THE EFFECT OF LENDING INTEREST RATES ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

BY

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DECLARATION

This research project is my original work and to the best of my knowledge it has not been submitted for a degree in any other university.

Sign. é é é é é é é é é é é é .. Date: é é é é é é é é é é é é ..

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This research project has been submitted for examination with my approval as the university supervisor.

Signed; é é é é é é é é é é é é .. Date: é é é é é é é é é é é é ..

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I would like to thank my family and friends, who were always willing to help and give their guidance and best suggestions when in need. My research would not have been possible without them.

DEDICATION

This project is dedicated to my family for the love, patience and faith they had in me throughout the study period and the entire course.

I also dedicate this research project to my many friends who have supported me throughout the process. I will always appreciate all they have done.

ABSTRACT

The research sought to determine the effect of lending interest rates on the financial performance of the commercial banks in Kenya. The study involved a census survey of all the 43 commercial banks registered and in operation as at 31st December 2012 licensed to carry out the banking business in Kenya under the banking Act of Kenya CAP 486.

The collected data was edited and cleaned for completeness in preparation for coding. Once the data was coded, it was entered into the Statistical Package for Social Sciences (SPSS) version 17 for analysis. ROE was regressed against the Lending interest rate, Operating cost efficiency and Management Efficiency.

The study found out that a weak but positive relationship (R= 0.378) exists between lending interest rates and financial performance of commercial banks. The study also revealed that 14.3% of financial performance in commercial banks can be explained by lending interest rates. Analysis of variance also proved that the relationship was statistically significant. The findings were also verified through analysis of variance (ANOVA) statistics which gave a p-value of 0.132 which was far much above the recommended p-value of 0.05.

The research recommends that commercial banks should judiciously manage their interest rate to improve their financial performance since it has a positive effect on the bankôs financial performance and also recommends for income source diversification by banks since lending interest rate only account for 14.3% which leaves a clean 85.7% revenue to be sourced through other means.

TABLE OF CONTENTS

LIST OF ABBREVIATIONS

CBK:	Central Bank of Kenya.
CBR:	Central Bank Rate.
EBIT:	Earning Before Interest and Tax
NASI:	NSE All Share Index
NIM:	Net Interest Margin
NPLs:	Non Performing Loans.
NSE:	Nairobi Securities Exchange
ROA:	Return on Assets.
ROE:	Return on Equity
WAN:	Wide Area Network

LIST OF TABLES

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The banking industry in Kenya is governed by the Companies Act CAP 488, the Banking Act CAP 488, the Central bank of Kenya Act CAP 491 and the various prudential guidelines issued by the central Bank of Kenya. The banking industry is a cut throat business field, composed of 43 players, 37 local and 7 international each computing to have a pie of the market. The banking sector recorded improved performance in the fiscal year 2011/12. The sectorôs total assets increased by 15.8 % from Ksh. 1.9 billion in June 2011 to Ksh. 2.2 billion in June 2012.(CBK Annual Report, 2011/2012).

The major components of the balance sheet were loans and advances, government securities and placement, which accounted for 56.6 %, 19.5 % and 7.3 % of the total assets, respectively. Gross loans and advances grew by 19 % to Ksh. 1.3 billion in June 2012. The stock of gross non-performing loans (NPLs) declined by 1.4 % to 57.5 billion in June 2012 thereby lowering the ratio of gross NPLs to gross loans from 5.4 to 4.5 % over the period under review. Deposits from customers, which accounted for 75.5 % of the total funding liabilities, increased by 21.4 % to Ksh. 1.7 billion in June 2012 mainly due to branch expansion, remittance and receipts from exports. Other developments in the banking sector include increased uptake of customer credit history by banks, additional approvals to banks to roll out the agency banking model and the licensing of a deposit taking microfinance institution. (CBK Annual Report, 2011/2012)

The provision of deposit and loan products normally distinguishes banks from other types of financial firms. Deposit products pay out money on demand or after some notice. Deposits are liabilities for banks, which must be managed if the bank is to maximize

profit. Likewise they manage the assets created by lending. Thus the core activity is to act as intermediaries between the depositors and borrowers. Other financial institutions such as stockbrokers are also intermediaries between buyers and sellers of shares, but it is the taking of deposits and granting of loans that single out a bank, though many offer other financial services. (Heffernan, 2005)

1.1.1 Lending Interest Rates

Lending interest rate is the rate at which interest is paid by borrowers for the use of money that they borrow from a lender. Specifically, the interest (1/m) is the percent of principal (P) paid a certain amount of times (m) per period (usually quoted per annum). For example, a small company borrows capital from a bank to buy new assets for its business, and in return the lender receives interest at a predetermined interest rate for deferring the use of funds and instead lending it to the borrower. Interest rates are normally expressed as a percentage of the principal for a period of one year. (www.investorwords.com/2539/interest_rate, 10/8/2013)

According to Irving (1930) interest rate is the link between income and capital. It is the per cent of premium paid on money at one date in terms of money to be in hand one year later. From Keynes theories of preference and loanable funds he rejects the orthodox loanable funds theory when he defined the interest rate as a reward for not hoarding money Keynes (1973). While the orthodox theory had emphasized real investment and saving flow as the determinants of the interest rate, Keynes emphasized real investment and savings flows as the determinants of the interest rate, Keynes emphasized a monetary determination of interest rate.

The average commercial banksô lending rates rose from 14.14 % in July 2011 to 20.41 % in June 2012. The increase in the overall lending rate was reflected in all loan categories (Overdraft, 1 -5 years and over 5 years loans) for both the corporate and business loans. The average lending rate in the 1 -5 yearsôs loans category in the private loans increased by 682 basis points from 14.54 % in July 2011 to 21.34 % in June 2012. (CBK Annual Report, 2011/2012)

The CBR signaled the direction of change in short-term interest rates. The short term rates trended upwards in the first half of the fiscal year 2011/ 2012 in response to the increases in the CBR. The average interbank rate increased from 8.61 % in July 2011 to 28.90 % in November 2011 and thereafter declined to 17.09 % through June 2012. The easing of the average interbank rate during the second half reflected improved market liquidity supported by net redemptions of government securities. (CBK Annual Report, 2011/2012)

In a liberalized economy, the laws of supply and demand generally set interest rates. The demand for borrowing is always inversely related to interest rates, meaning that high interest rates discourage companies and individual from borrowing and low interest rates encourage borrowing. The effects of interest rate changes on financial institutionsô portfolios depend on the extent and speed with which rate change on short- and long ï period securities. They also depend on the proportion of an institutionôs assets and liabilities that are long period rather than short period and the speed and flexibility with which the institution can alter its revenue streams and cost of funds.

1.1.2 Financial Performance

The overall financial performance of banks in Kenya in the last two decade has been improving. However, this doesnôt mean that all the 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).

Over the past two decades, institutions that make microloans to low-income borrowers in developing and transition economies have focused increasingly on making their lending operations financially sustainable by charging interest rates that are high enough to cover all their costs. They argue that doing so will best ensure the permanence and expansion of the services they provide. (Rosenberg et al, 2009).

Profit is the ultimate goal of commercial banks. All the strategies designed and activities performed thereof are meant to realize this grand objective. However, this does not mean that commercial banks have no other goals. Commercial banks could also have additional social and economic goals. However the study focuses on the first objective i.e. profitability. To measure the profitability of commercial banks there are variety of ratios used of which Return on Asset, Return on Equity and Net Margin are the major ones (Murthy and Sree, 2003; Alexandrau et al. 2008).

Assessment of commercial banks financial performance calls for the use of various financial ratios. Under this study financial performance has been analyzed based on Profitability, Economic efficiency, Operational efficiency, cost of operation, asset quality and size.

1.1.3 Effect of Lending Interest rates on Financial Performance

The impact of interest rate on bankôs profits operates via two main channels of the revenues side. First, a rise in interest rate scales up the amount of income a bank earns on new assets it acquires. But, the speed of revenue adjustment will be a function of speed of interest rate adjustment. Second, the effect hinges on the amount of loans and securities held. Indeed, in case of rising interest rates, rates on loans are higher than marketable securities so that strong incentives prevail for banks to have more loans rather than buying securities.

A rise in interest rates are good for banks due to higher returns on new investments, increased profit margins on loans, and improved earnings from bond trading all which serve to offset any losses the banks suffer on existing bond holding since the value of bond fall as rates rise. As a result of this i.e. increase in interest rates which leads to good financial performance of the financial institution sends signal of good returns in the form of dividends and thus attract more investors to buy bank stocks in bulk.

1.1.4 Commercial Banks in Kenya

Commercial banks play a vital role in the economic resource allocation of countries. They channel funds from depositors to investors continuously. They can do so, if they generate necessary income to cover their operational cost they incur in the due course. In other words for sustainable intermediation function, banks need to be profitable. Beyond the intermediation function, the financial performance of the banks has critical implication for economic growth of countries. Good financial performance rewards the shareholders for their investment. This in turn, encourages additional investment and

brings about economic growth. On the other hand poor banking performance can lead to banking failure and crisis which have negative repercussions on the economic growth (Ongore,2013).

The banking system in Kenya consist of 44 commercial banks, 75% of all banking business is handled by 12 % of the Kenyan banks (Ontunga,2006).The origin of commercial banking in Kenya related to commercial connections in East Africa, which existed towards the end of the 19th century. First there was National Bank of India in Kenya in 1896 after the establishment of the British in the region. It was followed by standard bank of south Africa in 1990. In 1916, the National Bank of South Africa merged with Anglo-Egyptian Bank Ltd to form Barclays Bank (Dominion colonial).

The General Bank of Netherlands was set up in 1951. Bank of India and Bank of Baroda were established in 1953 while Habib bank was set up in 1956. The Ottoman Bank and the Commercial Bank of Africa were established in 1955. During the 1960s, the Cooperative bank of Kenya opened its doors. In 1968 again, the business of Ottoman was taken over by the National Bank of Kenya. In 1971 the National and Grindlays Bank, which operated as a retail commercial bank until 7th December 1971, was nationalized and formed Kenya Commercial bank ï the government owning 60% of the banks share capital. The Merchant Bank division was incorporated into a new bank, Grindlays Bank International Ltd, which has changed to Stanbic Bank. In 1971, Barclays Bank (DC) changed its name to Barclays Bank International Ltd and become a wholly owned subsidiary of Barclays Bank Ltd based in Britain.

1.2 Research Problem

A research study carried out by Mangôeli (2012) points out that interest rate spread affect the performance of commercial banks, as it increase the cost of loans charged on the borrowers, regulations on interest rates have far reaching effects on performance of commercial since they determine the interest rate spread in banks and also help mitigate moral hazards incidental to performance of commercial banks, credit risk management technique remotely affects the value of a bankôs interest rate spread as interest rates are benchmarked against the associated NPLs and NPLs is attributable to high cost of loans.

In Kenya there has been public outcry that banks are cashing in huge amounts in the form of interest accruing from loan (Assets) advanced to the borrowers in comparison to what the same public (customers) are cashing in, in the form interest from savings (Liabilities). Despite banks having a leeway of charging high lending interest rates which makes them record impressive financial performance some banks are actually reporting losses or very small margins despite the fact that they are being controlled by the same regulatory body CBK i.e. Operating in the same business environment.

Given that loans advanced to the borrowers by commercial banks constitute a major component of the banksô revenues which is directly reflected in their financial performance. It is therefore critical to carefully study the effect of lending interest rate on the financial performance of commercial banks in Kenya. Ngumo (2012) Using linear regression analysis conducted at 95% confidence level established positive relationship in the five regression analysis between financial performance and the amount of mortgage loan advanced. The study concluded that the amount of mortgage advanced by mortgage firms would lead to high financial performance (EBIT) as it raises the revenue thereof.

According to Jonah (2012) financial performance of Saccos is not affected by the changes in the commercial lending rates as set by the CBK. This is because the realized Net interest income, NOI as well as ROE for the sample Saccos did not increase with an increase or decrease of the lending interest rates.

This leaves the effect of lending interest rates of the financial performance of commercial banks in Kenya as being not fully researched on yet the country has witnessed a surge in the number of commercial banks in the recent years with some recording good performance while others recording losses.

From the overview of these factors, there is no clear indication of the effect of lending interest rate on financial performance in Kenya setting. It is imperative that the gap be filled hence the study set to answer the following question. What is the effect of lending interest rates on the financial performance of the commercial banks in Kenya?

1.3 Objective of the Study

To determine the effect of lending interest rates on the financial performance of the commercial banks in Kenya.

1.4 Value of the Study

This study aims at contributing to the theory of effect of interest rates and financial performance making a case for applicability. The study will be important to the bankôs management. Bank managers will better placed in understanding the effect of interest rate on the financial performance of banking institutions given that a good proportion of the banksôrevenues is derived from loans advanced to customers.

Also will be beneficial to researchers and Academicians by creating a platform for further research study on related topics; it will also act as a resourceful tool for other

academicians who intend to undertake the same topic in their area of specialization. This research study will also help to highlight other important variables that require further research; this may be focusing of other variables that have effect on the financial performance of commercial banks in Kenya.

Finally the study will help CBK in policy formulation aimed at controlling and regulating interest rates in Kenya.CBK will be better placed in formulation of monetary policy and the regulation of the banking industry as a whole which has the ripple effect on job creation, curbing of inflation and the general growth of the economy.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter seeks to explore existing literature on the effect of interest rates on the financial performance of commercial banks in Kenya and also disclose the existing knowledge gaps.

2.2 Theoretical Review

This section shades light on the theoretical framework supported by different authors views on lending interest rates and the various theories of lending interest rates.

2.2.1 Lending Pricing Theory

This theory explains why it is not prudent for banks to set high interest rates to optimize profit from loan sales. Banks should consider the problems of adverse selection and moral hazard since it is very difficult to forecast the borrower type at the start of the banking relationship (Stiglitz and Weiss, 1998). If banks set interest rates too high, they may induce adverse selection problems because high risk borrowers are willing to accept these high rates. Once these borrowers receive the loans, they may develop moral hard behavior or so called borrower moral hazard since they are likely to take on highly risky projects or investments i.e. The higher interest rates would later act as an incentive for the risky borrowers to consider adding more risk to their investment portfolio due to high affinity for high returns (Chodecai, 2004).

From the above, keeping the same level of supply an increase in demand for loanable funds would lead to an increase in the interest rate and a decrease in demand would lead to a decrease in the interest rates. Conversely an increase in the supply of loanable funds

would result in fall in the interest rates whereas a decrease in supply would lead to a rise in the interest rates. If both the demand and supply of the loanable funds change, the resultant interest rate would depend much on the magnitude and direction of movement of the demand and supply of the loanable funds.

2.2.2 Theory of Multiple Lending

Multiple expansions occurs in the multibank case because the excess reserves that form the basis for loans, though lost to the individual bank, are not lost to the system as a whole. They are simply transferred to other banks that use them for further expansion. As the expansion proceeds from bank to bank, each institution retains the reserves required to back the new deposits that brought it the extra reserves in the first place and lends out the remainder. The result is multiple expansions, the same as that achieved in the monopoly case.

It is found in literature that banks should be less inclined to share (loan syndication) in the presence of well-developed equity markets. Both outside equity and mergers and acquisitions increase banksô lending capacities, thus reducing their need of greater diversification and monitoring through share lending (Carletti, 2006; Ongene and Smith,2000; Karceski, 2004;Degryse,2004).

Multiple lending theories thus holds that multiple-bank lending can be beneficial to banks in terms of financial performance as it allows banks to increase the overall effort with which they monitor firms. This occurs when banks have low inside equity, the returns of firm projects are low and the cost of monitoring is high.

2.2.3 The Signaling Arguments

The signaling arguments states that good companies should provide more collateral so that they can signal to the banks that they are less risky type borrowers and then that charged lower interest rate. Meanwhile, the reserve signaling arguments states that banks only require collateral and or covenants for relatively risky firms that also pay higher interest rates (Chodechai, 2004;Ewert and Schenk,2009)

According to this theory ógoodô firms are not required either to pledge much collateral or to install covenants and therefore, they should receive better credit terms i.e. loans attracting low interest whereas on the other hand banks should observe higher interest rate premiums for firms with lower collateral and fewer covenants.

2.2.4 Consumer Irrationality Theory

Ausubel (1991) argues that search or switch costs, although present, cannot provide a full explanation of credit card rate stickness. He argues that there is a class of borrowers who repeatedly believe that they will pay the outstanding balance before the due date but fail to do so. These consumers are insensitive to interest rate changes, and are the class of borrowers that banks prefer. High risk credit card borrowers, on the other hand, are more likely to be interest rate sensitive because they fully intend to borrow on their cards.

As a result, a bank that unilaterally lowers its rate would tend to attract relatively high-risk borrowers while low risk borrowers would tend to be unresponsive. In other words the bank would face an adverse selection problem. From the preceding argument Ausubel (1991) notes that a firm that unilaterally lowers its interest rate will tend to draw customers who maintain low balances and hence yield lower profits whereas those firms

that raises their interest rate will tend to attract the low risk borrowers who maintain high balances and hence high profits.

2.3 Determinants and Measures of Financial Performance

2.3.1 Determinants of Financial Performance

The determinants of bank performances can be classified into bank specific (Internal) and macroeconomic (external) factors (Al-Tamimi, 2010; Aburime, 2005). These are stochastic variables that determine the output. Internal factors are those factors which are within the control of the bankôs management, this include factors such as 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 and bank size.

Whereas external determinants are those factors which are beyond the control of the management. They are sector-wide or country wide factors which are beyond the control of the company and affect the profitability of banks. This includes factors such as macroeconomic policy stability, gross domestic product, inflation, interest rate and political stability.

2.3.2 Measures of Financial Performance

Assessment of commercial banks financial performance calls for the use of various financial ratios.

2.3.2.1 Return on Equity

This ratio measures the rate of return on the shareholders equity.(Assets minus Liabilities). It measures a firmôs efficiency at generating profits from every unit of

shareholdersô equity.ROE is what the shareholders look in return for their investment. A bank with high return on equity is more likely to be one that is capable of generating cash internally. Thus the higher the ROE the better the bank is in terms of profit generation. Ongore (2013). It is further explained by Khrawish (2011) that ROE is the ratio of Net income after taxes divided by Total Equity Capital.

ROE = Net profit/Avg. shareholder Equity

2.3.2.2 Return on Assets

This ratio measures the net income returns on each shilling of assets. It measures the overall bank profitability from investment in assets. It measures the ability of the bank management to generate income by utilizing company assets at their disposal. In other words, it shows how efficiently the resources of the company are used to generate the income. It further indicates the efficiency of the management of the company in generating net income from all the resources of the institution (Khrawish, 2011). Wen (2010), state that a higher ROA shows that the company is more efficient in using its resources.

2.3.3.3 Net Interest Margin

This refers to the measure of the difference between the interest income generated by banks and the amount of interest paid out to their lenders (for example deposits), relative to the amount of their (interest earning) assets. It is usually expressed as a percentage of what the financial institution earns on loans in a specific time period and other assets

minus the interest paid on borrowed funds divided by the average amount of the assets on which it earned income in that time period (the average earning assets).The NIM variable is defined as the net interest income divided by total earnings assets (Gul et al.,2011).

2.4 Empirical Review

Khat and Bathia (1993) used non-parametric method in his study of the relationship between interest rates and other macro-economic variables, including savings and investment. In his study he grouped (64) sixty four developing countries including Nigeria into three bases on the level of their real interest rates. He then computed economics rate among which were gross savings, income and investment for countries. Applying the Mann-Whitney test, he found out that the impact of real interest was not significant for the three groups.

Adofu and Audu (2010) used ordinary least square method to ascertain the assessment of the effects of interest rates deregulation in enhancing agricultural productivity in Nigeria. The study found out that interest rate play a significant role in enhancing economic activities and such, monetary authorities should ensure appropriate determination of interest rate level that will break the double edge effect of interest rate on savers and local investors.

Rasheed (2010) used error correction model (ECM) to investigate interest rate determination in Nigeria. The study found out that as the Nigeria financial sector integrates more with global markets, returns on foreign assets will play a significant role in the determination of domestic interest rates.

A lot has been reviewed in terms of lending activities of various deposit money banks. Some opinions deliberated on the factor responsible for banks willingness to extend much

credit to some sector of the economy, while some discussed effect of such extension of credit on productivity and output. Felicia (2011) used regression analysis to investigate the determinants of commercial banks lending behavior in Nigeria. The study discovered that commercial banks deposits have the greatest impacts on their lending behavior.

An environment of low interest rates coupled with fierce competition among banks could limit the possibilities for banks to establish appropriate prices for their loans and deposits, putting pressure on the operating margins and negatively affecting banksô profitability. Among the studies that report a positive relationship between interest rates and bank profitability are Bourke (1989), Molyneux and Thornton(1992)

Kipngetich (2011) using regression model to investigate the relationship between interest rates and ROE with financial performance as the independent variable and interest rate as the dependent variable established that there is a positive relationship between the two variables though the effect of interest rates on profitability is not significant in the all the banks. In his view all the other factors which influence profitability needs to be enhanced to in order to improve the financial performance of commercial banks in Kenya.

Mangôeli (2012) using descriptive research design in his study of relationship between interest rate spread and financial performance of commercial banks points out that interest rate spread affect the performance of commercial banks, as it increase the cost of loans charged on the borrowers, regulations on interest rates have far reaching effects on performance of commercial since they determine the interest rate spread in banks and

also help mitigate moral hazards incidental to performance of commercial banks, credit risk management technique remotely affects the value of a bankôs interest rate spread as

interest rates are benchmarked against the associated NPLs and NPLs is attributable to high cost of loans.

2.5 Chapter summary of Literature Review

Most of the studies conducted from the above facts tend to concentrate either outside the Kenya business environment or focus on Saccos, Jonah (2012) and mortgage institutions, Ngumo (2012), though Kipngetich (2011) carried out a similar study, he used a linear regression model ROE = Ŭ+ ɓ(IR) hence ignoring the other independent variables. In his study he used the industry mean in a given year as the interest rate, rather than computing the individual banksô ratio of interest income to the value of the assets generating the interest income. Also as opposed to conducting a census survey of the whole industry he used random sampling to pick thirty (30) commercial banks to form his target population. From the overview of these factors, it is apparent more light needs to be shed in this area of research by widening the scope of the study through the revision of the model and conducting a census survey. It is thus imperative that the gaps be filled hence the study set to answer the following question. What is the effect of lending interest rate on the financial performance of commercial banks in Kenya?

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the methodology used to carry out the study. These includes, research design, data collection procedures and finally data analysis.

3.2 Research Design

The research utilized descriptive research. Descriptive research is used to describe characteristics of a population or phenomenon being studied. It does not answer questions about how/ when/why the characteristics occurred. Rather it address the ñWhatò question hence descriptive research was found to be in tandem with the research question which sought to answer the question, What is the effect of lending interest rates on the financial performance of commercial banks in Kenya.

3.3 Population

This study was a census survey of all the 43 commercial banks registered and in operation as at 31st December 2012 licensed to carry out the banking business in Kenya under the banking Act of Kenya CAP 486. (Appendix 1)

3.4 Data Collection

This Study utilized secondary data mainly sourced from the CBK publication on the banking sector and also from the individual bankôs published annual financial reports for the previous five consecutive financial years for the period between 2008 and 2012.

3.5 Data analysis

The data collected was analyzed using multiple regression analysis models.

3.5.1 Analytical Model

$Y = ß_0 + ß_1X_1 + ß_2X_2 + ß_3X_3 + Ů$

Where Y = Dependent variable

X_1 = Lending interest rate

X_2 = Operating cost efficiency

X_3 = Management Efficiency

$ß_0$ ï $ß_3$ = Change included in Y by each X

Ů= Error term.

Where;

Y = Financial performance as measured by ROE.

X_1 = Lending interest rate as measured by ratio of interest income to asset generating the income.

X_2 = Operating cost efficiency as measured by ratio of operating cost to net operating Income.

X_3 = Management Efficiency as measured by Non interest expense to total assets.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents the analysis of data collected. The study used secondary data covering the period from 2008 to 2012 for analysis. The data was sourced from Central Bank of Kenya and was used to answer the researcherôs question. The researcher sought to determine the effect of lending interest rates on the financial performance of the commercial banks in Kenya. Regression analysis and Pearson correlation analysis was used to test the relationship between lending interest rate and financial performance.

4.2 Data Analysis and Presentation

The collected data was edited and cleaned for completeness in preparation for coding. Once the data was coded, it was entered into the Statistical Package for Social Sciences (SPSS) version 17 for analysis. The research was more quantitative hence descriptive statistics was used to determine the effect of lending interest rates on the financial performance of the commercial banks in Kenya.

4.2.1 Return on Equity

The financial performance of banks was measured using ROE. ROE is an important indicator of bank performance in terms of profitability because it indicates how well it is utilizing the shareholders contribution. It indicates the rate at which the shareholders earn profit from their investment. ROE can also be used to compare the performance of an organization to the others in the same industry. Total ROE for five years was calculated.

This was regressed against Lending interest rate, Operating cost efficiency and Management Efficiency. Over the five year period the financial performance of banks has been varying greatly with some banks doing better or worse than the others.

4.2.2 Lending interest rate, Operating cost efficiency and Management Efficiency

Lending interest rates were calculated by diving interest income by loans advanced. Operating efficiency was calculated by dividing net operating cost with net operating profit while management efficiency was computed by dividing non interest expense with total assets. The findings are as shown in Appendix II, III and IV.

4.3 Regression Analysis

The ordinary least square regression was used to determine the effect of lending interest rates on the financial performance of the commercial banks in Kenya.

4.3.1 Model Summary

Table 4.1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.378[a]	0.143	0.071	0.15565
a. Predictors: (Constant), Management Efficiency, Operating cost efficiency, Lending interest rate				
b. Dependent Variable: ROE				

Source: Research Findings

The research study wanted to determine the effect of lending interest rates on the financial performance of the commercial banks in Kenya. The research findings indicated that there was a weak but positive relationship (R= 0.378) between the variables. The result of the study also indicates that the value of R-squared is 0.143. This means that independent variables investigated in the study (Management Efficiency, Operating cost efficiency, Lending interest rate) account for or explain 14.3% of the dependent variable, financial performance. The remaining 85.7% are explained by other variables which are not under study. The Adjusted R-squared was 7.1%, reflecting that some factors under consideration have higher effects on financial performance than others.

4.3.2 Coefficients of Determination

Table 4.2 Coefficients of Determination

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.205	0.052		3.911	0.000
	Lending interest rate	0.106	0.148	0.115	0.717	0.478
	Operating cost efficiency	0.014	0.008	0.282	1.796	0.081
	Management Efficiency	-1.254	0.659	-.305	-1.905	0.065
a. Dependent Variable: ROE						

Source: Research Findings

From the table 4.4 above it was evident that at 95% confidence level, the variables together produce regression coefficients that are both individually and jointly statistically insignificant, with low effects on the financial performance of banks though positive. From the p-values (value of 0.05 recommended) and t-Stat (value of 2 is recommended), it can be observed that the independent variables management efficiency affect financial

performance more significantly, (p-value =0.065); followed by Operating cost efficiency (p-value=0.081), while Lending interest rate was the lowest (p-value=0.478).

The multiple Regression results also show that each of the three independent variables has positive but insignificant beta value except Management Efficiency which has a negative beta value. This is evidenced by the relevant t-values coupled with the p-values for each independent variable being more than 0.05, thereby indicating the significance level for each independent variable. The study shows that financial performance of banks is insignificantly affected by the three independent variables investigated and that two of the independent variables are positively correlated with the dependent variable under the study while one variable was negatively correlated. ($ƃ_0$= 0.205, $ƃ_1$ = 0.106, $ƃ_2$ = 0.014, $ƃ_3$ = -1.254).

The equation for the regression model is expressed as:

$Y= ƃ_0 + ƃ_1X_1 + ƃ_2X_2 + ƃ_3X_3$

$Y = 0.205 + 0.106X_1 + 0.014X_2 - 1.254X_3$ Where

Y= Financial performance of Commercial Banks

$ƃ_0$= the regression co-efficient

X_1= Lending interest rate

X_2= Operating cost efficiency

X_3= Management Efficiency

Constant = 0.205 shows that if Management Efficiency, Operating cost efficiency, Lending interest rate were all rated zero, the financial performance as measured by return on equity would be 20.5%.

4.3.3 Analysis of Variance

The findings are also verified through ANOVA statistics which gives a p-value of 0.132 which indicates that the weal relationship is statistically insignificant. as shown in table 4.5 below.

Table 4.3 Analysis of Variance (ANOVA)

Model		Sum of Squares	d.f.	Mean Square	F	Sig.
1	Regression	0.145	3	0.048	1.999	0.132[a]
	Residual	0.872	36	0.024		
	Total	1.017	39			
a. Predictors: (Constant), Management Efficiency, Operating cost efficiency, Lending interest rate						
b. Dependent Variable: ROE						

Source: Research Findings

To test the significance of the findings, analysis of variance (ANOVA) was done. A p-value of 0.132 was registered indicating that the relationship was insignificant since the value is far much above the recommended value of 0.05 or less. An F-value of 1.99 also confirms the same findings since itôs above the recommended value of 1 or below.

4.4 Pearson Correlation Analysis

Pearson correlation is normally used to determine correlation between two continuous variables. It indicates the strength and direction of the association between two variables. The value of the Pearson can fall between 0.00 (no correlation) and 1.00 (perfect correlation). A p-value of 0.05 or less is recommended for the correlation to be statistically significant.

Table 4.4 Correlation Analysis

		ROE (Y)	Lending interest rate	Operating cost efficiency (X_2)	Management Efficiency (X_3)
ROE (Y)	Pearson	1	0.011	0.234	-0.248
	Sig. (2-tailed)		0.948	0.146	0.123
Lending interest rate (X_1)	Pearson	0.011	1	-.130	0.221
	Sig. (2-tailed)	0.948		.422	0.171
Operating cost efficiency (X_2)	Pearson	0.234	-0.130	1	0.111
	Sig. (2-tailed)	0.146	0.422		0.497
Management Efficiency (X_3)	Pearson	-0.248	0.221	0.111	1
	Sig. (2-tailed)	.123	0.171	0.497	

Source: Research Findings

In this study, the correlation matrix confirmed that all the variables have a positive relationship with the dependent variable, Return on Equity except management efficiency, with Operating cost efficiency showing a bigger coefficient (0.234). The results also showed that the independent variables (Management Efficiency, Operating cost efficiency, Lending interest rate) also had effect on each other.

4.5 Interpretation of Findings

The research sought to determine the effect of lending interest rates on the financial performance of the commercial banks in Kenya. A weak but positive relationship (R= 0.378) between the variables was found. The study also revealed that 14.3% of financial performance in commercial banks can be explained by interest lending rates. From this study it is evident that at 95% confidence level, the variables produce statistically insignificant values.

Regression coefficients were found to be both individually and jointly statistically insignificant, with low effects on the financial performance of banks though positive. From the p-values (value of 0.05 recommended) and t-Stat (value of 2 is recommended), it can be observed that the independent variables management efficiency affect financial performance more significantly, (p-value =0.065); followed by Operating cost efficiency (p-value=0.081), while Lending interest rate was the lowest (p-value=0.478). The beta values obtained were: β_0= 0.205, β_1 = 0.106, β_2 = 0.014, β_3 = -1.254 hence the regression equation, $Y = 0.205 + 0.106X_1 + 0.014X_2 - 1.254X_3$.

To test the significance of the findings, analysis of variance (ANOVA) was done. A p-value of 0.132 was registered indicating that the relationship was insignificant since the value is far much above the recommended value of 0.05 or less. An F-value of 1.99 also confirms the same findings since itôs above the recommended value of 1 or below.

Pearson correlation analysis established that all the factors were positively related to financial performance except for the management efficiency which had a negative relation.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the study, discussions and conclusions. The researchers then present the major limitations of the study and the recommendations for further research and for the policy and practice.

5.2 Summary

The study used secondary data covering the period from 2008 to 2012 for analysis. The data was sourced from Central Bank of Kenya. The researcher sought to determine the effect of lending interest rates on the financial performance of the commercial banks in Kenya. The collected data was edited and cleaned for completeness in preparation for coding. Once the data was coded, it was entered into the Statistical Package for Social Sciences (SPSS) version 17 for analysis. The research was more quantitative hence descriptive statistics was used to determine the relationship lending interest rates and financial performance.

The research findings indicated that there was a weak but positive relationship (R= 0.378) between the variables. The result of the study also indicates that the value of R-squared is 0.143. This means that independent variables investigated in the study (Management Efficiency, Operating cost efficiency, Lending interest rate) account for or explain 14.3% of the dependent variable, financial performance. The remaining 85.7% are explained by

other variables which are not under study. The Adjusted R-squared was 7.1%, indicating that some factors under consideration have higher effects on financial performance than others.

Regression analysis yielded the following equation which can be used to predict the financial performance of commercial banks in relation to Management Efficiency, Operating cost efficiency, Lending interest rate:

$Y= ϐ_{0 +}ϐ_1X_{1+} ϐ_2X_2+ϐ_3X_3$

$Y = 0.205+ 0.106X_1+ 0.014X_2 -1.254X_3$

Where

Y= Financial performance of Commercial Banks

$ϐ_0$= the regression co-efficient

X_1= Lending interest rate

X_2= Operating cost efficiency

X_3= Management Efficiency

In relation to other researchers, Mangôeli (2012) using descriptive research design in his study of relationship between interest rate spread and financial performance of commercial banks pointed out that interest rate spread affected the performance of commercial banks while Kipngetich (2011) using regression model to investigate the relationship between interest rates and ROE with financial performance as the independent variable and interest rate as the dependent variable established that there is a positive relationship between the two variables though the effect of interest rates on profitability is not significant in the all the banks. In his view all the other factors which

Influence profitability needs to be enhanced to in order to improve the financial performance of commercial banks in Kenya. The findings are therefore in line with previous findings and therefore support existing literature.

5.3 Conclusion

The study established that lending interest rates impacts the financial performance of commercial banks in a positive but weak way. The lending interest rates activities considered were: Management Efficiency, Operating cost efficiency, Lending interest rate. The study concluded that there is a positive but insignificant relationship between lending interest rates and financial performance of commercial banks.

5.4 Recommendations for Policy

This study recommends the following measures to ensure improved financial performance of commercial banks: lending interest rates affects financial performance of commercial banks in a positive but weak way. Therefore, this research recommends that commercial banks should judiciously manage their interest rate to improve their financial performance since it has a positive effect on the bankôs financial performance.

The study also recommends for income source diversification by banks since lending interest rate only account for 14.3% which leaves a clean 85.7% revenue to be sourced through other means.

5.5 Limitations of the Study

The study considered only three factors that influence financial performance. This could have affected the accuracy of the findings and possibly explain the low R-squared values registered in the study.

The study mainly depended on financial data provided by CBK. This means that the

accuracy of the data provided depended on the information provided. This is however a general problem when dealing with secondary data, I countered the problem by crosschecking data from individual banks.

CBK delayed the completion of the data collection process. The researcher had to exercise utmost patience and make extra effort in reminding CBK banks supervision department liaison person and making constant follow-ups so as to acquire sufficient data.

5.6 Areas for Further Research

The study was concerned with establishing the relationship between lending interests rates and financial performance of commercial banks. 14.3 % of the financial performance in commercial banks could be explained by Management Efficiency, Operating cost efficiency, Lending interest rate. However, the remaining 85.7 % can only be explained using other factors not under consideration in this study. Therefore, there is need to establish these other factors.

The research study covered only a period of 5 years i.e. from 2008 ï 2012, a similar study may be conducted but with a bigger time span consideration to find out whether the results will hold in the long term.

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APPENDIX

APPENDIX I: LIST OF COMMERCIAL BANKS IN KENYA

1. African Banking Corporation
2. Bank of Africa Kenya Ltd
3. Bank of Baroda (Kenya) Ltd
4. Bank of India
5. Barclays Bank
6. CFC Stanbic Bank
7. Chase Bank
8. Citi Bank
9. Co-Operative Bank of Kenya
10. Commercial Bank of Africa
11. Consolidated Bank of Kenya
12. Credit Bank
13. Development Bank of Kenya
14. Diamond Trust Bank
15. Dubai Bank Kenya Ltd
16. Ecobank
17. Equatorial Commercial Bank
18. Equity bank
19. Family Bank
20. Fidelity Commercial Bank
21. Fina Bank
22. First Community Bank
23. Giro Commercial bank

24. Guardian Bank
25. Gulf African Bank
26. Habib Bank\
27. Habib Bank A.G Zurich
28. Housing Finance
29. I & M Bank Ltd
30. Imperial Bank
31. Jamii Bora Bank
32. K-Rep Bank
33. Kenya Commercial Bank
34. Middle East Bank
35. National Bank of Kenya
36. NIC Bank
37. Oriental Commercial Bank
38. Paramount Universal Bank
39. Prime Bank
40. Standard Chartered Bank
41. Transnational Bank
42. United Bank of Africa
43. Victoria Commercial Bank

Source. CBK August, 2012

Appendix II: Return on Equity

Name of Bank	2008	2009	2010	2011	2012	Mean	Stdev
African Banking Corporation	0.23	0.23	0.29	0.3	0.26	0.262	0.0327
Bank of Africa Ltd	0.056	0.11	0.16	0.12	0.13	0.1152	0.0380
Bank of Baroda	0.331	0.29	0.38	0.34	0.29	0.3262	0.0378
Bank of India	0.36	0.3	0.36	0.29	0.15	0.292	0.0858
Barclays Bank of Kenya Ltd	0.392	0.38	0.342	0.41	0.44	0.3929	0.0361
CFC Stanbic Bank Ltd	0.184	0.17	0.21	0.31	0.26	0.2268	0.0578
Chase Bank Ltd	0.293	0.26	0.312	0.29	0.26	0.283	0.0226
Citibank N.A.	0.36	0.28	0.22	0.32	0.42	0.32	0.0761
Commercial Bank of Africa	0.342	0.28	0.36	0.3	0.34	0.3244	0.0331
Consolidated Bank of Kenya	1	0.13	0.17	0.17	0.11	0.316	0.3832
Cooperative Bank Ltd	0.239	0.24	0.275	0.29	0.33	0.2748	0.0379
Credit Bank Ltd	0.119	0.12	0.04	0.05	0.07	0.0798	0.0378
Development Bank of Kenya	0.139	0.14	0.16	0.1	0.06	0.1198	0.0398
Diamond Trust Bank Ltd	0.245	0.26	0.36	0.31	0.31	0.297	0.0457
Dubai Bank Ltd	0.016	0.02	0.005	0.03	-0.03	0.0083	0.0231
Ecobank Kenya Ltd	0.038	-0.54	0.04	0.07	-0.77	-	0.3944
Equatorial Commercial Bank	-	0.11	-	0.06	-0.91	-	0.4245
Equity Bank Ltd	0.242	0.24	0.33	0.34	0.38	0.3064	0.0625
Family Bank Ltd	0.341	0.19	0.16	0.16	0.17	0.2042	0.0774
Fidelity Bank Ltd	0.171	0.11	0.47	0.3	0.09	0.2282	0.1580
Fina Bank Ltd	0.07	0.02	0.11	0.2	0.14	0.108	0.0683
First Community Bank Ltd	-	-0.23	-0.28	0.13	0.27	-	0.2857
Giro Commercial Bank Ltd	0.21	0.22	0.47	0.21	0.12	0.246	0.1316
Gulf African Bank Ltd	-0.3	-0.14	0.04	0.12	0.24	-0.008	0.2138
Guardian Bank Ltd	0.053	0.07	0.12	0.16	0.18	0.1166	0.0550
Habib A.G. Zurich	0.312	0.3	0.22	0.2	0.27	0.2604	0.049
Habib Bank Ltd	0.236	0.27	0.26	0.25	0.34	0.2712	0.0404
Imperial Bank Ltd	0.352	0.36	0.4	0.44	0.42	0.3944	0.0379
I&M Bank Ltd	0.312	0.24	0.23	0.32	0.28	0.2764	0.0408
Kenya Commercial Bank Ltd	0.269	0.29	0.28	0.31	0.3	0.2898	0.0161
K-Rep Bank Ltd	-	-0.27	0.1	0.19	0.2	-	0.2854
Middle East Bank (K) Ltd	0.034	0.05	0.2	0.08	0.04	0.0808	0.0689
National Bank of Kenya Ltd	0.289	0.28	0.27	0.23	0.11	0.2358	0.0738
NIC Bank Ltd	0.267	0.24	0.31	0.34	0.29	0.2894	0.0384
Oriental Commercial Bank	0.072	0.04	0.16	0.15	0.08	0.1004	0.0521
Paramount Universal Bank	0.104	0.08	0.36	0.11	0.08	0.1468	0.1199
Prime Bank Ltd	0.15	0.19	0.2	0.29	0.28	0.222	0.0605
Standard Chartered Bank (K)	0.413	0.49	0.38	0.4	0.38	0.4126	0.0454
Trans-National Bank Ltd	0.098	0.07	0.1	0.17	0.18	0.1236	0.0485
UBA Kenya Bank	0.01	-0.22	-0.16	-0.25	-0.33	-0.19	0.1274
Victoria Commercial Bank	0.223	0.24	0.28	0.26	0.24	0.2486	0.0219

Source. CBK Bank Supervision Report, 2008-2012

Appendix III: Lending Interest Rates

Name of Bank	2008	2009	2010	2011	2012	Mean	Stdev
African Banking Corporation	0.26	0.25	0.20	0.18	0.23	0.2232	0.0345
Bank of Africa Ltd	0.20	0.13	0.13	0.14	0.19	0.1559	0.0355
Bank of Baroda	0.10	0.11	0.11	0.13	0.17	0.1228	0.0283
Bank of India	0.28	0.29	0.31	0.30	0.28	0.2934	0.0113
Barclays Bank of Kenya Ltd	0.13	0.16	0.18	0.16	0.17	0.1605	0.0189
CFC Stanbic Bank Ltd	0.07	0.08	0.06	0.06	0.08	0.0713	0.0127
Chase Bank Ltd	0.10	0.10	0.10	0.10	0.09	0.0981	0.0044
Citibank N.A.	0.07	0.09	0.11	0.11	0.23	0.1216	0.0627
Commercial Bank of Africa	0.08	0.07	0.10	0.07	0.08	0.0800	0.0118
Consolidated Bank of Kenya	0.13	0.16	0.23	0.26	0.26	0.2103	0.0583
Cooperative Bank Ltd	0.11	0.11	0.10	0.15	0.15	0.1240	0.0219
Credit Bank Ltd	0.19	0.21	0.24	0.19	0.30	0.2285	0.0453
Development Bank of Kenya	0.07	0.07	0.01	0.06	0.04	0.0485	0.0274
Diamond Trust Bank Ltd	0.10	0.11	0.10	0.10	0.11	0.1014	0.0086
Dubai Bank Ltd	1.52	0.20	0.18	0.16	0.13	0.4367	0.6033
Ecobank Kenya Ltd	0.06	0.06	0.28	0.06	0.00	0.0917	0.1092
Equatorial Commercial Bank	0.12	0.10	0.14	0.06	0.05	0.0934	0.0402
Equity Bank Ltd	0.16	0.14	0.15	0.15	0.18	0.1560	0.0157
Family Bank Ltd	0.18	0.18	0.19	0.14	0.18	0.1754	0.0176
Fidelity Bank Ltd	0.06	0.07	0.07	0.06	0.04	0.0613	0.0130
Fina Bank Ltd	0.14	0.16	0.11	0.21	0.24	0.1734	0.0528
First Community Bank Ltd	0.23	0.12	0.91	0.11	0.12	0.2974	0.3439
Giro Commercial Bank Ltd	0.09	0.10	0.08	0.09	0.09	0.0893	0.0058
Gulf African Bank Ltd	0.08	0.09	0.09	0.11	0.12	0.0984	0.0191
Guardian Bank Ltd	0.06	0.07	0.11	0.11	0.12	0.0962	0.0271
Habib A.G. Zurich	0.18	0.22	2.34	2.26	0.27	1.0536	1.1370
Habib Bank Ltd	0.08	0.07	0.03	0.10	0.08	0.0701	0.0269
Imperial Bank Ltd	0.14	0.14	0.17	0.17	0.15	0.1541	0.0142
I&M Bank Ltd	0.14	0.10	0.06	0.08	0.07	0.0909	0.0289
Kenya Commercial Bank Ltd	0.17	0.15	0.25	0.12	0.15	0.1665	0.0481
K-Rep Bank Ltd	0.14	0.18	0.17	0.16	0.19	0.1664	0.0187
Middle East Bank (K) Ltd	0.08	0.09	0.07	0.08	0.06	0.0758	0.0115
National Bank of Kenya Ltd	0.33	0.25	0.21	0.18	0.17	0.2286	0.0658
NIC Bank Ltd	0.07	0.08	0.08	0.08	0.31	0.1226	0.1069
Oriental Commercial Bank	0.08	0.06	0.03	0.10	0.08	0.0671	0.0268
Paramount Universal Bank	0.14	0.32	0.05	0.06	0.06	0.1275	0.1153
Prime Bank Ltd	0.18	0.19	0.08	0.09	0.07	0.1200	0.0572
Standard Chartered Bank (K)	0.14	0.13	0.13	0.10	0.12	0.1236	0.0138
Trans-National Bank Ltd	2.19	0.20	0.18	0.16	0.13	0.5718	0.9053
Victoria Commercial Bank	0.08	0.10	0.11	0.11	0.12	0.1050	0.0159

Source. CBK Bank Supervision Report, 2008-2012

Appendix IV: Operating Cost Efficiency

Name of Bank	2008	2009	2010	2011	2012	Mean	Stdev
African Banking Corporation Ltd	1.91	1.96	1.26	1.36	1.48	1.59453	0.32129
Bank of Africa Ltd	11.21	2.93	2.09	2.43	2.73	4.27893	3.88979
Bank of Baroda	1.81	1.58	0.76	0.62	0.57	1.06765	0.58545
Bank of India	0.45	0.58	0.32	0.32	0.59	0.45425	0.13211
Barclays Bank of Kenya Ltd	1.79	1.54	1.38	1.13	1.10	1.3854	0.29039
CFC Stanbic Bank Ltd	6.75	5.54	3.00	1.55	0.65	3.5	2.59501
Citibank N.A.	0.42	0.56	0.67	0.42	0.31	0.47822	0.13878
Commercial Bank of Africa Ltd	2.20	2.60	1.74	2.14	2.50	2.2362	0.33823
Consolidated Bank of Kenya Ltd	6.50	6.77	3.84	5.03	7.65	5.95978	1.51281
Cooperative Bank Ltd	1.76	1.97	1.66	1.93	1.27	1.71895	0.28246
Credit Bank Ltd	2.76	3.13	12.94	8.92	5.59	6.66824	4.28365
Development Bank of Kenya Ltd	1.15	1.30	1.13	1.88	2.69	1.62942	0.66771
Diamond Trust Bank Ltd	1.44	1.74	1.30	1.44	1.14	1.41051	0.22178
Dubai Bank Ltd	2.50	4.12	2.76	1.64	1.84	2.57137	0.98027
Ecobank Kenya Ltd	8.48	-1.16	7.74	15.76	-1.90	5.7858	7.37875
Equatorial Commercial Bank Ltd	-31.83	3.49	-19.64	9.46	-1.81	-8.0676	17.1639
Equity Bank Ltd	1.43	1.40	1.00	0.98	0.89	1.14128	0.25485
Family Bank Ltd	2.68	5.39	5.23	6.21	4.56	4.81193	1.32991
Fidelity Bank Ltd	3.10	3.18	0.62	1.50	5.27	2.73261	1.7834
Fina Bank Ltd	14.00	49.92	9.21	3.32	2.71	15.835	19.6084
First Community Bank Ltd	-1.63	-3.46	-3.90	6.58	2.90	0.09721	4.51406
Giro Commercial Bank Ltd	2.39	1.74	0.60	1.13	2.20	1.61445	0.74551
Gulf African Bank Ltd	-0.38	-2.71	12.52	5.75	3.15	3.66609	5.91805
Guardian Bank Ltd	3.24	2.77	1.87	1.56	1.46	2.17901	0.78254
Habib A.G. Zurich	1.10	0.98	1.20	1.19	0.82	1.05781	0.16249
Habib Bank Ltd	0.92	0.81	0.85	0.37	0.27	0.64229	0.30047
Imperial Bank Ltd	1.35	1.28	1.20	1.09	1.07	1.19774	0.12176
I&M Bank Ltd	0.80	0.76	0.53	0.62	0.87	0.71675	0.13814
Kenya Commercial Bank Ltd	2.63	2.42	1.60	1.23	1.21	1.81769	0.66743
K-Rep Bank Ltd	2.02	3.45	10.29	5.31	4.58	5.13166	3.13941
Middle East Bank (K) Ltd	6.76	4.96	1.10	2.51	5.37	4.13944	2.28735
National Bank of Kenya Ltd	1.82	1.66	1.63	2.19	5.63	2.58609	1.7187
NIC Bank Ltd	1.14	1.51	1.08	0.89	0.88	1.10098	0.25706
Oriental Commercial Bank Ltd	1.84	4.82	1.09	0.51	1.08	1.87002	1.71593
Paramount Universal Bank Ltd	3.07	10.46	2.09	7.92	13.09	7.32826	4.71655
Prime Bank Ltd	1.59	1.35	1.35	1.12	1.13	1.30567	0.1955
Standard Chartered Bank (K) Ltd	1.07	0.75	0.77	0.88	0.73	0.83842	0.14022
Trans-National Bank Ltd	2.50	4.12	2.76	1.64	1.84	2.57137	0.98027
Victoria Commercial Bank Ltd	0.83	0.78	0.67	0.80	0.66	0.75122	0.07738

Source. CBK Bank Supervision Report, 2008-2012

Appendix V: Management Efficiency

	2008	2009	2010	2011	2012	Mean	Stdev
African Banking Corporation Ltd	0.04	0.04	0.04	0.04	0.03	0.04	0.00347
Bank of Africa Ltd	0.03	0.04	0.03	0.02	0.02	0.03	0.00543
Bank of Baroda	0.06	0.05	0.04	0.03	0.02	0.04	0.01721
Bank of India	0.01	0.02	0.00	0.01	0.01	0.01	0.00555
Barclays Bank of Kenya Ltd	0.08	0.08	0.09	0.08	0.08	0.08	0.00358
CFC Stanbic Bank Ltd	0.11	0.08	0.06	0.03	0.02	0.06	0.03331
Chase Bank Ltd	0.05	0.09	0.03	0.04	0.04	0.05	0.02121
Citibank N.A.	0.03	0.03	0.03	0.03	0.03	0.03	0.00256
Commercial Bank of Africa Ltd	0.07	0.08	0.07	0.08	0.10	0.08	0.01064
Consolidated Bank of Kenya Ltd	0.12	0.11	0.09	0.08	0.07	0.09	0.01784
Cooperative Bank Ltd	0.07	0.07	0.06	0.07	0.06	0.07	0.00515
Credit Bank Ltd	0.06	0.07	0.10	0.08	0.07	0.08	0.01444
Development Bank of Kenya Ltd	0.03	0.03	0.04	0.04	0.03	0.04	0.00418
Diamond Trust Bank Ltd	0.05	0.06	0.06	0.06	0.06	0.06	0.00727
Dubai Bank Ltd	0.18	0.23	0.23	0.21	0.23	0.22	0.02046
Ecobank Kenya Ltd	0.05	0.10	0.05	0.07	0.09	0.07	0.01981
Equatorial Commercial Bank Ltd	0.06	0.06	0.06	0.05	0.08	0.06	0.01236
Equity Bank Ltd	0.09	0.08	0.07	0.07	0.07	0.07	0.00968
Family Bank Ltd	0.14	0.14	0.13	0.12	0.12	0.13	0.00669
Fidelity Bank Ltd	0.05	0.03	0.03	0.04	0.05	0.04	0.01019
Fina Bank Ltd	0.12	0.09	0.10	0.07	0.06	0.09	0.02415
First Community Bank Ltd	0.16	0.12	0.10	0.08	0.09	0.11	0.03063
Giro Commercial Bank Ltd	0.05	0.05	0.04	0.03	0.04	0.04	0.00782
Gulf African Bank Ltd	0.03	0.06	0.06	0.07	0.09	0.06	0.02106
Guardian Bank Ltd	0.03	0.03	0.03	0.03	0.03	0.03	0.00111
Habib A.G. Zurich	0.04	0.04	0.04	0.03	0.03	0.04	0.00258
Habib Bank Ltd	0.03	0.03	0.04	0.02	0.02	0.03	0.00927
Imperial Bank Ltd	0.07	0.07	0.08	0.07	0.06	0.07	0.00641
I&M Bank Ltd	0.04	0.03	0.03	0.04	0.05	0.03	0.00723
Kenya Commercial Bank Ltd	0.08	0.09	0.08	0.06	0.06	0.08	0.01288
K-Rep Bank Ltd	0.12	0.14	0.15	0.15	0.15	0.14	0.01327
Middle East Bank (K) Ltd	0.06	0.07	0.06	0.05	0.04	0.06	0.01021
National Bank of Kenya Ltd	0.08	0.07	0.07	0.08	0.10	0.08	0.01031
NIC Bank Ltd	0.04	0.05	0.05	0.04	0.04	0.04	0.0061
Oriental Commercial Bank Ltd	0.05	0.05	0.04	0.02	0.02	0.04	0.01716
Paramount Universal Bank Ltd	0.00	0.00	0.00	0.00	0.00	0.00	0
Prime Bank Ltd	0.04	0.03	0.03	0.03	0.03	0.03	0.00254
Standard Chartered Bank (K) Ltd	0.05	0.04	0.04	0.04	0.04	0.04	0.00401
Trans-National Bank Ltd	0.09	0.11	0.09	0.07	0.07	0.08	0.01766
Victoria Commercial Bank Ltd	0.03	0.03	0.03	0.03	0.03	0.03	0.00129

Source. CBK Bank Supervision Report, 2008-2012