new products introduction and improved innovation process

4.6 Market Innovation

The study sought to establish the extent to which market innovation influence the financial performance in the banks. The respondents were asked to indicate the extent to which they agreed with statements in relation to this. The responses were placed on

the five likert scale where 1= no extent; 2= a little extent; 3= moderate; 4 = great extent; and 5= very great extent.

Table 4.5: Market Innovation

	Mean	Std. Deviation
Creating value through pricing	3.7907	1.22587
Availability of resources and capabilities	3.8837	.87856
Customer satisfaction and retention	3.9535	.95002
To products entry into new markets	3.0698	1.09968
Environmental analysis and response to changes	3.2558	1.32904
Aggressive anti competitors marketing campaigns	3.4419	1.36804

According to the findings in table 4.4 above, most of the respondents agreed to a very great extent that customer satisfaction and retention (mean=3.9535), and availability of resources and capabilities (mean=3.8837). In addition, the respondents agreed to a great extent that their bank uses marketing innovation of creating value through pricing (mean=3.7907, Aggressive anti competitors marketing campaigns (mean=3.4419), Environmental analysis and response to changes (mean=3.2558 and to products entry into new markets (mean=3.0698). This implies that most of the banks use customer satisfaction and retention and availability of resources and capabilities as their marketing innovation strategies

4.7 Regression Analysis

The researcher further conducted a multiple regression analysis in order to test the

effect of innovation strategies on the financial performance of commercial banks in Kenya. Statistical package for social sciences (SPSS) was used to code, enter and compute the measurements of the multiple regressions for the study.

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (financial performance) that is explained by all the four independent variables (size of the bank, product innovation, process innovation and market innovation).

4.7.1 Model Summary

The coefficient of determination (R Square) is used to test the goodness-of-fit of the model. That is, R Square measures the proportion or percentage of the total variation in the dependent variable explained by the independent variable. The value of R Square lie between 0 and 1 and if R Square value is 1 the there is a perfect fit while R Square value 0 indicates that there is no relationship between dependent and independent variables. The four independent variables that were studied, explain only 97% of the financial performance as represented by the R^2. This therefore means that other factors affecting financial performance not studied in this research add up to 3 %.

Table 4.6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.985[a]	.970	.969	.121

Source: Research Data (2015)

a. Predictors: (Constant), firm size, product innovation, process innovation and market innovation

4.7.2 ANOVA Results

The probability value (p-value) of a statistical hypothesis test is the probability of getting a value of the test statistic as extreme as or more extreme than that observed by chance alone, if the null hypothesis H_0 is true. The p-value is compared with the actual significance level of the test and, if it is smaller, the result is significant. The smaller it is, the more convincing is the rejection of the null hypothesis.

The significance value is 0.000 which is less that 0.05 thus the model is statistically significance in predicting the relationship between (size of the bank, product innovation, process innovation and market innovation) and financial performance of commercial banks in Kenya. The F critical at 5% level of significance was 311.364. Since F calculated is greater than the F critical (value = 2.81), this shows that the overall model was significant.

Table 4.7: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.223	4	3.05575	6.909293	3.04066E-05
	Residual	92.876	210	0.442267		
	Total	105.099	214			

Source: Research Data (2015)

a. Dependent Variable: Return on Assets.

b. Predictors: (Constant), firm size, product innovation, process innovation and market innovation.

4.7.3 Coefficient of Determination

Table 4.8: Coefficient of determination

Coefficient[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.77	0.451		8.359202	8.66E-15
	Size of the bank	0.463	0.079	0.126	5.860759	1.76E-08
	Product innovation	0.782	0.121	0.146	6.46281	7.06E-10
	Process Innovation	0.473	0.073	0.045	6.479452	6.44E-10
	Market Innovation	0.532	0.073	0.142	7.287671	6.29E-12

Source: Research Data (2015)

a. Dependent Variable: Return on assets

Multiple regression analysis was conducted as to determine the effect of innovation strategies on the financial performance of commercial banks in Kenya. As per the SPSS generated table above, the equation (**$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \varepsilon$**) becomes:

$Y= 3.77+ 0.463X_1 +0.782X_2+ 0.473X_3+ 0.532X_4$

Whereby

Y presented financial performance the depended variable,

β0 is a constant term,

X1-Size of the bank represents moderating variable

X2-Product innovation

X3- Process Innovation and

X4-Market Innovation is the independent variables and ε is the disturbance term.

According to the regression equation established, taking all factors into account (size of the bank, product innovation, process innovation and market innovation) constant at zero, performance rating would be 3.77. The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in size of the bank will lead to a 0.463 increase in financial performance; a unit increase in Product innovation will lead to a 0.782 increase in financial performance, a unit increase in Process Innovation will lead to a 0.473 increase in financial performance, and a unit increase in Market Innovation will lead to a 0.532 increase in financial performance. This infers that product innovation contribute most to the financial performance followed by process Innovation

4.8 Summary and Interpretations of Findings

This implies that firm size affect the rate of future organizational change, and firm profitability to a very great extent. Similarly, Studies have shown that bank specific and macroeconomic factors affect the performance of commercial banks (Flamini et al. 2009). In this regard, the study of (Olweny, 2011) in Kenya focused on sector-specific factors that affect the performance of commercial banks. Yet, the effect of macroeconomic variables was not included. Moreover, to the researcher's knowledge the important element, the moderating role of ownership identity on the performance of commercial banks in Kenya was not studied. Thus, this study was conducted with the intention of filling this gap. Bank Specific Factors/Internal Factors the internal factors are bank specific variables which influence the profitability of specific bank. These factors are within the scope of the bank to manipulate them and that they differ

from bank to bank. These include capital size, size of deposit liabilities, size and composition of credit portfolio, interest rate policy, labor productivity, and state of information technology, risk level, management quality, bank size, ownership and the like: Product innovation, management efficiency, earnings ability and liquidity.

According to the regression equation established, taking all factors into account (size of the bank, product innovation, process innovation and market innovation) constant at zero, performance rating would be 3.77. The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in size of the bank will lead to a 0.463 increase in financial performance; a unit increase in Product innovation will lead to a 0.782 increase in financial performance, a unit increase in Process Innovation will lead to a 0.473 increase in financial performance, and a unit increase in Market Innovation will lead to a 0.532 increase in financial performance. This infers that product innovation contribute most to the financial performance followed by process Innovation. Evidence from previous studies (Saundres, Lewis and Thornbill (2007), Sekaran (2003) on whether bank innovations influence bank performance showed that there were mixed results based on the operating environment and the level of adoption. In Kenya there is a high level of adoption of innovations in the banking sector. However, the degree at which it influences the profitability of the bank is uncertain. This has concurred with the findings of Zahra and Das, (1993) that concluded that both product and process innovations contributes to performance of an organization. It showed that efficiency in the process reduces cost while investment idea as a product, increases revenue thus the profit figure would be impacted on both ways. However, a study by Ngumi (2013) revealed that the combined effect of bank innovations influenced bank performance positively.

It was clear that sustained competitive advantage depends heavily on the ability of organizations to internalize the benefits of innovative activities. While the vital importance of innovation in today's competitive climate has been widely proclaimed, the banking sector's understanding of innovative behavior in service organizations is not yet fully developed. In Kenya, the adoption of innovations by commercial banks seemed to have evolved since recent years. This is evident by the findings that indicated that innovation is associated with radical technological change that is experienced in the country. However, there was no consensus as to the effect of product and process innovation on banks' profitability levels.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATION

5.1 Introduction

The chapter provides the summary of the findings from chapter four, and it also gives the conclusions and recommendations of the study based on the objectives of the study. The objectives of this study were to determine the relationship between innovations and financial performance of commercial banks in Kenya.

5.2 Summary of the Findings

The study established that firm size affect the rate of future organizational change, and firm profitability to a very great extent as represented by a mean of 4.186. Also the study revealed that deposit liabilities affect firm's size as represented by a mean of 3.767 while credit portfolio affect firm's size as represented by a mean of 3.419. The study also revealed that respondents agreed to a great extent that most of the banks uses; product improvement as represented by a mean of 3.698, new product introduction as represented by a mean of 3.651, product replacement as represented by a mean of 3.581 while product range extension and product costs revision was represented by a mean of 3.535.Further the study established that majority of the respondents agreed that most of the banks uses new products introduction as represented by a mean of 3.91, improved innovation process as represented by a mean of 3.884 and reduction of costs as represented by a mean of 3.698. In addition, the study revealed that most of the respondents agreed that banks use customer satisfaction and retention as represented by a mean of 3.95, availability of resources

and capabilities as represented by a mean of 3.884 and creating value through pricing as represented by a mean of 3.791 as their marketing innovation strategies

The study established that there was a positive strong relationship between the independent variables and the dependent variables as represented by a correlation coefficient of 0.970. The study established that taking all factors into account (size of the bank, product innovation, process innovation and market innovation) constant at zero, performance rating would be 3.77. The data findings analyzed also shows that taking all other independent variables held at a constant zero, a unit increase in size of the bank will lead to a 0.463 increase in financial performance; a unit increase in Product innovation will lead to a 0.782 increase in financial performance, a unit increase in Process Innovation will lead to a 0.473 increase in financial performance, and a unit increase in Market Innovation will lead to a 0.532 increase in financial performance. This infers that product innovation contribute most to the financial performance followed by process Innovation.

5.3 Conclusions

The study concludes that firm size affect the rate of future organizational change, and firm profitability to a very great extent. Also the study concludes that most of the banks uses; product improvement, new product introduction, and product replacement to a great extent as product innovation strategies. Further the study concludes that most of the banks uses new products introduction and improved innovation process. In addition, the study concludes that most of the banks use customer satisfaction and retention and availability of resources and capabilities as their marketing innovation strategies

The study also concludes that all the independent variables (size of the bank, product innovation, process innovation and market innovation) had a positive relationship on financial performance. Product innovation had the greatest effect on financial performance followed by process innovation, size of the bank and finally market innovation. This infers that product innovation contribute most to the financial performance.

5.3 Policy recommendations

The study recommends that the regulator (Central Bank of Kenya) should create an enabling environment that will enhance innovations in the banks so that they realize the full benefits of innovation strategies. Through compliance with the regulations and policies the banks will realize profitability as a result of process, product, market and technology innovations among others which without a proper policy the banks would not operate effectively in the market to realize profits.

From the findings and conclusions in this chapter, the study recommended that for all the commercial banks to earn more profit, increase number of customers, for their business to grow further and also for them to invest more they should embrace the adoption of market innovative strategies.

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

strategies. The power of product innovation in helping companies retain and grow competitive position is indisputable.

Commercial banks should have an effective market research department that should conduct surveys in order to establish the new products by competitors, the advantages and disadvantages of the innovations. This will enable the banks to innovate and help in staying ahead of competition.

The study also recommends that the firms also should ensure that they adapt the new process innovation in order to cope with the fast changing technology. Process innovation encourages ease of flow of information and fast delivery to the intended persons. For efficient adoption of process innovation strategies, there should be reliable infrastructure, enough financial resources; and the staff should be equipped with adequate skills and knowledge on the new technology through regular training in order to ensure that they do not resist the adoption of the new technology in the bank.

5.4 Limitations of the study

Time constraint was experienced as the amount of time available to collect data was limited. This was experienced at central bank data base due to security reasons and having to rely on what CBK had posted on its website.

The study used primary data collection; the data used may have been kept for other purpose as opposed to this research objective.

The study only covered commercial banks in Kenya. Only a sample of financial products was studied. Conclusions could have been different if the whole population was studied.

The researcher opted to use return on equity as a measure of performance, there are many different measures of performances that can be used that could give different conclusions.

5.5 Suggestions for further studies

The study was focused on commercial banks of Kenya; further research can be done in effects of innovations on commercial banks in other countries, For example in Tanzania, Uganda, Ethiopia, Ghana etc.

The study also recommends that another study be done to investigate the factors influencing 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 adopted financial innovation and thus enhancing financial performance.

Another Study should be carried out to find out the challenges faced by commercial banks when implementing the innovation strategies.

Finally, Study should be carried out to find out other factors that influence financial performance of commercial banks. This could include organizational structure and product pricing

REFERENCES

Achrol, R.S. & Etzel, M.J. (2003).The Structure of Reseller Goals and Performance in Marketing Channels. *Journal of the Academy of Marketing Science*. 34(2): 333-373.

Ahmad, H. K., Raza, A., Amjad, W. & Akram, M. (2011).Financial Performance of Finance Companies in Pakistan. *Interdisciplinary Journal of Contemporary Research in Business* 23(1): 102-120.

Alam, H. M., Raza, A. & Akram, M. (2011).Financial Performance of Leasing Sector.The Case of China. *Interdisciplinary Journal of Contemporary Research in Business*42(3): 124-127.

Al-Tamimi, H., Hassan, A. (2010).*Factors Influencing Performance of the UAE Islamic and Conventional National Banks. Department of Accounting, Finance and Economics.* College of Business Administration: University of Sharjah.

Anderson, N.R. (1996).Innovation in Top Management Teams. *Journal of Applied Psychology* 17(4): 36-42.

Athanasoglou, P.P., Sophocles, N.B., Matthaios, D.D. (2005).*Bank-specific, Industry-Specific and Macroeconomic Determinants of Bank Profitability*. Working Paper, Bank of Greece.

Bagorogoza, J. & Waal, A. D. (2010). The Role of Knowledge Management in Creating and Sustaining High Performance Organizations: The Case of

Financial Institutions in Uganda. *World Journal of Entrepreneurship Management and Sustainable Development*. 23(2): 48-62.

Bessant, J.& Francis, D. (1998).Implementing the new Product Development Process. *Technovation Journal* 43(2): 14-19.

Betz, F. (1997).*Managing Technological Innovation: Competitive Advantage from Change.* New York: Wiley

Bijker, W.E., Hughes, T.P, Pinch, T.J. (2007). *The Social Construction of Technological Systems*, MIT Press, Cambridge, MA.

Boot, A. & Thakor, A. (1997).*Banking Scope and Financial Innovation.* Review of Financial. Studies 10, 1099-1131.

Brown, J.S. (1997). *Seeing Differently, Insights on Innovation.* Boston: Harvard Business School Press.

Calantone, R.J., Vickery, S.K. & Droge, C. (1995). Business Performance and Strategic New Product Development Activities: An Empirical Investigation. *Journal of Product Innovation Management*36(4): 211-219.

Capon, N., Farley, J.U., Hoenig, S., (1990). Determinants of Financial Performance: A Meta-Analysis. *Journal of Management Science Central Bank of Kenya (2013),* Annual Reports, Central Bank of Kenya, Nairobi.

Chandler, A. D. (1962). *Strategy and Structure: Chapters in the History of the Industrial Enterprise.* Cambridge, Mass: MIT Press.

Chandler, G.N., Hanks, S.H., (1994). Market Attractiveness, Resource-Based Capabilities, Venture Strategies, and Venture Performance. *Journal of Business Venturing.* 12(3): 114-123.

Cooper R.D., & Schindler P.S., (2003).*Business Research Methods*. London: Tata McGraw – Hill Edition.

Crawford, M. (1983).*New Product Management*. New York: Irvin.

Cumming, B.S. (1998), Innovation Overview and Future Challenges". *European Journal of Innovation Management* 33(4): 116-129.

Damanpour, F. (1991). Organizational Innovation: A Meta-Analysis of Effects of Determinants and Moderators. *Academy of Management Journal*43(1): 124-132.

Dang, U. (2011).*The CAMEL Rating System in Banking Supervision: A Case Study of Arcada University of Applied Sciences*, International Business.

Daniel, E., &Storey, E. (1998).*Who Dares Wins? Online Banking Services and Innovation Types.* Cranfield University, School of Management, Cranfield.

Drucker, P. (1985).*Innovation and Entrepreneurship.* Basingstoke: Macmillan Press.

Flamini, C., Valentina C., McDonald, G. & Liliana, S. (2009).*The Determinants of Commercial Bank Profitability in Sub-Saharan Africa.IMF Working Paper 10.*

Gaynor, G.H. (2002).*Innovation by Design: What it takes to Keep Your Company on The Cutting Edge.* New York: AMACOM American Management Association.

Geroski, P., Machin, S. & Walters, C. (1997).Corporate Growth and Profitability. *Journal of Industrial Economics*36(2): 87-93

Geroski, P.A. (1995). Innovation and Competitive Advantage. *Working Paper No. 159.OECD, Economic Department.*

Gibrat, R. (1931). *Les Inégalitéséconomiques*. Paris: France

Githikwa, P.W. (2011). *The Relationship between Financial Innovation and Profitability of Commercial Banks in Kenya.* Unpublished Master of Business Administration Project, University of Nairobi.

Gitonga, T. (2003).*Innovation Processes and the Perceived Role of the CEO in the Banking Industry.* Unpublished MBA Project, School of Business, University of Nairobi.

Gorton, G. & Metrick, A. (2010).*Securitized Banking and the Run on Repo*.Yale School of Management.

Griffin, A. (1997). PDMA Research on New Product Development Practices: Updating Trends and Benchmarking Best Practices. *Journal of Product Innovation Management.*

Ignazio, V. (2007).*Financial Deepening and Monetary Policy Transmission Mechanism.*BIS Review 124/2007.

Ilhomovich, S.E. (2009).*Factors affecting the Performance of Foreign Banks in Malaysia.* Malaysia: A Thesis Submitted to the Fulfillment of the Requirements for the Degree Master of Science (Banking) College of Business (Finance and Banking.)

Johne, A.&Storey, C. (1998). New Service Development: A Review of the Literature and Annotated Bibliography. *European Journal of Marketing* 32 (4): 243-264.

Kagan, A., Acharya, R. N., Rao, L. S., & Kodepaka, V. (2005).*Does Internet Banking Affect the Performance of Community Banks?* Selected Paper Prepared for Presentation at the American agricultural Economics Association Annual Meeting, Providence, Rhode Island

Kao, J.J. (1991).*The Entrepreneurial Organization*. New Jersey, Prentice-Hall International: Englewood Cliffs.

Kemp, R. G. M., Folkeringa, M., Jong, J. P. J. and Wubben, E. F .M. (2003). Innovation and Firm Performance. *Journal of Management* .27(4): 118-123

Kim, W.C. & Mauborgne, R. (1999).*Strategy, Value Innovation, and the Knowledge Economy.*Sloan Management Review: Spring.

Kimberly, J.R. &Evanisko, M.J. (1981). Organizational Innovation: The Influence of Individual, Organizational, and Contextual Factors on Hospital Adoption of Technological and Administrative Innovations. *Academy of Management Journal* 21(2): 210-223.

Kothari, C.R. (2004).*Research Methodology: Methods and Techniques (2nd Ed).* New Delhi: New age international (P) Limited.

Krager, J. & Parnell, J. A. (1996). Strategic Planning Emphasis and Planning Satisfaction in Small Firms: An Empirical Investigation. *Journal of Business Strategies* 17 (2): 76-89.

Lawrence, J.W. (2010). *Technological Change Financial Innovation and Financial Regulation in the US, The Challenges for Public Policy,* cited from citeseerx.ist.psu.edu/viewdoc/download 124 (3): 176-189.

Lieberman, M. B., & Montgomery, D.B. (1987).*First- Mover Advantages*. Research Paper.

Loof, M., Hans, S. & Heshmati, J. (2002). Knowledge Capital and Performance Heterogeneity: A Firm-Level Innovation Study. *International Journal of Production Economics* 23 (3): 106-119.

Lumpkin, G.T. &Dess, G.G. (1996). Clarifying the Entrepreneurial Orientation Construct and Linking it to Performance. *Academy of Management Journal*41(1): 23-29.

Mavondo, Felix & Farrel, Mark (2003).*Cultural Orientation: Its Relationship with Market Orientation, Innovation and Organizational Performance.* Management Decision.

McAdam, R., & McClelland, J. (2000).*Sources of New Product Ideas and Creativity Practices in the UK Textile Industry.* New York: Ridgefield Press.

Meyer, N.D. (1996). *Structural Cybernetics. An Overview*. New York: Ridgefield Press.

Miller, Merton H. (1986). Financial Innovation: The Last Twenty Years and the Next. *Journal of Financial and Quantitative Analysis* 23(1): 46-69.

Mugenda, O.M. & Mugenda, A.G. (2003).*Research Methods*: Quantitative and Qualitative Approaches. Nairobi: Acts Press.

Mwangi M.K. (2007). *Factors Influencing Financial Innovation in Kenya's Securities Market: A Study of Firms Listed at the NSE.* Unpublished Master of Business Administration Project, University of Nairobi.

Nader, A. (2011). *The Effect of Banking Expansion on Profit Efficiency of Saudi Banks.* 2nd International Conference on Business and Economic Research (2nd ICBER 2011).

Navajas, S., Conning, J.& Gonzales, V.C., (2008). Lending Technologies, Competition, and Consolidation in the Market for Microfinance in Bolivia. *Journal of International Development* 23 (3): 122-130.

Ngumi P (2013). Do bank innovations influence profitability of commercial banks in Kenya? Prim. J. Soc. Sci. 2(3): 237-248

Noyer, C. (2007).*Financial Innovation, Monetary Policy and Financial Stability.* Spring Conference: Banque de France

Nugroho, A., & Miles, S. (2009). G*lobal Review of Innovation Intelligence and Policy Studies: Microfinance and Innovation.* Mini Study.

Odhiambo G. O. (2008).*Innovation Strategies At The Standard Chartered Bank (Kenya) Limited.* Unpublished MBA Project, School of Business, University of Nairobi.

Oloo, O. (2010).*Banking Survey Report, the Best Banks This Decade 2000-2009, Think Business Limited*. Kenya, www.banking survey.co.ke

Olweny, T., Shipho, T.M. (2011).*Effects of Banking Sectoral Factors on the Profitability of Commercial Banks in Kenya*. Economics and Finance Review

Otero, M. and E. Rhyne, Editors, (1994).*The New World of Microenterprise Finance*. London: Intermediate Technology Publications

Porter, M.E. &Stern,S. (2004). *Measuring the "Ideas" Production Function: Evidence from International Patent Output*. NBER Working Paper 20.

Roberts, P. W., & Amit, R. (2003).*The Dynamics of Innovative Activity and Competitive Advantage: The Case of Australian Retail Banking.*

Rogers, E.M. (1983). *Diffusion of Innovations*. New York: Free Press.

Rubio, A.& Aragon, A. (2009).*SMEs Competitive Behavior: Strategic Resources and Strategie*s. Management Research.

Said, R.M., Mohd, H.T. (2011).*Performance and Financial Ratios of Commercial Banks in Malaysia and China.*

Sangmi, M., Tabassum, N. (2010).Analyzing Financial Performance of Commercial Banks in India: Application of CAMEL Model. *Pakistan Journal Commercial Social Sciences.*

Saunders M, Lewis P, Thornhill A (2007). Bank innovations and performance. 4 th ed. Harlow : FT Prentice Hall.

Schumpeter, J. A. (1934). *The Theory of Economic Development*. Cambridge: Harvard University Press.

Schumpeter, J. A. (1934). The Theory of Economic Development. Cambridge: Harvard Scylla R. (1982). Monetary Innovation in American. *Journal of Economic History, 1982.*

Sekaran U (2003). Bank innovations: A skill Building Approach (4th ed.). New York: John Willey & Sons, Inc.

Shirley, J. H., &Sushanta, K. M. (2006).*The Impact of Information Technology on the Banking Industry*: Theory and Empirics. New York: Ridgefield Press.

Storey, C. &Easingwood, C. (1998). The Augmented Service Offering: Conceptualization and Study of Its Impact on New Service Success. *Journal of Product Innovation Management*, 15 (3): 42-49.

Subramanian A., Nilakanta, S. (1996). Organizational Innovativeness: Exploring the Relationship between Organizational Determinants of Innovation, Types of Innovations, and Measures of Organizational Performance. *Journal of Management Science 27* (1): 78-90.

Tavitiyaman, P., Zhang, H. Q. and Qu, H. (2012).The Effect of Competitive Strategies and Organizational Structure on Hotel Performance. International *Journal of Contemporary Hospitality Management.* 24 (1), 140- 159.

Tidd, J., Bessant, J. &Pavitt, K. (2001).*Managing Innovation: Integrating Technological, Market and Organizational Change.* New York: Wiley, Bognor

Tufano, P., (2002). *Financial Innovation:* The Handbook of the Economics of Finance, June.

Tushman, M.L, Newman,W.H., & Romanelli, E. (1986).*Convergence and Upheaval: Managing the Unsteady Pace of Organization Evolution*. California Management Review.

Walker, R.M. (2004). *Innovation and Organizational Performance: Evidence and a Research Agenda.* Advanced Institute of Management Research Working Paper, WP No: 002-June.

Waweru, W.E. (2012). *The Effect of Financial Innovation on Risk Management of Commercial Banks in Kenya.* Unpublished Master of Business Administration Project, University of Nairobi.

Yasuharu UKAI (2003).*The Effects of Information System Investment in Banking Industry*.

Zahra, S. A., & Das, R. (1993).*Innovation Strategy and Financial Performance in Manufacturing Companies: An Empirical Study*. Production and Operations Management.

Zeller, M. (2009).*Book Review: Microfinance and Poverty Reduction, Economic Development and Cultural Change.*

APPENDICES

Appendix 1: Questionnaire

PART I: GENERAL INFORMATION

1)Name of the Bank(Optional)…….

2) Category of the bank as per CBK guidelines

Government owned ( )

Foreign Owned ( )

Locally owned ( )

Any other……

3) Number of ATM …….....

4) Total Customer base……..

PART II:

Size

5) Kindly indicate the extent to which you agree with the following aspects of bank size. 1= No extent; 2= A little extent; 3= Moderate; 4 = Great extent; 5= Very great extent

	1	2	3	4	5
Firm size affects the rate of future organizational change					
Firm size influence firm profitability.					
Large firm can get a better interest rate and also a better discount rate due to a large quantity that it buys					

Firms size affects credit portfolio					
Firms size affects deposit liabilities					

Product Innovation

6) Kindly indicate the extent to which you your bank uses the following product innovation strategies. 1= No extent; 2= A little extent; 3= Moderate; 4 = Great extent; 5= Very great extent

	1	2	3	4	5
Product improvement					
Product range extension					
Product costs revision/improvement					
Product replacement					
New product introduction					
Product repositioning					

Process Innovation

7) Kindly indicate the extent to which you your bank use the following process innovation strategies. 1= No extent; 2= A little extent; 3= Moderate; 4 = Great extent; 5= Very great extent

	1	2	3	4	5
Reduction of costs					
Improved innovation process					
Conformance to regulations					
New products introduction					

Market Innovation

8) Kindly indicate the extent to which you your bank use the following market innovation strategies. 1= No extent; 2= A little extent; 3= Moderate; 4 = Great extent; 5= Very great extent

	1	2	3	4	5
Creating value through pricing					
Availability of resources and capabilities					
Customer satisfaction and retention					
To products entry into new markets					
Environmental analysis and response to changes					
Aggressive anti competitors marketing campaigns					

Appendix II: List of Commercial Banks in Kenya

1. African Banking Corporation Ltd
2. Bank of Africa Kenya
3. Bank of Baroda (K) Ltd
4. Bank of India
5. Barclays Bank of Kenya Ltd
6. CFC Stanbic Bank Ltd
7. Charterhouse Bank Ltd (Under- Statutory Management)
8. Chase Bank (K) Ltd
9. Citibank N.A. Kenya
10. Commercial Bank of Africa Ltd
11. Consolidated Bank of Kenya Ltd
12. Co-operative Bank of Kenya Ltd
13. Credit Bank Ltd
14. Development Bank Kenya Ltd
15. Delphis Bank
16. Diamond Trust Bank (K) Ltd
17. Dubai Bank of Kenya Ltd
18. Ecobank Kenya Ltd
19. Equitorial Commercial Bank Ltd
20. Equity Bank Ltd
21. Family Bank Ltd
22. Fidelity Commercial Bank Ltd

23. Fina Bank Ltd

24. First Community Bank Ltd

25. Giro Commercial Bank Ltd

26. Guardian Bank Ltd

27. Gulf African Bank Ltd

28. Habib Bank Ltd

29. Imperial Bank Ltd

30. I&M Bank Ltd

31. Jamii Bora Bank Ltd

32. Kenya Commercial Bank Ltd

33. K-rep Bank Ltd

34. Middle East Bank (K) Ltd

35. National Bank of Kenya Ltd

36. NIC Bank Ltd

37. Oriental Commercial Bank Ltd

38. Paramount Universal Bank Ltd

39. Prime Bank Ltd

40. Standard Chartered Bank (K) Ltd

41. Trans National Bank Ltd

42. United Bank of Africa Kenya Ltd

43. Victoria Commercial Bank Ltd

Appendix III: Return on Assets

	ROA	2014	2013	2012	2011	2010	Average
	Bank	**%**	**%**	**%**	**%**	**%**	
1	Africa Banking Corporation Ltd	1.49	2.90	2.90	4.11	4.6	3.2
2	Bank Of Africa Ltd	0.33	2.00	1.30	1.29	1.59	1.302
3	Commercial Bank Of Africa Ltd	2.57	3.60	4.00	3.52	3.83	3.504
4	Kenya Commercial Bank Ltd	5.93	5.50	5.20	4.98	5.17	5.356
5	Equity Bank Ltd	7.26	7.70	7.40	6.75	6.26	7.074
6	Habib Bank Ltd	5.63	6.20	6.50	4.62	4.34	5.458
7	Habib A.G. Zurich	5.29	4.30	4.20	2.91	3.05	3.95
8	Dubai Bank Ltd	0.21	0.50	-1.20	0.9	0.02	0.086
9	Barclays Bank Ltd	5.44	5.80	7.00	7.18	6.25	6.334
10	Cooperative Bank	4.43	4.70	4.80	3.66	3.65	4.248
11	Standard Chartered Bank	6.42	6.00	5.90	5.03	5.38	5.746
12	Bank Of India	3.74	4.10	2.40	4.18	5.02	3.888
13	Chase Bank	3.08	2.90	2.70	2.33	2.45	2.692
14	Credit Bank	-1.02	1.00	1.30	-0.8	3.53	0.782
15	Fidelity Bank	1.80	2.50	0.90	2.79	6.26	2.85
16	Bank Of Baroda	4.35	4.80	3.60	4.57	5.65	4.594
17	CFC Stanbic Bank	4.31	4.10	3.50	2.23	1.96	3.22
18	NIC Bank	4.44	4.60	4.20	4.57	4.42	4.446
19	Citibank N.A	5.22	7.00	10.40	6.43	4.64	6.738
20	Charterhouse Bank	0.00	0.00	0.00	0.00	0.00	0
21	Consolidated Bank	-1.82	-0.80	1.00	1.61	2.46	0.49
22	Diamond Trust Bank	4.47	4.90	4.90	4.17	4.14	4.516
23	Development Bank Of Kenya Ltd	1.88	1.80	0.80	1.28	2.14	1.58
24	Ecobank Ltd	-1.09	-3.30	-4.80	0.45	0.7	-1.608
25	Family Bank Ltd	4.24	4.00	2.70	2.01	2.48	3.086
26	Guaranty Trust Bank Ltd	2.08	1.60	2.00	2.12	1.74	1.908
27	First Community Bank Ltd	0.67	1.80	2.90	1.28	-2.5	0.83
28	Giro Commercial Bank Ltd	3.13	2.80	1.70	2.78	6.2	3.322
29	Guardian Bank	2.59	3.00	1.90	1.92	1.39	2.16
30	Gulf African Bank	3.11	2.70	2.80	1.2	-0.6	1.844
31	Imperial Bank	4.75	5.80	5.50	6.37	6.33	5.75
32	Jamii Bora Bank	0.73	1.30	1.50	-3.7	-4.8	-0.996
33	K-Rep Bank	4.61	4.20	3.20	2.75	1.44	3.24
34	Middle East Bank	1.28	1.40	0.79	1.99	5.11	2.114
35	National Bank of Kenya	1.90	1.90	1.70	3.56	4.49	2.71
36	Oriental Commercial Bank	1.07	2.50	1.80	3.8	4.01	2.636
37	Paramount Universal Bank	1.32	1.20	1.20	2.38	7.34	2.688

38	Prime Bank	4.18	3.80	2.70	3.03	2.25	3.192
39	Trans-national Bank	1.86	2.30	3.70	4.02	3.24	3.024
40	UBA Kenya Bank Ltd	-6.97	-7.50	-13.60	-6.4	-4.6	-7.812
41	Victoria Commercial Bank	3.68	4.30	4.80	4.31	5.03	4.424
42	Equatorial Commercial Bank Ltd	-2.78	1.00	-4.60	0.53	-0.3	-1.238
43	I&M Bank Ltd	5.64	5.50	5.20	5.87	4.8	5.402
	TOTAL	4.46	4.70	4.70	4.40	4.43	

Appendix IV: Total assets

TOTAL ASSETS	2009	2010	2011	2012	2013
Kenya Commercial (KCB)	**164,875,372**	**172,690,915**	**282,494**	**304,112**	3.23E+08
Equity Bank Limited	**168,223,215**	**223,024,556**	**176,911**	**215,829**	2.38E+08
Co-op Bank	**123,909,119**	**142,880,029**	**167,772**	**199,663**	2.29E+08
Barclays Bank	**100,811,750**	**133,889,997**	**167,305**	**195,493**	2.21E+08
Standard Chartered Bank Ltd	**110,531,373**	**153,983,533**	**164,182**	**185,102**	2.07E+08
CFC Stanbic Bank	**47,146,767**	**62,069,592**	**140,087**	**133,378**	1.71E+08
Commercial Bank of Africa	**51,404,408**	**63,591,642**	**83,283**	**101,772**	1.25E+08
Diamond Trust Bank Kenya	**44,655,313**	**58,605,823**	**77,453**	**100,456**	1.14E+08
I & M Bank					1.13E+

	18,280,761	**60,026,694**	**76,903**	**94,512**	08
Citibank, N.A.	**5,130,103**	**54,776,432**	**74,646**	**91,520**	1.1E+08
NIC Bank Ltd	**97,337,054**	**62,552,113**	**73,581**	**69,580**	92493033
National Bank(NBK)	**23,697,056**	**107,138,602**	**68,665**	**67,155**	76568930
Bank of Africa	**57,628,290**	**29,325,841**	**38,734**	**49,105**	71242659
Bank of Baroda (K) Ltd	**3,664,948**	**6,215,384**	**36,701**	**48,958**	52683299
Chase Bank Limited	**6,898,919**	**32,444,424**	**36,513**	**46,138**	52021524
Prime Bank Limited	**15,358,108**	**4,530,094**	**35,185**	**43,463**	49460889
Housing finance	**6,777,889**	**10,478,682**	**31,972**	**40,686**	43500989
Ecobank Kenya Ltd	**3,364,459**	**19,399,089**	**27,210**	**34,590**	43006228
Family Bank	**4,491,372**	**8,031,214**	**26,002**	**31,771**	36907137
Imperial Bank Limited	**44,009,222**	**4,761,853**	**25,618**	**30,985**	30721440
Bank of India					256380

	21,939,617	**32,331,505**	**23,352**	**24,877**	49
Consolidated Bank of Kenya	**18,331,250**	**14,112,365**	**15,318**	**19,071**	19639370
Fina Bank Limited	**5,498,595**	**8,208,537**	**14,630**	**18,001**	16778631
Equitorial Commercial Bank	**490,890**	**1,723,233**	**12,927**	**17,150**	16053971
Gulf African Bank	**6,914,485**	**10,233,964**	**12,915**	**14,109**	15580630
African Banking Corporation	**16,919,962**	**26,699,124**	**12,507**	**13,562**	15562475
Giro Commercial Bank	**13,305,770**	**20,188,379**	**11,846**	**13,417**	13644242
Development Bank of Kenya	**8,109,411**	**10,649,758**	**11,523**	**12,280**	13623296
Fidelity Commercial Bank	**12,969,712**	**21,858,603**	**10,789**	**11,772**	13199240
K-Rep Bank Ltd	**3,100,351**	**4,419,806**	**9,319**	**11,745**	12834687
Guardian Bank	**15,394,571**	**19,671,456**	**8,754**	**10,323**	12778509
First community Bank	**51,371,890**	**10,398,805**	**8,740**	**9,959**	11305398
Habib AG Zurich	**4,461,421**	**10,348,739**	**8,722**	**9,702**	11009480

Victoria Comm. Bank Ltd	**8,971,669**	**4,558,349**	**7,645**	**9,548**	9657868
Transnational Bank Limited	**3,052,314**	**26,892,185**	**7,287**	**8,801**	8078122
Habib Bank Limited	**13,949,400**	**8,127,135**	**5,861**	**7,255**	8028877
Credit Bank Ltd	**7,339,320**	**4,018,428**	**5,394**	**7,014**	7308854
Oriental Comm. Bank	**3,141,381**	**7,670,050**	**5,030**	**6,407**	7010323
Paramount-Universal Bank	**7,136,327**	**5,425,541**	**4,727**	**6,220**	7006527
Middle East Bank of Kenya	**4,658,793**	**1,874,268**	**4,639**	**5,870**	5765799
UBA BANK	**1,596,398**	**9,594,061**	**3,206**	**3,480**	3709630
Dubai Bank Limited	**7,748,940**	**6,380,098**	**2,316**	**2,924**	2926860
Jamii Bora Bank	**4,451,626**	3214789	**2,070**	**2,584**	2,669

Source: Kenya National Bureau of Statistics

Appendix V: Size measured by the log (Total Asset)

	2010	2011	2012	2013	2014
Kenya Commercial (KCB)	8.237269	5.451009	5.483034	8.509203	8.059289
Equity Bank Limited	8.348353	5.247755	5.33411	8.376577	8.171247
Co-op Bank	8.154972	5.224719	5.300298	8.359835	7.977409
Barclays Bank	8.126748	5.223509	5.291131	8.344392	7.949115
Standard Chartered Bank Ltd	8.187474	5.215326	5.267411	8.31597	8.010105
CFC Stanbic Bank	7.792879	5.146398	5.125084	8.232996	7.614425
Commercial Bank of Africa	7.8034	4.920556	5.007628	8.09691	7.625631
Diamond Trust Bank Kenya	7.767941	4.889038	5.001976	8.056905	7.59007
I & M Bank	7.778344	4.885943	4.975487	8.053078	7.600604
Citibank, N.A.	7.738594	4.873007	4.961516	8.041393	7.560752
NIC Bank Ltd	7.796242	4.866766	4.842484	7.966109	7.787119
National Bank(NBK)	8.029946	4.836735	4.827078	7.884053	7.362354
Bank of Africa	7.46725	4.588092	4.691126	7.85274	7.752849
Bank of Baroda (K) Ltd	6.793468	4.564678	4.689824	7.721673	7.695482
Chase Bank Limited	7.51114	4.562448	4.664059	7.716183	7.554154
Prime Bank Limited	6.656107	4.546358	4.63812	7.694262	7.674104
Housing finance	7.020307	4.50477	4.609445	7.638499	7.582995
Ecobank Kenya Ltd	7.287781	4.434729	4.538951	7.633531	7.522757
Family Bank	6.904781	4.415007	4.502031	7.56711	7.517294
Imperial Bank Limited	6.677776	4.408545	4.491152	7.487442	7.452645
Bank of India	7.509626	4.368324	4.395798	7.408885	6.977025

Consolidated Bank of Kenya	7.1496	4.185202	4.280373	7.293128	7.10012
Fina Bank Limited	6.914266	4.165244	4.255297	7.224757	7.103234
Equitorial Commercial Bank	6.236344	4.111498	4.234264	7.205582	7.18187
Gulf African Bank	7.010044	4.111094	4.149496	7.192585	7.019976
African Banking Corporation	7.426497	4.097153	4.132324	7.192079	6.346293
Giro Commercial Bank	7.305101	4.073572	4.127655	7.134949	6.551055
Development Bank of Kenya	7.02734	4.061566	4.089198	7.134282	6.919316
Fidelity Commercial Bank	7.339622	4.032981	4.07085	7.120549	6.357139
K-Rep Bank Ltd	6.645403	3.969369	4.069853	7.108385	7.02656
Guardian Bank	7.293837	3.942207	4.013806	7.10648	6.469519
First community Bank	7.016983	3.941511	3.998216	7.053286	6.786111
Habib AG Zurich	7.014887	3.940616	3.986861	7.041767	6.76641
Victoria Comm. Bank Ltd	6.658808	3.883377	3.979912	6.984881	6.86826
Transnational Bank Limited	7.429626	3.862549	3.944532	6.90731	6.729454
Habib Bank Limited	6.909937	3.767972	3.860637	6.904655	6.598674
Credit Bank Ltd	6.604056	3.731911	3.845966	6.863849	6.724534
Oriental Comm. Bank	6.884798	3.701568	3.806655	6.845738	6.502222
Paramount-Universal Bank	6.734443	3.674586	3.79379	6.845503	6.633152
Middle East Bank of Kenya	6.272832	3.666424	3.768638	6.760859	6.684091
UBA BANK	6.982002	3.505964	3.541579	6.569331	6.035694
Dubai Bank Limited	6.804827	3.364739	3.465977	6.466402	5.417849
Jamii Bora Bank	3.31597	3.412293	3.426349	3.426349	0.520611