

**THE INFLUENCE OF CAPITAL STRUCTURE ON FIRMS'
PERFORMANCE: A CASE OF SELECTED FIRMS'
LISTED IN NAIROBI SECURITIES EXCHANGE ,KENYA**

By

MARIETTA MUTHEU STEPHEN

**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL
FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF
MASTER OF ARTS DEGREE IN PROJECT PLANNING AND
MANAGEMENT , UNIVERSITY OF NAIROBI**

2012

DECLARATION

This research project is my work. It has not been presented for a degree in any other University.

Signature.....

Date.....

Marietta M Stephen

Reg. No.L50/78482/2009

This research project has been submitted for examination with my approval as a University Supervisor.

Signature.....

Date.....

Dr. Christopher Gakuu

Senior Lecturer

Department of Extra-Mural Studies

Nairobi University

DEDICATION

To my family members who were my best friends and supporters, who enriched my life and enlarged my capacity for living, for their encouragement and support during the difficult moments as I did the project.

ACKNOWLEDGEMENT

My special gratitude goes to all the people who have contributed towards the completion of this project. It was not possible for me to have completed this project without their support .

I wish to sincerely register my gratitude and appreciation to my supervisor Dr. Gakuu Christopher whose countless support, guidance and patience has contributed so immensely to the completion of this proposal.

To all the Lecturers who guided us through the proposal and project development during the proposal writing seminar held at Nairobi University from 10th -13th December, 2010 I highly recognize your support.

TABLE OF CONTENTS

	Page
DECLARATION-----	i
DEDICATION-----	ii
ACKNOWLEDGEMENT-----	iii
TABLE OF CONTENTS-----	iv
APPENDICES-----	vii
LIST OF FIGURES-----	viii
LIST OF TABLES -----	ix
LIST OF ABBREVIATIONS-----	x
ABSTRACT-----	xi
CHAPTER ONE-----	1
INTRODUCTION-----	1
1.1 Background of the Study-----	1
1.2 Problem Statement-----	3
1.3 Purpose of the Study. -----	5
1.4 Objectives of the Study-----	5
1.5 Research Questions-----	5
1.6 Significance of the Study.-----	6
1.7 Justification of the Study-----	6
1.8 The Scope of the Study-----	6
1.9 Limitations of the Study-----	7
1.10 Basic Assumptions of the Study-----	7
1.11 Definition of Significant Terms-----	7
1.12 Summary-----	8
CHAPTER TWO-----	9
LITERATURE REVIEW-----	9

2.0	Introduction-----	9
2.1	Theoretical Issues of the Research-----	9
2.2	Capital Structure and its Theories-----	10
2.3.0	Capital Structure Theories-----	10
2.3.1	The Traditional View-----	10
2.3.2	Modigliani and Miller Theory (1958)-----	11
2.3.3	Agency Costs Theory-----	12
2.3.4	Static Trade-Off Theory-----	13
2.3.5	The Pecking Order Theory-----	13
2.3.6	Signalling Theory-----	15
2.3.7	Life stage theory-----	16
2.4.0	Capital Structure-----	16
2.4.1	Debt-----	17
2.4.2	Equity-----	18
2.5.0	Factors Determining Capital Structure-----	19
2.5.1	Growth Opportunities-----	20
2.5.2	Size-----	21
2.5.3	Profitability-----	22
2.5.4	Collaterals-----	22
2.5.5	Operating Risk-----	23
2.5.6	Taxes-----	23
2.5.8	Management Style -----	24
2.5.9	Growth Rate-----	24
2.6 .0	Firm Performance-----	25
2.6.1	Return on Equity (ROE)-----	26
2.6.2	Return on Assets (ROA)-----	26
2.6.3	Stock Return-----	27
2.7	Conceptual Frame Work -----	28
2.8	Summary -----	29

CHAPTER THREE-----	31
RESEARCH METHODOLOGY-----	31
3.1 Introduction-----	31
3.2 Research Design-----	31
3.3 Target Population -----	31
3.4 Data Collection-----	32
3.5.0 Validity and Reliability -----	32
3.5.1 Validity-----	32
3.5.2 Reliability-----	33
3.6 Data Analysis-----	33
3.7 Conceptual Model-----	33
3.8 Operationalization of Variables-----	35
CHAPTER FOUR-----	37
DATA ANALYSIS AND INTERPRETATION-----	37
4.1 Introduction-----	37
4.2 Data Analysis-----	38
4.3.0 Research Findings-----	38
4.3.1 Relationship Between Equity and Firms Performance-----	38
4.3.2 Relationship Between Debt and Firms Performance -----	41
4.3.3 Relationship Between Firms Age and its Performance-----	43
4.4 Trend Analysis for Performance-----	44
CHAPTER FIVE-----	46
SUMMARY FINDINGS, DISCUSSION, CONCLUSION AND RECOMENDATIONS -----	46
5.1 Introduction -----	46
5.2 Summary Findings and Conclusion-----	46

5.3	Discussions-----	48
5.4	Conclusions-----	52
5.5	Recommendations-----	54
5.6	Suggestions for further Research-----	56

REFERENCE-----	57
----------------	----

APPENDICES

Appendix 1. List of Companies under Study.-----	61
Appendix 2 Firms Ratio Computations -----	63

LIST OF FIGURES	Page
2.1 Conceptual Frame Work-----	29
3.1 Operationalization of Variables-----	35
4.3.1 Trend of Measures of Performance-----	43

LIST OF TABLES

Page

4.1 Number of firms included in the study between 2001 and 2010-----	39
4.3.1 Correlation Matrix of Variables-----	39
4.3.3 ANOVA Analysis-----	40
4.3.4 Regression Model -----	40

LIST OF ABBREVIATIONS

ROE	Return on Equity
ROA	Return on Assets
NSE	Nairobi Securities Exchange
EPS	Earnings Per Share
SPSS	Statistical Package for Social Science

Abstract

Corporate finance literature suggests that the capital structure decision plays a critical role in determining the performance of a firm. This study investigated the relationship between capital structure and corporate performance of 27 selected companies listed within the Nairobi Securities exchange (NSE) excluding banks during the period 2001-2010. In this study, the capital structure is considered in terms Debt and Equity. The relationship between capital structure and corporate performance is one that has received considerable attention in the finance literature. This is because it represents one of the most controversial issues in the field of finance. Its in this respect the researcher carried the study in the Kenyan Nairobi Securities Exchange market. The objective of the study was to assess the relationship between debt and firms performance for the selected firms in NSE, to assess the relationship between Equity and firms performance for the selected firms in NSE and to assess the relationship between Age and firms performance for the selected firms the Nairobi Securities exchange. The study used financial ratios such as , Return on Equity (ROE), Return on Assets (ROA), as measures of firm performance. The study also used debt/equity ratios, profitability, to analyze the relationship between capital structure and firms performance. Secondary data from Nairobi Securities Exchange hand book was collected for the period of 10years (2001-2010). It comprised of Audited financial statements, daily share prices including open and closing prices were obtained basically from the NSE for ten years, and outstanding shares, profits, total assets, daily market prices , equity. Data obtained was analyzed into useful information using a statistical package for Social science (SPSS), MS-excel. Multiple regression analysis was used since it is the best suited for providing a means of establishing quantitative association between variables. The result of the research explains a significantly positive relationship between Equity and ROE and ROA as measures of firm performance, while Debt and firms age has a negative correlation with Return on Equity (ROE) and Return on Asset (ROA).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

An efficient economic system calls for a dependable mechanism to allocate its resources and optimized leadership of land, labour and Capital. In a market economy, this allocation process consists largely of a set of private decisions, which are directed by a network of free markets and flexible prices. Important among these decisions are capital investments decisions that are vital at two levels for the future operability of the individual firm making the investment, and for the economy of the nation as a whole. At the firm level, capital investment decisions have implications for many aspects of operations, and often exert a crucial impact on survival, profitability and growth. At the national level, the proper planning and allocation of capital investment are essential to an efficient utilization of other resources, poorly placed investment reduces the productivity of labour and materials and sets a lower ceiling on the economy's potential output.

There have always been controversies among finance scholars when it comes to the subject of capital structure. So far, researchers have not yet reached a consensus on the optimal capital structure of firms. The ability of companies to carry out their stakeholders' needs is tightly related to capital structure. Therefore, this derivation is an important fact that we cannot omit.

Capital structure is one of the popular topics among the scholars in finance field which aims to resource allocation. The capital structure of a firm is very important since it related to the ability of the firm to meet the needs of its stakeholders. The theory of the capital structure is an important reference theory in enterprise's financing policy. It refers to the firm's financial framework. Its a financial term means the way a firm finances their assets through the combination of equity, debt, or hybrid securities (Saad, 2010). In short, capital structure is a mixture of a company's debts (long-term and short-term), common equity and preferred equity.

i.e its essential on how a firm finances its overall operations and growth by using different sources of funds. Whether or not an optimal capital structure exists is one of the most important and complex issues in cooperate finance.

Modigliani-Miller (MM) theorem is the broadly accepted capital structure theory because is it the origin theory of capital structure theory which had been used by many researchers. The prediction of the Modigliani and Miller model that in a perfect capital market the value of the firm is independent of its capital structure, and hence debt and equity are perfect substitutes for each other, is widely accepted. However, once the assumption of perfect capital markets is relaxed, the choice of capital structure becomes an important value-determining factor. This paved the way for the development of alternative theories of capital structure decision and their empirical analysis. Although it is now recognised that the choice between debt and equity depends on firm-specific characteristics, the empirical evidence is mixed and often difficult to interpret.

An appropriate capital structure is a critical decision for any business organization. Financing decisions is one of the important areas in financial management to increase shareholder's wealth. To determine the extend managers achieve this object, we can relate it to the performance measurement of company.. The decision is important not only because of the need to maximize returns to various organizational constituencies, but also because of the impact such a decision has on an organization's ability to deal with its competitive environment. Financial managers are difficult to exactly determine the optimal capital structure. A firm has to issue various securities in a countless mixture to come across particular combinations that can maximum its overall value which means optimal capital structure. Although optimal capital structure is a topic that had widely done in many researches, we cannot find any formula or theory that decisively provides optimal capital structure for a firm. If irrelevant of capital structure to firm value in perfect market, then imperfections that exist in reality may cause of its relevancy. In practice, firm managers who are able to identify the optimal capital structure are rewarded by minimizing a firm's cost of finance thereby maximizing the firm's revenue. If a firm's capital structure influences a firm's performance, then it is reasonable to expect that the firm's capital structure would affect the firm's health and its likelihood of default. From a creditor's point view, it is

possible that the debt to equity ratio aids in understanding banks' risk management strategies and how banks determine the likelihood of default associated with financially distressed firms. In short, the issue regarding the capital structure and firm performance are important for both academics and practitioners.

Capital structure is closed link with corporate performance (Tian and Zeitun, 2007). Corporate performance can be measured by variables which involve productivity, profitability, growth or, even, customers' satisfaction. These measures are related among each other. Financial measurement is one of the tools which indicate the financial strengths, weaknesses, opportunities and threats. Those measurements are return on investment (ROI), residual income (RI), earning per share (EPS), dividend yield, price earnings ratio, growth in sales, market capitalization etc (Barbosa & Louri, 2005). Much of the theory in corporate sector is based on the assumption that the goal of firm should be to maximize the wealth of its current shareholders. One of the major cornerstones of determining this goal is financial ratio. Financial ratios are commonly used to measure firm performance. Generally, corporations include them in their annual reports to stakeholders. Investment analysts provide them for investors who are considering the purchase of a firm's securities. Financial ratios represent an attempt to standardize financial information to facilitate meaningful comparisons. It provides the basis for answering some very important questions concerning the financial well being of the firm. Its objectives are to determine the firm's financial strengths and to identify its weaknesses.

The essence of financial management is the creation of shareholder value. According to Ehrhard and Bringham (2003), the value of a business based on the going concern expectation is the present value of all the expected future cash flows to be generated by the assets,

1.2 Statement of the Problem

For many years the link between capital structure and the financial performance of the firm has been the subject of intense global debate and research and yet there is insufficient evidence to support this argument. After more than fifty years of studies, economists have not reached an agreement on how and to which extent the capital structure of firms' impacts on their value,

performance. However, the studies and empirical findings of the last decades have at least demonstrated that capital structure has more importance than in the simple Modigliani-Miller model.

The relationship between capital structure and corporate performance is one that has received considerable attention in the finance literature. This is because it represents one of the most controversial issues in the field of finance. The inconclusive controversy was sparked off by Modigliani and Miller (1958) argument, that there is no optimal capital structure and therefore capital structure decisions are of no value to the firm. This ignited a lot of contributions from many scholars who include: Stiglitz 1969, Miller 1977, Ross 1977, Jensen and Meckling 1980, Myers 1984, Rajan 1995, Myers 2001 among others.

Based on Ebaid (2009) research, capital structure has weak-to-no influence on the financial performance of listed firms in Egypt. By using three accounting-based measurement of financial performance which is Return On Asset (ROA), Return On Equity (ROE), and Gross Margin (GM), the empirical tests come out with the result that capital structure (particularly short-term debt and total debt) which is measured by ROA has a negative impact on an organization's performance. Apart from that, capital structure (including short-term debt, long-term debt and total debt) which is measured by ROE and GM has no significant impact on an organization's performance. Tian and Zeitun (2007) find out that firm's capital structure has a significant and negative impact on the firm's performance measures in both the accounting and market measures. Indeed, a well attribution of capital structure will lead to the success of firms. As a result, the issues of capital structure which may influence the corporate performance have to be solved. A deeper research on this field will be an advantage for future wellbeing.

Professor Stewart Myers, when he first presented the pecking order theory of capital structure in 1984, referred to the conflict among the different theories of capital structure as "the capital structure puzzle". The puzzle has over the years been compounded by the difficulty of coming up with conclusive tests of the competing theories. Various theories have been advocated by researchers on this subject. The theories lead to such different, and in some ways opposed

decisions and outcomes. Questions that have been raised on the subject of capital structure, for which no definitive answers have been provided include;

- i. How should a firm choose its debt-equity ratio to maximize its value
- ii. What are the critical factors in determining the target leverage ratio for the company
Capital structure and how it relates to value of the firm?

It is with this background that this study sought to investigate the effects of Capital structure to firms performance in the NSE.

1.3 Purpose of the Study

The purpose of the study was to investigate the effects of capital structure to performance of selected firms registered in the NSE main investment segment.

1.4 Objectives of the Study

This study was guided by the following objectives :

- i. To assess the relationship between debt and firms performance for the selected firms in NSE.
- ii. To assess the relationship between Equity and firms performance for the selected firms in NSE.
- iii. To assess the relationship between Age and firms performance for the selected firms in NSE.

1.5 Research Questions

The study sought to answer the following research questions.

- i. To what extent does debt influence firms performance for the selected firms in NSE ?.
- ii. To what extent does equity influence firm performance in the selected firms' in NSE?.
- iii. How does firms' age influence firm performance in NSE?.

1.6 Significance of the Study

Performance measurement is the base of investing and financing decisions. The study will be of great use to the following:

Debt holders : To evaluate performance of the firm for credit facilities. Investors, on the other hand are interested in evaluating the performance, to have knowledge on success of management in applying their capital. To help investors to recognize the link between capital structure and financial performance and choosing appropriate capital mix.

Investment practitioners: This study will be of great use to security analysis stockholders investors and other parties whose knowledge of the relationship between capital structure and firm value is required in making various decisions.

Academic and researchers: This study will act as a base of further research , a point of reference for investigation on relationship between capital structure and other measures (variables) of firm performance.

Regulation and policy matters: This study will be useful by regulators and policy makers in coming up with policies which protect the minority shareholders against expropriation by the large shareholders such as stating the numbers of shares that can be held by individual and other parties.

1.7 Justification of the Study

There is very little research which has been carried out in this field in the Nairobi Securities Exchange. The research will give an inside on the relationship between Capital Structure and firms performance in the Nairobi Securities Exchange.

1.8 The scope of the Study

The analysis of this paper concentrated on 27 selected firms listed in Nairobi Securities Exchange. The main purpose of this study was to examine if there is a relationship between capital structure and firm performance among listed selected companies on the Nairobi Securities Exchange (NSE) for a period of 10 years between 2001-2010. This paper used comparisons of debt/equity ratios as a proxy for capital structure and analyze its relationship with financial performance that will be measured by Return On Assets (ROA) and Return On Equity

(ROE). The study was based on secondary data which is available in the Nairobi Securities Exchange market and also Capital market Authority. The data comprised of audited financial statements which are circulated for public consumption. This made the study assignment more easy and the data is very reliable.

1.9 Limitations of the Study

The period of study for 10years was long for many factors to have affected the Nairobi Securities Exchange in different dimensions. Factors such as economical and political might have affected the study outcome.

This study used sample data from the NSE . Companies which choose to be listed on NSE are mainly in the category of best performers in the country hence the study suffered a sample selection bias.

The limitation of this study is that the samples are only focus on selected firms in the NSE and others were not included in the study. Therefore, the result may not represent the result of all firms listed in the NSE.

There is also a problem with the firms in the sample have different period for annual closing account . Different firms have different financial calendar therefore for comparison purposes this will affect the results.

Total debt being the sum short-term and long-term was used this is because some firms do not separate short-term debt and long term debt hence affecting the outcome of the research.

1.10 Basic assumptions of the Study.

The outcome of the research depended on the information collected. It therefore assumed data provided is accurate free from any error or omissions. The main assumption was that the population under study gave the overall picture of the nature of relationship between capital structure and firms performance in the Nairobi Securities Exchange market. It also assumed that firms in the main investment segment have one commonality in the Nairobi Securities Exchange and are affected by factors in the same direction.

1.11 Definition of Significant Terms

Capital Structure

A mix of a company's long-term debt, specific short-term debt, common equity and preferred equity. The capital structure is how a firm finances its overall operations and growth by using different sources of funds.

Equity

In this study the research defines equity as Shareholders' equity (or stockholders' equity, shareholders' funds, shareholders' capital or similar terms) which represents the remaining interest in assets of a company, spread among individual shareholders of common or preferred stock, reserves.

Debt

Its any financial obligation owed to an individual, company, or other organization. Its payable after an agreed period of time. Debt can either be short-term or long-term debt.

Performance

Performance refers to the accomplishment of a given task measured against preset known standards of accuracy, completeness, cost, and speed. Performance refers to the extent to which organization goals and objectives are achieved effectively and efficiently.

1.12 Summary of the Chapter

This chapter discussed the background of the study and brought out the need to the study . The chapter also stated the problem statement which guided the study. The objectives of the study as envisaged by the researcher has been outlined and the research questions enumerated. The significance of the study and benefits of identifying and addressing the factors that affect the study were discussed. The chapter concluded by giving the definition of operational terms and terminologies used in the study so that they are interpreted and understood the same way by the readers.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews some of the studies that have evolved over the past years on development. It presents the reviewed literature relevant to the effects of capital structure on firms performance. It draws literature from empirical studies that have been done globally. Particular emphasis is laid on dealing with capital structure theories and factors that influence the capital structure of a firm.

2.1 Theoretical Issues of the Research

Capital structure has always been one of the main topics among the studies of finance scholars. Its importance derives from the fact that capital structure is tightly related to the ability of firms to fulfil the needs of various stakeholders. The last century has witnessed a continuous developing of new theories on the optimal debt to equity ratio. The first milestone on the issue was set by Modigliani and Miller (1958), whose model argued on the *Irrelevance* of the capital structure in determining firms' value and future performance. However, many authors have successively proved that a relationship between capital structure and firm value actually exists (Lubatkin and Chatterjee, 1994). The same Modigliani and Miller (1963) asserted that their model was not effective anymore if tax was taken into consideration. Determination of an appropriate Long-term source of finance is what the capital structure decision is all about. This task according to Brealey and Myers (1988) is difficult for management and their words

“we cannot say that debt is better better in some case and in others worse. "How do firms choose their capital structures?" Again, the answer is, "We don't know." By contrast, we know very little about capital structure. We do not know how firms choose the debt, equity or hybrid securities they issue. We have only recently discovered that capital structure changes convey information to investors”.

2.2 Capital Structure and its Theories

Capital Structure is a mix of securities and financing sources used by corporations to finance real investments (Myers 2001). The capital structure is the mix of debt, preferred stock and common equity with which the firm tends to increase capital. The firm needs to make the investments in order to at least remain in business and also display some growth.

Capital structure is also referred as financial structure of a firm. The capital structure of a firm is very important since it related to the ability of the firm to meet the needs of its stakeholders. One of the cornerstones of the modern corporate finance theory is the capital structure irrelevancy proposition (Modigliani-Miller 1958). Modigliani and Miller (1958) conclude that the market value of any firm is independent of its capital structure, given the assumptions of capital markets are “perfect”, which means arbitrage-free, competitive and efficient, no tax distortions and no bankruptcy. After tax is introduced into their model, tax shield and bankruptcies costs add more complications to the optimal capital structure decision-making process. It is observed that the optimal capital structure are closely related to the growth potential of the firms (McConnel & Servaes 1995; Jung, Kim, & Stulz 1996) and some other variables, such as: the size and the industry characteristics (Titman & Wessels 1988). Capital structure is related to ability of the firm to meet the needs of its stakeholders (Boodhoo Roshan January 2009). Capital structure of any firm can be determined by factors such as tax benefit variables, size, profitability, growth, collateral value of assets and uniqueness (Kathleen M. kahle and kudleep shastri 2002).

2.3 Capital Structure Theories

Corporate financing decisions are quite complex processes and existing theories can at best explain only certain facets of the diversity and complexity of financing choices. Since Modigliani and Miller published their seminal paper in 1958, capital structure has generated great interest among financial researchers.

2.3.1 The Traditional View

Before the work of Modigliani and Miller, the traditional wisdom was that some leverage was beneficial and by leveraging, a firm increased the return on equity. The traditional position held

that increasing leverage resulted in lower weighted-average cost of capital because an increase in the cost of equity, if at all, is not proportionate to the increase in leverage. The traditional view therefore implied that:

The expected return on equity does not increase with increase in firm's borrowing.

The weighted-average cost of capital declines at first, as the debt-equity ratio increases, and then rises. This is because debt capital is cheaper than equity capital within reasonable or acceptable limits of debt.

There is an optimal Debt to Equity ratio that exists, that is, where the cost of capital is lowest. This optimal ratio minimizes the overall cost of capital and maximizes the value of the firm.

2.3.2 Modigliani and Miller Theory (1958)

Modigliani and Miller were the first to theorize the issue of capital structure. In their seminal paper, 'The Cost of Capital, Corporation Finance and the Theory of Investment, American Economic Review, (June 1958), they stated their capital structure irrelevance proposition that capital structure has no predictable material effect on corporate market values in a perfect capital market. Modigliani-Miller provides the basis for modern thinking on capital structure and was for the first time introduces the concept of capital structure. Their theory states that without taxes, bankruptcy costs and systematic information and in an efficient market, the firm's value is not affected in which way the firm is financed.

They argued that in efficient markets the debt-equity choice is irrelevant to the value of the firm and benefits of using debts will compensate with decrease of companies stock. Prior to MM theory, conventional perspective believed that using financial leverage increases company's value. In this respect, there is an optimized capital structure that minimizes capital costs. In a subsequent paper, Modigliani and Miller (1963) eased the conditions and showed that under capital market imperfection where interest expenses are tax deductible, firm value will increase with higher financial leverage. Models based on impact of tax, suggest that profitable companies should have more debts these firms have more need for tax management in corporation's profit. However, increasing debt results in an increased probability of bankruptcy. Hence, the optimal

capital structure represents a level of leverage that balances bankruptcy costs and benefits of debt finance.

2.3.3 Agency Costs Theory

Agency costs rose from separation of ownership and control and conflicts of interest between categories of agents. One of the problems that cause conflict between managers and shareholders is free cash flows. Jensen (1986) and Williamson (1988) define debt as a disciplinary tool to ensure that managers give preference to wealth creation for the equity-holders. Thus, in the companies that have high cash flow and profitability, increasing of debts can be used as a tool of reducing the scope for managers until resources of company may not be waste as a result of their individual purposes. Opinion of the most researchers is that choices of capital structure may help mitigate the agency cost (Papa and Speciale 2007), Richardson 2005), Douglas 2002). High leverage reduces agency cost by constraining or encouraging managers to act more responsibly in the interest of the shareholders by reducing cash flows available for spending to managers. Therefore we expect high earnings where debt ratios are high .

The other conflicting problem is that managers may not receive all the benefits of their activities. This is seen when manager's share in ownership of company is low. When the manager's increase stock is high, this inefficiency decreases. Therefore, it is appropriate that by increasing debts instead of stock issuance prevent from decreasing of manager's share of ownership interest (Huang, Song, 2005). Stulz (1990) like Jensen believes that debts payment decreases cash flows available for managers. But, on the other hand, he states that this decrease will decrease the opportunities of profitable investing. Thus, companies with less debt, have more opportunities for investment and in comparison with other active firms in industry, have more liquidity. The contribution of agency cost theory is that leverage firms are better foe shareholders as debt level can be used for monitoring the mangers (Boodhoo, 2009). Thus high leverage is expected to lower agency cost , reduce inefficiency, and thereby lead to improvement in firms performance . (Akintoye, 2008)

2.3.4 Static Trade-Off Theory

Jensen and Meckling (1976) suggest that the firm's optimal capital structure will involve the tradeoff among the effects of corporate and personal taxes, bankruptcy costs and agency costs, etc. The trade-off theory defines the capital structure that how much debt and equity finance should be chosen by the company to use by balancing the costs and benefits. (Frank and Goyal, 2009). The capital structure can also sometimes lead to the bankruptcy and has a negative and adverse effect on the performance of the firm if properly not utilized. A firm is the amalgamation of assets with one owner that link with other assets to produce and sell merchandise "If firm performance affects the choice of capital structure, then failure to take this reverse causality into account may result in regression of a firm's performance on a measure of leverage may confound the effects of capital structure on performance with the effect of performance on capital structure" A firm's capital structure refers to the mix of its financial liabilities. As financial capital is an uncertain but critical resource for all firms, suppliers of finance are able to exert control over firms (Rahul Kuchhar, fall 1997).

2.3.5 The Pecking Order Theory

This theory is based on the premise that companies have a preferred hierarchy for financing decisions and maximize value by systematically choosing to finance new investments using the 'cheapest available' source of funds.

Managers therefore prefer internally generated funds (retained earnings) to external funding, and if necessary, prefer debt to equity because of lower information costs associated with debt issues. Myers (1984) in "The Capital Structure Puzzle," *Journal of Finance*, suggests that companies would only issue equity as a last resort when their debt capacity has been exhausted. Worth noting is that internal funds incur no flotation costs and require no additional disclosure of proprietary financial information that could lead to more severe market discipline and a possible loss of competitive advantage. If a firm must use external funds, the preference is to use the following order of financing sources: debt, convertible securities, preferred stock, and common stock (Myers, 1984). This order reflects the motivations of the financial manager to retain control of the firm (since only common stock has a "voice" in management), reduce the agency costs of

equity, and avoid the seemingly inevitable negative market reaction to an announcement of a new equity issue. (Hawawini & Viallet, 1999)

Managers in comparison to investors have more information about operation. Myers and Majluf (1984) believe that this causes that pricing the stock with investors be understate. In this condition that there is asymmetric information, companies prefer financing by internal sources to stock issuance and where there is not adequate internal sources, they refer to borrowing. Consequently asymmetric information is the base of choice – pecking order theory of financing. The main conclusion drawn from the asymmetric information theories is that there is a hierarchy of firm preferences with respect to the financing of their investments (Myers & Majluf, 1984). This hierarchy of preferences suggests that firms finance their investments first using internally available funds, followed by debt, and finally through external equity. Dimitrov and Jain (2003) with operational performance of firms proposed another theory . They argued that if manager have access to private information about becoming worse in future operational performance they will be increase debt.

Thus, increasing the leverage is a negative sign and demonstrates poor forward performance. Rajan and Zingales (1995) argue that larger firms tend to disclose more information to outside investors than smaller ones. Overall, larger firms with less asymmetric information problems should tend to have more equity than debt and thus have lower leverage. However, larger firms are often more diversified and have more stable cash flow; the probability of bankruptcy for large firms is smaller compared with smaller ones.

The firm's optimal capital structure will involve the conflicting theoretical arguments. Recent findings of Titman and Wessels (1988), Harris and Ravive (1991) and Rujan and Zingales (1995) confirmed the results of Mayers that believed increase of leverage will decrease profitability. But, Janson, unlike Mayers, predicts a positive link between financial leverage and profitability in efficient market and if the market be inefficient, there will be a negative relationship between them. In 1988, Rajan and zingales confirmed this theory. Bradly (1984) demonstrated that the firms with less operational profits, also have less leverage. Cai and Zhang (2005) by studing this

concept, found that incorporate with high leverage, converse link between leverage changes and return on stock is stronger (Rajan, Zingales, 1995). Wald (1999) believed that the link between profitability and debt-asset ratio is positive and significant. Profitability was defining in the form of earnings before interest and tax (EBIT) (Rajan, Zingales, 1995).

2.3.6 Signalling Theory

This can be explained through the use of two hypotheses:

(a) Implied Cash Flow Hypothesis

This hypothesis is premised on the idea that managers know more than investors do. It claims that financing decisions are designed primarily to communicate management's confidence in the firm's prospects and, in cases where management thinks the firm is undervalued, to increase the value of the shares. Increasing leverage has been suggested as one potentially effective signaling device. Debt obligates the firm to make a fixed set of cash payments over the term of the debt security, with potentially serious consequences on default. Issuing more debt capital can therefore serve as a credible signal of higher expected future cash flows.

On the other hand, raising additional equity by a firm signals that the net operating cash flows of current operations are disappointing. Investors associate relatively large issues of equity with more severe cash flow changes, resulting in more severe price reactions and therefore firm value.

(b) Information Asymmetry Hypothesis

Here, Myers and Majluf (1984) assumed that the firm's managers have superior information about the true value of the company. If management have favorable information that is not yet reflected in market prices, the release of such information will cause a larger increase in stock than in bond prices. To avoid diluting the value of existing shareholders, managers that believe their shares to be undervalued will choose to issue debt rather than equity. Conversely, managers will time a new equity issue if the market price exceeds their own assessment of the stock value, i.e. if the stocks are overvalued by the market. This well known propensity of companies to "time" their stock offerings helps explain the market's systematically negative response to announcements of such offerings.

2.4.0 Capital Structure

Capital structure refers to the firm's financial framework which consists of the debt and equity used to finance the firm. Capital structure is one of the popular topics among the scholars in finance field. The ability of companies to carry out their stakeholders' needs is tightly related to capital structure. Therefore, this derivation is an important fact that we cannot omit. Capital structure in financial term means the way a firm finances their assets through the combination of equity, debt, or hybrid securities (Saad, 2010). In short, capital structure is a mixture of a company's debts (long-term and short-term), common equity and preferred equity. Capital structure is essential on how a firm finances its overall operations and growth by using different sources of funds. According to Myers (2001), "there is no universal theory of the debt- equity choice, and no reason to expect one". However, there are several useful conditional theories³, each of which helps to understand the debt-to-equity structure that firms choose.

Based on Ebaid (2009) research, capital structure has weak-to-no influence on the financial performance of listed firms in Egypt. By using three accounting-based measurement of financial performance which is Return On Asset (ROA), Return On Equity (ROE), and Gross Margin (GM), the empirical tests come put with the result that capital structure (particularly short-term debt and total debt) which is measure by ROA have a negative impact on an organization's performance. Apart from that, capital structure (including short-term debt, long-term debt and total debt) which is measure by ROE and GM have no significant impact on an organization's performance. Zeitun and Tian (2007) find out that firm's capital structure have a significant and negative impact on the firm's performance measures in both the accounting and market measures.

Capital Structure is a mix of securities and financing sources used by corporations to finance real investments. (Myers 2001) . The capital structure is the mix of debt, preffered stock and common equity with which the firm tends to increase capital. The firm needs to make the investments in order to at least remain in business and also display some growth . Capital structure is also referred as financial structure of a firm. The capital structure of a firm is very important since it related to the ability of the firm to meet the needs of its stakeholders.

Both debt and equity financing are important ways for businesses to obtain capital to fund their operations. Deciding which to use or emphasize, depends on the long-term goals of the business and the amount of control managers wish to maintain. Ideally, experts suggest that businesses use both debt and equity financing in a commercially acceptable ratio. This ratio, known as the debt-to-equity ratio, is a key factor analysts use to determine whether managers are running a business in a sensible manner. Although debt-to-equity ratios vary greatly by industry and company, a general rule of thumb holds that a reasonable ratio should fall between 1:1 and 1:2.

2.4.1 Debt

Debt financing is basically money that you borrow to run your business. Debt financing refers to the borrowing of funds in order to finance a purchase, acquisition or expansion. For businesses and corporations debt financing often involves the selling of notes, bonds, mortgages or other debt instruments. The individuals and financial institutions which provide the debt financing become creditors. Since debt financing involves borrowed funds, debt financing must be repaid, typically in installments and with interest. The interest that must be paid on debt financing is determined by the creditworthiness of the borrower, the intended use of the funds, and by the current financial climate. Businesses and corporations find debt financing attractive because the interest paid is tax deductible.

You can think of debt financing as being divided into two categories, based on the type of loan you are seeking, long term debt financing and short term debt financing. **Long Term Debt Financing** usually applies to assets your business is purchasing, such as equipment, buildings, land, or machinery. With long term debt financing, the maturity period is normally beyond 5 years. Medium-term normally have a maturity period of 1-5 years. **Short Term Debt Financing** usually applies to money needed for the day-to-day operations of the business, such as purchasing inventory, supplies, or paying the wages of employees. Short term financing is referred to as an operating loan or short term loan because scheduled repayment takes place in less than one year. A line of credit is an example of short term debt financing.

Loan capital may be obtained from a bank or finance company as long-term loans, or from debt-equity investors in the form of debentures or preferred stock (preference shares), and is usually

secured by a fixed and/or floating charge on the company's assets. Unlike debt capital, it does not include short-term loans (such as overdraft). Also called borrowed capital.

There are many variables in a capital structure choice and structure of debt maturity which will affect a company's performance. Debt maturity will influence a company's option in investing. In the case of this, examine the impact of capital structure's variables base on company's performance will present prove for a company's performance due to the effect of capital structure (Tian & Zeitun, 2007). A study had been done by Abor (2005) on the influence of capital structure on profitability of listed companies on the Ghana Stock Exchange during a five-year period. He found out that there is significant positively interrelated between short-term debt and ROE and shows that firms which earn a lot use more short-term debt to finance their business. In other words, short-term debt is an essential source of financing in favor of Ghanaian companies, by representing 85 percent of total debt financing. Yet, the results showed the adverse relation between long-term debt and ROE. The regression output showed that there is positive relationship between Debt and ROE which measure the relationship between total debt and profitability,. This indicates that firms which earn a lot are depending on debt as their key financing option. The opposite of debt financing is equity financing

2.4.2 Equity

Equity financing takes the form of money obtained from investors in exchange for an ownership share in the business. Such funds may come from friends and family members of the business owner, wealthy "angel" investors, or venture capital firms. An equity investment generally refers to the buying and holding of shares of stock on a stock market by individuals and firms in anticipation of income from dividends and capital gains, as the value of the stock rises. It may also refer to the acquisition of equity (ownership) participation in a private (unlisted) company or a startup company. When the investment is in infant companies, it is referred to as venture capital investing and is generally understood to be higher risk than investment in listed going-concern situations. Equity Capital represents the personal investment of the owner(s) in the business. Is called risk capital because investors assume the risk of losing their money if the

business fails. Does not have to be repaid with interest like a loan does. Means that an entrepreneur must give up some ownership in the company to outside investors.

In accounting and finance, equity is the residual claim or interest of the most junior class of investors in assets, after all liabilities are paid. If liability exceeds assets, negative equity exists. In an accounting context, Shareholders' equity (or stockholders' equity, shareholders' funds, shareholders' capital or similar terms) represents the remaining interest in assets of a company, spread among individual shareholders of common or preferred stock.

At the start of a business, owners put some funding into the business to finance operations. This creates a liability on the business in the shape of capital as the business is a separate entity from its owners. Businesses can be considered to be, for accounting purposes, sums of liabilities and assets; this is the accounting equation. After liabilities have been accounted for, the positive remainder is deemed the owner's interest in the business. Thus owners' equity can be reduced to zero. Ownership equity is also known as risk capital or liable capital.

In financial accounting, equity capital is the owners' interest on the assets of the enterprise after deducting all its liabilities. It appears on the balance sheet / statement of financial position, one of the four primary financial statements. Accounts listed under ownership equity include (example),

- i. Share capital (common stock)
- ii. Preferred stock
- iii. Capital surplus
- iv. Retained earnings
- v. Reserve

2.4.3 Firms Age

As firms get older, they might become less productive if they become increasingly inert and inflexible. Barron et al. (1994) argue that old firms are prone to suffer from a liability of obsolescence because they do not fit in well to the changing business environment and also a

liability of senescence according to which they become ossified by accumulated rules, routines and organizational structures.

Age can have adverse effects on performance because of the organizational rigidities and inertia it brings about (Hannan and Freeman, 1984; Leonard-Barton, 1992) and because it impairs firms' ability to perceive valuable signals. The root of the problem is the tendency of firms to codify their success with organizational measures, rules of conduct, and best practice. This behavior often makes sense, because it helps firms focus on their core competences and raise reliability and accountability. By stressing the good to prevent the bad, however, codification makes it hard to recognize, accept, and implement change when doing so would be appropriate.

Frielinghaus Mostert and Firer (2005) , states that a firm is similar to a life of a human being. Its passes from birth to death. Aging is a process associated with a general decline in the physical functioning of the human body, such as the ability to remember, react, move, and hear. By analogy, firms should weaken over time and lose their ability to compete. However this should not be the case to firms. At the early stage the firm tends to incur more debt than at the old stage/ death stage. This enables them raise capital for investment.

As firms age advance this could actually help firms become more efficient. Over time, firms discover what they are good at and learn how to do things better (Arrow, 1962; Jovanovic, 1982; Ericson and Pakes,1995). They specialize and find ways to standardize, coordinate, and speed up their production processes, as well as to reduce costs and improve quality. Old age, however, may also make knowledge, abilities, and skills obsolete and induce organizational decay (Agarwal and Gort, 1996 and 2002). This is mainly in situations where organizations are not very sensitive to the environment they working in and also they do not empress research and development. Pastor and Veronesi (2003) in their research found that profitability and market-to-book ratios decline with firm age as investors learn and uncertainty declines. Consistent with that, the variability of stock returns is negatively related with incorporation age (Adams, Almeida, and Ferreira, 2005) and with listing age (Cheng, 2008).

Aging is a process associated with a general decline in the physical functioning of the human body, such as the ability to remember, react, move, and hear. By analogy, firms should weaken over time and lose their ability to compete. Age could actually help firms become more efficient. Over time, firms discover what they are good at and learn how to do things better (Arrow, 1962; Jovanovic, 1982; Ericson and Pakes, 1995). They specialize and find ways to standardize, coordinate, and speed up their production processes, as well as to reduce costs and improve quality. Old age, however, may also make knowledge, abilities, and skills obsolete and induce organizational decay (Agarwal and Gort, 1996 and 2002).

Pastor and Veronesi (2003) in their research found that profitability and market-to-book ratios decline with firm age as investors learn and uncertainty declines. Consistent with that, the variability of stock returns is negatively related with incorporation age (Adams, Almeida, and Ferreira, 2005) and with listing age (Cheng, 2008). Agarwal and Gort, 1996 and 2002 in their research on comparison of productive efficiency of firms at different ages. They concluded that older firms could lose their competitive edge hence affecting their performance. This is because old firms are more rigid, their operating expenses increase, they experience decline in market share and therefore a relative decline in sales growth. Frielinghaus Mostert and Firer (2005), states that a firm is similar to a life of a human being. It passes from birth to death. At the early stage the firm tends to incur more debt than at the old stage/ death stage.

2.5 .0 Factors Determining Capital Structure

As Harris and Raviv (1991), state: “Several studies shed light on the specific characteristics of firms and industries that determine leverage ratios. These studies generally agree that leverage increases with fixed assets, non-debt tax shields, growth opportunities, and firm size and decreases with volatility, advertising expenditures, research and development expenditures, bankruptcy probability, profitability and uniqueness of the product.” However, the results of both theoretical and empirical studies are not always unambiguous. Based on the data availability, the

following determinants of capital structure are analysed in this paper: size, profitability, tangibility, growth opportunities, tax, non-debt tax shields, volatility, and industry classification.

Theorists of finance have postulated a large number of possible determinants of capital structure. The difficulty lies in testing their impact, since it is difficult to find suitable proxies for them and even more difficult to isolate the effect of one from that of others. However, empirical work on the determinants of capital structure has been going on for some time. Some of the factors determining capital structure of any firm include the following.

2.5.1 Growth Opportunities

For companies with growth opportunities, the use of debt is limited as in the case of bankruptcy, the value of growth opportunities will be close to zero. Jung *et al.* (1996) postulates that firms should use equity to finance their growth because such financing reduces agency costs between shareholders and managers, whereas firms with less growth prospects should use debt because it has a disciplinary role (Jensen, 1986; Stulz, 1990). Myers (1977) argues that firms with growth opportunities may invest sub-optimally, and therefore creditors will be more reluctant to lend for long horizons. This problem can be solved by short-term financing (Titman and Wessels, 1988) or by convertible bonds (Jensen and Meckling, 1976; Smith and Warner, 1979). From a pecking order theory perspective, growth firms with strong financing needs will issue securities less subject to informational asymmetries, i.e. short-term debt. If these firms have very close relationships with banks, there will be less informational asymmetry problems, and they will be able to have access to long term debt financing as well. As mentioned by Hovakimian *et al.* (2001), large stock price increases are usually associated with improved growth opportunities, leading to a lower debt ratio.

Empirically, there is much controversy about the relationship between growth rate and level of leverage. According to pecking order theory hypothesis, a firm will use first internally generated funds which may not be sufficient for a growing firm. And next options for the growing firms is to use debt financing which implies that a growing firm will have a high leverage (Drobetz and Fix 2003). On the other hand, agency costs for growing firms are expected to be higher as these firms have more flexibility with regard to future investments. The reason is that bondholders fear that such firms may go for risky projects in future as they have more choice of selection between

risky and safe investment opportunities. Deeming their investments at risk in future, bondholders will impose higher costs at lending to growing firms. Growing firms, thus, facing higher cost of debt will use less debt and more equity. Congruent with this, Titman and Wessels (1988), Barclay et al. (1995) and Rajan and Zingales (1995) all find a negative relationship between growth opportunities and leverage. Initially we expect that firms with higher growth opportunities will have lower level of leverage. Different research studies have used different measures of growth; like market to book value of equity, research expenditure to total sales measure and annual percentage increase in total assets (Titman and Wessels, 1988).

According to Myers (1977), firms with high future growth opportunities should use more equity financing, because a higher leveraged company is more likely to pass up profitable investment opportunities. As Huang and Song (2002, p. 9) claim: “Such an investment effectively transfers wealth from stockholders to debtholders.” Therefore a negative relation between growth opportunities and leverage is predicted. As market-to-book ratio is used in order to proxy for growth opportunities, there is one more reason to expect a negative relation – as Rajan and Zingales (1995, p. 1455) point out: “The theory predicts that firms with high market-to-book ratios have higher costs of financial distress, which is why we expect a negative correlation.”

2.5.2 Size

Large size companies tend to be more diversified, and hence their cash flows are less volatile. Size may then be inversely related to the probability of bankruptcy (Titman and Wessels, 1988; Rajan and Zingales, 1995). Ferri and Jones (1979) suggest that large firms have easier access to the markets and can borrow at better conditions. For small firms, the conflicts between creditors and shareholders are more severe because the managers of such firms tend to be large shareholders and are better able to switch from one investment project to another (Grinblatt and Titman, 1998). However, this problem may be mitigated with the use of short term debt, convertible bonds, as well as long term bank financing. Most empirical studies report indeed a positive sign for the relationship between size and leverage (Rajan and Zingales, 1995; Frank and Goyal, 2002; Booth *et al.*, 2001). Less conclusive results are reported by other authors (Kremp *et al.*, 1999; Ozkan, 2001). Zeitun and Tian (2007) also come out with the result that firm size has a positive impact on a firm’s performance, as large firms have low bankruptcy

costs. In other words, bankruptcy costs increases when firm size decreases, therefore, bankruptcy costs have negative effect on firm's performance.

2.5.3 Profitability

One of the main theoretical controversies concerns the relationship between leverage and profitability of the firm. According to the pecking order theory, firms prefer using internal sources of financing first, then debt and finally external equity obtained by stock issues. All things being equal, the more profitable the firms are, the more internal financing they will have, and therefore we should expect a negative relationship between leverage and profitability. This relationship is one of the most systematic findings in the empirical literature (Harris and Raviv, 1991; Rajan and Zingales, 1995; Booth *et al.*, 2001). In a trade-off theory framework, an opposite conclusion is expected. When firms are profitable, they should prefer debt to benefit from the tax shield. In addition, if past profitability is a good proxy for future profitability, profitable firms can borrow more as the likelihood of paying back the loans is greater. Dynamic theoretical models based on the existence of a target debt-to-equity ratio show:

that there are adjustment costs to raise the debt-to-equity ratio towards the target .

that debt can easily be reimbursed with excess cash provided by internal sources.

This leads firms to have a pecking order behavior in the short term, despite the fact that they aim at increasing their debt-to-equity ratio (Fischer *et al.*, 1989; Leland, 1998).

2.5.4 Collaterals

Tangible assets are likely to have an impact on the borrowing decisions of a firm because they are less subject to informational asymmetries and usually they have a greater value than intangible assets in case of bankruptcy. Additionally, the moral hazard risks are reduced when the firm offers tangible assets as collateral, because this constitutes a positive signal to the creditors who can request the selling of these assets in the case of default. As such, tangible assets constitute a good collateral for loans. According to Scott (1977), a firm can increase the value of equity by issuing collateralized debt when the current creditors do not have such guarantee. Hence, firms have an incentive to do so, and one would expect a positive relation

between the importance of tangible assets and the degree of leverage. Based on the agency problems between managers and shareholders, Harris and Raviv (1990) suggest that firms with more tangible assets should take more debt. This is due to the behaviour of managers who refuse to liquidate the firm even when the liquidation value is higher than the value of the firm as a going concern. Indeed, by increasing the leverage, the probability of default will increase which is to the benefit of the shareholders.

From a pecking order theory perspective, firms with few tangible assets are more sensitive to informational asymmetries. These firms will thus issue debt rather than equity when they need external financing (Harris and Raviv, 1991), leading to an expected negative relation between the importance of intangible assets and leverage. Most empirical studies conclude to a positive relation between collaterals and the level of debt (Rajan and Zingales, 1995; Kremp *et al.*, 1999; Frank and Goyal, 2002). Inconclusive results are reported for instance by Titman and Wessels (1988).

2.5.5 Operating Risk

Many authors have included a measure of risk as an explanatory variable of the debt level (Titman and Wessels, 1988; Kremp *et al.*, 1999; Booth *et al.*, 2001). Leverage increases the volatility of the net profit. Firms that have high operating risk can lower the volatility of the net profit by reducing the level of debt where else firms that have low business risk can afford to take on more financial risk hence increase their debt ratios, on average.

2.5.6 Taxes

Debt payments are tax deductible. As such, if a company's tax rate is high, using debt as a means of financing a project is attractive because the tax deductibility of the debt payments protects some income from taxes. The impact of taxation on leverage is twofold. On the one hand, companies have an incentive to take debt because they can benefit from the tax shield. On the other hand, since revenues from debt are taxed more heavily than revenues from equity, firms also have an incentive to use equity rather than debt. As suggested by Miller (1977), the financial structure decisions are irrelevant given that bankruptcy costs can be neglected in equilibrium. DeAngelo and Masulis (1980) show that if non-debt tax shields exist, then firms are likely not to

use fully debt tax shields. In other words, firms with large non-debt tax shields have a lower incentive to use debt from a tax shield point of view, and thus may use less debt.

2.5.7 Management Style

Management styles range from aggressive to conservative. The more conservative a management's approach is, the less inclined it is to use debt to increase profits. An aggressive management may try to grow the firm quickly, using significant amounts of debt to ramp up the growth of the company's earnings per share (EPS). Firms with risk-averse managers are likely to have less debt in their capital structures while those with very risk-tolerant managers are more likely to have more debt. In some growing companies where there is a controlling shareholder, there may be a preference to finance growth by using mostly debt rather than equity because the controlling shareholder does not want to lose controlling interest.

2.5.8 Growth Rate

A study by Barclay and Smith (1995) provides evidence that large firms and firms with low growth rates prefer to issue long-term debt. Another study by Stohs and Mauer (1996) suggested that larger and less risky firms usually make greater use of long-term debt. Firms that are in the growth stage of their cycle typically finance that growth through debt, borrowing money to grow faster. The conflict that arises with this method is that the revenues of growth firms are typically unstable and unproven. As such, a high debt load is usually not appropriate. More stable and mature firms typically need less debt to finance growth as its revenues are stable and proven. These firms also generate cash flow, which can be used to finance projects when they arise. According to Stulz (1990), McConnell & Servaes (1995), Jung, Kim, Stulz (1996), the influences of the debt on the firms value depending on the presence of growth opportunities. For firms facing low growth opportunities, the debt ratios are positively related to the firm value. For firms facing high growth opportunities, the debt ratios are negatively related to the firm value. In this context, we will try to empirically test the relationship between capital structure and the company value given the presence of different growth opportunities.

2.6.0 Firm Performance

Performance refers to the extent to which organization goals and objectives are achieved effectively and efficiently. A perennial question that plagued the previous studies concerning capital structure and performance is as regards the choice of measure of performance. Which is the appropriate measure of firm performance? The concept of performance is a controversial issue in finance largely due to its multidimensional meanings. Research on firm performance emanates from organization theory and strategic management (Murphy et al., 1996). Performance can take many forms depending on who and what the measure for. Different stakeholders require different performance indicators to enable them make informed decisions. The content, format and frequency of the report depends on who needs the information and for what purpose. Shareholders will want to be certain about the viability, growth, profitability, return on investment and continued financial sustainability of the firm (Brown, et al 2003).

Financial performance measures include analyzing the financial statement of the organizations. Financial statements provide information to the management on the available resources, how they were financed and what the company accomplishes with them. Financial statement seeks to evaluate the performance of management. They can be grouped as liquidity, operating and profitability, risk growth and market values (Reill and Brown 1997). Return on asset (ROA) is used by Chen (2004) and Cronqvist and Nilsson (2002), while return on equity (ROE) is used by Han et al (1999) among others as measures of firms performance. In this study the researcher will use ROE and ROA as performance measures. Cross-sectional Analysis - ratios will be used and compared between several firms of in order to draw conclusions about an entity's profitability and financial performance.

In summary, a firm's performance could be affected by the capital structure choice and by the structure of debt maturity. Debt maturity affects a firm's investment options. Also, the tax rate is expected to have an impact on a firm's performance. So, investigating the impact of capital structure variables on a firm's performance will provide evidence of the effect of capital structure on firm performance.

2.6.1 Return on Equity (ROE)

Return on Equity measures the benefits that the shareholders enjoy from their investments on the firm. Its also referred to as , Return on average common equity, return on net worth, Return on ordinary shareholders' funds, measures the rate of return on the ownership interest (shareholders' equity) of the common stock owners. It is a function of a combination of the profitability assets utilization efficiency as well as the level of gearing (Firer et al , 2004). It measures a firm's efficiency at generating profits from every unit of shareholders' equity. ROE shows how well a company uses investment funds to generate earnings growth. ROE is calculated by taking the net result over shareholders' equity for each specified year. ROE represents what return the company is making on the shareholders' funds invested in the company. A business that has a high return on equity is said to be one that is capable of generating cash internally (Ross et al, 2002). Any change in capital structure also have significant impact on ROE which might be a true reflection of firms performance.(De Wet, 2004)

$$\text{ROE} = \frac{\text{Net Income after tax}}{\text{Share holder's Equity}}$$

i.e ROE= $\frac{\text{Profit after tax}}{\text{Total number of Ordinary Shares in issue}}$

2.6.2 Return on Assets (ROA)

Return on Assets ratio is a measure of the effectiveness of the firm in generating profits i.e the return achieved on a company's total assets. (Firer et al, 2004). The return is taken to be the attributable profit (i.e. profit after tax, minority interests and preference dividends, attributable to ordinary shareholders). ROA is calculated by taking the net result over assets for each specified year. ROA measures how efficiently the company's assets are used to generate profit. This ratio is often used by investors and potential investors to evaluate a company's leadership. ROA is best used when comparing returns between different industries. Just as for ROE, ROA can be

calculated in many different ways, i.e. one can apply results before taxes and interest instead of net results. However the net result is used frequently and since it is more accessible we decided to use the net results and not consider taxes, interest as well as extraordinary items.

$$\text{ROA} = \frac{\text{Profit after tax}}{\text{Total Assets}}$$

ROA tells you what earnings were generated from invested capital (assets). ROA for public companies can vary substantially and will be highly dependent on the industry.

According to a reach condunted by Gleason, Muthur amd Murthur (2000), he found that firms capital structure has a negative and significant impact on firms performance as measured by ROA.

2.6.3 Stock Return

The other performance measure used is the geometric average stock return. According to the Journal of Finance, expected return and cashflow news are identified as drivers of stock returns (Vuolteenaho, 2002). Hence, stock return is partly a profitability measure but also considers future expectations. Stock return is an important performance measure since it actually shows the fluctuations that have occurred throughout the year and whether or not the stock has increased or fallen in value. We will look at the stock return over a five-year period. This is motivated by the fact that short-term stock returns are too volatile to be used as a reliable measure of corporate performance (Han and Suk, 1998).

2.7 Conceptual Frame Work

The conceptual framework is a representation of figures showing the inter-relationship of variables . The conceptual framework illustrates the effects of capital structure on firms performance. The independent variables are : Capital structure Debt and equity.

- Short-term
- Long-term

Equity comprises of:

- Ordinary Shares
- Preferences shares

The dependent variable is firms performance. Performance variables include:

- Return on Equity
- Level of profit.
- financial ratios
- stock market returns

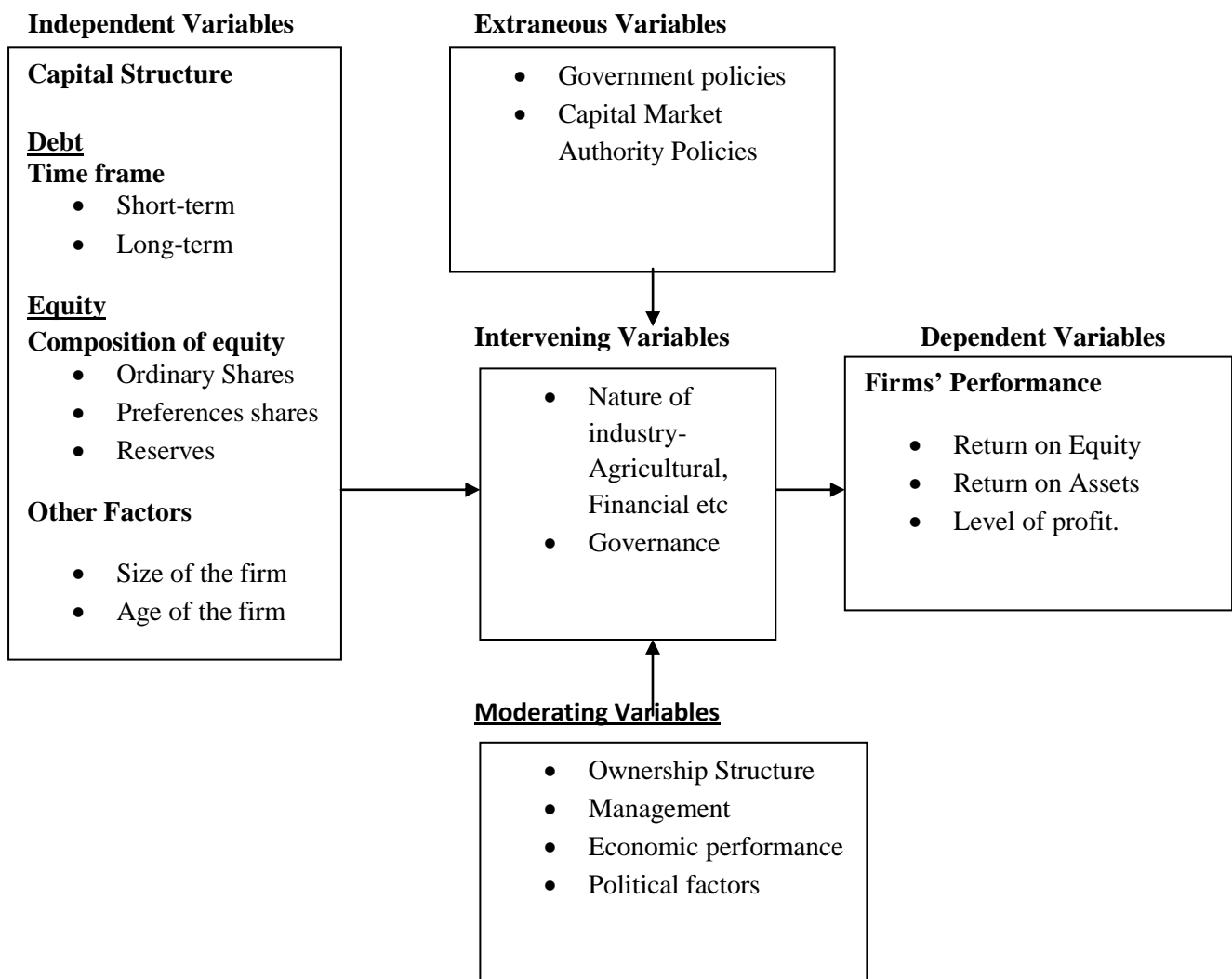


FIGURE 2.1 Conceptual Frame work

2.8 Summary of the Chapter

This chapter presents the reviewed literature relevant to the effects of capital structure on firms performance. It draws literature from empirical studies that have been done globally .The chapter starts with introduction, theoretical issues in the research, optimal capital structure capital structure theories factors determining capital and the operational

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the methodology used in carrying out the study. Aspects covered included research design, population, data collection methods, validity, reliability and data analysis method,. The objective of this study was to investigate whether capital structure has significant effect on the performance of publicly listed companies in Kenya. The study examined financial data for a period 10yrs (2001-2010).

3.2 Research Design

In order carry out the research assignment the researcher used descriptive research design which aimed at testing associations of relationships. The study also used survey design, correlation study and longitudinal design approach. The researcher did not visit individual firms under study to administer any questioner but instead used secondary data from the Nairobi Securities Exchange handbook, published financial statements for the firms under study. The firms selected which traded in the Nairobi Securities Exchange (NSE) for the period under consideration were evaluated. Variables such as profits, totals assets, market price per share, debt and equity were analyzed for a period of 10 years to understand their trends and behaviors. The researcher used descriptive research design both qualitative and quantitative research design (descriptive) were used to address the research question to establish if there is any relationship in the variables.

3.3 Target Population

The population consisted of 27 selected firms on the main investment market segment (MIMS) of the NSE for the period of 10 years (2001-2010). Banks and other financial companies were eliminated because they are special in a way due to their daily close supervision by the Central Bank of Kenya. According to Gomez-Meija et al (1987) pooling performance over a five-year time span reduces variability and provides a better long term indicator. In addition, it provides a

more reliable and valid measure of firm performance than annual measures. Several researchers within the area such as Demsetz and Villalonga (2001) used a ten-year period for the data set. Also the researcher wanted a sample period that represented long term conditions implied in the chosen time period is 2001-2010.

This study was limited to companies listed to in the NSE because of greater availability and reliability of data than those not listed companies.

3.4 Data Collection

Secondary data from NSE covering 10 year period from 2001-2010 was used. The NSE is the ideal for carrying out the study based on the availability, accessibility and reliability of the data that was used. This period is considered long enough to provide sufficient variables to ascertain the strength of the relationship.

The secondary data obtained included, audited annual financial statement from NSE and CMA , the daily trading data from NSE handbook i.e share prices including open and closing prices were obtained basically from the NSE for 10 years, and outstanding shares, profits, total assets , total expenses for the year, long and short-term liabilities at the end of each year, daily market share prices and equity.

The researcher used firm age since the date of listing. This is in conformity with Shumway (2001) asserts that the economically most meaningful measure of age is the number of years since listing. Fama and French (2004), and Chun, Kim, Morck, and Yeung (2008), measured age in the same way. Performance slows down, regardless of whether firms age is measured from the time of listing or the time of incorporation.

3.5 Validity and reliability.

Patton (2001) argues that reliability and validity are two factors which any qualitative researcher should be concerned about while defining a study , analyzing results and judging the quality of the study . White ,(2002) emphases that the need to build into the research design the

concept of validity and reliability. This was achieved by use of audited financial report from the Nairobi Securities Exchange.

3.5.1 Validity.

Is the degree to which a tool measures what purports to measure (Barg & Gall 1989). It concerned with on whether the findings are relay about what its a measure . Its the accuracy and mean fullness of inferences, which are based on the research results. It the degree to which results obtained from the analysis of the data actually represents the phenomenon under study. (Mugenda and mugenda (2003). The research used audited financial report for the firms under study making this study very valid.

3.5.2 Reliability

Reliability referrers to the stability, accuracy and precision of measurement. The quality of a research depends on the way the research is conducted and the reliability of the process . According to Mugenda and Mugenda, (2003), reliability is a means of the degree to which the research instrument yields consistent results after the data repeated trials.

3.6 Data analysis.

Data obtained was analyzed into useful information using descriptive statistics which include both qualitative and quantitative methods. Quantitatively the researcher presented the information by use of tables, line graphs. Various financial ratios were used to analyze the data since financial ratios summarize large quantities of data can be used to perform a comparison of performance over time. Firm performance ratios used are, Return on Equity (ROE) and Return on Assets (ROA).

3.7 Conceptual Model

The study used the following regression model to conceptualize if capital structure has some effect to the firms performance listed in NSE. Regression model was used since the study has more than two independent variables.

$$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + \dots$$

Where: Y= performance variables.

A = Y-intercept of the regression equation.
 b_1, b_2, b_3 = are the slope of the regression
 x_1, x_2, x_3 = are the dependent variables

Analytical model: To establish the effects of capital structure to firms performance listed in NSE, the study will use the following regression model.

$$Y (\text{performance}) = \beta_0 + \beta_1 \text{Indo } i,t + \beta_2 \text{Insto } i,t + \beta_4 \text{age } i,t + \varepsilon i,t,$$

Where:

Y = ROE, ROA, Performance variables.
 β_0 = Y-intercept of the regression equation
 $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = are the slope of the regression
Indo i,t = Institutional debt .
Insto i,t = Institutional Equity.
Firms Size, age = Control variables
 ε = error term

3.8 Operationalization of Variables

This is the framework that shows how objectives are manifested and measured as well as how data is to be collected and analyzed.

This framework is shown in the following figure.

Objective	Variable	Indicator(s)	Measurement(s)	Measuring Scale	Data Collection Method	Data Analysis
1. To establish if there is any relationship between equity and firms performance firms in from the selected firms trading in the NSE.	<u>Independent variable</u> Equity	Composition of equity Ordinary shares Preference shares Retained earnings Reserves	Quantity / Numbers Value (Kshs)	Ordinal Ratio	Secondary Data	Descriptive statistic
	<u>Dependent Variable</u> Firm performance	Level of profitability ROA, ROE , P/E ratio	Level of Profit (High/Low) Total Assets (Value) Ordinary shares (No./Value) Market price per share(Value)	Ordinal Ratio		Multiple Regression

2. To establish if there is any relationship between debt and firms performance firms in from the selected firms trading in the NSE	<u>Independent variable</u> Debt	Time Horizon- Long-Term debt , Short-term Debt	Length of term (Years) Value (Kshs)	Ordinal Ratio	Secondary Data	Descriptive statistic
	<u>Dependent Variable</u> Firm performance	Level of profitability ROA, ROE , P/E ratio	Level of Profit (High/Low) Total Assets (Value) Ordinary shares (No./Value) Market price per share(Value)	Ordinal Ratio		Multiple Regression
3. To establish if there is any relationship between age of the firm and its performance from the selected firms trading in the NSE	<u>Independent variable</u> Age	Number of years since incorporation	Number of years	Ordinal	Secondary Data	Descriptive statistic
	<u>Dependent Variable</u> Firm performance	Level of profitability ROA, ROE , P/E ratio	Level of Profit (High/Low) Total Assets (Value) Ordinary shares (No./Value) Market price per share(Value)	Ordinal Ratio	Multiple Regression	

FIGURE 3.1 Operationalization of Variables

CHAPTER FOUR

DATA ANALYSIS,PRESENTATION AND INTERPRETATION

4.1 Introduction

The objective of this study was to investigate whether capital structure has significant effect on the performance of the selected listed companies in Nairobi Securities Exchange Market (NSE) . Data consisted of all the selected quoted companies which traded in the NSE between 2001-2010. Capital structure was analyzed in terms of debt and equity. Performance measure used in the data analyses included ROE and ROA. Age of the firm as another factor affecting performance was also considered in this study. Secondary data from NSE covering a ten year period from 2001-2010 comprising of audited financial statements was used. Data was analyzed using Statistical Package for Social Science (SPSS) and correlation and regression analyses were used as a means of establishing quantitative association and relationship between firm performance and its capital structure. The researcher selected 27 (Appendix 1) firms from the NSE for the purpose of the study.

4.2 Data Analysis

In the study the researcher used ROE and ROA as measures of performance. Secondary data used included, audited annual financial statement from NSE. Financial statements were extracted from the NSE handbook, firm profits, total assets and equity and debt were obtained from the Balance sheet and Profit and loss statement obtained basically from the NSE for ten years (2001-2010).During the research work, the researcher used descriptive research method. Quantitatively the researcher cross tabulated the information and analyzed the data using t-taste. Data was analyzed using Statistical Package for Social Science (SPSS) and correlation and regression analyses were used as a means of establishing quantitative association and relationship between firm performance and its capital structure. To establish the effects of capital structure on a firms performance, the study applied the following regression model.

$$Y (\text{performance}) = \beta_0 + \beta_1 \text{Indo } i,t, + \beta_2 \text{Instoi},t, + \beta_4 \text{age } i,t, + \varepsilon i,t,$$

Where:

Y	=ROE, ROA, Performance variables.
β_0	=Y-intercept of the regression equation
$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$	= are the slope of the regression
In _{do} i, t ,	= Institutional debt .
In _{sto} i, t ,	=Institutional Equity.
Firms Size,age	=Control variables
ε	= error term

4.3.0 Research Findings.

During the study the researchers was interested in finding the relationship between equity, debt and firms age to firms performance as measured by ROA and ROE.

4.3.1 Relationship between equity and firms Performance.

Equity Capital represents the personal investment of the owner(s) in the business. Is called risk capital because investors assume the risk of losing their money if the business fails. It does not have to be repaid with interest like a loan does. Equity capital is capital raised from owners in the company. During the research the researcher used Share capital (common stock), preferred stock, Retained earnings and Reserve as measures of equity.

The table below shows total equity and performance indicators

Table 4.3.1

Total equity and performance indicators Return on Equity and Return on Assets

Year	Total Equity	ROE	ROA
2001	2 587 945	0.12	0.02
2002	2 604 353	0.06	0.04
2003	2 615 889	-0.03	0.04
2004	3 428 528	0.15	0.08
2005	3 927 791	0.17	0.08
2006	4 697 241	0.17	0.07
2007	5 283 846	0.17	0.08
2008	6 101 570	0.14	0.07
2009	5 780 702	0.15	0.08
2010	8 003 335	0.15	0.07
Total	45 031 201	1.25	0.64
Average	4 503 120	0.13	0.06

From the research objectives the researcher tested the relationship between Equity and firms performance measured by Return on Equity (ROE) and Return on Assets (ROA)

Table 4.3.2
Correlation Matrix of the variables used in the study

		Total Equity	Total Debt	AGE	ROE	ROA
Total Equity	Pearson Correlation	1	.688**	.188**	.162**	.228**
	Sig. (2-tailed)		0	0.002	0.008	0
Total Debt	Pearson Correlation	.688**	1	0.09	-0.064	-.127*
	Sig. (2-tailed)	0		0.139	0.295	0.037
AGE	Pearson Correlation	.188**	0.09	1	-0.09	-0.041
	Sig. (2-tailed)	0.002	0.139		0.141	0.499
ROE	Pearson Correlation	.162**	-0.064	-0.09	1	.462**
	Sig. (2-tailed)	0.008	0.295	0.141		0
ROA	Pearson Correlation	.228**	-.127*	-0.041	.462**	1
	Sig. (2-tailed)	0	0.037	0.499	0	

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

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

Table 4.4.2 below shows Correlation Matrix which was constructed to check for the possibility of closely related variables. To test for the existence of a linear relationship between the dependent and the independent variables, According to table 4.4.2 above there exist a significantly positive correction between ROE and total equity (Pearson Correlation Coefficient=0.162, p-value=0.008<0.05), . This implies that as Equity increases the performance of the firm measured by ROE increases. This is due to the fact that the cost associated with equity as a source of capital is low hence has a positive effect on firms' performance.

Higher level of equity leads to higher ROA and ROE. The findings is in conformity with pecking order theory which postulates that firms prefer spending equity and to be more precise retained earnings first before resorting to debt . The pecking order theory assumes that managers act the best interest of the shareholders (Myres, 2001).

Table 4.3.3

Model Summary (R-square)			
R	R Square	Adjusted R Square	Durbin-Watson
0.321	0.103	0.093	2.102

The R-square value according to the table 4.3.3 above is 0.321 while the adjusted R-square is given as 0.103 implying that the regression model explains only 9.3% of the dependent variable (ROE). This implies that firms performance is determined by other factors than equity which is represented by 90.7 %

To test for the existence of a linear relationship between the equity and firms performance variables, Analysis of Variance was employed. The results from the analysis of variance as per table 4.3.4 below shows that the regression relationship between ROE and the independent variables is statistically significant at 5% level of significance ($F=10.211$, $p\text{-value}=0.000<0.05$).

Table 4.3.4

Analysis of Variance (ANOVA)					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	3.251	3	1.084	10.211	0
Residual	28.228	266	0.106		
Total	31.479	269			

The results in table 4.3.5 below show the test of significance of individual regression parameters. The results show that all the regression parameters are statistically significantly and positively related to the Return on Equity at 5% level of significance. The coefficient of the regression parameters for Total Equity is zero implying that there is no linear relationship to Return on Equity

Table 4.3.5

Regression Model (General)			
	Coefficients	t	P-value
(Constant)	0.207	3.577	0
Total Equity	0	5.225	0
Total Debt	0	-4.286	0
AGE	-0.002	-2.339	0.02

The resultant regression equation based on the findings in table 5 can then be expressed as;

$$ROE = 0.207 + 0.000TotalEquity + 0.000TotalDebt - 0.002Age + \varepsilon$$

4.3.2 Relationship between debt and firms Performance

Debt financing refers to the borrowing of funds from outsiders in order to finance a purchase, acquisition or expansion. Since debt financing involves borrowed funds, it must be repaid, typically in installments and with interest. The interest that must be paid on debt financing is determined by the creditworthiness of the borrower, the intended use of the funds, and by the current financial climate. Businesses and corporations find debt financing attractive because the interest paid is tax deductible. The researcher used total debt because firms financial statement had combined short-term and long-term debt as indicated in table 4.3.5 below.

Table 4.3.5**Total Debt and performance indicators.**

Year	Total Debt	ROE	ROA
2001	2 083 082	0.12	0.02
2002	3 260 848	0.06	0.04
2003	3 684 093	-0.03	0.04
2004	3 664 970	0.15	0.08
2005	4 460 724	0.17	0.08
2006	5 901 481	0.17	0.07
2007	6 559 935	0.17	0.08
2008	7 843 068	0.14	0.07
2009	9 308 664	0.15	0.08
2010	10 753 403	0.15	0.07
Total	57 520 268	1.25	0.64
Average	5 752 027	0.13	0.06

The researcher also tested the effects of debt to firms' performance. Some firms reported their debt value as one block figure without separating it into short-term and long-term debt. This necessitated the researcher to use total debt to determine its effects on firms' performance. The results as per table 4.3.2 indicated that there exists a significant and negative correlation between total debt and ROA (Pearson Correlation Coefficient=-0.127, p-value=0.037<0.05) and ROE (Pearson Correlation Coefficient=-0.064, p-value=0.295<0.05) , implying that highly performing firms have lower value of total debt this is because they can finance their firms requirements from the internally generated funds. Also it means that as debt increases the performance of the firm declines. Hence loss of profitability. This is in conformity with Zeitun and Tian (2007) who found t firm's capital structure have a significant and negative impact on the firm's performance measures in both the accounting and market measures. Stulz (1990) like Jensen believes that debts payment decreases cash flows available for firm growth/ expansion. This findings showed that debt exposes firms into risk. Although Interest paid on debt is tax deductible but the principle repayment and interest deny the firm funds which could otherwise be used for expansion purposes.

4.3.3 Relationship between firms age and its performance.

As firms get older, they might become less productive if they become increasingly inert and inflexible. Barron et al. (1994) argue that old firms are prone to suffer from a liability of obsolescence because they do not fit in well to the changing business environment and also a liability of senescence according to which they become ossified by accumulated rules, routines and organizational structures.

Table 4.3.6
Firms age and Performance indicators -Return on Equity
and Return on Assets

Year	AGE	ROE	ROA
2001	48.96	0.12	0.02
2002	49.96	0.06	0.04
2003	50.96	-0.03	0.04
2004	51.96	0.15	0.08
2005	52.96	0.17	0.08
2006	53.96	0.17	0.07
2007	54.96	0.17	0.08
2008	55.96	0.14	0.07
2009	56.96	0.15	0.08
2010	57.96	0.15	0.07
Total	534.63	1.25	0.64
Average	53.46	0.13	0.06

The researcher also tested the effects of firms' age to its performance. Age of the firm was calculated based on the date of registration of the firm with the register of companies up to the date of this research. The results also indicate that there is a negative correlation between ROE and ROA as measures of firms performance and firms age being (Pearson Coefficient= -0.090, p-value=0.141<0.05),and (Pearson Coefficient= -0.041, p-value=0.499<0.05),respectively. This implies that old firms need not be performing well . As firm grow old holding other things constant can find themselves being smoked out business if they do not cope with changes in technology to increase their performance. Also firms tend to attract high operational cost as the advance in age. These high operational cost reduces the firms profitability

Agarwal and Gort,1996 and 2002 in their research on comparison of productive efficiency of firms at different ages, they concluded that older firms could lose their competitive edge hence affecting their performance. This is because old firms are more rigid , their operating expenses increase , they experience decline in market share market share and therefore a relative decline in sales growth. They encounter reduced R&D and investment activities. The reason for this prediction is that there is only limited scope for improvement of the firm’s current production technology and its products. The researcher used firm age since the date of listing. This is in conformity with. Shumway (2001) asserts that the economically most meaningful measure of age is the number of years since listing. Fama and French (2004), and Chun, Kim, Morck, and Yeung (2008), measure age in the same way. Performance slows down, regardless of whether firms age is measured the time of listing or the time of incorporation.

4.4 Trend analysis for performance

The table below shows the trend of Return on Equity and Return on Assets for 10yrs.

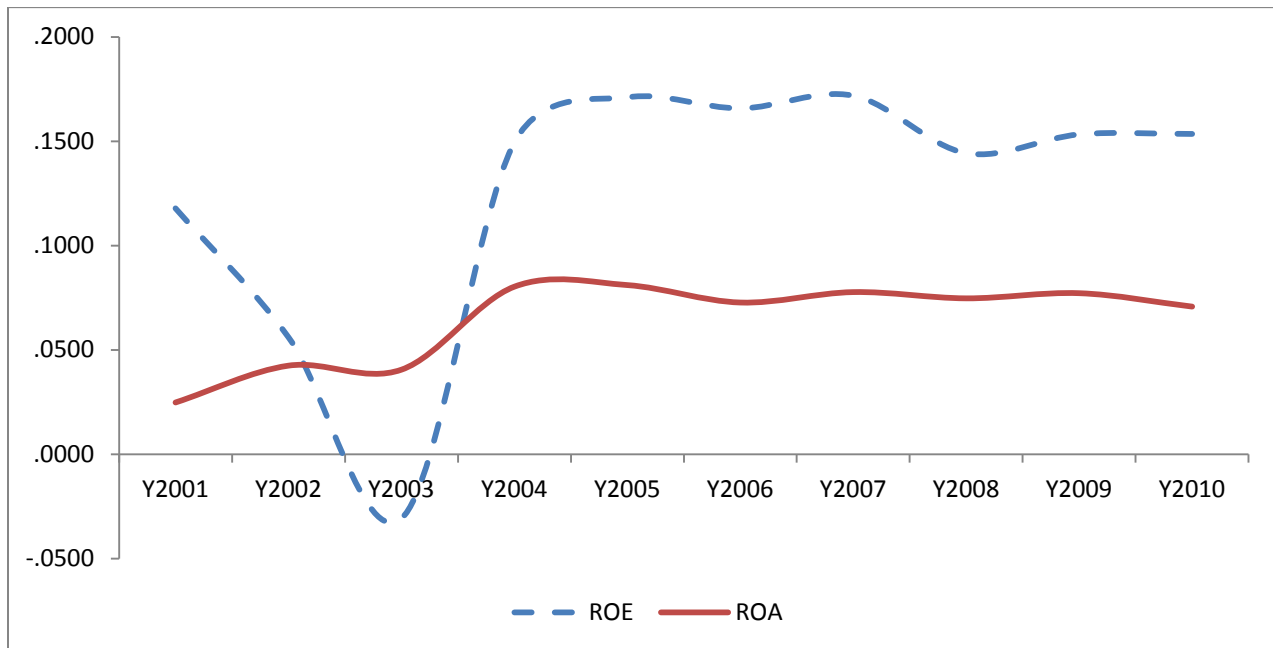
Generally firms performance was low in 2003 and stabilized there after.

Table 4.4.1

Firms performance trend

	Year									
	Y 2001	Y 2002	Y 2003	Y 2004	Y 2005	Y 2006	Y 2007	Y 2008	Y 2009	Y 2010
ROE	0.1179	0.0561	-0.0307	0.1495	0.171	0.1658	0.1718	0.1443	0.1533	0.1535
ROA	0.0248	0.0424	0.0405	0.0803	0.081	0.0727	0.0777	0.0747	0.0771	0.0707

Figure 4.4.1 Trend of Measures of Performance



Source: Generated from analysis using SPSS

The figure above shows the trend of ROA and ROE for the 10years period of study. From the figure above is quite clear that both ROA and ROE as measures of firms performance experienced a major decline in 2003 and then started increasing steadily and declined again in 2008, where they started increasing in 2009. This trend is attributable to political factors. The 2002 and 2007 national election affected firms performance for subsequent year. Its evidenced that during the year after of the national election firms performance is low and starts to improve after the National elections. This indicates that national elections have a negative effect on the returns of firms as measured by ROA and ROE . Also the decline in performance in 2008 can be attributable to the financial crisis or economic melt-down which started in 2007 lead to a slowdown of global economy. Business were all affected resulted to poor profits . Shares performance in the NSE was very low hence discouraged investors in investing in equity and directed their resources into other securities such as bonds and unit trust. This is evidenced by the trough on the ROA tread.

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSION, CONCLUSION AND RECOMENDATIONS

5.1 Introduction

This chapter presents the summary of findings , discussion of results, conclusion and recommendations with areas of further research on effects of capital structure on firms performance. The objective of this paper was to examine the effects of capital structure on firm performance . Specifically this paper examined the effects of Equity and Debt to firms performance as measured by ROE and ROA . Debt was reported as a block figure by some firms and should be separated in short-term and long-term since debt maturity date will have different effects on firms' performance. The researcher considered Equity as comprised by both ordinary , preference shares, reserves and retained earnings. The findings showed varying results in the relationship between the effects of debt, equity and age on ROA, ROE as measures of performance.

5.2 Summary of Findings

Its imperative that firms performance is affected by capital structure either positively or negatively. The researcher was trying the establish the effects of capital structure to firms performance. Age was used as a proxy to firms performance. The findings can be summarized in the table below.

Table 5.1 summary findings and recomendations

Objectives	Findings	Recommendations
1. To establish if there is any relationship between equity and firms performance firms in from the selected firms trading in the NSE.	The results of the analysis showed that there exist a significantly positive correction between ROE and total equity (Pearson Correlation Coefficient=0.162, p-value=0.008<0.05), and This implies	The findings is in conformity with pecking order theory which postulates that firms prefer spending equity and to be more precise retained

	that as Equity increases the performance of the firm measured by ROE increases.	earnings first before resorting to debt . The pecking order theory assumes that managers act the best interest of the shareholders (Myres, 2001). Therefore firms should first utilize internal equity before the use debt as a source of financing
2. To establish if there is any relationship between debt and firms performance firms in from the selected firms trading in the NSE	Results indicate that there exists a significant and negative correlation between total debt and ROA (Pearson Correlation Coefficient=-0.127, p-value=0.037<0.05) and ROE (Pearson Correlation Coefficient=-0.064, p-value=0.295<0.05)	Firms should explore other funding sources which does not have a negative impact of forms performance such as equity,
3. To establish if there is any relationship between age of the firm and its performance from the selected firms trading in the NSE	Results indicate that there exist a negative correlation between ROE and ROA as measures of firms performance and firms age being (Pearson Coefficient= -0.090, p-value=0.141<0.05),and (Pearson Coefficient= -0.041, p-value=0.499<0.05),respectively	As firms age , management should be very keen on the capital structure and also embrace technology which can improve firms performance,.

5.3 Discussion of the Findings

Based on the findings of the study the following discussions can be deducted.

The Relationship between equity and firms performance.

Firm performance was measured using Return on Assets (ROA) and Return on Equity (ROE). Equity used is the sum of the value of Ordinary shares, preference shares, retained earnings and reserves. The results of the analysis showed that there exist a significantly positive correlation between ROE and total equity (Pearson Correlation Coefficient=0.162, p-value=0.008<0.05), and this implies that as Equity increases the performance of the firm measured by ROE increases. From the report it was evidenced that Total Equity, had a positive relationship between firms performance as measured by both ROA and ROE. The main argument behind this is that equity as a source of capital is less costly as opposed to other external sources of capital. Myres (2001) postulates that firms tend prefer retained earnings first before they resort to debt. Retained earnings unless re-invested into the firm may not give high returns to the shareholders.

Meziane (2007) explains that two main compensations of debt financing are taxation and discipline. He contends that, interests are paid before tax payments but dividends are paid after taxation, so the cost of debt is significantly less than that of equity. Normally, due to bankruptcy, managers remain cautious and issue a given amount of debt that will not lead the company into problems of default in payment of interest. External equity also has its shortcomings. Although, dividend declaration and payment is not mandatory, it is an incentive to potential investors and may lead to increase in share price. However, it has the problem of dilution of ownership and principal-agency conflicts.

Based on empirical evidence, options have been made available on how a firm could finance its operations. Fluck (1999) reveals that the preliminary and following decisions of financing should follow a pattern. Companies will float external equity and bonds initially and afterwards, use retained earnings, long term debts and external equity for subsequent financial requirements. Stenbacka and Tombak (2002) largely agree with Fluck's assertion but not the other of financing. They recommend that small companies should issue debt first to generate retained earnings and as it accumulates, managers should concurrently obtain both debt and new equity.

Meziane (2009) postulates a slightly different view. start ups should be financed with owners' capital, expanding companies with venture capital or private equity while mature companies should use internal financing, more debt and equity. These options are suggested but managers should choose which one to follow in accordance with prevailing circumstances in their companies.

The Relationship between firms debt and its performance.

The researcher used total debt (Long term and short term) for each of the firm in the sample . The secondary data used could not separate the two.

The results of the regression analysis shows that there exists a significant and negative correlation between total debt and performance measures ROA (Pearson Correlation Coefficient=-0.127, p-value=0.037<0.05) implying that highly performing firms have lower value of total debt. Debt ratio will determine the financial health of companies. This ratio helps investors to identify risk rate for companies. The company that has a high debt ratio will have a negative impact on firm performance and value. Companies can reduce debt ratio and increase profitability thus improved ROA and ROE measures. This could indicates this issue, the companies that have high debt ratio (DR) due to borrowing, are incurred costs as the financial costs which reduce net income and in contrast, return on assets (ROA) and return on equity (ROE) will reduce.

The results are therefore in conformity with pecking order theory which argues that managers therefore prefer internally generated funds (retained earnings) to external funding, and if necessary, prefer debt to equity because of lower information costs associated with debt issues. Many measures of firm performance, such as a firm's profitability, are negatively correlated with financial leverage. This result can be interpreted in this way that high leverages companies would have less profitability. Also the negative relationship of debt to firms performance can be due to agency conflicts, Managers tend to have conflicting interest as opposed to those of shareholders, hence over-leverage firms , thus affecting their performance negatively. This is in consistence with the findings of Mathur and Mathur (2000). Myers (2002) made a fundamental observation that there is no universal theory of capital structure as each vary with firm and environmental conditions prevailing at any given time. For example Welch (2004) argued that performance of a firm share price will affects the capital structure. When inflation is high firms tent to high debt (

Frank & goyal , 2004). Krishnan and Moyer, (1997) found a negative and significant impact of total debt on firms return as measured by return on equity (ROE). Abor (2005) reports a positive relation between capital structure, which measured by total debt (short –term and long term debt), and performance over the period 1998-2002 in the Ghanian firms. Stulz (1990) argued that debt can have both a positive and a negative effect on firm performance and presumably both effects are present in all firms.

Ross (1977), Heinkel (1982) and Noe (1988) suggest that increasing leverage, by acquiring debt should have positive implications for firm value and performance. Furthermore, this result is also supported by Hadlock and James (2002) where they concluded that companies prefer debt (loan) financing because they anticipate a higher. Min Tsung Cheng (2009) studied the relative effects of debt and equity financing on the operating performance. Findings in this study show that apart from high cash flow firm, debt finance and debt financing have significantly negative consequence for operating performance. Hence, these findings suggest that it is dangerous for firms to rely or depend entirely on either debt or equity for raising capital but it is much safer and better to raise finance by both methods, with each working together, at the same time. Thus, this finding suggests firms to try whenever possible to raise finance by using both methods simultaneously, with the advantages of the one method offsetting the difficulties of the other and vice versa. This support the findings by Krivogorsky *et.al* (2009) when the findings had found a negative association between debt to equity and performance hence confirming prior research findings that companies with high debt to equity ratios are usually perceived as being risky investments and possibly affecting wealth transfer from debt holders to share holders.

Gleason *et.al* (2000), found total debt to be negatively related to return on assets and this result is consistent with Min-Tsung Chen (2009) who found that the anticipated debt ratio has significantly negative effects on operating performance. Besides that, Johnny Jermias (2008) also had found a negative relationship between financial leverage and return on equity. Thus, a negative relationship is hypothesized between total debts and profitability.

The Relationship between firms age and its performance.

The researcher used firm age since the date of listing. This is in conformity with Shumway (2001) asserts that the economically most meaningful measure of age is the number of years since listing. Fama and French (2004), and Chun, Kim, Morck, and Yeung (2008), measure age in the same way. Performance slows down, regardless of whether firms age is measured the time of listing or the time of incorporation.

The researcher found that Firms age had a negative relationship in both ROE and ROA. This agrees with Frielinghaus Mostert and Firer (2005) research outcome, where he found a negative relationship between firm age and firms performance, Another study by Gleason, Mathur and Mathur, (2000) found that firms capital structure has a negative and significant impact on firms performance measures return on assets (ROA), Age could be a proxy for other drivers of performance, for instance, financial constraints.

The aging phenomenon could be the expression of organizational rigidities and inertia that make it difficult for the firm to recognize, accept, and implement innovation signals from the market. Consistent with that, costs and overhead expenses go up with age, margins thin, and growth slows down. Perhaps more important, aging could also be associated with an inability to design incentive mechanisms to prevent managerial quiet lives and rent-seeking behavior as firms grow older. They concluded that older firms could lose their competitive edge hence affecting their performance. This is because old firms are more rigid, their operating expenses increase, they experience decline in market share and therefore a relative decline in sales growth.

Since firms are organizations that can be restructured as needs evolve, there is no a priori reason why they should age. In fact, as they mature, firms should be able to learn. They can learn by doing or by investing in research and development; they can hire human capital and train their employees; and they can learn from other firms in the same and in other industries should also discover what they are good at (Jovanovic, 1982). Consistent with this prior belief, various studies in the industrial organization literature report that life expectancy increases with age (Dunne, Roberts, and Samuelson, 1989), and better firms survive (Baker and Kennedy, 2002).

Hopenhayn (1992) shows that, under plausible assumptions, older firms enjoy higher profits and value. As experience is perceived to be a contributing factor towards the enhancement of firm performance, older firms are hypothesized to perform better than newer firms. However, research has shown mixed results in the relationship between age of a firm and performance. Ketokivi and Schroeder (2004) and Morgan et al.

5.4 Conclusion

Firm's level of debt does not only affect corporate performance and failure but also its debt maturity structure (Barclay and Smith, 1995 and Ozkan, 2002). Schiantarelli and Sembenelli (1999) investigated the effects of firms' debt maturity structure on profitability on firms in Italy and the United Kingdom and found a positive relationship between initial debt maturity and medium term performance. Furthermore, there are other factors, besides capital structure, that may influence firm performance such as firm size, age, growth, risk, tax rate, factors specific to the sector of economic activity, and factors specific to macroeconomic environment of the country. In summary, a firm's performance could be affected by the capital structure choice and by the structure of debt maturity. Debt maturity affects a firm's investment options. Also, the tax rate is expected to have an impact on a firm's performance. So, investigating the impact of capital structure variables on a firm's performance will provide evidence of the effect of capital structure on firm performance.

There are other measures of performance called market performance measures, such as price per share to the earnings per share (P/E) (Abdel Shahid, 2003), market value of equity to book value of equity (MBVR), and Tobin's Q. Tobin's Q mixes market value with accounting value and is used to measure the firm's value in many studies (e.g., Morck, Shleifer, and Vishny, 1988, McConnel and Serveas, 1990, and Zhou, 2001). The results of this report gives an inconclusive information on effects of capital structure on firms performace.

Firm performance may also affect the capital structure choice (Berger and Bonaccorsi di Patti, 2006). This reverse causality effect is in essence a feature of theories linking agency costs (Jensen and Meckling, 1976; Myers, 1977; Harris and Raviv, 1990), corporate control issues

(Harris and Raviv 1988), and in particular, asymmetric information (Myers and Majluf, 1984; Myers, 1984) and taxation (DeAngelo and Masulis, 1980; Bradley et al., 1984) with the value of the firm.

Since firms are organizations that can be restructured as needs evolve, there is no a priori reason why they should age. In fact, as they mature, firms should be able to learn. They can learn by doing or by investing in research and development, they can hire human capital and train their employees, and they can learn from other firms in the same and in other industries (see, for example, Bahk and Gort, 1993, and the vast literature cited therein). Over time, firms should also discover what they are good at (Jovanovic, 1982).

Capital structure literature has shown conflicting results among researchers. Some studies have shown that capital structure has significant impact on firm performance while others have shown no impact. Generally, researchers agree that an association between capital structure and firm performance exist (Hung, et. al.2002). While some studies have concluded that the relationship between capital structure and firm performance is both positive and negative Abor, 2005. Others concluded that the relationship is negative (Narendar, et. al. 2007). Yet, other studies have documented a positive relationship (Akintoye, 2008). With these mixed and conflicting results, the quest for examining the relationship between capital structure and firm performance has remained a puzzle and empirical study continues.

Based on the analysis, one may argue that firm's financing decision is influenced by many factors, and explaining that decision by one theory (trade-off or pecking order) may be short of providing a complete diagnosis of that decision. In fact, each capital structure theory works under its own assumptions and so does not offer a complete explanation of financial decisions. This means that searching for an optimal capital structure is not one-way to go (Myers, 2001; Eldomiatty, 2007). This could explain the mixed and contradictory results of the studies that empirically tested the predictions of these theories (i.e. relationship between leverage and firm's profitability)

According to Gleason et al. (2000), the utilization of different levels of debt and equity in the firm's capital structure is one such firm-specific strategy used by managers in the search for

improved performance. Hence, most firms have strived to achieve an optimal capital structure in order to minimize the cost of capital or to maximize the firm value, thereby improving its competitive advantage in the marketplace through a mixture of debt and equity financing. Thus, selecting the right type of debt is an equally important issue as opting for an appropriate debt to equity ratio. However, as noted by Myer (2001), each theory works under its own assumptions and propositions, hence, none of the theories can give a complete picture of the practice of capital structure.

5.5 Recommendation

In the study the researcher assumed all financial year ended 31st December in every year of analysis. Firms in Kenya have different financial calendars some ending in March, June, September and Decembers. Firms should be categorized in terms of financial year and analyzed to enable a reliable conclusion. Firms should explore other funding sources which does not have a negative impact of forms performance such as equity, As firms age management should be very keen on the capital structure and also embrace technology which can improve firms performance, Gleason, Mathur, and Mathur (2000), found that Firm size has a positive and significant impact on firm performance ROA, The economic environment , organizational policy and risk will affect firms' performance

Firms performance tread analysis done by the researched noted that, immediately after the Kenya national election (5yr term) , firms performance tends to be quite low during the year of election and improves after election. This can be attributable to investor panics in their investment decisions. Many firms tend to slow down production during election period.

To understand how companies finance their operations, it is necessary to examine the determinants of their financing or capital structure decisions. Company financing decisions involve a wide range of policy issues. At the private, they have implications for capital market development, interest rate and security price determination, and regulation. At the private, such decisions affect capital structure, corporate governance and company development (Green, Murinde and Suppakitjarak, 2002).

Capital Market Authority should encourage firms to separate short-term and long-term debt in the financial statement.

5.6 Suggestions for Further Research.

This study focuses on the firms listed in the NSE Main Investment Market Segment. During the course of this study several ideas and potential research areas have crossed my mind. The purpose of this section is to serve as a source of inspiration for further researchers who want to write research papers within this area of work.

Issues of industry context need to be examined. This means a study need to be done on industry basis hence a conclusion be made. One interesting idea is to separate companies according to size, same financial year-end for generalized comparison. In this study large companies that in general represent maturing industries are associated with better performance regarding stock return and accounting profitability and analyzed together with the small young firms and need to be separated.

Another interesting aspect would be to use other performance measures and also non financial performance measures should be incorporated in the analysis. In this study we have only applied standard forms of performance measures such as ROE and ROA. A more precise measure of performance such as EVA that shows the economic value added would give a more reliable performance measure.

Its important to separate short-term and long-term debt since they affect performance of firms differently. Debt maturity should be disclosed by firms in their financial presentation . Debt maturity can be used as an independent variable for study, since the age of debt will affect firms performance differently.

Firms performance vary in size, companies need to be studied in terms of their size .

Debt maturity affect firms performance differently. Long-term debt attract high capital cost before its maturity as opposed to short –term debt. Debt should therefore be structured based on their maturity period.

REFERENCE

- Abor, J. (2005). The effect of capital structure on firm performance: an empirical analysis of listed firms in Ghana, *Journal of Risk Finance*, Vol. 2,pp438-447.
- Abor, J. (2005).1. *Journal of Risk Finance*, Emerald Group Publishing, 6(5),438-445.
- Akintoye, I. R. (2008). Sensitivity of Performance to Capital Structure. *European Journal of Social Science* , 7(1),.
- Akintoye,I.R (2008). Effects of capital structure on firms performance the Nigerian experience European journal of economics , Finance and administration Science.
- Barbosa, N., & Louri, H. (2005). Corporate Performance: Does Ownership Matter? A Comparison of Foreign- and Domestic-Owned Firms in Greece and Portugal. *Review of Industrial Organization* , 27(1),73-102.
- Berenson, I. and Levine, M.(1999). *Basic Business Statistics: Concepts and Applications*. London, Seventh Edition, Prentice Hall, Inc.
- Booth, L., V. Aivazian, A. Demirguc-Kunt, and V. Maksimovic, (2001), “Capital structures in developing countries,” *Journal of Finance* Vol. 56, 87-130
- Boodhoo, R. (2009) Capital structure and ownership structure , a review of literature the journal of on lin education January edition,
- Eldomiaty, T. (2007). Determinants of corporate capital structure: evidence from an emerging economy, *International Journal of Commerce and Management*, Vol. 17,pp25-43.
- Ebaid, I. E. (2009).The Impact of Capital-Structure Choice on Firm Performance: Empirical Evidence from Egypt. *The Journal of Risk Finance*, 10(5),477-487.
- Ehrhardt, M. and Brigham, E.(2003). “Corporate finance - A focused approach,” 1st Edition, Mason, Thomson.
- Fama, E. and French, K. R. (2002). Testing trade- off and pecking order predictions about dividends and debt, *Review of Financial Studies*, Vol. 15,133-139.
- Fluck, Z. (1999). The dynamics of the management-stakeholders conflict, *Review of Economic Studies*.pp 31-35

- Frank, M. Z. and Goyal, V. K. (2003). Testing the pecking order theory of capital structure, *Journal Financial Economics*, Vol. 8, pp217-248.
- Frank, M. Z. and Goyal, V. K. (2005). Trade-off and pecking order theories of debt, *Journal of Financial Economics*, Vol. 5,pp 35-41.
- Frielinghaus, A., Mostert, B. and Frier , C (2005) Capital Structure and Firm's Life Stage .
South African Journal of Business Management
- Foo, S. M. (2002). An Investigation Of The Relationship Between Capital Structure And Corporate Performance In The Trading/Services and Plantation Sector. *MBA Project Paper* .
- Gleason, K. C., Mathur, L. K. & Mathur, I. (2000). The Interrelationship between Culture, Capital Structure, and Performance: Evidence from European Retailers. *Journal of Business Research*, 50(2), 185-191.
- Graham, J. and Harvey, C. (2001). The theory and practice of corporate finance: evidence from the field, *Journal of Financial Economics*, Vol. 50,pp187-243.
- Green, C.J., V. Murinde and J. Suppakitjarak. (2002). *Corporate Financial Structure in India*.
- Harris, M. and A. Raviv. (1990). "Capital Structure and the Informational Role of Debt, *Journal of Finance*" Vol. 45, pp.321-349.
- Harris, M., and A. Raviv, (1991). "The theory of capital structure," *Journal of Finance*, Vol. 46., pp.297-355
- Hatfield, G., Cheng, L., Davidson, W., (1994). "The determination of optimal capital structure: The effect of firm and industry debt ratios on market value," *Journal of Financial And Strategic Decisions*,Vol.7, No3, pp.1-14.
- Huang, S. G. – Song, F. M. (2002): The Determinants of Capital Structure: Evidence from China. *Hong Kong Institute of Economics and Business Strategy, Working Paper*, 2002, no. 1042.
- Johannes v H de We; Kivesh Dhanraj, (2007). "Unlocking shareholder value by moving closer to

- the optimal capital structure,” *Accountancy SA, Accounting and Tax Predictions*, pp.28-32.
- Jensen, M. (1986). “Agency costs of free cash flow, corporate finance and takeovers. *American Economic Review*”, Vol. 76 no.2, pp.323-329.
- Kathleen M. Kahle and Shastri, Kuldeep. (2002). *Firm Performance, Capital Structure and the Tax Benefits of Employee Stock Options* .
- Kinsman, M. and Newman, J., (1998). “Debt tied to lower firm performance: Finding calls for review of rise in debt use,”Pepperdine University.
- King, M. R., & Santor, E. (2008). Family Values: Ownership Structure, Performance and Capital Structure of Canadian Firms. *Journal of Banking and Financial* , 32,2423-2432.
- Kochhar, R., (1997). “Strategic assets, capital structure, and firm performance,” *Journal of Financial and Strategic Decisions*,Vol.10, No3, pp.23-36.
- Leland, H. and Pyle, H., (1977). “Informational asymmetries, financial structure, and financial intermediation,” *Journal of Finance*, Vol.32, No2, pp.371-87.
- Lubatkin, M. and Chatterjee, S. (1994). Extending modern portfolio theory into the domain of corporate diversification: Does it apply?. *Academy of Management Journal*, 37, pp. 109-136
- Marsh, P. (1982): The Choice between Equity and Debt: An Empirical Study. *Journal of Finance*,vol. 37, 1982, pp. 121–144.
- Modigliani, F. and Miller, M.H. (1958). “The cost of capital, corporation finance and the theory of investment, *American Economic Review*”, Vol.48, pp. 261 -297
- Myers, S., and N. Majluf. (1984). “Corporate financing and investment decisions when firms have information investors do not have, *Journal of Financial Economics*”, Vol. 13, pp.187-222.
- Myers, S. C. (1984): The Capital Structure Puzzle. *Journal of Finance*, vol. 39, 1984, pp. 581–582.
- Myers, S. C. (2001): Capital Structure. *Journal of Economic Perspectives*, vol. 15, 2001,

pp. 81–102.

Masulis, R.,(1983). “The impact of capital structure change on firm value: Some estimates,” *The Journal of Finance*, 38 (1),pp.107-26.

McConnel, J. and Servaes, H.,(1995). “Equity ownership and the two faces of debt, ” *Journal of Financial Economics*, Vol.39, pp.131-57.

Messbacher, U.(2004). “Does capital structure influence firms value?”, University of Ulster.

Miller, M. (1977). “Debt and tax,” *Journal of Finance*, Vol. 32, pp.261-75.

Modigliani, F., and Miller, M.,(1963). “Corporate income taxes and the cost of capital: A correction,” *American Economic Review*, Vol.53, pp.433-43.

Myers S, Majluf N.(1984). Corporate Financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics* 13: 187–221.

Mugenda and Mugenda (2003). *Research Methods – Quantitative & Qualitative Approaches*

Pandey, I. M. (1999). *Financial Management*, New Delhi, 7th edition: Vikas Publishing House Pvt Ltd.

Ross, S, (1977). “The determination of financial structure: The incentive signalling approach,” *Bell Journal of Economics*, 8, pp.23–40.

Rajan, R. and Zingales, L.(1995). “What do we know about capital structure? Some evidence from international data”, *Journal of Finance*, Vol. 50, pp. 1421- 1460 Shah & Khan 282

Shah, A. and T. Hijazi.(2004). “The determinants of capital structure of stock exchange-listed non-financial firms in Pakistan, *Pakistan Development Review*”, Vol. 43, pp 605-618

Stultz, R.(1990). “Managerial discretion and optimal financing policies, *Journal of Financial Economics*”, Vol. 26, pp. 3-27

Saad, N. M. (2010). Corporate Governance Cpmpliance and the Effects to capital Structure. *International Journal of Economics and Financial* , 2(1),105-114.

- Suhaila, Kila, M., Mahmood, W., & Mansor, W. (2008, April 23). *Capital Structure and Firm Characteristics: Some Evidence from Malaysian Companies*
- Titman, S. (1984). "The effect of capital structure on the firm's liquidation decision, *Journal of Financial Economics*", Vol. 13, pp. 137-151
- Titman, S. and Wessels, R. (1988). "The determinants of capital structure choice, *Journal of Finance*", Vol. 43, pp. 1-19
- Tian, G. G., & Zeitun, R. (2007). Capital structure and corporate performance: evidence from Jordan. *Australian Accounting Bussiness and Finance Journal* ,
- Ofek, E. (1993). Capital Structure and Response to Poor Performance: An Empirical Analysis. . *Journal of Financial Economics* ,
- Williamson .(1988) . Corporate finance and corporate governance. *Journal of Finance* 43(3):567– 91.

Appendix 1. List of Companies under study.

1. Sasini Tea and Coffee Limited
2. Kakuzi Limited
3. Rea Vipingo Plantations Ltd
4. Kenya Airways Limited
5. Car and General (Kenya) Limited
6. Marshalls
7. Nation Media Group Limited
8. CMC Holdings Limited
9. TPS (Tourism Promotion Services) Eastern Africa Limited (Serena Hotels)
10. Centum Investment Company (ICDCI)
11. Housing Finance Company Limited
12. Jubilee Holdings Limited
13. Pan Africa Insurance Company Limited
14. British American Tobacco Kenya Limited
15. Bamburi Cement Company Limited
16. Crown-Berger Kenya Limited
17. Kenya Oil Company Limited
18. Total Kenya Ltd
19. Unga Group Limited
20. Athi-River Mining Limited
21. Olympia Capital Holdings Limited
22. East African Cables Limited
23. East African Breweries Limited
24. The Kenya Power & Lighting Co. Ltd
25. East African Portland Cement Company
26. Sameer Africa Limited
27. Mumias Sugar Company Ltd

Appendix 2 Firms Ratio Computation

Ratio Computation 2001

	Name of Company	Total Equity	Total Debt	Debt/Equity Ratio	AGE	ROE	ROA
1	Sasini Tea and Coffee Limited	1,841,719	217,933	0.12	50	0.01	0.01
2	Kakuzi Limited	1,789,366	446,501	0.25	75	-0.03	-0.02
3	Rea Vipingo Plantations Ltd	436,122	416,813	0.96	7	1.96	0.00
4	Kenya Airways Limited	7,925,000	1,544,400	0.19	25	0.17	0.06
5	Car and General (Kenya) Limited	313,779	305,424	0.97	66	-0.02	-0.01
6	Marshalls E.A Ltd	351,252	904,028	2.57	55	-0.88	-0.25
7	Nation Media Group Limited	2,081,600	816,700	0.39	40	0.13	0.09
8	CMC Holdings Limited	2,045,653	2,058,062	1.01	54	0.04	0.02
9	TPS (Tourism Promotion Services) Eastern Africa Limited (Serena Hotels)	761,831	745,664	0.98	34	0.13	0.05
10	Centum Investment Company (ICDCI)	2,149,806	237,919	0.11	35	0.01	0.01
11	Housing Finance Company Limited	901,502	10,729,052	11.90	37	-0.21	-0.02
12	Jubilee Holdings Limited	1,327,936	3,895,017	2.93	65	0.09	0.02
13	Pan Africa Insurance Company Limited	886,499	2,091,837	2.36	56	0.18	0.06
14	British American Tobacco Kenya Limited	9,760,207	2,530,801	0.26	50	0.06	0.09
15	Bamburi Cement Company Limited	10,067,000	4,511,000	0.47	51	1.91	0.05
16	Crown-Berger Kenya Limited	527,837	359,810	0.68	44	0.04	0.03
17	Kenya Oil Company Limited	1,708,367	1,782,218	1.04	43	0.23	0.11
18	Total Kenya Ltd	2,436,140	4,985,275	2.05	47	-0.09	-0.03
19	Unga Group Limited	1,199,495	1,730,976	-0.04	94	1.09	-0.06
20	Athi-River Mining Limited	833,312	427,481	0.51	29	0.04	0.03
21	Olympia Capital Holdings Limited	77,473	62,758	0.81	32	0.21	0.16
22	East African Cables Limited	274,435	53,879	0.20	37	0.06	0.05
23	East African Breweries Limited	10,038,231	1,230,027	0.12	80	0.15	0.10
24	The Kenya Power & Lighting Co. Ltd	1,085,786	5,274,396	4.86	80	-2.65	-0.10
25	East African Portland Cement Company	1,934,552	5,570,473	2.88	72	0.38	0.10
26	Sameer Africa Limited	2,054,510	769,842	0.37	33	0.16	0.12
27	Mumias Sugar Company Ltd	5,065,115	2,544,928	0.50	31	0.01	0.01
	Totals			39.46		3.18	0.67
	Average			1.46		0.12	0.02

Source: survey Data

Ratio Computation 2002

	Name of Company	Total Equity	Total Debt	Debt/Equity Ratio	AGE	ROE	ROA
1	Sasini Tea and Coffee Limited	1,754,912	373,995	0.21	51	-0.01	-0.01
2	Kakuzi Limited	1,797,252	1,026,570	0.57	76	0.00	0.00
3	Rea Vipingo Plantations Ltd	451,391	371,662	0.82	8	0.05	0.03
4	Kenya Airways Limited	7,663,000	14,507,000	1.89	26	0.11	0.04
5	Car and General (Kenya) Limited	318,068	278,303	0.87	67	0.02	0.01
6	Marshalls E.A Ltd	1,005,216	854,221	0.85	56	0.03	0.02
7	Nation Media Group Limited	2,326,900	1,281,800	0.55	41	0.16	0.10
8	CMC Holdings Limited	2,196,912	2,258,759	1.03	55	0.07	0.03
9	TPS (Tourism Promotion Services) Eastern Africa Limited (Serena Hotels)	1,021,130	1,101,662	1.08	35	0.10	0.05
10	Centum Investment Company (ICDCI)	2,405,687	143,543	0.06	36	0.10	0.10
11	Housing Finance Company Limited	957,353	9,420,530	9.84	38	0.06	0.01
12	Jubilee Holdings Limited	1,484,322	4,566,507	3.08	66	0.11	0.03
13	Pan Africa Insurance Company Limited	887,692	2,265,026	2.55	57	-0.02	-0.01
14	British American Tobacco Kenya Limited	4,110,810	2,202,986	0.54	51	0.20	0.13
15	Bamburi Cement Company Limited	9,877,000	4,688,000	0.47	52	0.13	0.09
16	Crown-Berger Kenya Limited	555,952	317,299	0.57	45	0.10	0.06
17	Kenya Oil Company Limited	2,149,225	4,160,796	1.94	44	0.21	0.10
18	Total Kenya Ltd	3,122,512	2,688,802	0.86	48	0.12	0.06
19	Unga Group Limited	1,124,371	1,171,419	1.04	95	-0.10	-0.03
20	Athi-River Mining Limited	862,802	552,352	0.64	30	0.07	0.04
21	Olympia Capital Holdings Limited	79,365	129,319	1.63	33	0.06	0.02
22	East African Cables Limited	246,017	84,522	0.34	38	-0.02	-0.02
23	East African Breweries Limited	11,171,841	6,852,543	0.61	81	0.21	0.13
24	The Kenya Power & Lighting Co. Ltd	3,516,168	17,704,461	5.04	81	-0.53	-0.06
25	East African Portland Cement Company	1,888,111	5,517,542	2.92	73	0.07	0.02
26	Sameer Africa Limited	1,989,431	559,251	0.28	34	0.12	0.15
27	Mumias Sugar Company Ltd	5,354,095	2,964,028	0.55	32	0.09	0.05
	Totals			40.85		1.51	1.15
	Average			1.51		0.06	0.04

Source: survey Data

Ratio Computation 2003

Name of Company	Total Equity	Total Debt	Debt/Equity Ratio	AGE	ROE	ROA
Sasini Tea and Coffee Limited	2,401,308	485,752	0.20	52	-0.03	-0.02
Kakuzi Limited	1,007,295	1,147,713	1.14	77	-0.01	-0.01
Rea Vipingo Plantations Ltd	464,731	406,985	0.88	9	0.01	0.00
Kenya Airways Limited	7,349,000	15,997,000	2.18	27	0.06	0.02
Car and General (Kenya) Limited	354,816	207,811	0.59	68	0.17	0.11
Marshalls E.A Ltd	290,909	768,170	2.64	57	0.08	0.02
Nation Media Group Limited	2,760,900	1,167,700	0.42	42	0.21	0.15
CMC Holdings Limited	2,302,311	2,680,720	1.16	56	0.08	0.04
TPS (Tourism Promotion Services) Eastern Africa Limited (Serena Hotels)	1,003,660	386,893	0.39	36	0.02	0.01
Centum Investment Company (ICDCI)	2,702,550	218,926	0.08	37	0.06	0.05
Housing Finance Company Limited	1,009,200	9,755,333	9.67	39	0.05	0.00
Jubilee Holdings Limited	2,029,205	5,449,403	2.69	67	0.12	0.03
Pan Africa Insurance Company Limited	902,334	2,138,054	2.37	58	-0.03	-0.01
British American Tobacco Kenya Limited	4,200,831	2,155,238	0.51	52	0.27	0.18
Bamburi Cement Company Limited	11,030,000	3,870,000	0.35	53	0.10	0.07
Crown-Berger Kenya Limited	593,706	334,617	0.56	46	0.10	0.06
Kenya Oil Company Limited	2,398,935	2,188,651	1.66	45	0.12	0.04
Total Kenya Ltd	4,122,404	3,737,625	0.91	49	0.12	0.07
Unga Group Limited	1,435,753	1,488,386	1.04	96	-0.02	-0.01
Athi-River Mining Limited	913,408	611,293	0.67	31	0.11	0.06
Olympia Capital Holdings Limited	96,082	129,559	1.35	34	0.28	0.10
East African Cables Limited	249,009	106,892	0.43	39	0.04	0.03
East African Breweries Limited	11,086,296	4,706,515	0.42	82	0.18	0.11
The Kenya Power & Lighting Co. Ltd	997,475	30,409,486	30.49	82	-3.06	-0.10
East African Portland Cement Company	2,151,656	6,529,791	3.03	74	0.11	0.02
Sameer Africa Limited	1,909,581	573,252	0.30	35	0.08	0.06
Mumias Sugar Company Ltd	4,865,654	1,818,756	0.37	33	-0.04	-0.02
Totals			66.50		-0.83	1.09
Average			2.46		-0.03	0.04

Source: survey Data

Ratio Computation 2004

	Name of Company	Total Equity	Total Debt	Debt/Equity Ratio	AGE	ROE	ROA
1	Sasini Tea and Coffee Limited	3,138,077	812,259	0.26	53	0.25	0.19
2	Kakuzi Limited	1,090,350	1,055,029	0.97	78	0.08	0.04
3	Rea Vipingo Plantations Ltd	575,807	452,854	0.79	10	0.22	0.13
4	Kenya Airways Limited	8,420,000	20,970,000	2.49	28	0.15	0.04
5	Car and General (Kenya) Limited	398,442	343,837	0.86	69	0.09	0.05
6	Marshalls E.A Ltd	224,635	733,483	3.27	58	0.10	0.02
7	Nation Media Group Limited	2,900,200	1,192,500	0.41	43	0.20	0.15
8	CMC Holdings Limited	2,735,401	3,568,440	1.30	57	0.10	0.04
9	TPS (Tourism Promotion Services) Eastern Africa Limited (Serena Hotels)	1,091,639	962,880	0.88	37	0.12	0.06
10	Centum Investment Company (ICDCI)	2,996,541	257,638	0.09	38	0.08	0.07
11	Housing Finance Company Limited	1,069,176	8,391,456	7.85	40	0.06	0.01
12	Jubilee Holdings Limited	2,093,796	7,384,270	3.53	68	0.13	0.03
13	Pan Africa Insurance Company Limited	1,096,145	2,554,476	2.33	59	-0.01	0.00
14	British American Tobacco Kenya Limited	3,761,025	2,360,862	0.63	53	0.32	0.20
15	Bamburi Cement Company Limited	9,863,000	4,326,000	0.44	54	0.19	0.13
16	Crown-Berger Kenya Limited	612,251	487,856	0.80	47	0.08	0.05
17	Kenya Oil Company Limited	3,392,935	2,841,871	0.84	46	0.25	0.13
18	Total Kenya Ltd	4,085,088	6,026,038	1.48	50	0.14	0.05
19	Unga Group Limited	1,332,814	2,254,953	1.69	97	-0.09	-0.03
20	Athi-River Mining Limited	986,188	986,764	1.00	32	0.12	0.06
21	Olympia Capital Holdings Limited	137,121	112,540	0.82	35	0.29	0.13
22	East African Cables Limited	317,042	175,174	0.55	40	0.39	0.25
23	East African Breweries Limited	13,544,510	5,511,917	0.41	83	0.35	0.23
24	The Kenya Power & Lighting Co. Ltd	17,491,216	14,803,862	9.30	83	0.29	0.01
25	East African Portland Cement Company	1,802,463	5,667,834	3.14	75	-0.15	-0.04
26	Sameer Africa Limited	2,012,290	974,154	0.48	36	0.14	0.09
27	Mumias Sugar Company Ltd	5,402,105	3,745,232	0.69	34	0.15	0.07
	Totals			47.29		4.04	2.17
	Average			1.75		0.15	0.08

Source: survey Data

Ratio Computation 2005

	Name of Company	Total Equity	Total Debt	Debt/Equity Ratio	AGE	ROE	ROA
1	Sasini Tea and Coffee Limited	2,697,425	655,518	0.24	54	-0.14	-0.11
2	Kakuzi Limited	910,218	1,153,288	1.27	79	-0.08	-0.04
3	Rea Vipingo Plantations Ltd	619,239	425,988	0.69	11	0.20	0.12
4	Kenya Airways Limited	12,329,000	32,482,000	2.63	29	0.24	0.07
5	Car and General (Kenya) Limited	603,385	557,709	0.92	70	0.32	0.17
6	Marshalls E.A Ltd	288,461	700,394	2.43	59	0.15	0.04
7	Nation Media Group Limited	3,289,800	1,196,000	0.36	44	0.21	0.16
8	CMC Holdings Limited	3,035,218	4,015,507	1.32	58	0.11	0.05
9	TPS (Tourism Promotion Services) Eastern Africa Limited (Serena Hotels)	2,098,523	2,635,478	1.26	38	0.01	0.00
10	Centum Investment Company (ICDCI)	3,752,213	340,996	0.09	39	0.08	0.07
11	Housing Finance Company Limited	1,220,964	8,640,114	7.08	41	0.05	0.01
12	Jubilee Holdings Limited	2,370,417	8,962,076	3.78	69	0.23	0.05
13	Pan Africa Insurance Company Limited	1,228,340	2,764,724	2.25	60	-0.02	-0.01
14	British American Tobacco Kenya Limited	3,893,063	2,353,378	0.60	54	0.36	0.22
15	Bamburi Cement Company Limited	10,679,000	4,051,000	0.38	55	0.20	0.14
16	Crown-Berger Kenya Limited	646,669	612,152	0.95	48	0.05	0.03
17	Kenya Oil Company Limited	4,015,844	4,357,304	1.09	47	0.23	0.11
18	Total Kenya Ltd	4,616,349	6,156,647	1.33	51	0.12	0.05
19	Unga Group Limited	1,407,401	3,061,780	2.18	98	0.09	0.03
20	Athi-River Mining Limited	1,162,219	2,028,695	1.75	33	0.17	0.06
21	Olympia Capital Holdings Limited	122,808	97,561	0.79	36	0.19	0.08
22	East African Cables Limited	457,642	463,084	1.01	41	0.47	0.20
23	East African Breweries Limited	15,346,633	5,733,203	0.37	84	0.38	0.25
24	The Kenya Power & Lighting Co. Ltd	18,898,179	16,939,304	5.65	84	0.42	0.04
25	East African Portland Cement Company	2,252,835	5,465,045	2.43	76	0.27	0.08
26	Sameer Africa Limited	2,028,470	1,176,060	0.58	37	0.10	0.17
27	Mumias Sugar Company Ltd	6,080,035	3,414,539	0.56	35	0.21	0.14
	Totals			43.99		4.62	2.19
	Average			1.63		0.17	0.08

Source: survey Data

Ratio Computation 2006

	Name of Company	Total Equity	Total Debt	Debt/Equity Ratio	AGE	ROE	ROA
1	Sasini Tea and Coffee Limited	2,936,955	799,987	0.27	55	0.08	0.06
2	Kakuzi Limited	1,043,269	1,252,598	1.20	80	0.13	0.06
3	Rea Vipingo Plantations Ltd	652,372	414,339	0.64	12	0.17	0.11
4	Kenya Airways Limited	17,257,000	53,475,000	3.10	30	0.28	0.05
5	Car and General (Kenya) Limited	730,729	698,475	0.96	71	0.19	0.10
6	Marshalls E.A Ltd	333,161	751,310	2.26	60	0.13	0.04
7	Nation Media Group Limited	3,587,900	1,795,300	0.50	45	0.21	0.14
8	CMC Holdings Limited	3,542,025	4,271,663	1.21	59	0.11	0.05
9	TPS (Tourism Promotion Services) Eastern Africa Limited (Serena Hotels)	3,361,485	2,734,537	0.81	39	0.10	0.05
10	Centum Investment Company (ICDCI)	6,188,498	240,786	0.04	40	0.10	0.09
11	Housing Finance Company Limited	1,322,013	7,811,818	5.91	42	0.08	0.01
12	Jubilee Holdings Limited	3,393,040	11,740,111	3.46	70	0.16	0.04
13	Pan Africa Insurance Company Limited	1,381,001	3,425,267	2.48	61	-0.01	0.00
14	British American Tobacco Kenya Limited	4,194,485	3,581,556	0.85	55	0.29	0.15
15	Bamburi Cement Company Limited	13,017,000	4,777,000	0.37	56	0.22	0.15
16	Crown-Berger Kenya Limited	770,953	763,788	0.99	49	0.08	0.04
17	Kenya Oil Company Limited	4,672,903	8,677,704	1.86	48	0.18	0.06
18	Total Kenya Ltd	4,665,064	10,688,392	2.29	52	0.10	0.03
19	Unga Group Limited	1,537,296	1,304,461	0.85	99	0.04	0.02
20	Athi-River Mining Limited	1,324,776	2,879,836	2.17	34	0.20	0.06
21	Olympia Capital Holdings Limited	130,451	189,973	1.46	37	0.18	0.03
22	East African Cables Limited	694,227	1,102,647	1.59	42	0.41	0.15
23	East African Breweries Limited	16,891,530	6,198,127	0.37	85	0.38	0.26
24	The Kenya Power & Lighting Co. Ltd	20,560,405	18,168,507	3.90	85	0.35	0.04
25	East African Portland Cement Company	3,076,933	5,975,274	1.94	77	0.13	0.05
26	Sameer Africa Limited	1,850,986	1,459,080	0.79	38	-0.01	-0.01
27	Mumias Sugar Company Ltd	7,709,049	4,162,457	0.54	36	0.20	0.13
	Totals			42.79		4.48	1.96
	Average			1.58		0.17	0.07

Source: survey Data

Ratio Computation 2007

	Name of Company	Total Equity	Total Debt	Debt/Equity Ratio	AGE	ROE	ROA
1	Sasini Tea and Coffee Limited	2,868,149	870,412	0.30	56	-0.01	-0.01
2	Kakuzi Limited	1,232,912	1,107,765	0.90	81	0.16	0.08
3	Rea Vipingo Plantations Ltd	709,165	457,420	0.65	13	0.16	0.10
4	Kenya Airways Limited	21,640,000	55,647,000	2.57	31	0.19	0.05
5	Car and General (Kenya) Limited	881,941	1,155,808	1.31	72	0.20	0.09
6	Marshalls E.A Ltd	462,982	793,073	1.71	61	0.09	0.03
7	Nation Media Group Limited	3,823,800	2,162,600	0.57	46	0.28	0.18
8	CMC Holdings Limited	4,061,844	5,262,877	1.30	60	0.15	0.07
9	TPS (Tourism Promotion Services) Eastern Africa Limited (Serena Hotels)	3,678,411	3,102,605	0.84	40	0.11	0.06
10	Centum Investment Company (ICDCI)	8,348,430	73,226	0.01	41	0.13	0.13
11	Housing Finance Company Limited	1,395,521	8,973,734	6.43	43	0.05	0.00
12	Jubilee Holdings Limited	3,606,401	14,079,690	3.90	71	0.18	0.04
13	Pan Africa Insurance Company Limited	1,316,335	4,585,128	3.48	62	-0.02	0.00
14	British American Tobacco Kenya Limited	4,693,250	4,576,636	0.98	56	0.30	0.15
15	Bamburi Cement Company Limited	14,229,000	5,645,000	0.40	57	0.27	0.18
16	Crown-Berger Kenya Limited	813,869	712,041	0.87	50	0.09	0.05
17	Kenya Oil Company Limited	4,984,434	8,285,007	1.66	49	0.12	0.04
18	Total Kenya Ltd	4,751,591	7,761,162	1.63	53	0.11	0.04
19	Unga Group Limited	1,407,401	1,398,380	0.99	100	0.09	0.04
20	Athi-River Mining Limited	1,734,766	2,732,693	1.58	35	0.24	0.09
21	Olympia Capital Holdings Limited	130,451	189,973	1.46	38	0.18	0.03
22	East African Cables Limited	934,451	2,107,354	2.26	43	0.45	0.13
23	East African Breweries Limited	18,802,668	10,255,419	0.55	86	0.40	0.24
24	The Kenya Power & Lighting Co. Ltd	22,249,400	25,072,464	3.95	86	0.27	0.04
25	East African Portland Cement Company	3,607,097	5,331,475	1.48	78	0.21	0.09
26	Sameer Africa Limited	1,961,922	1,200,051	0.61	39	0.06	0.04
27	Mumias Sugar Company Ltd	8,337,660	3,579,242	0.43	37	0.17	0.12
	Totals			42.81		4.64	2.10
	Average			1.59		0.17	0.08

Source: survey Data

Ratio Computation 2008

	Name of Company	Total Equity	Total Debt	Debt/Equity Ratio	AGE	ROE	ROA
1	Sasini Tea and Coffee Limited	4,595,434	2,079,001	0.45	57	0.19	0.13
2	Kakuzi Limited	1,487,290	1,094,886	0.74	82	0.19	0.11
3	Rea Vipingo Plantations Ltd	875,166	439,271	0.50	14	0.19	0.10
4	Kenya Airways Limited	25,873,000	50,907,000	1.97	32	0.15	0.05
5	Car and General (Kenya) Limited	1,120,991	623,733	0.56	73	0.19	0.08
6	Marshalls E.A Ltd	241,078	969,022	4.02	62	-0.70	-0.14
7	Nation Media Group Limited	4,327,700	2,304,100	0.53	47	0.30	0.20
8	CMC Holdings Limited	4,834,894	7,188,600	1.49	61	0.19	0.08
9	TPS (Tourism Promotion Services) Eastern Africa Limited (Serena Hotels)	3,750,925	2,756,071	0.73	41	0.06	0.03
10	Centum Investment Company (ICDCI)	8,078,129	67,721	0.01	42	0.11	0.11
11	Housing Finance Company Limited	3,601,666	10,692,702	2.97	44	0.04	0.01
12	Jubilee Holdings Limited	2,871,223	16,998,236	5.92	72	0.25	0.04
13	Pan Africa Insurance Company Limited	1,005,441	4,908,183	4.88	63	-0.02	0.00
14	British American Tobacco Kenya Limited	4,893,645	5,413,959	1.11	57	0.35	0.16
15	Bamburi Cement Company Limited	15,496,000	11,613,000	0.75	58	0.22	0.12
16	Crown-Berger Kenya Limited	821,952	1,126,329	1.37	51	0.04	0.02
17	Kenya Oil Company Limited	10,915,860	16,792,732	1.54	50	0.11	0.04
18	Total Kenya Ltd	5,017,822	9,508,962	1.90	54	0.14	0.05
19	Unga Group Limited	2,045,061	1,797,482	0.88	101	0.18	0.08
20	Athi-River Mining Limited	2,127,531	4,224,935	1.99	36	0.24	0.08
21	Olympia Capital Holdings Limited	546,661	414,301	0.76	39	0.06	0.03
22	East African Cables Limited	1,148,420	1,676,754	1.46	44	0.40	0.15
23	East African Breweries Limited	19,980,780	11,137,405	0.56	87	0.46	0.28
24	The Kenya Power & Lighting Co. Ltd	23,881,922	35,930,200	4.50	87	0.22	0.03
25	East African Portland Cement Company	4,026,749	5,046,596	1.25	79	0.13	0.06
26	Sameer Africa Limited	2,135,566	940,582	0.44	40	0.07	0.05
27	Mumias Sugar Company Ltd	9,041,497	5,111,079	0.57	38	0.13	0.09
	Totals			43.83		3.90	2.02
	Average			1.62	0.00	0.14	0.07

Source: survey Data

Ratio Computation 2009

	Name of Company	Total Equity	Total Debt	Debt/Equity Ratio	AGE	ROE	ROA
1	Sasini Tea and Coffee Limited	5,530,299	2,336,411	0.42	58	0.10	0.07
2	Kakuzi Limited	1,758,587	908,646	0.50	83	0.25	0.16
3	Rea Vipingo Plantations Ltd	975,450	438,634	0.45	15	0.15	0.11
4	Kenya Airways Limited	17,176,000	58,803,000	3.42	33	-0.24	-0.05
5	Car and General (Kenya) Limited	1,288,858	1,902,696	1.48	74	0.15	0.06
6	Marshalls E.A Ltd	477,234	956,736	2.00	63	-0.25	-0.08
7	Nation Media Group Limited	4,076,100	1,858,700	0.40	48	0.24	0.17
8	CMC Holdings Limited	1,514,906	677,063	0.45	62	0.36	0.25
9	TPS (Tourism Promotion Services) Eastern Africa Limited (Serena Hotels)	2,559,250	2,931,806	1.09	42	0.14	0.05
10	Centum Investment Company (ICDCI)	5,859,392	537,906	0.09	43	0.05	0.05
11	Housing Finance Company Limited	4,022,626	14,216,733	3.53	45	0.06	0.01
12	Jubilee Holdings Limited	3,231,341	19,942,274	5.88	73	0.27	0.02
13	Pan Africa Insurance Company Limited	973,504	6,238,952	6.41	64	-0.02	0.00
14	British American Tobacco Kenya Limited	2,494,210	5,715,061	1.62	58	0.42	0.14
15	Bamburi Cement Company Limited	19,507,000	11,171,000	0.57	59	0.36	0.22
16	Crown-Berger Kenya Limited	807,284	1,021,509	1.22	52	0.10	0.05
17	Kenya Oil Company Limited	10,976,306	19,834,229	1.73	51	0.11	0.04
18	Total Kenya Ltd	6,742,291	22,566,005	2.52	55	0.05	0.02
19	Unga Group Limited	2,166,974	2,419,154	1.12	102	0.09	0.03
20	Athi-River Mining Limited	4,128,930	4,667,383	1.13	37	0.16	0.05
21	Olympia Capital Holdings Limited	470,327	230,167	0.49	40	0.11	0.07
22	East African Cables Limited	1,490,411	1,882,603	1.26	45	0.20	0.08
23	East African Breweries Limited	16,233,005	12,178,737	0.59	88	0.42	0.24
24	The Kenya Power & Lighting Co. Ltd	25,125,204	43,800,362	4.00	88	0.29	0.05
25	East African Portland Cement Company	5,997,862	5,939,115	0.97	80	0.30	0.15
26	Sameer Africa Limited	2,143,396	722,807	0.32	41	0.07	0.05
27	Mumias Sugar Company Ltd	8,352,218	7,436,246	0.89	39	0.19	0.09
	Totals			44.57		4.14	2.08
	Average			1.65		0.15	0.08

Source: survey Data

Ratio Computation 2010

	Name of Company	Total Equity	Total Debt	Earnings per Share	Debt/Equity Ratio	AGE	ROE	ROA
1	Sasini Tea and Coffee Limited	6,392,643	2,759,648	4.36	0.43	59	0.16	0.11
2	Kakuzi Limited	1,995,179	1,036,299	3.93	0.52	84	0.19	0.12
3	Rea Vipingo Plantations Ltd	7,461,099	717,917	0.22	0.10	16	0.01	0.04
4	Kenya Airways Limited	19,923,000	53,290,000	0.88	2.67	34	0.10	0.03
5	Car and General (Kenya) Limited	1,536,764	2,315,387	2.14	1.51	75	0.16	0.06
6	Marshalls E.A Ltd	732,987	993,695	4.79	1.36	64	0.47	0.31
7	Nation Media Group Limited	5,360,200	2,553,100	3.92	0.48	49	0.29	0.19
8	CMC Holdings Limited	5,454,979	9,212,728	1.40	1.69	63	0.07	0.03
9	TPS (Tourism Promotion Services) Eastern Africa Limited (Serena Hotels)	22,859,172	4,426,752	3.48	0.19	43	0.02	0.04
10	Centum Investment Company (ICDCI)	7,856,167	505,565	3.98	0.06	44	0.14	0.13
11	Housing Finance Company Limited	4,206,657	25,020,989	0.33	5.95	46	0.09	0.01
12	Jubilee Holdings Limited	5,113,540	25,114,019	7.43	4.91	74	0.36	0.06
13	Pan Africa Insurance Company Limited	1,832,521	8,839,100	2.46	4.82	65	0.32	0.06
14	British American Tobacco Kenya Limited	5,114,312	6,007,249	1.77	1.17	59	0.35	0.16
15	Bamburi Cement Company Limited	20,165,000	9,615,000	2.92	0.48	60	0.26	0.16
16	Crown-Berger Kenya Limited	902,365	1,069,992	0.77	1.19	53	0.10	0.05
17	Kenya Oil Company Limited	12,705,512	19,511,118	24.14	1.54	52	0.14	0.06
18	Total Kenya Ltd	9,579,853	20,795,824	0.19	2.17	56	0.10	0.03
19	Unga Group Limited	1,504,435	1,699,700	0.34	1.13	103	0.09	0.03
20	Athi-River Mining Limited	4,662,168	11,921,297	1.60	2.56	38	0.17	0.05
21	Olympia Capital Holdings Limited	473,047	375,915	0.03	0.79	41	0.01	0.01
22	East African Cables Limited	1,836,406	2,272,136	1.82	1.24	46	0.10	0.04
23	East African Breweries Limited	20,811,961	14,468,065	0.56	0.70	89	0.04	0.02
24	The Kenya Power & Lighting Co. Ltd	28,740,877	51,472,593	2.35	4.01	89	0.29	0.05
25	East African Portland Cement Company	5,701,201	6,336,364	-0.65	1.11	81	-0.05	-0.02
26	Sameer Africa Limited	2,168,142	677,165	0.04	0.31	42	0.03	0.02
27	Mumias Sugar Company Ltd	10,999,852	7,334,258	1.02	0.67	40	0.14	0.09
	Totals			76.22	43.75		4.14	1.91
	Average			2.82	1.62		0.15	0.07

Source: survey Data

**THE INFLUENCE OF CAPITAL STRUCTURE ON FIRMS'
PERFORMANCE: A CASE OF SELECTED FIRMS'
LISTED IN NAIROBI SECURITIES EXCHANGE ,KENYA**

By

MARIETTA MUTHEU STEPHEN

**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL
FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF
MASTER OF ARTS DEGREE IN PROJECT PLANNING AND
MANAGEMENT , UNIVERSITY OF NAIROBI**

2012

