

**THE EFFECT OF CAPITAL STRUCTURE ON THE FINANCIAL
PERFORMANCE OF COMMERCIAL BANKS IN KENYA**

BY

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DECLARATION

STUDENT

I, the undersigned, declare that this is my own original work and has not been submitted to any other university or institution for academic credit.

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This Research Project has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

This paper is dedicated to my parents Mr Geoffrey Kuria Mugwanja & Mrs Catherine Muthoni Kuria for their support, to my siblings Kabuthia, Njeri and Mungai to act as an encouragement to them and to my wife Joyce Gathoni for her support and encouragement to see me through.

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TABLE OF CONTENTS

DECLARATION.....	ii
DEDICATION.....	iii
ACKNOWLEDGMENT	iv
TABLE OF CONTENTS	v
LIST OF ABBREVIATIONS	ix
ABSTRACT.....	x
CHAPTER ONE	1
INTRODUCTION.....	1
1.1 Background to the Study	1
1.1.1 Capital Structure	2
1.1.2 Financial Performance	3
1.1.3 Effects of Capital Structure on Financial Performance	5
1.1.4 Commercial Banks in Kenya	7
1.2 Research Problem.....	9
1.3 Research Objective.....	11
1.4 Value of the study	11
CHAPTER TWO	13

LITERATURE REVIEW	13
2.1 Introduction	13
2.2 Theoretical Review	13
2.2.1 Pecking – Order Theory	13
2.2.2 Efficient Market Hypothesis.....	15
2.2.3 Agency Theory	16
2.2.4 Trade – Off Theory.....	16
2.3 Financial Performance Measures	17
2.4 Non Financial Measures of Bank Performance.....	19
2.5 Capital Structure and Financial Risk.....	21
2.6 Empirical Studies	22
2.7 Summary	26
CHAPTER THREE	27
RESEARCH METHODOLOGY	27
3.1 Introduction	27
3.2 Research Design.....	27
3.3 Population.....	28
3.4 Sample and Sampling Procedure.....	28
3.5 Data Collection.....	29
3.6 Data Analysis	30

3.6.1 Analytical Model	30
CHAPTER FOUR.....	34
DATA ANALYSIS AND FINDINGS.....	34
4.1 Introduction	34
4.2 Models Analysis.....	34
4.3 Descriptive Statistics	35
4.4 Regression Results	36
4.4.1 Statistical significance of the model.....	36
4.4.2 Estimated Model Coefficients.....	37
4.5 Interpretation of Findings.....	40
CHAPTER FIVE	43
SUMMARY CONCLUSION AND RECOMMEDATIONS	43
5.1 Introduction	43
5.2 Summary	43
5.3 Conclusion.....	44
5.4 Limitations of the Study.....	44
5.5 Recommendations	45
5.6 Areas of Further Studies.....	46

REFERENCES.....	47
APPENDICES	51
APPENDIX I: List of Commercial Banks in Kenya.....	51
APPENDIX 2: Table Showing Summary of Ratios from 2008 to 2012.....	53
APPENDIX 2: SPSS Statistical Regression Output	54
Table 1 Model Summary	34
Table 2 Descriptive Statistics	35
Table 3 ANOVA Table.....	37
Table 4 Independent Variables Coefficient Table	39

LIST OF ABBREVIATIONS

BSC	Balanced Score Card
CAGR	Compound Annual Growth Rate
CBK	Central Bank of Kenya
EBIT	Earnings before Interest and Tax
EMH	Efficient Market Hypothesis
GDP	Gross Domestic Product
MFI	Micro Finance Institutions
NFIFO	Net Firm Income from Operations
NGOs	Non Governmental Organizations
NSE	Nairobi Stock Exchange
NSE	Nairobi Stock Exchange
OBS	Off Balance Sheet
OPM	Operating Profit Margin
ROA	Return on Assets
ROCE	Return on Capital Employed
ROE	Return on Equity
ROI	Return on Investment
SMEs	Small and Medium Enterprises

ABSTRACT

The objective of this research is to determine if capital structure does have any effect on the financial performance of commercial banks in Kenya. In most cases, it is expected the capital structure of a firm should have some effects on the performance of commercial banks.

The study was conducted on 35 commercial banks in Kenya which were in operation in Kenya for the five years of study from 2008 to 2012. The various ratios of these commercial banks were computed from the various data collected from the data extracted from their financial statement for the period. The data was then analyzed using linear regression models using SPSS19 to establish if there is any significant relationship of capital structure and the financial performance of these commercial banks.

The finding of the analysis concluded that there is no significant relationship between the capital structure and the financial performance of commercial banks in Kenya. There was very minimal effect which is negligible and therefore it was concluded that there is no relationship between capital structure and financial performance of commercial banks in Kenya.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Capital composition matters to most firms in free markets, but there are differences. By its very nature, banking is an attempt to manage multiple and seemingly opposing needs. Banks provide liquidity on demand to depositors through the current account and extend credit as well as liquidity to their borrowers through lines of credit (Kashyap, Rajan & Stein, 1999). Banks have always been concerned with both solvency and liquidity.

In 2008, the global banks industry had a total value of assets of \$ 90,880.4 billion which was a compound annual growth rate (CAGR) of 16.4% for a period of five years from 2004 to 2008, (Banks Industry Profile report, 2009). This forecast is expected to reduce with a CAGR of 9.7% for the five year period from 2008 to 2013 and it's expected to drive banking industry total asset value to \$ 144, 153.40 billion by the end of 2013 (Pg 8). The report further shows that Europe dominates the market with 54.1% share, followed by Asia Pacific with 19.5%, America with 18.6% and the rest of the world, where Africa falls is 7.8%. Therefore, bank industry cannot be ignored in any economy because of its significant role (Banks Industry Profile report, 2009).

1.1.1 Capital Structure

Capital structure is defined as the composition of all the securities the firm issues in order to finance its operations (Brav & Maug, 1998). Capital structure is the way a firm combines equity and debt to gain the maximum value. The value of a firm is therefore defined as the market value of debt plus the market value of equity (Ross, Westerfield, Jaffe & Kakani, 2009). A firm should work towards maximizing its value and at the same time maximize the stockholders' interests and it should therefore establish what ratio maximizes the shareholders' interests (Ross et al., 2009).

According to Myers & Majluf (1984), industry sector can be a determinant of firm's capital structure decisions, given that the nature and composition of assets influence financing needs, as well as firm's capacity to provide creditors with assets as collateral. Therefore, firms whose activities are based on tangible assets obtain debt more easily. On the contrary, firms whose activities are based on intangible assets associated with future growth opportunities experience more difficulty in obtaining credit.

The similarities between the banks and non financial firms' capital structure may be greater than previously thought, as noted by (Gropp & Heider, 2009). They observed that most determinants of capital structure in other firms also apply to banks with exception of those banks which are close to minimum capital requirements. They also observed that banks finance their statement of financial position growth entirely with non deposit liabilities meaning composition of banks total liabilities has shifted away from deposits. It is therefore difficult to state the optimal capital structure of a bank since they appear to

have stable capital structures at levels that are specific to each individual bank. Therefore in a dynamic framework, banks' target leverage is time invariant and Bank specific (Gropp et al., 2009).

Capital structure of any institution should therefore be well managed to ensure that the firm is the firm remains in operation and it's able to finance its projects. Therefore, the way a bank combines its debt and equity, will define its market value as noted by (Ross et al., 2009).

1.1.2 Financial Performance

Financial performance and financial profitability are frequently used as interchangeable terms, (Burkhardt & Wheeler, 2013). With the increasing number of analyses and research papers referencing financial performances, there is a need to have basic understanding of definition of financial performance and its various measures, (Burkhardt, 2013). Therefore, choosing a particular measure of financial performance depends on how well it meets the intended purpose. Financial performance of a bank is defined as its capacity to generate sustainable profitability, (European Central Bank (ECB), 2010). Therefore we can say that financial performance of a bank is its ability to employ the available resources to increase shareholders' wealth and generate sustainable profits to strengthen its capital base through retained earnings to ensure future profitability.

Measurement of financial performance of any firm is crucial in deciding the strategies to be formulated to ensure that the firm is in the right path. This is particularly important in

order to establish if a firm is making losses which if they become consistent may lead a firm to depleting its capital base, (ECB, 2010). Key drivers of measuring bank performances are earnings, efficiency, risk taking and leverage, (ECB, 2010). Firstly, a bank must be able to generate earnings to remain in operation, secondly, it should be efficient meaning it should be able to generate revenue from the given assets and make profits, thirdly, it should be able to adjust its earnings to overcome the various risks involved such as credit risk and finally it should be able to improve its results through the way it functions.

There are various ways through which bank performance can be measured. European Central Bank (2010) report has categorized them in to three major categories which are traditional, economic and market based measures. The traditional measures are similar to those used by other firms which include Return on Assets (ROA) which is the net income for the year divided by the total assets. The other measure is Return of Equity (ROE) which is the internal performance measure of shareholder's value and this is the most famous measure of financial performance. The Economic measures of performance aim at assessing the economic results generated by the bank from its economic assets. The market based measures depend on the way the capital market value the performance of firm as compared to its economic and accounting value.

The main measure of financial performance is through ratio analysis which has been identified as convenient and efficient method of assessment since it combines information from financial statements and comes up with numbers that are more easily

interpreted financial meaning, (Burkhardt, 2013). Financial measures are regarded as “lag” indicators of performance whereas Intellectual capital measures (like non-financial measures) are regarded as “lead” indicators since they are mainly intended to generate future earnings power (Kaplan & Norton, 2001). While all future earnings are uncertain, it is greater for intellectual capital than for tangible assets. Traditionally, firms relied on their tangible assets to drive their performance and firm-level strategy.

Therefore financial performance is a major factor in banking industry in order to be able to identify the growth of the economy at large. After 2008 financial crisis, major economies have tried to regulate the financial sector mainly through changes in capital requirements as per Basel III. This has also prompted the review of ROE and other bank performance measures since they form a major part of bank decisions (Seoh, 2012).

1.1.3 Effects of Capital Structure on Financial Performance

The role of commercial banks in an economy cannot be ignored. Commercial banks play an important role in facilitating economic growth, (Scott & Timothy, 2006). Banks deposits represent the liquid form of money. On a micro economic level, commercial banks represent the primary source of credit to most small businesses and many individuals. Omutunde (2002) asserts that, a sound financial system will contain, predominantly, banks with adequate capital to withstand the most probable adverse shocks, and will have staff skilled in assessing conditions and coming up with solutions to manage liquidity, credit, market and other risks.

Empirical evidence suggests that profitability, corporate tax, growth, asset structure and bank size are important variables that influence banks' capital structure. Many studies show a negative relationship between profitability and leverage. The results, which are also consistent with previous studies of (Titman & Wessels, 1988) show that, higher profits increase the level of internal financing. Profitable banks accumulate internal reserves and this enables them to depend less on external funds. Even though profitable banks may have better access to external financing, the need for debt finance may possibly be lower, if new investments can be financed from accumulated reserves. This finding is consistent with the pecking order theory that suggests that profitable firms prefer internal financing to external financing.

According Llewellyn (1992), competitive and regulatory pressures are likely to reinforce the central strategic issue of capital and profitability and cost of equity capital in shaping banking strategy. In order to assess and manage risks, banks must have effective ways of determining the appropriate amount of capital that is necessary to absorb unexpected losses arising from their market, credit and operational risk exposures. In addition to this, profits that arise from various business activities of the banks need to be evaluated relative to the capital necessary to cover the associated risks. These two major links to capital and risk as a basis to determine capital and the measurement of profitability against risk-based capital allocations, explains the critical role of capital as a key component in the management of bank portfolios.

In addition, other studies indicate a positive and statistically significant relationship between tax and leverage. The positive coefficient could be attributable to the additional tax levied on banks. Banks, therefore, have an incentive to employ more debt capital given that interest charges are tax deductible. Thus, successive tax increase would be associated with increasing debt capital (Abor, 2004). There is also a positive relationship between growth on one side and leverage on the other. Growing firms place a greater demand on the internally generated funds of the firm. Consequently, banks with a relatively high growth rate will tend to look at short-term less secured debt first then to longer-term more secured debt to finance their growth (Abor & Biekpe, 2005).

1.1.4 Commercial Banks in Kenya

Banking industry has a major role in most economies which facilitate their development and they are therefore extremely important engines of economic growth. This is because, they are the important sources of finance in most economies for majority of the firms, they provide generally accepted means of payments since they are the main depository for the economy savings and finally, since most developing economies have liberalized their banking systems, their managers now have much freedom in how to run these banks in order to facilitate growth (Arun & Turner, 2004).

Commercial banks operations in Kenya are controlled by CBK which defines the environment in which these banks should operate. It also sets the various capital requirements that any commercial bank should operate by setting up minimum capital requirements. CBK Prudential Guidelines (PG) (2013) part 3 states that “Capital

requirements for a specific institution may increase or decrease depending upon its risk profile”. We therefore note that capital requirement by the CBK is associated to risk of the bank. The section goes further and sets a formula for determining minimum capital requirement (MCR) which will be calculated by dividing its Core and Total Capital by the sum of the value of its Risk-Weighted Assets for Credit Risk, Market Risk and Operational Risk, to arrive at the minimum Tier One and Regulatory capital adequacy ratios respectively.

We therefore note that CBK uses capital structure to assess the exposure to risk of the commercial bank but it doesn't assess the impact of these requirements on their profitability. PG 1.4.18 (2013) defines the total capital as core capital plus the supplementary capital whereas Banking Act section 2(1) defines the core capital (Tier 1) as the permanent shareholders' equity which is issued and fully paid up ordinary shares and perpetual non cumulative preference shares plus all disclosed reserves less goodwill or any other intangible assets. PG 1.4.15 defines supplementary capital (Tier 2) to include 25% of asset revaluation reserves which have received prior central bank approval, subordinated debt, issues and paid-in hybrid (debt equity) capital instruments or any other capital instrument approved by central bank. It further states that supplementary capital must not exceed core capital.

The CBK also regulates commercial banks in line with the Banking Act CAP 488. The Banking Act part 1 defines the core capital which is the minimum capital that each bank must have before it starts its operations in Kenya. The CBK has developed prudential guidelines which are used to regulate the banking industry. These guidelines are in line with the Banking ACT and they define the specific requirements that a bank must meet. In this line, it has issued Prudential Guidelines (2013) which require that every bank in

Kenya must have a minimum core capital of Ksh 1 billion by 31st December 2012. This has affected some banks especially the small banks which have been forced to seek other forms of financing in order to raise this minimum requirement. This will eventually affect the capital structure of these banking institutions.

There are 44 Commercial Banks in Kenya CBK, (2011). The banking Industry in Kenya has also grown significantly over the past ten years. According to Central Bank of Kenya (CBK) annual report (2012), the sectors total assets increased by 15.8% from Ksh 1,873.8 billion in June 2011 to 2,195 billion in June 2012, although this was a decline from 21% which was experienced in June 2010 to June 2012. This growth is expected to continue in the year 2012 to 2013. According to CBK Banks supervision annual report (2011), as of 31st of December 2011, there were 44 banking institutions out of which, 43 are commercial banks and one is mortgage finance company. The total asset size of these banks as of December 2011 was Ksh 2,020.8 billion which is an increase from Ksh 457 billion in 2002 an increase of over three times over a period of ten years. This may have been contributed by the increased development in this industry which have also led to increased profitability and risk in the business.

1.2 Research Problem

The capital structure of banks is, however, still a relatively under-explored area in the banking literature. Currently, there is no clear understanding on how banks choose their capital structure and what factors influence their corporate financing behavior. The capital structure of banks is largely determined by the asset side of the statement of

financial position, (Diamond & Rajan, 2000). Therefore there is potential effect of capital regulation on capital structure of banks and hence there is a need to study if these regulations have any impact on the capital structure.

Financial management has two major goals which are to maximize profit whereas and to control risk (Ross et al., 2009). Considering that commercial banks are there to maximize profits and shareholders wealth, they also need to comply with various requirements as laid down by the Banking Act and one of the requirements is capital adequacy. Therefore this study would like to assess how financial performance of commercial banks in Kenya is affected by the capital structure as required by the CBK and other international requirements such as Basel III.

The implementation of various new guidelines of capital requirements creates a great need to study the effects of capital structure on financial performance. This will help in establishing how commercial banks should balance between these two to ensure maximum profitability. This is because if they incur losses which will end up reducing the capital through reduction of the retained earnings reserves. In addition, most of the studies carried out locally have not studied the impact of capital structure on commercial banks but have mostly concentrated on other firms. Orua (2009) in her study of the relationship between capital structure and financial performance of micro finance in Kenya restricted her study on micro finance institutions. Kamau (2009) also carried out a research on effects of change in capital structure on performance of companies quoted in Nairobi Stock Exchange. Nyaata (2009) also carried out a study on relationship between capital structure earnings growth and price earnings ratio of firms in NSE. In all these

studies, we find that the scholars have concentrated much on firms listed in the NSE which includes some banks. Therefore this study will concentrate on the impact of capital structure on commercial banks in Kenya. This is because we find that most of the other researchers have mainly concentrated on capital structure and their determinants.

The study will therefore seek to answer the following research question: What is the effect of capital structure on the financial performance of commercial banks in Kenya?

1.3 Research Objective

To establish the effect of capital structure on financial performance among Commercial Banks in Kenya.

1.4 Value of the study

This study will help Commercial Banks' policymakers to have a clear understanding of how capital structure impacts on their financial performance.

The study will make multiple contributions to the literature on capital structure and financial performance through the investigation of the correct composition of capital structure that maximizes the shareholders return and impacts positively on a bank's financial performance.

In addition study paves the road for further research on the topic under study. Students interested in Finance as a subject will find it useful and build on the existing body of knowledge.

Finally the study will come in handy to support the Government and CBK as regulators in their quest to streamline operations in the banking sector putting in mind that the economy as a whole inches on how the banking sector performs. Inappropriate resource allocation can hinder growth in the economy. There is a contagion effect between banks performance and economic performance, which have a direct impact on employment levels, economic growth, inflation levels etc.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examines the literature on Capital structure and financial performance among commercial Banks in Kenya. The first part examines various capital structure theories which are relevant to this study. The theories to be explored include Pecking Order theory, Efficient Market Hypothesis, Agency Theory and Trade off Theory, which will represent our theoretical review of the study. The second part will be review of various empirical studies as have been carried out by various scholars. Then we shall summarize the reviews in context of this study.

2.2 Theoretical Review

The following theories are relevant in capital structure and financial performance and are therefore discussed. These are the Pecking Order theory, Efficient Market Hypothesis, Agency theory and Trade off theory.

2.2.1 Pecking – Order Theory

The pecking-order theory argues that, because of information asymmetry, firms choose to use their retained earnings first to finance their investments (Myers et al., 1984). When internal financing does not suffice, firms issue debt first and equity last. The pecking

order theory suggests that firms have a particular preference order for capital used to finance their businesses (Myers, 1984). Owing to the presence of information asymmetries between the firm and potential financiers, the relative costs of finance vary between the financing choices. Where the funds provider is the firm's retained earnings, meaning more information than new equity holders, the new equity holders will expect a higher rate of return on capital invested resulting in the new equity finance being more costly to the firm than using existing internal funds. A similar argument can be provided between the retained earnings and new debt-holders. In addition, the greater the exposure to the risk associated with the information asymmetries for the various financing choices besides retained earnings, the higher the return of capital demanded by each source. Thus, the firm will prefer retained earnings financing to debt, short-term debt over long-term debt and debt over equity.

Having enough slack would allow firms to minimize the costs of information asymmetry associated with external financing. Studies show that majority of Chief Finance Officers appreciate financial flexibility, more so when the proportion of managerial ownership is higher. Most managers confirm that debts are issued when their internal funds are insufficient to fund their activities. Sometimes a firm's inability to obtain funds using debt affects their decisions to issue common stock. There is weak support for either the trade-off or the information asymmetry-based pecking-order theory of capital structure, (Graham & Harvey, 2001).

2.2.2 Efficient Market Hypothesis

An "efficient" market is defined as a market where there are large numbers of rational, profit-maximizers actively competing, with each trying to predict future market values of individual securities, and where important current information is almost freely available to all participants. On the average, competition will cause the full effects of new information on intrinsic values to be reflected "instantaneously" in actual prices (Fama, 1965). A market is said to be efficient if prices in that market reflect all available information.

In an efficient market, share prices reflect all information available to market participants and that, by implication, share prices cannot be predicted, thus precluding any abnormal profit opportunities. However, long memory in equity data confounds market efficiency since it implies that past prices can be used to predict future price changes. This in turn means then investment strategies based on historical returns can generate subsequent risk-adjusted normal returns. Therefore, long memory in stock return data provides evidence against the weak-form version of the EMH. This result has important implications for portfolio management strategies and risk diversification. In addition, the efficiency of an equity market in processing information also affects its allocative capacity and therefore its contribution to output growth.

2.2.3 Agency Theory

Agency theory extends the analysis of the firm to include separation of ownership and control, and managerial motivation. In the field of corporate risk management agency issue have been shown to influence managerial attitudes toward risk taking and hedging (Smith & Stulz, 1985). Consequently, agency theory implies that defined hedging policies can have important influence on firm value. The latter hypotheses are associated with financing structure, and give predictions similar to financial theory. Managerial motivation factors in implementation of corporate risk management have been empirically investigated in a few studies with a negative effect (Geczy & Minton, 1997). Financial policy hypotheses were tested in studies of the financial theory, since both theories give similar predictions in this respect. All in all, the bulk of empirical evidence seems to be against agency theory hypotheses however. Agency theory provides strong support for hedging as a response to mismatch between managerial incentives and shareholder interests.

2.2.4 Trade – Off Theory

The trade-off theory as first developed by (Modigliani & Miller, 1958) argues that firms have optimal debt ratios based on the trade-off between the tax deductibility of interest expenses and the costs of financial distress. The findings of (Graham et al., 2001) are that most companies do have a target range, but only a few of them have a strict target. The trade-off theory of capital structure supposes that in order to maintain a target range, firms should be constantly rebalancing their target to keep up with stock price changes. Transaction costs and fees for issuing debt affect the decisions of only half of the Chief

Finance Officers when they choose the appropriate amount of debt for their firms. The practice of trade-off theory of capital structure is not widely used.

The static trade-off theory maintains that firms select an optimal capital structure by trading off the advantages of debt financing against its cost. The optimum debt level maximizes firm value and should become a target debt level. According to (Myers et al., 1999), this static trade-off theory quickly translates into empirical hypotheses, for example, it predicts reversion of the actual debt ratio towards a target or optimum.

2.3 Financial Performance Measures

Profitability measures the extent to which a business generates a profit from the use of land, labor, management, and capital. It is measured by net firm income from operations (NFIFO), rate of return on firm assets (ROA), rate of return on firm equity (ROE) and operating profit margin (OPM) (Miller & Modigliani, 1966). Net revenues available from normal operations after fixed and variable expenses have been deducted and for accuracy, it is calculated on an accrual basis. Operating profit reflects ability to generate revenues and control costs. It is revenue available to compensate debt and equity capital.

The measure of operating profit at divisional level is EBIT (earnings before interest and taxes). EBIT is calculated before interest and income taxes, and hence reflects the divisions' profit and loss responsibility. The operating profit measure used at Group level is net operating profit. It comprises the EBIT of the divisions as well as profit and loss

effects that the divisions are not held responsible for, including income taxes and other reconciliation items.

Rate of return on Assets (ROA) is the net income generated by all assets, after labor has been compensated but before interest payments. It is the operating profitability per dollar of assets and allows comparison between different sizes and types of businesses (Miller et al., 1966). Firm size acts as a proxy for the cost of hedging or economies of scale. Risk management involves fixed costs of setting up of computer systems and training/hiring of personnel in foreign exchange management. Moreover, large firms might be considered as more creditworthy counterparties for forward or swap transactions, thus further reducing their cost of hedging.

The book value of assets is used as a measure of firm size. Rate of return on Equity (ROE) is the return after all labor and interest expenses have been deducted from the earnings. It measures the return to the owner of the business for their capital investment and can be compared to alternative investments. Liquidity (cash flow) is the ability of a firm business to meet financial obligations as they come due in the short term, without disrupting the normal operations of the business. It is measured by the Current ratio which is Current assets divided by the Current liabilities. It is a basic indicator of short-term debt servicing and/or cash flow capacity and also indicates the extent to which current assets, when liquidated, will cover current obligations. Firms with highly liquid assets or high profitability have less incentive to engage in hedging because they are exposed to a lower probability of financial distress. Liquidity is measured by the quick

ratio, i.e. quick assets divided by current liabilities). Profitability is measured as EBIT divided by book assets. Cash flow refers to the amount of money available to meet the financial obligations of the company.

Solvency on the other hand gauges the firm's ability to pay all financial obligations if all assets are sold and to continue viable operations after financial adversity (Miller et al., 1966). It is measured by Debt to asset ratio, Debt to equity ratio and Equity to asset ratio. Finally yet importantly are ratios. Commonly used financial ratios can be applied to evaluate the performances of operators and top management more accurately. Performance measurement is perhaps the most important, yet most misunderstood and most difficult, task in management accounting. Traditional accounting performance measurement employs financial techniques such as Return on Assets (ROA) and Return on Equity (ROE) These have been criticized for being backward looking, unable to measure intangible resources and not suitable for assessing performance of investments in new technologies and markets which firms require to successfully compete in global markets (Seoh, 2012).

2.4 Non Financial Measures of Bank Performance

Banks have to comply with the controls applied by the Central Bank, these are currently mainly financial. The bank have however developed a number of non-financial measures, Some examples of the bank's non-financial measures are efficiency measures, such as turnaround time, loan processing time, counter service (customer queuing time), and customer complaints' processing time. Balanced Score Card was introduced by the bank's

consultant in 2002, and has been implemented since January 2003, starting with the marketing department. It is still too early to assess the progress of the BSC implementation.

The Balanced Scorecard (BSC), for example, considers relational capital (customer perspective), structural and human capital (innovation, learning, and internal perspectives) and the impact of Intellectual capital on shareholder goals (financial perspective) (Kaplan et al., 2004).

Risk management is one of main business activities of commercial banks (Saunders & Cornett, 2006). Credit risk, liquidity risk, off-balance sheet risk, foreign exchange risk and interest rate risk are some of the examples of risks inherent to the banking industry. Enhanced understanding of how risk affects financial performance may decrease the probability of insolvency and provide greater stability to a depository institution. Encouraging industry operators to apply the techniques of ratio analysis to assess their performance requires a simple framework that compresses a large amount of data into a small set of performance indicators.

2.5 Capital Structure and Financial Risk

To begin with, every business activity is confronted with some risk or the other and coping with risk has always been an important managerial function. Risk management is a cornerstone of prudent banking practice. Undoubtedly all banks in the present-day volatile environment are facing a large number of risks such as credit risk, liquidity risk, foreign exchange risk, market risk and interest rate risk, among others – risks which may threaten a bank's survival and success. In other words, banking is a business of risk. For this reason, efficient risk management is absolutely required. (Carey, 2001) indicates in this regard that risk management is more important in the financial sector than in other parts of the economy. The purpose of financial institutions is to maximize revenues and offer the most value to shareholders by offering a variety of financial services, and especially by administering risks. Recently many commercial banks have appointed senior managers to oversee a formal risk management function.

As a matter of fact, given agency and bankruptcy costs, there are incentives for the firm not to utilize the tax benefit of debt within the static framework model. As a firm is exposed to such costs, the greater its incentive to reduce its level of debt within its capital structure. One firm variable which impacts upon this exposure is firm operating risk, in that the more volatile a firm's earnings streams, the greater the chance of the firm defaulting and being exposed to such costs. Firms with relatively higher operating risk will have incentives to have lower leverage than more stable earnings firms. Empirical evidence suggests that there is a negative relationship between risk and leverage of small firms (Titman et al., 1988).

Financial intermediaries may avoid specific risks by simplifying business practices and minimizing activities that inflict risk. Activities with which the financial institution is committed to proceed can be adeptly managed or transferred. Certain risks which are inevitable or transferred must be engulfed by the bank. Inevitable risks are those too complex to separate from assets Basel Committee on Banking Supervision (1999). The subsequent risk is accepted by the bank as being crucial to its business; banks are specialized in dealing with this sort of risk, and reap the benefits. According to the consultative paper issued by the Basel Committee on Banking Supervision (1999), for most banks loans are the largest and most obvious sources of credit risk. Banks are increasingly facing credit risk in various financial instruments other than loans, including acceptances, interbank transactions, trade financing, foreign exchange transactions, financial futures, swaps, bonds, equities, options, the extension of commitments and guarantees, and the settlement of transactions.

2.6 Empirical Studies

In this section, we look at various foreign and local studies which have been carried out by other scholars in this field.

Leverage is an important determinant of the capital structure of a new firm. The extent to which the firm's assets are tangible and generic would result in the firm having a greater liquidation value, (Titman et al., 1988). Studies have also revealed that leverage is positively associated with the firm's assets. This is consistent with Myers

(1977) argument that tangible assets, such as fixed assets, can support a higher debt level as compared to intangible assets, such as growth opportunities. Assets can be redeployed at close to their intrinsic values because they are less specific. Thus, assets can be used to pledge as collateral to reduce the potential agency cost associated with debt usage Stulz & Johnson (1996), provide empirical evidence of a positive relationship between debt and fixed assets. The empirical evidence suggests a positive relation consistent with the theoretical arguments between asset structure and leverage for large firms, (Van der Wijst & Thurik, 1993).

There are various other foreign studies which have been carried out in this field. Ebaid (2009) studied capital structure and performance of firms listed in Egyptian stock Exchange for a period between 1997 and 2005. He examined relationship between debt levels and financial performance. He found out that there was a significant negative influence of short term debt and long term debt on financial performance of the firms.

Ahmad, Hasan & Roslan (2012) examined the impact of capital structure on firm performance by analyzing Malaysian firms. They studied 58 firms for a period between 2005 and 2010 and they found out that short term debt and long term debt have significant relationship with ROA, ROE and capital structure.

Abor & Biekpe (2005) pointed out that, more than 50 per cent of the assets of listed firms in Ghana are financed by debt and that there is a correlation between debt ratio and firm size, growth, asset tangibility, risk, and corporate tax. Given the unique financial features

of banks and the environment in which they operate, there are strong grounds for a separate study on capital structure determinants of banks.

Keister (2004) in her paper *Capital Structure in Transition, The Transformation of Financial Strategies in China's Emerging Economy* studied 769 firms for a period between 1980 and 1989 and found out that retained earnings increased the likelihood of borrowing from all sources in the first decade of reforms. This finding is consistent with arguments that earnings signaled financial well being to potential creditors and increased firm's ability to attract external funds.

There are also some studies which have been carried out locally which have studied the relationship between capital structure and performance. Lokong (2011) carried out a study on the relationship between capital structure and profitability of micro finance institutions (MFIS) in Kenya. He studied a sample of 43 micro finance institutions in Kenya for a period from 2006 to 2009 and he found out that there was a positive relationship between profitability of MFIs and he therefore concluded that most MFIS in Kenya were using more equity than debts.

Muia (2011) studied the relationship between capital structure and financial performance of small and medium enterprises (SMES) in Nairobi where he took a sample of 100 SMES where he concluded that the relationship between long term debt and profitability was negative for all the period within the study. Therefore, most profitable SMES depend on the short term debts as their main financing options.

Nyaata (2009) studied the relationship between capital structure, earnings, growth and price earnings ratio (PE) in firms listed in NSE for a period of six years from 2002 to 2007. He studied all the firms which were trading in the NSE for the period and he concluded that there is no relationship between capital structure and price earnings ratio.

Orua (2009) studied the relationship between capital structure and financial performance of microfinance institutions in Kenya for a period five years from 2004 to 2008, She studied 36 institutions which had been trading for a period of six years. The study concluded that such relationship could not be clearly observed and they were inferred from capital structures of MFIs which were perceived to be performing well. She also concluded that capital structure influences the performance of corporate entities. Highly leveraged MFIs performed better by reaching out more clients.

Kamau (2009) also studied the effects of capital structure on performance of companies quoted in the NSE for a period of five years from 2003 to 2007 where he found out that Kenyan firms listed in NSE are largely dependent on short term debts to finance their operations due to difficulties in accessing long term credit. He advocated for further study to be carried out in this area.

2.7 Summary

Empirical from this study suggests that profitability, corporate tax, growth, asset structure and bank size are important variables that influence banks' capital structure. Several theories have been fronted in order to support the relationship between capital structure and financial performance as indicated above. Overall leverage of banks is negatively related to operating assets. Banks with a higher proportion of operating assets are financed by long-term debt capital. The reason could be that higher proportions of banks' operating assets denote less operating risk, therefore, the banks may not be exposed to more risk from the use of more long-term debt capital. There exists a negative relationship between size and long-term debt. This means that smaller banks, due to their limited access to equity capital market tend to rely on long-term debt for their financing requirements.

Therefore we note that there is some relationship between the capital and the performance of firms, but this has not been studied in relation to the commercial banks. This therefore leads to the question as to how does the capital structure affect the commercial banks performance. This creates a gap whereby, we would like to study how these capital structure factors affect the performance of commercial banks in Kenya. We would also like to identify the impact of the various capital ratios which have been implemented by CBK in order to regulate the banks and find out if they actually have any impact on the performance of the banks.,

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research design and methodology of the study; it highlights a full description of the research design, the research variables and provides a broad view of the description and selection of the population. The research instruments, data collection techniques and data analysis procedure have also been pointed out.

3.2 Research Design

A descriptive survey design was used in this study. A descriptive research describes the characteristics of objects, people, groups, organizations, or environments, and tries to “paint a picture” of a given situation, (Zikmund, Babin, Carr & Griffin, 2010). In this case, the relationship between capital structure and financial performance of all commercial banks was determined by having the dependent variable as the financial performance while the independent variables representing capital structure were Growth in total assets, Total Debt Ratio, Core Capital to Total Risk weighted Assets Ratio, Total Capital to Total Risk Weighted Assets Ratio.

3.3 Population

The study examined the impact of capital structure and financial performance of banks in Kenya. The study included all banks supervised by the CBK. In all, 44 banks qualified for the study. The study period chosen was 2008 to 2012. This is because this is the period whereby the most of changes were being implemented by most commercial banks including the implementation of technology in operations some of which were intended to improve the financial performance of the banks. They also required huge capital to be able to implement some of these projects. This period is also considered because of availability of the data and it is a reasonable period considering the data analysis in case where the period is long. Thus, the population of interest in this study was composed of all commercial banks in Kenya between years 2008 and 2012 currently, there are 44 commercial banks (Appendix I) and it was possible to get reliable financial statements on all the banks from the CBK Bank Supervision Reports. The only banks which qualified for the study were 35 in total.

3.4 Sample and Sampling Procedure

This study was expected to be a census of all banks in Kenya and therefore from the population, a number of filters were applied. The banks which have the following anomalies will be eliminated from the study.

- a. All banks which have negative values in their total assets, current assets and fixed assets.
- b. All banks which have negative capital, depreciation and the interest paid.

- c. All the banks which were not in operation during the period of study or never reported in any one year of the study.
- d. Banks which failed to meet all the statutory requirements such as capital adequacy in any one year for the period of study
- e. Banks which made loss in any one year for the period of study.

In addition, only banks which continuously traded over the period between 2008 and 2012 were considered in the study.

There were only 35 banks which qualified for the study after eliminating the rest using the criteria above.

3.5 Data Collection

The data which was used in this study was secondary data which was collected from CBK supervision reports and was used for carrying out the study. The data was composed of all banks which were in operation information summarized in table formats for each of the years. The data was for the period between 2008 and 2012 and it included all the banks which were continually in business between 2008 and 2012. The data was the summarized for each year and various ratios computed for the purpose of the study for all the years.

3.6 Data Analysis

Multiple Regression analysis was used to analyze the data that using Statistical Package for Social Sciences (SPSS) package version 19. Data was analyzed using descriptive statistics such as mean, range and variance. To achieve the objectives of this study, models were developed using profitability (ROE) as dependent variable, growth in total assets, total debt ratio, core capital to total risk weighted assets and total capital to total risk weighted assets as independent variables.

3.6.1 Analytical Model

The model which was used was depicted in the equation below

$$\text{Financial performance (Y)} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where

Y = Return on Equity

β_0 = Represents the factor affecting performance when ROE is zero

X_1 = Growth in total assets

X_2 = Total Debt Ratio

X_3 = Core Capital to Total Risk weighted Assets Ratio

X_4 = Total Capital to Total Risk Weighted Assets Ratio

ϵ = Random error term

β_i = Coefficients of the variables

In order to analyze the relationship between financial performance and capital structure, multiple regression technique and correlation was used to establish whether a relationship exists or not. The estimated regression model used to examine the effect of capital structure on financial performance Ratios (Return on Equity), is as below;

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

The various variables were extracted from the CBK supervision reports for the period which is being studied. The averages of the variables (X_1, X_2, X_3, X_4) for each bank for the period of the five years were used to determine the coefficients of the variables (β_i) to be able to estimate the equations of the banks.

The above variables were computed as follows:-

Y = Represents the Financial performance which is the dependent variable and it will be measured by Return on Equity. ROE will be computed as net income divided by total equity. ROE is chosen as the measure of financial performance since it proposes direct assessment of financial return of shareholders investment, it is easily available for analysts relying on public information and it allows for comparison between different companies and sectors. This will be obtained from relevant financial statements for the period between 2008 and 2012.

$$\text{Financial Performance (Y)} = \frac{\text{Net Income}}{\text{Total Equity}}$$

β_0 = Is the autonomous component, which is the performance that is not affected by the factors in question.

X_1 = the measure of growth in bank will be measured with the growth in total assets ratio.

The growth ratio will be computed as the total assets in the current year minus total assets in previous year divided by total assets in the previous year.

$$\text{Growth in Assets } (X_1) = \frac{\text{Total Asset Current year } (TAt_2) - \text{Total Assets Previous Year } (TAt_1)}{\text{Total Assets Previous Year } (TAt_1)}$$

X_2 = Total Debt ratio takes into account all debts of all maturities to all creditors Ross, et al (2009). This is important as it defines the percentage of debt for every asset. The total debt ratio will be determined as below:-

$$\text{Total debt Ratio } (X_2) = \frac{\text{Total Assets} - \text{Total Equity}}{\text{Total Assets}}$$

Variables X_4 and X_5 represent the capital adequacy ratios which are used by the CBK to regulate the capital of commercial banks, CBK Prudential guidelines (2006). The two variables are computed using the risk weighted assets to take in account the risk factor of the commercial banks. The two ratios are as below:-

$$\text{Capital Adequacy ratio 1 } (X_3) = \frac{\text{Core Capital}}{\text{Total Risk Weighted Assets}}$$

$$\text{Capital Adequacy ratio 2 } (X_4) = \frac{\text{Total Capital}}{\text{Total Risk Weighted Assets}}$$

These ratios are used by the CBK to regulate the commercial banks and they are required to disclose it.

ϵ = Represents a random error term and takes care of all other factors that affect financial performance which are not defined in the model. This is the noise factor that represents other factors that influence financial performance.

$\beta_1 \beta_2 \beta_3 \beta_4$ = these represent beta values which provide the change in the outcome associated with a unit change in the predictor. In this study, the analysis also estimated the beta values.

Therefore the study performed analysis of variances for the estimators in order to identify how well these estimators establish the relationship between the capital structure and performance. The goodness of fit was also tested by multiple R^2 which is a measure of extent to which total variation of dependent variable is explained by the regression. High value of R^2 suggests that the regression explain the variables well. The analysis also tested the significance of variables by carrying out the t-tests and F-tests to test these identified predictors, Faraway (2002).

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter will discuss the output of the analysis which was carried out for a period of five years from the year 2008 to 2012. The averages of the all the variables for the five years were taken and then analyzed using SPSS 19 and this chapter will discuss the findings of this analysis.

4.2 Models Analysis

After analyzing the data, the below model summary was established

Table 4.2.1 Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.413 ^a	.171	.060	.09056

a. Predictors: (Constant), TOTAL CAPITAL TO RISK WEIGHTED ASSET RATIO, GROWTH IN ASSETS, TOTAL DEBT RATIO, CORE CAPITAL TO RISK WEIGHTED ASSET RATIO

Source Researcher's

The table 1 above provides the regression model summary whereby it gives the value of R, R², adjusted R² and the standard error. These values show how well the regression model fits the data analyzed. The R column represents the multiple correlation

coefficients which measures the quality of the prediction of dependent variable. In this case the value of R is 0.413 which shows a weak level of prediction. However, the R^2 which is the coefficient of determination is 0.171 indicating that only 17.1% of the growth in assets, total debt ratio, core capital to risk weighted asset ratio and total capital to risk weighted asset ratio explain the variability of financial performance, the other 82.9% is not explained by the model. This indicates that the profitability of commercial banks is not affected much by these factors.

4.3 Descriptive Statistics

This section discusses the descriptive statistics of the data analyzed for the five year duration. This is summarized in the table below;

Table 4.3.1 Descriptive Statistics

Descriptive Statistics							
	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
RETURN ON EQUITY	35	.33	.08	.41	.2326	.09341	.009
GROWTH IN ASSETS	35	.52	.02	.54	.2203	.10853	.012
TOTAL DEBT RATIO	35	.20	.71	.91	.8466	.04671	.002
CORE CAPITAL TO RISK	35	.46	.12	.58	.2443	.11683	.014
WEIGHTED ASSET RATIO							
TOTAL CAPITAL TO RISK	35	.46	.13	.59	.2600	.11614	.013
WEIGHTED ASSET RATIO							
Valid N (listwise)	35						

Source Researcher's

It can be observed that the total number of data analyzed (n) is for 35 commercial banks for each of the five variables incorporated in the analysis. The range of the variables which is the difference between the highest value and the smallest for each variable is identified in the range column and the table further shows the maximum and minimum values. The mean of the data is also shown in the mean column. The mean for ROE is 0.23 with a std deviation of 0.09 which is small meaning that the data is clustered within the mean. The same applies with the other variables with the highest standard deviation being 0.116 and this relates to total capital to risk weighted asset ratio and core capital to risk weighted asset ratio. This is also relative small and it indicates that the data is closely clustered to the mean.

4.4 Regression Results

4.4.1 Statistical significance of the model

The significance of the estimated model can be summarized in the ANOVA table below

Table 4.4.1.1 ANOVA Table

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.051	4	.013	1.544	.215 ^a
	Residual	.246	30	.008		
	Total	.297	34			

a. Predictors: (Constant), TOTAL CAPITAL TO RISK WEIGHTED ASSET RATIO, GROWTH IN ASSETS, TOTAL DEBT RATIO, CORE CAPITAL TO RISK WEIGHTED ASSET RATIO

b. Dependent Variable: RETURN ON EQUITY

Source Researcher's

The analysis of variance table above shows how the independent variables are not statistically significant to predict the dependent variable. The F ratio tests whether the regression model is fit for the data. It can be observed that our F ratio can be indicated as $F(4, 30) = 1.544$, $P > 0.05$ meaning that there is no significant impact of the growth in asset ratio, total debt ratio, core capital to risk weighted asset ratio and total capital to risk weighted asset ratio to the financial performance of the commercial banks in Kenya. This can be shown by the significant level which is 0.215 which is more than 0.05.

4.4.2 Estimated Model Coefficients

The regression model coefficients derived from the analysis are shown in the below equation

$$Y = 0.202 - 0.238X_1 + 0.189X_2 - 0.147X_3 - 0.158X_4$$

Where

Y = Return on Equity

X₁ = Growth in total assets

X₂ = Total Debt Ratio

X₃ = Core Capital to Total Risk weighted Assets Ratio

X₄ = Total Capital to Total Risk Weighted Assets Ratio

In this model, it can be observed that there is a negative relationship between the financial performance and growth in total assets ratio meaning as the ratio of growth in total asset increase, the ROE ratio will tend to decrease by 0.23. However, there is a positive relationship between the total debt ratio and financial performance as can be indicated by the coefficient of growth in assets which is 0.189. This means that as the debt ratio increases, the ROE ratio will tend to increase by 0.19. In relation to the core capital ratios, there is a negative relationship between the core capital to total risk weighted assets ratio and total capital to total risk weighted asset ratio as indicated by their coefficients which are -0.147 and -0.158 respectively. This means that when the two ratios are raised, the ROE ratio will tend to reduce by approximately 0.15.

These coefficients can be summarized in the coefficient table 4 below;

Table 4.4.2.1 Independent Variables Coefficient Table

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
							B	Std. Error
1	(Constant)	.202	.476		.423	.675	- .771	1.175
	GROWTH IN ASSETS	-.238	.171	-.276	-1.385	.176	-.588	.113
	TOTAL DEBT RATIO	.189	.513	.095	.369	.715	-.858	1.236
	CORE CAPITAL TO RISK WEIGHTED ASSET RATIO	-.147	.787	-.184	-.187	.853	-1.754	1.459
	TOTAL CAPITAL TO RISK WEIGHTED ASSET RATIO	-.158	.798	-.196	-.198	.845	-1.788	1.472

a. Dependent Variable: RETURN ON EQUITY

Source; Researcher's

It can be observed that just like the dependent variable Y, the independent variables are not significant, the same scenario can be observed as indicated by the “sig” column in the table above. It is also noted that the standardized and the unstandardized coefficients both are not statistically significant as indicated by their t and sig column. The unstandardized coefficients take into account the other variables whereas the unstandardized do not though there is minimal difference in these coefficients.

4.5 Interpretation of Findings

From the above analysis, it can be observed that capital structure does have some effects on the performance of commercial banks in Kenya. The model equation shows that growth in total assets (X_1) affects the financial performance (Y) negatively. If there is an increase in growth in assets, the profitability of the bank is expected to decrease. The model shows if there is an increase in assets, the return on equity which is our measure for financial performance will tend to decrease at a rate of 0.238. The study also shows similar effects of core capital and total capital ratios on the banks financial performance. If there is a one unit increase in the core capital to total risk weighted assets ratio, the ROE will tend to reduce with 0.147 units, similarly, if there is a one unit increase in the total capital to risk weighted assets ratio, the ROE will also tend to reduce with 0.158 units. This indicates that there is a negative effect of capital structure on the performance of the financial banks. On the hand, we find a different effect of debt ratio on the performance of commercial banks. From the model, it can be deduced that an increase in debt ratio will lead to an increase in ROE of the commercial banks. This indicates a positive relationship whereby when the debt ration goes up, the ROE also increases. The above two different outcomes of the model shows that those banks which increase their debt ratio, may be by borrowing more to finance their operations, they will tend to have an increased financial performance since their ROE ratio will tend to rise. Whereas those who concentrate on core capital, they will tend to reduce their ROE on equity hence reducing their profitability.

However, a further analysis of the various variables and coefficient indicate that the effects of capital structure on the performance of the banks is not very significant. The summary model multiple correlation factor (R) is only 0.41 which is less than 0.5 hence indicating a weak level of prediction of the independent variable. Similarly, the coefficient of determination of the model which is only 17% indicates that the capital structure variables used in the model can only explain 17% of the independent variable which is financial performance. The other over 80% is explained by other variables which are outside this model and therefore it cannot be conclusively said that capital structure does have a significant impact on the financial performance of the commercial banks.

Further analysis of the coefficients of the independent variables, indicate that the coefficients of the four variables used are not statistically significant to determine the rate of change of the financial performance of the commercial banks. This shows that they are not significant in affecting the performance of commercial bank and hence there are other major factors that affect the performance of commercial banks. Therefore, capital structure plays a very minimal role in affecting the performance of any commercial bank.

These findings differ a bit with those of Nyaata (2009) whose study concluded that there was no relationship between capital structure and price earnings ratio of firms which were listed in NSE. However, the findings tend to agree with those of Orua (2009) who concluded that capital structure influences the performance of corporate entities. This was on her study of the relationship between capital structure and financial performance of micro institutions in Kenya.

Therefore it can be concluded that capital structure do affect the performance of the commercial banks but not significantly. The performance of the commercial banks is influenced majorly by other factors besides the capital structure of the firm. The impact of capital structure cannot be rated as a major effect since it is very insignificant.

CHAPTER FIVE

SUMMARY CONCLUSION AND RECOMMEDATIONS

5.1 Introduction

This chapter summarizes the findings from chapter four, conclusions, limitations and recommendations based on the objectives of the study i.e. to determine the effects of capital structure on the financial performance of commercial banks in Kenya.

5.2 Summary

From the analysis in chapter four, it was found that there is very insignificant effect of capital structure on the performance of commercial banks in Kenya. This has been indicated in the model whereby the independent factors which have been used in the analysis can only explain 17.1% of the financial performance of commercial banks in Kenya. It is further observed that the model is not a very strong predictor of financial performance since it is only 0.41 which is considered weak since it is less than 0.5. Further analysis of the model shows that the coefficients of the independent model are not statistically significant from zero since their significant figures are less than 0.05.

5.3 Conclusion

It can therefore be concluded that capital structure do have a relationship with financial performance commercial banks although the effect is very minimal and hence negligible. Therefore it can also be concluded that there are other major factors which affect the performance of commercial banks more than its capital structure. These other factors may have major effects on financial performance of commercial banks in Kenya and therefore should be included in the study. These may include the level of advertising, the products being introduced in the market and also marketing strategies being implemented by these commercial banks. These factors should be included in the other studies relating to financial performance of the commercial banks in Kenya.

5.4 Limitations of the Study

There were various limitations which related to this study and which need to be mentioned to ensure that a researcher puts them into consideration when planning for a research project. Some of these limitations are outlined as below

The process of collecting the required data was not easy since the data was in a PDF format and therefore there was need to input it into excel worksheets to facilitate analysis. The data was also need to compute the ratios and this required a lot of patience and without the necessary tools to facilitate this, it was not easy to analyze the data.

Another limitation is developing a model which would enable a researcher to study the relationship between the various variables. When developing this model, there was a

great need to define the dependent variables and independent variables. If the model is not correct, the process of analysis may not give the right results. In this case, multiple linear regression was used since there were multiple variables which required to be studied.

The other limitation is that this study used only four measures of capital structure and this does not seem to have much impact on the financial performance and hence there is need to carry out the study with other different factors in order to be able establish which are the major factors that affect the financial performance of the commercial banks in Kenya.

There was also issue of time constraint whereby the time required analyzing the data needs to be created to ensure that one is able to carry out an effective study.

5.5 Recommendations

In this study, it can be observed that the capital structure have very minimal effect on the performance of commercial banks in Kenya. Therefore various stakeholders in this industry should strive to carry out researches in other areas in order to be able to identify which are the major factors that affect the performance of their industry.

This will enable them to control these factors to ensure maximum profitability is attained and sustained for the growth of the industry. It can also be observed that, the debt ratio has a positive effect on the performance of the commercial banks and this can be used by the managers of commercial banks to help them improve on the profitability. This is because, an increase in debt ratio may lead to an increased financial performance.

Similarly, there is need for these managers to ensure that they only maintain the statutory required capital by the regulator. This is because, if they increase the capital ratios, this might have some negative impacts on the performance of the institution. Therefore, the managers of commercial banks should ensure that they meet the required capital regulations but if possible, to maintain at the very required level.

The study also shows that the impact of capital structure on the performance is very minimal and therefore, they should concentrate on other areas which have major impacts on their performance. These areas may include the development of new products or increased marketing and they should not concentrate much on the capital structure.

5.6 Areas of Further Studies

This study advocates that further studies can be done in this areas such studies may include identifying various other factors which affect the performance of commercial banks. The study may be carried using various other measures of financial performance such as return on assets instead of return on equity. The study may also use different variables from those which have been used in this study.

Another area of study which can be considered is researching on the impact of other factors such as marketing and development of new banking products to the performance of the commercial banks. This may enable various stakeholders to understand if there are other major factors which affect the performance in major way with exception of capital structure.

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APPENDICES

APPENDIX I: List of Commercial Banks in Kenya

1. African Banking Corporation, Nairobi
2. Bank of Africa Kenya, Nairobi
3. Bank of Baroda, Nairobi
4. Bank of India, Nairobi (foreign owned)
5. Barclays Bank of Kenya, Nairobi (listed on NSE)
6. CFC Stanbic Bank, Nairobi (listed on NSE)
7. Charterhouse Bank Ltd, Nairobi
8. Chase Bank Ltd, Nairobi
9. Citibank, Nairobi (foreign owned)
10. City Finance Bank, Nairobi
11. Co-operative Bank of Kenya, Nairobi
12. Commercial Bank of Africa, Nairobi
13. Consolidated Bank of Kenya Ltd, Nairobi (gov)
14. Credit Bank Ltd, Nairobi
15. Development Bank of Kenya, Nairobi
16. Diamond Trust Bank, Nairobi
17. Dubai Bank Kenya Ltd, Nairobi
18. Equatorial Commercial Bank Ltd, Nairobi
19. Equity Bank, Nairobi
20. Family Bank, Nairobi
21. Fidelity (Commercial) Bank Ltd, Nairobi
22. Fina Bank Ltd, Nairobi
23. First Community Bank Ltd, Nairobi
24. Giro Commercial Bank Ltd, Nairobi
25. Guardian Bank, Nairobi
26. Gulf African Bank Ltd, Nairobi
27. Habib Bank A.G. Zurich, Nairobi (foreign owned)
28. Habib Bank Ltd, Nairobi (foreign owned)

29. Housing Finance Co. Ltd, Nairobi (gov) (listed on NSE)
30. Imperial Bank, Nairobi
31. I&M Bank Ltd (former Investment & Mortgages Bank Ltd), Nairobi
32. K-Rep Bank Ltd, Nairobi
33. Kenya Commercial Bank Ltd, Nairobi (gov) (listed on NSE)
34. Middle East Bank, Nairobi
35. National Bank of Kenya, Nairobi (gov)
36. National Industrial Credit Bank Ltd (NIB Bank), Nairobi (listed on NSE)
37. Oriental Commercial Bank Ltd, Nairobi
38. Paramount Universal Bank Ltd, Nairobi
39. Prime Bank Ltd, Nairobi
40. Southern Credit Banking Corp. Ltd, Nairobi
41. Standard Chartered Bank , Nairobi (listed on NSE)
42. Trans-National Bank Ltd, Nairobi
43. UBA Kenya Bank Ltd., Nairobi
44. Victoria Commercial Bank Ltd, Nairobi

Source: (CBK, 2012)

APPENDIX 2: Table Showing Summary of Ratios from 2008 to 2012

N	BANKS	POSITION 2012	CATEGORY 2012	T	X1	X2	X3	X4
				RETURN ON EQUITY	GROWTH IN ASSETS (TA+2-TA+1)/TA+1	TOTAL DEBT RATIO (TA-TE)/TA	CORE CAPITAL TO RISK WEIGHTED	TOTAL CAPITAL TO RISK WEIGHTED ASSET
1	Kenya Commercial Bank Ltd	1	L	0.29	0.21	0.85	0.19	0.19
2	Equity Bank Ltd	2	L	0.31	0.32	0.78	0.22	0.30
3	Barclays Bank of Kenya Ltd	3	L	0.39	0.02	0.84	0.22	0.25
4	Co-operative Bank of Kenya Ltd	4	L	0.27	0.22	0.86	0.19	0.20
5	Standard Chartered Bank Ltd	5	L	0.41	0.16	0.87	0.14	0.15
6	CFC Stanbic Bank Ltd	6	L	0.23	0.48	0.91	0.13	0.18
7	I&M Bank Ltd	7	M	0.28	0.25	0.82	0.16	0.18
8	Commercial Bank of Africa Ltd	8	M	0.33	0.20	0.89	0.14	0.14
9	Citibank, N.A.	9	M	0.32	0.08	0.79	0.32	0.33
10	Diamond Trust Bank Kenya Ltd	10	M	0.30	0.25	0.86	0.16	0.19
11	National Industrial Credit Bank Ltd	11	M	0.29	0.26	0.86	0.15	0.16
12	National Bank of Kenya Ltd	12	M	0.24	0.06	0.85	0.34	0.35
13	Bank of Baroda Ltd	13	M	0.33	0.25	0.88	0.21	0.22
14	Bank of Africa Ltd	14	M	0.11	0.44	0.88	0.12	0.15
15	Prime Bank Ltd	15	M	0.22	0.25	0.88	0.16	0.16
16	Chase Bank Ltd	16	M	0.28	0.54	0.91	0.12	0.13
17	Hawing Finance Co. of Kenya Ltd	17	M	0.13	0.28	0.83	0.27	0.37
18	Family Bank Ltd	18	M	0.20	0.28	0.86	0.20	0.20
19	Imperial Bank Ltd	19	M	0.39	0.23	0.86	0.20	0.20
20	Bank of India	20	M	0.29	0.19	0.86	0.39	0.39
21	Fina Bank Ltd	22	S	0.11	0.15	0.89	0.14	0.16
22	Consolidated Bank of Kenya Ltd	23	S	0.14	0.28	0.88	0.13	0.15
23	African Banking Corporation Ltd	24	S	0.26	0.24	0.87	0.18	0.19
24	Gira Commercial Bank Ltd	26	S	0.24	0.16	0.87	0.23	0.24
25	Fidelity Commercial Bank Ltd	28	S	0.23	0.28	0.90	0.15	0.16
26	Development Bank of Kenya Ltd	30	S	0.12	0.22	0.85	0.26	0.27
27	Trans-National Bank Ltd.	31	S	0.12	0.21	0.71	0.58	0.59
28	Habib AG Zurich	32	S	0.26	0.09	0.86	0.39	0.39
29	Guardian Bank Ltd	33	S	0.12	0.13	0.88	0.20	0.20
30	Victoria Commercial Bank Ltd	35	S	0.25	0.20	0.82	0.23	0.23
31	Habib Bank Ltd	36	S	0.27	0.12	0.83	0.45	0.46
32	Oriental Commercial Bank Ltd	37	S	0.10	0.22	0.73	0.38	0.39
33	Credit Bank Ltd	38	S	0.08	0.13	0.81	0.31	0.32
34	Paramount-Universal Bank Ltd	39	S	0.15	0.18	0.83	0.44	0.45
35	Middle East Bank of Kenya Ltd	40	S	0.08	0.13	0.76	0.45	0.46

APPENDIX 2: SPSS Statistical Regression Output

Descriptive Statistics

	Mean	Std. Deviation	N
RETURN ON EQUITY	.2326	.09341	35
GROWTH IN ASSETS	.2203	.10853	35
TOTAL DEBT RATIO	.8466	.04671	35
CORE CAPITAL TO RISK	.2443	.11683	35
WEIGHTED ASSET RATIO			
TOTAL CAPITAL TO RISK	.2600	.11614	35
WEIGHTED ASSET RATIO			

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	TOTAL CAPITAL TO RISK WEIGHTED ASSET RATIO, GROWTH IN ASSETS, TOTAL DEBT RATIO, CORE CAPITAL TO RISK WEIGHTED ASSET RATIO	.	Enter

a. All requested variables entered.

b. Dependent Variable: RETURN ON EQUITY

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.413 ^a	.171	.060	.09056

a. Predictors: (Constant), TOTAL CAPITAL TO RISK WEIGHTED ASSET RATIO, GROWTH IN ASSETS, TOTAL DEBT RATIO, CORE CAPITAL TO RISK WEIGHTED ASSET RATIO

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.051	4	.013	1.544	.215 ^a
	Residual	.246	30	.008		
	Total	.297	34			

a. Predictors: (Constant), TOTAL CAPITAL TO RISK WEIGHTED ASSET RATIO, GROWTH IN ASSETS, TOTAL DEBT RATIO, CORE CAPITAL TO RISK WEIGHTED ASSET RATIO

b. Dependent Variable: RETURN ON EQUITY

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.202	.476		.423	.675	-.771	1.175
	GROWTH IN ASSETS	-.238	.171	-.276	-1.385	.176	-.588	.113
	TOTAL DEBT RATIO	.189	.513	.095	.369	.715	-.858	1.236
	CORE CAPITAL TO RISK WEIGHTED ASSET RATIO	-.147	.787	-.184	-.187	.853	-1.754	1.459
	TOTAL CAPITAL TO RISK WEIGHTED ASSET RATIO	-.158	.798	-.196	-.198	.845	-1.788	1.472

a. Dependent Variable: RETURN ON EQUITY