RELATIONSHIP BETWEEN MANAGERS' GENDER AND CORPORATE CAPITAL STRUCTURE: A CASE OF COMPANIES QUOTED IN NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

This research project is my own work and has not been submitted for award of any degree in any other university and where other people's research work has been used, they have been duly acknowledged.

Signed..... Date.....

NYAMU DAVID MAINA

D61/62924/2010

This research project has been submitted with my approval;

Signed..... Date.....

NAME: MR. BARASA

UNIVERSITY SUPERVISOR

DEDICATION

To

My beloved Grandmother, Rose Wambura, you are my inspiration.

ACKNOWLEDGEMENT

I would like to acknowledge the Almighty God for giving me the strength to carry out this project.

I would like also to appreciate my dear parents; William Nyamu and Ann Wangui, for your continued support both financially and morally. My brothers; Simon, Josphat and Joseph for your love, and financial and moral support, you have stood with me when it was tough and giving me a reason to solder on. All my friends for supporting me, more specifically my good friends Charles and Mathew you helped me when I needed you more specifically with data analysis. I am indebted to you. Finally my Supervisor Mr. J. Barasa you're your unconditional support and comments this journey was not easy but you guided me in the best interest. Without you all this would not have been accomplished.

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ABSTRACT

Gender differences in attitudes towards risk and in risk related behavior have long been studied in the economics and psychology literatures (Sunden and Surette (1998). More recently, there has been a significant increase of women in corporate executive offices. With this increase, researchers have started to investigate the impact of gender on various corporate decisions, such as capital structure decisions, merger and acquisition decisions and going public decisions (Huang and Song (2008). As more women enter the workforce worldwide (Erez. 1993), more research is focused on the investigation of influence of gender-specific characteristics on the work process (Niessen and Ruenzi 2007, Sabarwal and Terrell 2008). Special attention has been paid to women in leadership positions. The study sought to investigate the effect of managers' gender on corporate capital structure choice with reference to companies quoted in Nairobi Securities Exchange. The study was designed to provide information on potential cause-and-effect relationships. This study therefore employed a causal research design.

The study found that there exists a negative relationship between gender of firm's CEO, female share and the debt to equity ratio (corporate capital structure) of the firm listed at the NSE. The study also established that there is a positive debt to equity ratio (corporate capital structure) of firm listed in the NSE and performance, liquidity, tangibility of firm's assets, effective tax rate, firm size and industry class. The positive relationship with debt to equity was established among the following control variables; size of the firm, liquidity of the firm, tangibility of the firm and industry class. Any positive change on these variables is therefore going to lead to an increase in the debt to equity positions. The reasons for this

may be because growth will lead to increased demand for external funds, size will encourage the firm to borrow, liquidity has the impact of leading to favorable credit assessments and tangibility has the role of providing assets for collateral.

The study recommends that companies in risky industries like the financial sector should use more of CEOs who are risk takers as the risk averse CEO will affect the capital structure of their firms. the study recommends that companies at NSE must follow the financing hierarchy as postulated by the pecking order concept i.e. internal funds should be used before debt financing and then equity as equity and debt financing are more expensive and they affects the capital structure of the company compared to internal funds.

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LIST OF ABBREVIATIONS

AIM - Alternative Investment Market Segment

CEO - Chief Executive Officer.

FIMS - Fixed Income Market Segment

GDP - Gross Domestic Product

MIMS- Main Investment Market Segment

MM - Modigliani and Miller

NSE – Nairobi Securities Exchange

OLS - Ordinally Least Square

ROA - Return on Assets

SMEs - Small and Medium Enterprises

UK - United Kingdom

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Global stock markets collapsed during 2008 and worldwide indices fell as much as 40 percent (Rooney 2008). The debate with regard to the crisis has to a large extent focused on attempts to find factors that can explain the overall market collapse. One factor that has been especially emphasized, and questioned, is the high degree of risk taking among board members and top managers (Ferri et al, 2009). The risk propensity however, may, to one part, be a question of gender. In a number of studies women have been proven to be more risk averse than men with regard to investments and other financial decisions (Goetze and Meier-Pesti 2006, Niessen and Ruenzi 2007). Given their lower appetite for risk, women could have the potential to add new features to the business environment, which today is highly male-dominated, and thereby outweigh the risk taking behavior of their male counterparts. Following these findings, some researchers have taken it one step further, claiming that companies would not have been as badly hit by the recent crisis if the fraction of women in leading positions would have been higher, since gender diversity creates a more balanced level of risk (Jordan and Sullivan 2009). In a broader perspective, I believe that this statement highlights two interrelated and highly relevant aspects of gender diversity; risk taking and firm performance. Since women are in general underrepresented

on company boards and in top management positions, this subject is both interesting and delicate.

The riskiness of the manager's decisions could be reflected by the amount of capital borrowed. Obviously, borrowings are not always bad as they may increase the shareholders' return on the investment and are often associated with tax advantages. However, highly levered companies may be at risk of financial distress as they may appear to be unable to pay their debt off as well as to find new lenders in the future. In such a way, a manager who borrows more is more likely to make company bankrupt and lose her job. In other words, the relationship between the manager's gender (or the share of females in the management) and the corporate capital structure can reflect the consequences of gender differences in risk-taking in the professional life (Chen and Hammes, 2005).

1.1.1 Nairobi Securities Exchange

The Nairobi Securities Exchange was formed in 1954 as a voluntary organization of stock brokers and is now one of the most active capital markets in Africa. The administration of the Nairobi Securities Exchange Limited is located on the 1st Floor, Nation Centre, Kimathi Street, Nairobi. As a capital market institution, the Stock Exchange plays an important role in the process of economic development. It helps mobilize domestic savings thereby bringing about the reallocation of financial resources from dormant to active agents. Long-term investments are made liquid, as the transfer of securities between shareholders is facilitated. The Exchange has also enabled companies to engage local participation in their equity, thereby giving Kenyans a chance to own shares (www.nse.co.ke, 2009).

Nairobi Securities Exchange (NSE) is categorized into three market segments; Main Investment Market Segment (MIMS), Alternative Investment Market Segment (AIMS) and Fixed Income Market Segment (FIMS) (NSE Handbook, 2009). The securities exchange is a market that deals in the exchange of securities issued by publicly quoted companies and the Government. The firms quoted in Nairobi Securities Exchange are categorised as follows; agricultural, commercial and services, telecommunication and technology, automobiles and accessories, banking, insurance, investment and manufacturing and allied. There are as of December 2011, 55 companies listed at the securities exchange. Listed companies are generally big and publish their reports hence investors use these reports to judge which firm to invest in.

1.2 Statement of the Problem

Gender differences in attitudes towards risk and in risk related behavior have long been studied in the economics and psychology literatures (Sunden and Surette (1998). More recently, there has been a significant increase of women in corporate executive offices. With this increase, researchers have started to investigate the impact of gender on various corporate decisions, such as capital structure decisions, merger and acquisition decisions and going public decisions (Huang and Song (2008). As more women enter the workforce worldwide (Erez 1993), more research is focused on the investigation of influence of gender-specific characteristics on the work process (Niessen and Ruenzi 2007, Sabarwal and Terrell 2008). Special attention has been paid to women in leadership positions. The majority of the studies present evidence about gender differences in leadership styles, the influence of gender on firm-specific indicators, private investment and risk-taking (Jianakoplos and Bernasek 1998).

More specifically, men and women responsiveness to risk has become a widely discussed subject during the last decades. Numerous studies witness that women are more risk averse than men (Coleman 2003). However, the majority of these studies are focused on sociologic and psychological aspects of the issue. They use laboratory or gambling experiments to investigate gender differences in attitude to risk. Only a tiny part of them try to explore the empirical evidence of gender differences in risk-aversion for economic issues. However, if there exist gender differences in behavior under risk, these differences should become apparent not only in human private life, but also in business life. Thus, if a woman runs a company, her risk aversion can be reflected in the amount of firm's investments and borrowings. Furthermore, if the share of females in management is high, the firm can be more likely to hold less risky capital (Levi et al. 2008). However, Chen & Hammes (2004) found contradicting results.

Obviously, except manager's gender a lot of other factors influence the corporate capital structure among companies listed in the NSE, in particular firm specific (firm size, past profitability, industry class, effective tax rate, tangibility of assets, firm growth, etc.) and manager's (education, ownership share, etc.) characteristics. In recent years the determinants of the corporate capital structure have been the subject of hot debates started by Modigliani and Miller (1958). Along the literature the corporate capital structure measured by leverage or debt-to-equity ratio appeared to depend on firm size, industry class, effective tax rate, and past profitability (Ferri and Jones 1979, Huang and Song 2006, Ozkan 2003, Allen and Mizuno 1989). However, the degree and even direction of the influence of these factors vary across different environments, in particular different institutional environments (Chen 2004, Deesomsak et al. 2004, Bancel and Mittoo 2004).

Locally, Kuria (2010) did an investigation on the determinants of capital structures of companies quoted in NSE, Juma (2011) conducted a study on the moderating influence of corporate government on the relationship between capital structure and the firm value of companies quoted at NSE, Limo (2010) did a study on the relationship between corporate governance and capital structure for companies listed in the Nairobi securities exchange while Mutuku (2011) did an empirical analysis of macroeconomic influence on corporate capital structure of listed companies in Kenya. To the best of the researcher's knowledge none of the above authors considered manager's gender as a determinant of the corporate capital structure in the Kenyan context. Further, while it has been becoming increasingly clear that individual managers have an effect on firm behavior and performance, the scope and magnitude of these effects is undetermined. This study therefore seeks to fill this gap by investigating the effect of managers' gender on corporate capital structure choice with reference to companies quoted in Nairobi Securities Exchange. The study seeks to answer the question: What is the effect of managers' gender on corporate capital structure choice among companies quoted in Nairobi Securities Exchange?

1.3 Objectives of the Study

The study sought to investigate the effect of managers' gender on corporate capital structure choice with reference to companies quoted in Nairobi Securities Exchange.

1.4 Value of the Study

The study will be invaluable to the managers of the companies listed in the NSE in that it will provide an insight on the effect of managers' gender on corporate capital structure choice. Its output is significant to the management of quoted companies who will be able

to determine the ratio of each gender to put in the management so that they can make prudent decisions regarding capital policies.

The study will also enlighten the government of Kenya in a bid to make policies relating to capital structure. The knowledge of the effect of managers' gender on corporate capital structure choice of the firms will assist in ascertaining the appropriate amount of tax to pay for dividends paid out and their effects on performance of the firm.

The study will also help investors who may need to know the relationship between managers' gender on corporate capital structure choice for them to choose which firm to invest their funds in and as a result shun impetuous investment decisions. The study will be of help to scholars and academicians who may wish to use its findings as a basis for further research on this and related subjects.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of the related literature on the subject under study presented by various researchers, scholars, analysts and authors. The specific areas covered here are the theoretical review (trade-off theory, pecking order theory and the agency costs theory), corporate capital structure determinants, gender differences in risk-taking and the empirical review.

2.2 Theoretical Review

The determinants of the corporate capital structure have been widely discussed in the literature. The hot debates concerning the issue has been started by Modigliani and Miller (1958), who stated that if the market is complete, there are no arbitrage opportunities and frictions of any type (taxes, transaction and bankruptcy costs, and asymmetry of information), the corporate capital structure is irrelevant that means that it does not influence firm's market value. However, the fulfillment of the "if" conditions is almost impossible in the real world. That is why, the possibility to relax some of the assumptions made by Modigliani and Miller (1958) and, in such a way, to approach a more realistic situation discovered a rich field for further research focused on the corporate capital structure. Nowadays there are number of theories addressing some of these imperfections. All of them are conditional and differ in the relative emphasis on the factors that affect the firm's choice between internal and external financing (Myers 2003). However, the main are trade-off, pecking order and agency costs theories. First two are considered to be

theoretically well-developed and well-understood, while the more substantial modeling of agency effects of financing can still make a significant development in understanding the importance of the corporate capital structure (Myers 2003).

2.2.1 Trade-Off Theory

There are static and dynamic trade-off theories of the corporate capital structure. Static trade-off theory asserts that optimal debt-to-equity ratio is determined by the trade-off between costs and benefits of borrowings, with the firm's assets and investment plan fixed (Chen and Hammes 2005). Interest tax shields are considered to be benefits of the borrowings while increased probability of bankruptcy or financial distress is borrowings' costs. The costs of financial distress can be direct and/or indirect. Direct costs appear only when the company indeed goes through the bankruptcy procedure: legal and administrative costs, costs of shutting down operations and disposing of assets. Indirect costs occur mostly as agency costs associated with conflicts of interest between equity and debt investors: risk-shifting, underinvestment, etc. Thus, following the interests of shareholders managers may reject the profitable investment projects (projects with positive NPV) because the expected gains will belong to debt holders (Myers 1977). This is called underinvestment problem and is a result of the conflict of interests between equity and debt holders. The shareholders have also an incentive to force managers to undertake riskier projects as their losses are minimal if the project fails. This constitutes the assets substitution problem or problem of risk-shifting which also results from different interests of equity and debt investors. Other indirect costs are costs imposed by possible liquidation on firm's customers, employees and suppliers (Myers 2003). Thus, according to the static trade-off theory of the corporate capital structure the firm management chooses the firm's leverage comparing the interest

tax shields and the probability of bankruptcy. And when there are no adjustment costs to new debt-to-equity ratio the chosen firm leverage is considered to be optimal that is such that maximizes firm's value (Myers 1984). Consequently, the static trade-off theory implies that firms with higher intangible assets and growth opportunities as well as with lower profitability borrow less as they experience either higher probability of bankruptcy or chance of losing value of assets.

2.2.2 Pecking Order Theory

Pecking order theory of capital structure relaxes the assumption of Modigliani and Miller (1958) about no information asymmetry. It claims that outside investors are less informed about the firm's value (either the current value of assets in place or of the growth opportunities) than the firm's insiders. Thus, the firm's equity can be incorrectly priced on the market. And when this equity is severely underpriced and a firm needs to finance a new investment, outside investors may invest more than the net present value of the project causing weakening of the existing investors' power (Chen and Hammes 2005). Assuming that the managers act in the interests of the shareholders it is obvious that they will be more likely to refuse to issue undervalued equity. Thus, to decrease the probability of weakening of the existing investors' power firms' management prefers internal financing to external, safe debt to risky debt and convertibles, and use equity financing only as a financing of the last resort (Donaldson 1961, Myers 1984).

2.2.3 Agency Costs Theory

In contrast to trade-off and pecking order theories agency costs theory of the corporate capital structure relaxes an assumption that the interests of shareholders and managers

completely align and managers act in the interests of shareholders. It assumes that there can be the case when managers seek private benefits such as perquisites, higher salary, job security, etc. instead of maximization of shareholder's value. Consequently, the agency costs arise because of the separation of ownership and control over the company and different objectives considered by manager. As a solution, the interests of shareholders and managers can be aligned by different mechanisms of control and monitoring implemented by the shareholders or special design of the compensation packages for managers. However, the former method is costly and cannot be perfectly implemented in practice, while the latter faces two difficulties. First of all, no complete contract for the manager can be written as there can be hardly found a complete, verifiable measure of the manager's performance. And secondly, the managers never bear all the costs that they impose on the shareholders (Myers 2003).

As I have already mentioned, the agency costs theory is considered to be not so well-developed, however, if it will be treated seriously, it can give additional insight for the understanding the importance of the corporate capital structure. The main advantage of this theory is the relaxation of the assumption made by both the trade-off and pecking order theories – the complete coincidence of the managers' and shareholders' interests.

2.3 Corporate Capital Structure Determinants

The numerous empirical studies (Huang and Song, 2006; Bancel and Mittoo, 2004; Myroshnichenko, 2004 and Ozkan, 2003) investigate the determinants of the corporate capital structure testing the theories mentioned above and find that there are indeed certain firm-specific factors that influence the firm debt-to-equity ratio. These are, for example, industry class, firm size, operating leverage, business risk, past profitability, non-debt tax

shields, fixed assets, managerial shareholdings and firm's growth opportunities. However, the degree and even the direction of the influence of these factors vary across different environments, in particular different institutional environments (Chen 2004, Deesomsak et al. 2004, Bancel and Mittoo 2004) supporting, in such a way, different theories of the corporate capital structure, but not only the one.

Ozkan (2003) and Huang and Song (2006) explore the composition of firms' capital in UK and China, respectively. They reveal that growth opportunities, firm size, non-debt tax shield and past profitability do matter for the debt-to-equity ratio. In particular, Ozkan (2003) estimates partial adjustment model, finding that target leverage ratios do exists and firms adjust to these ratios relatively fast. The author asserts that current liquidity and profitability negatively influence firm's debt ratio, while past profitability has positive impact on the firm borrowing decisions. Huang and Song (2006) estimate OLS model to define the corporate structure determinants for the Chinese-listed companies. They conclude that as in other countries firm size and fixed assets positively influence leverage in China, while profitability, non-debt tax shield, growth opportunities, managerial shareholdings have negative impact on the debt-to-equity ratio. State and institutional ownership does not statistically significantly influence leverage in China.

However, Ferri and Jones (1979), in contrast to Huang and Song (2006), conclude that the firm size do influence the corporate capital structure but not positively as it was hypothesized. Also due to the results of this study, operational leverage has a negative impact on the corporate debt ratio while the business risk is not a significant determinant of the corporate capital structure.

The majority of the studies confirm that the composition of the firm's capital varies with the industries to which the firm belongs (Ferri and Jones 1979, Allen and Mizuno 1989, Huang and Song 2006). Moreover, Bancel and Mittoo (2004) have surveyed managers in 16 European countries regarding the determinants of the corporate capital structure and concluded that the institutional environment and international operations also influence companies' financing policies.

In Ukraine the determinants of the corporate capital structure are studied by Myroshnichenko (2004). Employing OLS, fixed and random effects models the author finds that profitability and tangibility of assets negatively influence leverage ratio of Ukrainian firms in the short run. Furthermore, the long-term leverage increases with the firm size and tangibility of assets.

However, Myroshnichenko (2004) include only four possible determinants of the corporate capital structure in the regression analysis: effective tax rate, firm size (estimated by the natural logarithm of firm's sales), profitability, and tangibility of assets. The author also controls for industry effects.

2.4 Gender Differences in Risk-Taking

Investigating the relationship between managers' gender and riskiness of the capital the firm employs along with the determinants of the corporate capital structure discussed above I include my main independent variables – manager's gender and share of female members in the board of directors. There are numerous studies witnessing that women and men behave differently under risk; however, the majority of these studies uses laboratory and gambling experiments to explore the issue and is still focused on its sociologic and

psychological aspects. For instance, using gambling experiments (more specifically, gambles with different expected returns and variances) Eckel and Grossman (2002) find that, on average, women are consistently more risk-averse than men. Besides, the authors also conclude that both men and women overestimate the risk aversion of others, especially that of women.

Niederle and Vesterlund (2007) examine whether there is any gender difference in human self-selection into a competitive environment. They conclude that men more frequently select to operate in more competitive environment than women do. However, the authors remark that this difference exists not due to different risk aversion, but because men are more overconfident and there are gender differences in preferences for performance in a competitive environment. In other words, women try to escape from competition while men embrace it.

Such laboratory studies do not control for the wealth, education, marital status and other demographic factors that may, in fact, predetermine the difference in men and women behavior under risk. One more drawback of these studies is that their conclusions are difficult to compare as they differ in the form of the risk (structure of the game), potential payoffs and the degree of risk, nature of the decision required to make, transparency and cost of mistakes (Eckel and Grossman 2003).

An attempt to summarize and compare the findings of different studies on gender differences is made by Bajtelsmit and Bernasek (1996), whose survey is focused on gender differences in private investments and policy implications of these differences. The authors conclude that several recent studies have found that women invest their pensions more

conservatively than men (Bajtelsmit and VanDerhei 1997, Hinz, McCarthy, and Turner 1996) and that women are more risk averse (Jianakoplos and Bernasek 1996). However, the reasons for observed gender differences are less well-defined. As an alternative the authors present a summary of explanations for gender differences that have been offered in economics, sociology, education and gender studies. They assert that observed gender differences in investing and risk-taking can be explained by different causes but all of them have their undertakings in discrimination and/or differences in individual preferences. Risk aversion can be influenced both directly and indirectly (through outcomes such as gender differences in wealth, income and employment). Bajtelsmit and Bernasek (1996) also continue the debates over biology versus socialization as a basis for gender differences in individual preferences.

Only a tiny part of the studies focused on the differences between male and female risk-aversion tries to explore the influence of these differences on the human business activity. For instance, Coleman (2003) compares responsiveness to risk and willingness to hold financial assets by male- and female-headed households using the data from the 1998 Survey of Consumer Finances conducted by the Federal Reserve. The author finds that women express higher risk aversion according to self-reported data; almost 50 percent of women refuse to take any financial risks. However, when controlling for education and wealth there appeared to be no differences in the willingness to hold financial assets between women and men.

By contrast, Niessen and Ruenzi (2007) focus on the gender differences in professional activities of company managers in the U.S. mutual fund industry. They control for manager's education and work experience and find out that female managers are more risk

averse, they follow less extreme investment styles and trade less than male managers. Although there is no difference in average performance of these managers, female-headed mutual funds receive significantly lower inflows that may suggest that female managers might be stereotyped as less skilled.

One study that clearly supports the idea that men are more likely to take risks than women is the physiological study conducted by Bymes, Miller and Schafer (1999). They conduct a meta-analysis of 150 studies where they analyze male and female participants' risk aversion with regard to factors such as smoking, sexual activities and driving behavior. Their findings indicate that, at a general level, there are considerable gender differences, even though a more qualified interpretation shows that the amplitude of these differences fluctuate with regard to context, age and definition of risk. Gender differences in risk taking do however also apply to financial decisions. Using data from the US mutual fund industry, Niessen and Ruenzi (2007) show that women are more risk averse with regard to investment and trading. Female managers trade less than their male colleagues, and receive significantly lower inflows due to their trading behavior (Niessen and Ruenzi 2007).

Studies by Bernasek and Shwiff (2001) and Ansic and Powell (1997) also prove that women are more risk averse than men by analyzing investment decisions. The former study reinforces that women are more cautious when it comes to pension investments in asset portfolios, while the results from the latter study indicate that males and females adopt different strategies in financial decision environments due to their shifting risk preferences. However, all these studies are dependent on their specific setting and the definition of risk. Powell and Ansic find that gender differences appear to be more pronounced when the decision is framed in terms of losses rather than in terms of gains. Any gender difference in

risk taking behavior can also vary with the type of risk, measured by the level of uncertainty and costs associated with the decision (Ansic and Powell 1997). Ammon, Jianakoplos and Bernasek (1998) examine the role of gender with regard to household wealth and holdings of risky assets by conducting a study of US households. They find that single women exhibit relatively more risk aversion in financial decision-making than single men. 63 percent of single women were not willing to take any financial risk with their investments, versus 43 percent for single men (Ammon, Jianakoplos and Bernasek 1998).

The observed differences in financial risk taking between men and women can partly be explained by biological and social factors, as showed in a study by Goetze and Pesti-Meier (2006). Masculinity as a biological attribute is assumed to affect risk taking positively while femininity affects it negatively. However, the tendency to take financial risks seems to be based on different levels of identification with masculine versus feminine attributes. If women act in a more masculine way, because their social environment is highly male dominated, their propensity to take on risk is likely to increase. The implication is that differences in risk taking between men and women increase in environments where sex stereotypes are highlighted. Even though all of the above studies find women to be more risk averse than men, none of them are conducted in an actual corporate setting. Given this, Elsaid and Ursel (2009) conducted a study in which they investigated whether personal risk attitudes carry over in a corporate setting. They used traditional measures of corporate riskiness such as financial leverage, cash holdings and operating leverage, in order to test whether these measures were changing in relation to changes in CEO gender. Their findings show that, for all measures of risk, the change to a female CEO leads to less risk in the company, which confirms the essence of previous research. This decrease in risk taking

is observed despite inclusion of various control variables such as incentive compensation strategies (Elsaid and Ursel 2009).

2.6 Empirical Review

Several studies point out that female executives adopt a different management style than male executives and that female directors act differently than male directors (Adams and Ferreira 2008, Ferrary 2009). Men and women are for example likely to show different behavior when it comes to governance, financial decisions and risk taking. The risk taking dimension is particularly interesting in times of instability and market downturn. The high profits that an aggressive and risk-loving behavior may generate in bull markets could result in devastating consequences when times are less stable and favorable. If women could possibly balance this behavior over time, by being more precautious, this could add vital benefits to decision-making processes and potentially affect the company's performance positively (Jordan and Sullivan 2009, Stephenson 2004).

The results of a study by Bogdana (2009) show that the corporate capital structure in Ukraine does not depend on the CEO's gender, however, does depend on the gender composition of corporate board of directors. In addition, the return on assets, opportunity growth, firm size, and liquidity do determine the corporate debt-to-equity ratio in Ukrainian joint-stock companies.

One study that particularly highlights both the risk and the performance aspects of gender diversity is the recent study conducted on the French CAC 40 stock exchange index, by the French professor Michel Ferrary (2009). He shows that companies with a higher proportion of female managers performed better in 2008 than companies with a lower proportion, all

else equal. Ferrary (2009) argues that female managers create a more diverse culture and appear to balance the risk taking behavior of their male colleagues, thereby affecting the firm performance in a positive way (Jordan and Sullivan 2009). Similar effects have been identified in the Icelandic market. Audur Capital, founded and led by women, is one of the few financial companies in Iceland to have survived the crisis. The founder, Halla Tomasdottir, is certain that if women had led the country's major banks, Iceland would not have been as hurt by the crisis, with the collapse and subsequent nationalization of the country's financial institutions as a consequence (Thornhill 2009).

Welbourne et al. (2007) examine the effect of having women on the top management teams of IPO firms on shortterm and long-term firm performance. They find the presence of women executives have a positive association with the firms' short-term performance, 3-year stock price growth, and growth in earnings per share. Peng and Wei (2007) investigate how the gender of CEO executives affects investment-cash flow sensitivity. They find corporate investments made by male CEOs are more sensitive to cash flow.

This study is focused on the corporate capital structure determinants for Kenyan companies by investigating the firm's growth opportunities, liquidity, firm's size (estimated both as natural logarithm of firm's assets and natural logarithm of firm's sales) as the determinants of the corporate capital structure. This study also looks at the influence of the CEO gender and gender composition of the board of directors as well as of the personal characteristics of CEO (shareholdings, age) on the firm's financing policy.

Kuria (2010) did an investigation on the determinants of capital structures of companies quoted in NSE and found that profitability and assets are determinants of capital structure

and perking order theory is particularly accepted among the limited companies. Further Juma (2011) conducted a study on the moderating influence of corporate government on the relationship between capital structure and the firm value of companies quoted at NSE and found that the firm value has a positive relationship with correct governance, size of the firm, stock return and ROA where it has a negative relationship with leverage.

on the other hand, Limo (2010) did a study on the relationship between corporate governance and capital structure for companies listed in the Nairobi securities exchange and established that corporate governance has positive influence on a firms capital structure as exhibited from the results while Mutuku (2011) did an empirical analysis of macroeconomic influence on corporate capital structure of listed companies in Kenya and deduced that macro economic factors influence corporate capital structure in different ways eg.GDP Growth has positive influence on long term debt and a negative influence on total debt ratio and short term debt ratio; inflation has a negative influence on the short term debts but has no influence on long term debts ratio and total debt ratio and interest rate has a positive influence on the long term debt ratio and total debt ratio and a negative influence on the short term debt ratio.

2.7 Conclusion

The determinants of the corporate capital structure have been widely discussed in the literature. There are static and dynamic trade-off theories of the corporate capital structure. Pecking order theory claims that outside investors are less informed about the firm's value (either the current value of assets in place or of the growth opportunities) than the firm's insiders. In contrast to trade-off and pecking order theories agency costs theory of the

corporate capital structure relaxes an assumption that the interests of shareholders and managers completely align and managers act in the interests of shareholders.

The numerous empirical studies investigate the determinants of the corporate capital structure testing the theories mentioned above and find that there are indeed certain firm-specific factors that influence the firm debt-to-equity ratio. Investigating the relationship between managers' gender and riskiness of the capital the firm employs along with the determinants of the corporate capital structure discussed above I include my main independent variables – manager's gender and share of female members in the board of directors. Most of these studies were conducted in developed countries whose strategic approach and financial footing is different from that of Kenya. This study therefore seeks to fill this literature gap by investigating the relationship between managers' gender on corporate capital structure choice among companies quoted in Nairobi Securities Exchange.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides a discussion of the research methods and procedures that were employed in this study. It discusses the research design especially with respect to the choice of the design. It also discusses the population of study, sample and sampling techniques, data collection methods as well as data analysis and data presentation methods to be employed in the study.

3.2 Research Design

Mathoko *et al* (2007) describe a research design as a set of decisions that make up the master plan specifying the methods and procedures for collecting and analyzing the needed information. The study was designed to provide information on potential cause-and-effect relationships. This study therefore employed a causal research design. According to Mugenda and Mugenda (2009), the purpose of causal study is to identify the cause or causes of change in a variable or event. Thus this study used this design to establish the causes of corporate capital structure choice with reference to managers' gender.

3.3 Population and Sampling Design

3.3.1 Population

Target population in statistics is the specific population about which information is desired. According to Ngechu (2004), a population is a well defined or set of people, services, elements, events, group of things or households that are being investigated. The population of interest of this study comprised of 55 companies listed at the Nairobi securities exchange (NSE, 2010). Thus the study conducted a census survey owing to the small number of NSE listed companies.

3.4 Data Collection Methods

Secondary data collection method was used in this study. The secondary data was collected from audited financial statements as presented in SMEs financial reports. This information was obtained at the N.S.E library and from the company libraries. To estimate the relationship between a manager's gender and the corporate capital structure the study used financial firm-level data, information on the structure of board of directors and personal data on managers and members of board of directors. Such data was obtained from the publicly available database on public companies maintained by the NSE. As a proxy for the manager's gender the study used CEO's gender. However, CEOs do not make all the decisions on their own as in most cases there are boards of directors which make decisions during the board of directors meetings (that is collectively). Consequently, the study used the share of women in the board of directors as an additional variable to check whether female-headed companies hold less risky capital.

3.5 Data Analysis Methods

Data was analyzed using Statistical Package for Social Sciences (SPSS Version 19.0) program. Both quantitative analysis and regression analysis was used as data analysis technique. The data collected was run through various models so as to clearly bring out the effect of managers' gender on corporate capital structure choice. Panel data analysis was done on the data, ANOVA was used to establish the significance/fitness of the models. The results obtained from the models are presented in tables to aid in the analysis and ease with which the inferential statistics was drawn. The under-mentioned model was used:

Model Specification

The focus of this study was the link between CEO's gender and the capital the firm employs. The study measured the capital structure with a debt-to-equity ratio that is the structure of the firm's capital.

The set of independent variables includes CEO's gender, share of females in the board of directors, firm growth, performance, and liquidity, tangibility of firm's assets, effective tax rate, firm size, industry class and manager's shareholdings. Thus, the following model specification was adopted:

$$S_{it} = f(G_{it}, + Fe_{it}, + Fi_{it},)$$

Where S is the Structure – the corporate capital structure (debt-to-equity ratio) the researcher used market values in determining the capital structure, G is Gender – gender of firm's CEO, Fe is Female share – share of women in the board of directors, Fi is Firm-

specific – vector of firm-specific characteristics (firm growth, performance, liquidity, tangibility of firm's assets, effective tax rate, firm size, industry class), i – indicates a firm, t – corresponds to the period. The researcher considered a period of five years from 2007 to 2011.

More specifically, the set of independent variables consists of: Gender, past profitability, growth opportunities, firm size, tangibility of assets, effective tax rate and liquidity

Gender (dummy variable which equals unity if CEO is female and zero otherwise). The researcher expect CEO's gender negatively influence the firm's debt-to-equity ratio as women are assumed to be more risk averse and use financing through the debt less.;

Female share (average share of women in the board of directors as of the beginning and end of the financial year). Analogously, I predict negative relationship between female share and debt-to-equity ratio because of higher female risk-aversion. The researcher take average share of women in the board of directors as of the beginning and end of the year. The researcher did not look for actual dates of the change of the board of directors in this case as it proposed to check all the periods for all the firms. The variable is generated using the first, last and patronymic names of the members of the board of directors. It may seem that the variables for CEO gender and share of women in the board of directors should be highly correlated as the CEO is always the chief of board of directors contributing to the total "board's gender". There can also be the case when female CEOs are more likely to hire female members to the board of directors;

Past profitability (profit before taxation normalized by total assets). There are different predictions about the direction of the influence of the corporate performance on the firm's

debt-to-equity ratio depending on the theory that explains the composition of firm's capital (trade-off, pecking order theories). However, the empirical studies find mainly positive relationship between past performance and debt-to-equity ratio (Ozkan 2003, Huang and Song 2006) in such a way supporting trade-off theory of the corporate capital structure;

Growth opportunities (growth of assets). The variable is expected to influence the debt-to-equity ratio negatively as if the firms grows in terms of assets it is more likely to have strong investment opportunities and in this case the borrowings induce higher expected bankruptcy costs (Myers 1984). Higher expected bankruptcy costs induce lower borrowings and, thus, lower debt-to-equity ratio;

Firm size (estimated by both natural logarithm of total assets and natural logarithm of firm's sales). The majority of the studies reveals that firm size positively influence the debt-to-equity ratio (Ozkan 2003, Huang and Song 2006). The explanation for such a relationship can lie in a proposition that bigger firms can borrow at more favourable interest rate (Ferri and Jones 1979). However, Ferri and Jones (1979) have concluded that firm size does not positively influence the corporate capital structure as the authors have been hypothesized;

Tangibility of assets (firm's fixed assets and stocks to total assets). Trade-off theory of the corporate capital structure predicts that firms with higher tangibility of assets borrow more as intangible assets are vulnerable in financial distress (Mayers 2003). However, the empirical evidence is contradictory. For example, Booth et.al. (2001) reveal that higher tangibility of assets positively influences long-term-debt-to-equity ratio, but negatively influence total-debt-to-equity ratio. Myroshnichenko (2004) establishes negative

relationship between tangibility of assets (fixed to total assets) and short-term corporate capital structure for Ukrainian firms. The author explains the evidence by the fact that higher ratio of fixed to total assets means lower share of current assets that are considered the most liquid assets and can be easily used for loan collateral. Thus, lower current assets mean lower debt and, consequently, lower debt-to-equity ratio;

Effective tax rate , that is the share of the profit before taxation paid to the tax authorities. The researcher expect positive relationship between this variable and debt-to-equity ratio, as higher profit tax rate stipulates companies borrow more and in such a way increases the benefits of borrowings – debt tax shield. The positive relationship between effective tax rate and the corporate debt-to-equity ratio is revealed by Huang and Song (2006).

Liquidity (current assets to current liabilities). The relationship between the liquidity and the debt-to-equity ratio can be either positive or negative (Ozkan 2003). Positive relationship can be explained by the intuition that firms with higher liquidity are able to have higher debt-to-equity ratio as they are able to meet short-term obligations. However, firms with higher liquidity may also use these liquid assets to finance their activity by themselves and not to employ debt financing. This will exert negative relationship between the liquidity and the debt-to-equity ratio. Ozkan (2003) reveal the negative statistically significance relationship between the liquidity and the corporate capital structure in the United Kingdom.

Industry and region dummies. The study controlled for industry and region effects on the corporate capital structure. The researcher do not specify any direction of the influence as it will depend on particular industry/region. The effect of the industry is to depend on the peculiarities of the production cycle in the every specific industry.

The following panel model was used to perform panel data analysis

$LEV = \beta_0 + \beta_1 GR + \beta_2 FS + \beta_3 GRO + \beta_4 PER + \beta_5 LIQ + \beta_6 TANG + \beta_7 ETR + \beta_8 FS + \beta_9 IC + \varepsilon$

LEV- is leverage as measured debt to equity ratio

GR- is the gender of the manager or the share of the majority gender the board of directors.

GRO- is firm growth. The variable is expected to influence the debt-to-equity ratio negatively as if the firm grows in terms of assets it is more likely to have strong investment opportunities. FS- represents the firm size, PER- is firm's performance. LIQ- represents liquidity of firm's assets, and TANG- represents tangibility of firm's assets.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the research findings on the effect of managers' gender on corporate capital structure choice with reference to companies quoted in Nairobi Securities Exchange. The study was conducted on 41 firms listed at the NSE where secondary data from the period of 2007 to 2011 was used in the analysis. Regression analysis was used in analysis the data.

It is obvious that coefficients for our main independent variable, CEO gender, are not statistically significant across the models. Thus, the CEO gender does not influence the riskiness of the firm's capital. This may be because the women that are CEO are not typical (average) women. It could be that the women who become CEO overcome their risk-aversion during the carrier development and are guided by more unbiased reasons choosing between internal and external financing (firm-specific indicators, the resources availability). The coefficient for the share of women in the executive board is negative and statistically significant in FE model. Thus, if female share in the executive board increases by one standard deviation the debt-to-equity ratio decreases by 0.08. This supports our assumption that female managers are more risk-averse and try to borrow less on behalf of the company. As far as the decision about the amount of borrowings is usually made collectively during the executive board meeting, it is reasonable that the share of females in

the executive board influences the debt-to-equity ratio and the gender of CEO does not. Regarding the other determinants of the corporate capital structure, it is obvious that a firm's profitability is negatively and statistically significantly related to the corporate capital structure in all three models. If the ROA increases by one standard deviation, the firm's debt-to-equity ratio decreases by 0.16 according to (2) specification, and 0.18. Firm size is positively and statistically significantly related to the corporate capital structure. Liquidity has a negative impact on the debt-to-equity ratio. It may mean that firms with higher liquidity use their liquid assets to finance their activity by themselves and employ debt financing less. Gender differences in corporate financing policies in terms of CEO may depend on the fact whose money the CEO is in charge of. Thus, CEO is more likely to borrow more when she does not put her own money under the risk (does not have corporate shareholdings).

4.2 Regression Analysis

Year 2007

The established regression equation for year 2007 was

Y = 3.327 - 0.118GR - 0.198 FS - 0.271GRO + 0.035 PER +0.208 LIQ +0.112 TANG + 0.250 ETR +0.309 FS +0.190 IC.

Table 4.1: Model Summaries

Model	R	R Squared	Adjusted R Square	Std. Error of the Estimate
1	.886[a]	.785	.752	.632

Source: Author

Adjusted R squared is the coefficient of determination which explains the variation in the dependent variable due to changes in the independent variable, from the findings in the above table the value of adjusted R squared was 0.752 an indication that there was variation of 75.2% on the debt-to-equity ratio of companies listed at the NSE due to changes in the independent variable which are gender of firm's CEO , Female share , firm growth, performance, liquidity, tangibility of firm's assets, effective tax rate, firm size and industry class at 95% confidence interval . This shows that 75.2% changes in debt to equity ratio of the company could be accounted for by gender of firm's CEO , Female share , firm growth, performance, liquidity, tangibility of firm's assets, effective tax rate, firm size, industry class. R is the correlation coefficient which shows the relationship between the study variable, from the findings shown in the table above there was a strong positive relationship between the study variable as shown by 0.886.

From the regression equation below it was revealed that holding gender of firm's CEO , female share , firm growth, performance, liquidity, tangibility of firm's assets, effective tax rate, firm size and industry class to a constant zero , debt to equity ratio of the firms listed at the NSE would stand at 3.327 , a unit increase in gender of firm's CEO would lead to decrease in the in the debt to equity ratio of the company by a factors of 0.118, unit increase in female share in the board of the company would lead to decrease in debt to equity ratio of the company by factors of 0.198 , unit increase in growth would lead to decrease in debt to equity ratio of the company by a factor of 0.271 , unit increase in performance would lead to increase in the debt to equity ratio of the firm by a factors of 0.035 , a unit increase in liquidity of the firms listed at the NSE would lead to increase in

debt to equity ratio of the firms by factors of 0.208 , unit increase in tangibility would lead to increase in debt to equity ratio of the company by a factor of 0.112, unit increase in effective tax rate would lead to increase in debt to equity ratio by a factor of 0.250, a unit increase in firm size would lead to increase in debt to equity ratio of the company by a factor of 0.309, further unit increase in industry class would lead to increase in debt to equity ratio by a factor of 0.190.

Table 4.2: Regression Output

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	Constant	3.327	.534		6.227	.000
	Gender of firm's CEO	-.118	.077	-.164	-1.519	.133
	Female share	-.198	.099	-.237	-2.011	.048
	Firm growth	-.271	.130	-.278	-2.083	.040
	Performance	.035	.124	.036	.285	.776
	Liquidity	.208	.093	.268	2.231	.028
	Tangibility of firm's	.112	.087	.158	1.294	.199
	Effective tax rate	.250	.107	.305	2.346	.021
	Firm size	.309	.061	.319	5.035	.000
	Industry class	.190	.068	.162	2.777	.006

SOURCE: AUTHOR

Year 2008

The established regression equation for year 2008 was

Y = 2.809 - 0.012GR - 0.016 FS - 0.102 GRO + 0.088 PER +0.058 LIQ +0.162 TANG + 0.173 ETR +0.282 FS +0.142 IC

Table 4.3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.832[a]	.692	.653	.583

Adjusted R squared is the coefficient of determination which explains the variation in the dependent variable due to changes in the independent variable, from the findings in the above table the value of adjusted R squared was 0.653 an indication that there was variation of 65.3% on the debt-to-equity ratio of companies listed at the NSE due to changes in the independent variable which are gender of firm's CEO , Female share , firm growth, performance, liquidity, tangibility of firm's assets, effective tax rate, firm size and industry class at 95% confidence interval . This shows that 65.3% changes in debt to equity ratio of the company could be accounted for by gender of firm's CEO , Female share , firm growth, performance, liquidity, tangibility of firm's assets, effective tax rate, firm size, industry class. R is the correlation coefficient which shows the relationship between the study variable, from the findings shown in the table above there was a strong positive relationship between the study variable as shown by 0.832.

From the regression equation below it was revealed that holding gender of firm's CEO , female share , firm growth, performance, liquidity, tangibility of firm's assets, effective tax rate, firm size and industry class to a constant zero , debt to equity ratio of the firms listed at the NSE would stand at 2.809 , a unit increase in gender of firm's CEO would lead to decrease in the in the debt to equity ratio of the company by a factors of 0.012, unit increase in female share in the board of the company would lead to decrease in debt to

equity ratio of the company by factors of 0.016 , unit increase in growth would lead to decrease in debt to equity ratio of the company by a factor of 0.102 , unit increase in performance would lead to increase in the debt to equity ratio of the firm by a factors of 0.088 , a unit increase in liquidity of the firms listed at the NSE would lead to increase in debt to equity ratio of the firms by factors of 0.058 , unit increase in tangibility would lead to increase in debt to equity ratio of the company by a factor of 0.162, unit increase in effective tax rate would lead to increase in debt to equity ratio by a factor of 0.173, a unit increase in firm size would lead to increase in debt to equity ratio of the company by a factor of 0.282, further unit increase in industry class would lead to increase in debt to equity ratio by a factor of 0.142.

Table 4.4: Regression Output

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	Constant	2.809	.519		5.414	.000
	Gender of firm's CEO	-.012	.049	-.026	-.256	.799
	Female share	-.016	.099	-.024	-.166	.868
	Firm growth	-.102	.078	-.164	-1.301	.197
	Performance	.088	.104	.104	.844	.401
	Liquidity	.058	.100	.075	.573	.568
	Tangibility of firm's	.162	.092	.188	1.757	.083
	Effective tax rate	.173	.076	.247	2.269	.026
	Firm size	.282	.064	.093	1.286	.199
	Industry class	.142	.050	.232	2.867	.004

Source: Author

Year 2009

The established regression equation for year 2009 was

Y = 2.385 - 0.209 GR - 0.069 FS - 0.134 GRO + 0.270 PER +0.022 LIQ + 0.210 TANG + 0.254 ETR +0.218 FS +0.106 IC

Table 4.5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.757[a]	.573	.526	.805

Adjusted R squared is coefficient of determination which tell us the variation in the dependent variable due to changes in the independent variable, from the findings in the above table the value of adjusted R squared was 0.526 an indication that there was variation of 52.6% on the debt-to-equity ratio of companies listed at the NSE due to changes in the independent variable which are gender of firm's CEO , Female share , firm growth, performance, liquidity, tangibility of firm's assets, effective tax rate, firm size and industry class at 95% confidence interval . This shows that 52.6% changes in debt to equity ratio of the company could be accounted for by gender of firm's CEO , Female share , firm growth, performance, liquidity, tangibility of firm's assets, effective tax rate, firm size, industry class. R is the correlation coefficient which shows the relationship between the study variable, from the findings shown in the table above there was a strong positive relationship between the study variable as shown by 0.757.

From the regression equation below it was revealed that holding gender of firm's CEO , female share , firm growth, performance, liquidity, tangibility of firm's assets, effective tax

rate, firm size and industry class to a constant zero , debt to equity ratio of the firms listed at the NSE would stand at 2.385 , a unit increase in gender of firm's CEO would lead to decrease in the in the debt to equity ratio of the company by a factors of 0.209, unit increase in female share in the board of the company would lead to decrease in debt to equity ratio of the company by factors of 0.069 , unit increase in growth would lead to decrease in debt to equity ratio of the company by a factor of 0.134 , unit increase in performance would lead to increase in the debt to equity ratio of the firm by a factors of 0.270 , a unit increase in liquidity of the firms listed at the NSE would lead to increase in debt to equity ratio of the firms by factors of 0.022, unit increase in tangibility would lead to increase in debt to equity ratio of the company by a factor of 0.210, unit increase in effective tax rate would lead to increase in debt to equity ratio by a factor of 0.254, a unit increase in firm size would lead to increase in debt to equity ratio of the company by a factor of 0.218, further unit increase in industry class would lead to increase in debt to equity ratio by a factor of 0.106.

Table 4.6: Regression Output

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	Constant	2.385	.408		3.944	.348
	Gender of firm's CEO	-.209	.089	-.222	-2.347	.021
	Female share	-.069	.095	-.080	-.732	.466
	Firm growth	-.134	.097	-.135	-1.375	.173
	Performance	.270	.091	.269	2.951	.004
	Liquidity	.022	.092	.019	.236	.814
	Tangibility of firm's	.210	.118	.182	1.769	.081
	Effective tax rate	.254	.109	.281	2.322	.023
	Firm size	.218	.040	.030	.453	.651
	Industry class	.106	.059	.007	.106	.916

Source: Author

Year 2010

The established regression equation for year 2010 was

Y = 1.614- 0.263 GR - 0.111 FS - 0.233 GRO + 0.010 PER +0.011 LIQ + 0.069 TANG + 0.066 ETR +0.300 FS +0.173 IC

Table 4.7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.925[a]	.855	.815	.535

Adjusted R squared is the coefficient of determination which explains the variation in the dependent variable due to changes in the independent variable, from the findings in the above table the value of adjusted R squared was 0.815 an indication that there was variation of 81.5% on the debt-to-equity ratio of companies listed at the NSE due to changes in the independent variable which are gender of firm's CEO , Female share , firm growth,

performance, liquidity, tangibility of firm's assets, effective tax rate, firm size and industry class at 95% confidence interval . This shows that 81.5% changes in debt to equity ratio of the company could be accounted for by gender of firm's CEO , Female share , firm growth, performance, liquidity, tangibility of firm's assets, effective tax rate, firm size, industry class. R is the correlation coefficient which shows the relationship between the study variable, from the findings shown in the table above there was a strong positive relationship between the study variable as shown by 0.925.

Table 4.8: Regression output

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	Constant	1.614	.394		4.098	.000
	Gender of firm's CEO	-.263	.067	-.385	-3.911	.000
	Female share	-.111	.056	-.207	-1.991	.050
	Firm growth	-.233	.079	-.317	-2.940	.004
	Performance	.010	.058	.016	.169	.866
	Liquidity	.011	.071	.016	.154	.878
	Tangibility of firm's	.069	.088	.084	.780	.438
	Effective tax rate	.066	.089	.073	.741	.461
	Firm size	.300	.074	.273	4.033	.000
	Industry class	.173	.079	.158	2.202	.029

Source: Author.

From the above regression equation it was revealed that holding gender of firm's CEO , female share , firm growth, performance, liquidity, tangibility of firm's assets, effective tax rate, firm size and industry class to a constant zero , debt to equity ratio of the firms listed at the NSE would stand at 1.614 , a unit increase in gender of firm's CEO would lead to decrease in the in the debt to equity ratio of the company by a factors of 0.263, unit increase in female share in the board of the company would lead to decrease in debt to equity ratio of the company by factors of 0.111 , unit increase in growth would lead to decrease in debt to equity ratio of the company by a factor of 0.233 , unit increase in performance would lead to increase in the debt to equity ratio of the firm by a factors of 0.010 , a unit increase in liquidity of the firms listed at the NSE would lead to increase in debt to equity ratio of the firms by factors of 0.011, unit increase in tangibility would lead to increase in debt to equity ratio of the company by a factor of 0.069, unit increase in effective tax rate would lead to increase in debt to equity ratio by a factor of 0.066, a unit increase in firm size would lead to increase in debt to equity ratio of the company by a factor of 0.300, further unit increase in industry class would lead to increase in debt to equity ratio by a factor of 0.173.

Year 2011

The established regression equation for year 2011 was

Y = 1.908 - 0.022 GR - 0.032 FS - 0.340 GRO + 0.155PER + 0.038 LIQ + 0.048 TANG + 0.166 ETR + 0.176 FS +0.161 IC

Table 4.9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.860[a]	.740	.718	.608

Adjusted R squared is the coefficient of determination which explains the variation in the dependent variable due to changes in the independent variable, from the findings in the above table the value of adjusted R squared was 0.718 an indication that there was variation of 71.8% on the debt-to-equity ratio of companies listed at the NSE due to changes in the independent variable which are gender of firm's CEO , Female share , firm growth, performance, liquidity, tangibility of firm's assets, effective tax rate, firm size and industry class at 95% confidence interval . This shows that 71.8% changes in debt to equity ratio of the company could be accounted for by gender of firm's CEO , Female share , firm growth, performance, liquidity, tangibility of firm's assets, effective tax rate, firm size, industry class. R is the correlation coefficient which shows the relationship between the study variable, from the findings shown in the table above there was a strong positive relationship between the study variable as shown by 0.860.

Table 4.10: Regression Output

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	Constant	1.908	.578		3.300	.001
	Gender of firm's CEO	-.022	.054	-.042	-.410	.683
	Female share	-.032	.104	-.037	-.304	.762
	Firm growth	-.340	.088	-.453	-3.886	.000
	Performance	.155	.090	.189	1.721	.089
	Liquidity	.038	.095	.041	.400	.690
	Tangibility of firm's	.048	.077	.050	.485	.629
	Effective tax rate	.166	.073	-.122	.903	.369
	Firm size	.176	.082	.143	2.150	.032
	Industry class	.161	.172	.611	0.865	.000

Source: Author

From the above regression equation it was revealed that holding gender of firm's CEO , female share , firm growth, performance, liquidity, tangibility of firm's assets, effective tax rate, firm size and industry class to a constant zero , debt to equity ratio of the firms listed at the NSE would stand at 1.908 , a unit increase in gender of firm's CEO would lead to decrease in the in the debt to equity ratio of the company by a factors of 0.022, unit increase in female share in the board of the company would lead to decrease in debt to equity ratio of the company by factors of 0.032 , unit increase in growth would lead to decrease in debt to equity ratio of the company by a factor of 0.340 , unit increase in performance would lead to increase in the debt to equity ratio of the firm by a factors of 0.155 , a unit increase in liquidity of the firms listed at the NSE would lead to increase in debt to equity ratio of the firms by factors of 0.038, unit increase in tangibility would lead

to increase in debt to equity ratio of the company by a factor of 0.048, unit increase in effective tax rate would lead to increase in debt to equity ratio by a factor of 0.166, a unit increase in firm size would lead to increase in debt to equity ratio of the company by a factor of 0.176, further unit increase in industry class would lead to increase in debt to equity ratio by a factor of 0.161.

4.3 Panel Data Analysis

Table 4.112: Panel data model for fixed and random effects models

	Dependent variable: debt-to-equity ratio		
	OLS	FE	RE
	(1)	(2)	(3)
Performance	-2.529***	-0.644**	-1.107***
	(0.410)	(0.242)	(0.225)
Firm growth	1.482***	0.211**	0.399***
	(0.220)	(0.101)	(0.085)
Firm size	0.095***	0.169*	0.160***
	(0.036)	(0.098)	(0.033)
Liquidity	-0.070***	-0.020**	-0.042***
	(0.006)	(0.008)	(0.007)
Effective tax rate	-0.002	0.119	0.069
	(0.109)	(0.080)	(0.076)
Tangibility of firm's	-2.390***	-0.283	-1.161***
	(0.314)	(0.224)	(0.169)
Female share	0.127	-0.373*	-0.042
	(0.212)	(0.217)	(0.158)
Gender of firm's CEO	0.210	-0.215	0.035
	(0.203)	(0.188)	(0.136)
Industry class	-0.002	0.003	-0.001
	(0.002)	(0.003)	(0.002)
Number of observations	41	41	41
R^2	0.2691	0.0779	0.2267

Source: author

4.4 Descriptive Statistics

Table 4.12: Descriptive Statistics

	Mean	Std. Deviation
Debt-to-equity	2.3691	1.37748
Size	.9731	.31905
Performance	.1238	.08591
Firm growth	.8378	.13371
Effective tax	.0871	.08823
Tangibility	.4481	.37002
Liquidity	4474.0111	28638.30754

Source: author

The study established that for the five years, debt-to-equity had a mean score of 2.3691, size had a mean score of 0.9731, performance had a mean score of 0.1238, firm growth had a mean score of 0.8378, effective tax had a mean score of 0.0871, tangibility had a mean score of 0.4481 while liquidity had a mean score of 4474.0111.

4.5 Summary and Interpretation of Findings

The study sought to establish the effect of managers' gender on corporate capital structure choice with reference to companies quoted in Nairobi Securities Exchange, from the findings on the adjusted R square the study revealed that greater variation in the debt-to-equity ratio of companies listed at the NSE is due to changes in the gender of firm's CEO, Female share, firm growth, performance, liquidity, tangibility of firm's assets, effective tax rate, firm size and industry class. Greater variation in debt to equity ratio of the company

could be accounted for by gender of firm's CEO, Female share, firm growth, performance, liquidity, tangibility of firm's assets, effective tax rate, firm size, and industry class.

The study found that there was negative relationship between gender of firm's CEO, Female share, firm growth and the debt to equity ratio (corporate capital structure of the firm listed at the NSE. Booth et.al. (2001) predict negative relationship between female share and debt-to-equity ratio because of higher female risk-aversion. CEO's gender negatively influence the firm's debt-to-equity ratio as women are assumed to be more risk averse and use financing through the debt less. manager's gender a lot of other factors influence the corporate capital structure, in particular firm specific (firm size, past profitability, industry class, effective tax rate, tangibility of assets, firm growth, etc.) and manager's (education, ownership share, etc.) characteristics.

The study found a positive debt to equity ratio (corporate capital structure) of firm listed in the NSE and performance, liquidity, tangibility of firm's assets, effective tax rate, firm size and industry class

4.6 Conclusion

The study found that that there exists a negative relationship between gender of firm's CEO, female share and the debt to equity ratio (corporate capital structure) of the firm listed at the NSE. The study also established that there is a positive debt to equity ratio (corporate capital structure) of firm listed in the NSE and performance, liquidity, tangibility of firm's assets, effective tax rate, firm size and industry class. Upon examining other variables that have an impact on Corporate Capital structure, the

following control variable depicted a negative relationship between corporate capital structure and firm growth. The negative relationship between corporate capital structure and firm growth shows that growing companies prefer to use more of debt to equity. Effective tax rate was found to have positive relationship with debt to equity ratio. The reason may be that firms will opt to take advantage of lower the effective marginal tax rate on interest deduction. The positive relationship with debt to equity was established among the following control variables; size of the firm, liquidity of the firm, tangibility of the firm and industry class. Any positive change on these variables is therefore going to lead to an increase in the debt to equity positions. The reasons for this may be because growth will lead to increased demand for external funds, size will encourage the firm to borrow, liquidity has the impact of leading to favorable credit assessments and tangibility has the role of providing assets for collateral.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

This study was intended to reveal the effect of managers' gender on corporate capital structure choice with reference to companies quoted in Nairobi Securities Exchange. The focus was to determine the role that gender plays to influence the firms' decision of capital structure. In order to achieve this objective, the study was designed to collect and analyse the relevant data for Kenyan listed companies.

In order to determine the effect of managers' gender on corporate capital structure choice with reference to companies quoted in Nairobi Securities Exchange, the study sort evidence from firms listed at the Kenya's Nairobi Securities Exchange. Regression analysis on data from a sample of 41 companies listed at the Exchange for five years period from 2007 to 2011 was conducted to examine the variables capital structure and gender while controlling for Profitability (performance), Growth of the firm, Size, Liquidity of the firm, Tangibility, Industry Class and Effective tax rate. A suitable regression model was designed in order to capture all the relevant variables of the study.

The study revealed that there was negative relationship gender of firm's CEO, Female share, firm growth and the debt to equity ratio (corporate capital structure) of the firm listed at the NSE. The study found a positive debt to equity ratio (corporate capital structure) of

firm listed in the NSE and performance, liquidity, tangibility of firm's assets, effective tax rate, firm size and industry class. From the findings on the relationship between the effects of managers' gender on corporate capital structure choice with reference to companies quoted in Nairobi Securities Exchange, the study established the following regression equation.

The established regression equation for year 2007 was

Y = 3.327 - 0.118GR - 0.198 FS - 0.271GRO + 0.035 PER +0.208 LIQ +0.112 TANG + 0.250 ETR +0.309 FS +0.190 IC.

The established regression equation for year 2008 was

Y = 2.809 - 0.012GR - 0.016 FS - 0.102 GRO + 0.088 PER +0.058 LIQ +0.162 TANG + 0.173 ETR +0.282 FS +0.142 IC.

The established regression equation for year 2009 was

Y = 2.385 - 0.209 GR - 0.069 FS - 0.134 GRO + 0.270 PER +0.022 LIQ + 0.210 TANG + 0.254 ETR +0.218 FS +0.106 IC.

The established regression equation for year 2010 was

Y = 1.614- 0.263 GR - 0.111 FS - 0.233 GRO + 0.010 PER +0.011 LIQ + 0.069 TANG + 0.066 ETR +0.300 FS +0.173 IC.

The established regression equation for year 2011 was

Y = 1.908 - 0.022 GR - 0.032 FS - 0.340 GRO + 0.155PER + 0.038 LIQ + 0.048 TANG + 0.166 ETR + 0.176 FS +0.161 IC.

From the above regression equations it was revealed there was a positive debt to equity ratio (corporate capital structure) of firm listed in the NSE and performance, liquidity, tangibility of firm's assets, effective tax rate, and firm size and industry class. The study

further established that there was a negative relationship between gender of firm's CEO, Female share, firm growth and the debt to equity ratio (corporate capital structure) of the firm listed at the NSE. From the findings on the correlation coefficient, it was revealed that there was relationship between debt to equity ratio of the company and gender of firm's CEO, Female share, firm growth, performance, liquidity, tangibility of firm's assets, effective tax rate, firm size, and industry class.

5.2 Conclusions

The objective of the study was to determine the effect of managers' gender on corporate capital structure choice with reference to companies quoted in Nairobi Securities Exchange. The findings of the study confirmed that there exists a negative relationship between gender of firm's CEO, female share and the debt to equity ratio (corporate capital structure) of the firm listed at the NSE. The study also established that there is a positive debt to equity ratio (corporate capital structure) of firm listed in the NSE and performance, liquidity, tangibility of firm's assets, effective tax rate, firm size and industry class.

Upon examining other variables that have an impact on Corporate Capital structure, the following control variable depicted a negative relationship between corporate capital structure and firm growth. The negative relationship between corporate capital structure and firm growth shows that growing companies prefer to use more of debt to equity. Effective tax rate was found to have positive relationship with debt to equity ratio. The reason may be that firms will opt to take advantage of lower the effective marginal tax rate on interest deduction.

The positive relationship with debt to equity was established among the following control variables; size of the firm, liquidity of the firm, tangibility of the firm and industry class. Any positive change on these variables is therefore going to lead to an increase in the debt to equity positions. The reasons for this may be because growth will lead to increased demand for external funds, size will encourage the firm to borrow, liquidity has the impact of leading to favorable credit assessments and tangibility has the role of providing assets for collateral.

5.3 Policy Recommendations

From the above discussion and conclusion the study recommends that companies in risky industries like the financial sector should use more of CEOs who are risk takers as the risk averse CEO will affect the capital structure of their firms. the study recommends that companies at NSE must follow the financing hierarchy as postulated by the pecking order concept i.e. internal funds should be used before debt financing and then equity as equity and debt financing are more expensive and they affects the capital structure of the company compared to internal funds.

The study also recommends that companies must take note of their profitability, growth, size, liquidity, tangibility, non-debt tax shields because these will affect financing decisions. Management will therefore need to keep a close watch on these variables to assist in determining the impact that they will have on the capital structure.

5.4 Limitations of the Study

The study was limited to establishing the effect of managers' gender on corporate capital structure choice with reference to companies quoted in Nairobi Securities Exchange. For this reason the non-listed firms could not be incorporated in the study.

In attaining its objective the study was limited to 55 firms listed companies in the NSE. Financial companies were excluded since their leverage is highly dependent on legislation. The study could not therefore incorporate the impact on these of companies.

Secondary data was collected from the firm financial reports. The study was also limited to the degree of precision of the data obtained from the secondary source. While the data was verifiable since it came from the Nairobi Securities Exchange publications, it nonetheless could still be prone to these shortcomings.

The study was based on a five year study period from the year 2006 to 2010. A longer duration of the study will have captured periods of various economic significances such as booms and recessions. This may have probably given a longer time focus hence given a broader dimension to the problem.

The study concentrated on the relationship between the manager's gender and the capital structure preference of such a manager. Other factors that may also be affected by the manager's gender were therefore not considered in this study.

5.5 Suggestions for Further Studies

From the findings and conclusion, the study recommends and in-depth study to be carried out on the relationship between leverage and other determinants of capital structure namely size, growth, profitability, liquidity, non-debt tax shield and tangibility. This will help to allow more insight not only on the factors but on multi-variation among them.

Moreover this study was limited to firms listed at the NSE. The study therefore recommends that further study should be carried out on firms that are not listed on the NSE to find out if similar results would be found.

This study only concentrated on a short period of time for five years only. The study therefore suggests that a longer period be considered so as to capture significant economic periods such as recessions and booms.

Further the study suggests that an in depth study be done on financial firms and establish whether besides the legislation factor, whether the managers gender has a role to play in the capital structure choice.

In addition this study suggests that a detailed study be carried out on the influence of the managers gender on other firm attributes such as organizational profitability, operating efficiency and liquidity level.

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APPENDIX (1): REGRESSION SUMMARY

Table of Year 2007

company	debt-to-equity	**size**	Performance	Firm growth	Effective tax	**Tangibility**	**liquidity**
Unilever	3.342246	0.872119	0.027113	0.900353	0.095705	0.09124	1.372929
Kakuzi	5.386959	0.637035	0.113886	0.958714	0.056571	0.123564	0.7845
Rea	1.773464	1.056914	0.143826	0.670409	0.005692	0.071546	1.5894
Sasini	2.139984	0.346494	0.018489	0.940378	0.012979	0.10087	2.025583
Car General	9.670245	0.904092	0.12605	0.945457	0.034694	0.049319	1.316808
CMC	21.61965	0.962648	0.094291	0.973962	0.006193	0.21746	1.523166
KQ	7.309792	0.760697	0.077309	0.970137	0.07172	0.235803	1.39415
Marshalls	9.349846	1.028494	0.033694	0.942705	0.144916	0.081225	1.227096
N M G	6.31669	1.302953	0.271522	0.939562	0.033398	0.09117	1.906933
Standard	2.896913	1.183375	0.187437	0.832017	0.348788	0.202	1.325486
TPS	1.517879	0.540872	0.091045	0.621852	0.03485	0.224603	1.051769
Athi-River	2.337446	0.861712	0.137777	0.823006	0.027567	0.195681	1.109376
Bamburi	2.775758	1.067133	0.262693	0.912403	0.035618	0.052354	2.199193
B A T	4.544364	1.701233	0.221103	0.892121	0.115034	0.221639	1.126623
BOC Kenya	4.959553	0.809439	0.215006	0.94612	0.017637	0.102115	2.587846
Crown-Berger	6.136452	1.369667	0.091941	0.922253	0.035034	0.343082	1.594905
East A Cables	15.17711	1.078649	0.18615	0.968455	0.099519	0.01333	1.552388
East A Portland	2.307154	0.716304	0.124475	0.877162	0.022119	0.263493	2.208928
E ABL	5.172941	1.203919	0.341918	0.936799	0.067326	0.019164	2.206685
Sameer	1.753104	1.097221	0.052665	0.559847	0.015602	0.006841	2.123386
Limuru	2.270086	0.869632	0.123564	0.922151	0.0826	0.06406	1.359151
Williamson	1.59363	0.942316	0.071546	0.968927	0.01333	0.168662	1.568318
kapchorua	2.54636	0.762028	0.10087	0.966551	0.263493	0.238789	1.12858
Eaagads	1.43979	1.203341	0.049319	0.93364	0.019164	0.071684	1.228723
Scan group	2.035905	1.197884	0.21746	0.932634	0.006841	0.065802	2.231133
Hutchings	1.9541	0.746972	0.235803	0.713293	0.06406	0.031944	1.432085
Uchumi	1.078856	0.531724	0.081225	0.58709	0.168662	0.048313	1.507651
Express	4.076334	0.612325	0.09117	0.833939	0.238789	0.067307	0.976995
City trust	2.631956	0.903311	0.202	0.904474	0.071684	0.05968	2.286005
Olympia	3.581474	1.629298	0.224603	0.871397	0.065802	0.068865	1.264188
Centum	1.59363	0.942316	0.071546	0.968927	0.01333	0.0826	1.568318
Carbacid	2.54636	0.762028	0.10087	0.966551	0.263493	0.008562	1.12858
Mumias	1.43979	1.203341	0.049319	0.93364	0.019164	0.134831	1.228723
Unga	2.035905	1.197884	0.21746	0.932634	0.006841	0.237552	2.231133
Eveready	1.9541	0.746972	0.235803	0.713293	0.06406	0.016787	1.432085
Orchard	1.078856	0.531724	0.081225	0.58709	0.168662	0.230958	1.507651

A.Bauman	4.076334	0.612325	0.09117	0.833939	0.238789	0.0606	0.976995
Kenol kobil	4.274013	0.25866	0.27471	0.952716	0.23911	0.005557	2.570812
Total	3.086563	0.84811	0.059326	0.849821	0.001189	0.013436	1.386866
Kengen	1.69728	0.95945	0.060578	0.961484	0.04787	0.548894	1.52859
KPLC	2.159961	1.145865	0.05539	0.905757	0.030419	0.259057	2.77609

Table Year 2008

company	debt-to-equity	**size**	Performance	Firm growth	Effective tax rate	**Tangibility**	**liquidity**
Unilever	4.576526	0.787333	0.015038	0.908792	0.048313	0.019371	1.575798
Kakuzi	2.78161	0.60944	0.082649	0.957315	0.067307	0.02846	0.664936
Rea	1.077616	1.107336	0.147517	0.63955	0.05968	0.045424	1.542719
Sasini	2.209439	0.331281	0.09124	0.950386	0.068865	0.030419	1.966367
Car General	2.270086	0.869632	0.123564	0.922151	0.0826	0.213922	1.359151
CMC	1.59363	0.942316	0.071546	0.968927	0.01333	0.952508	1.568318
KQ	2.54636	0.762028	0.10087	0.966551	0.263493	0.632141	1.12858
Marshalls	1.43979	1.203341	0.049319	0.93364	0.019164	0.944798	1.228723
N M G	2.035905	1.197884	0.21746	0.932634	0.006841	0.904043	2.231133
Standard	1.9541	0.746972	0.235803	0.713293	0.06406	0.965564	1.432085
TPS	4.085789	1.03445	0.070559	0.921518	0.209569	0.948507	0.87038
Athi-River	1.19208	1.32956	0.023229	0.924888	0.002313	0.927223	0.819495
Bamburi	4.457944	1.20174	0.220952	0.933939	0.090534	0.919466	1.711566
B A T	1.853158	1.80682	0.124939	0.620553	0.130211	0.622804	0.97828
BOC Kenya	1.603627	0.81405	0.096149	0.707747	0.016518	0.682624	1.102267
Crown-Berger	4.327228	0.650648	0.195681	0.941255	0.031944	0.781862	2.485039
East A Cables	6.438134	1.100922	0.052354	0.9227	0.069872	0.560592	1.597635
East A Portland	1.83203	1.069654	0.221639	0.946639	0.186203	0.839905	1.619229
E ABL	5.441962	0.682785	0.102115	0.878704	0.088646	0.937898	2.490605
Sameer	1.89076	1.511169	0.343082	0.868918	0.034767	0.905757	1.848779
Limuru	1.048407	0.958002	0.004491	0.579552	0.004356	0.903252	1.848779
Williamson	1.73229	1.275859	0.062547	0.927223	5.06e-06	0.857733	183376.1
kapchorua	1.720851	1.67674	0.363286	0.79319	0.003019	0.855881	2.656429
Eaagads	1.9541	0.746972	0.235803	0.713293	0.06406	0.054316	1.432085
Scan group	1.078856	0.531724	0.081225	0.58709	0.168662	0.177128	1.507651
Hutchings	0.553116	1.483375	0.20744	0.799165854	0.35478837	0.152464	1.42549
Uchumi	0.843462	0.840872	0.10105	0.557543033	0.04484992	0.243782	1.15177
Express	1.078856	0.531724	0.081225	0.58709	0.168662	0.06548	1.507651
City trust	4.076334	0.612325	0.09117	0.833939	0.238789	0.103788	0.976995
Olympia	1.603627	0.81405	0.096149	0.707747	0.016518	0.062547	1.102267
Centum	1.396739	0.80924	0.085078	0.651293	0.13009	0.230059	1.043911
Carbacid	2.383471	0.82938	0.188103	0.877456	0.026399	0.120268	1.807887

Mumias	1.19208	1.32956	0.023229	0.924888	0.002313	0.027929	0.819495
Unga	4.457944	1.20174	0.220952	0.933939	0.090534	0.091371	1.711566
Eveready	1.59363	0.942316	0.071546	0.968927	0.01333	0.205257	1.568318
Orchard	2.54636	0.762028	0.10087	0.966551	0.263493	0.321619	1.12858
A.Bauman	1.43979	1.203341	0.049319	0.93364	0.019164	0.18055	1.228723
Kenol kobil	3.086563	0.84811	0.059326	0.849821	0.001189	0.05539	1.386866
Total	1.69728	0.95945	0.060578	0.961484	0.04787	0.279456	1.52859
Kengen	4.085789	1.03445	0.070559	0.921518	0.209569	0.140748	0.87038
kPLC	1.9541	0.746972	0.235803	0.713293	0.06406	0.378172	1.432085

Table of Year 2009

company	debt-to-equity	**Size**	Performance	Firm growth	Effective tax rate	**Tangibility**	**liquidity**
Unilever	2.053823	0.953104	0.021415	0.899828	0.018325	0.113886	9.10464
Kakuzi	1.768245	0.538088	0.054316	0.952508	0.077	0.143826	2.37031
Rea	1.107913	1.056577	0.177128	0.632141	0.008562	0.018489	3.83291
Sasini	3.44926	0.270589	0.152464	0.944798	0.134831	0.12605	7.007279
Car General	1.006454	0.914575	0.243782	0.904043	0.237552	0.094291	3.805666
CMC	16.5386	0.965958	0.06548	0.965564	0.016787	0.077309	5.51981
KQ	1.073657	0.922159	0.103788	0.948507	0.230958	0.033694	4.106839
Marshalls	1.73229	1.275859	0.062547	0.927223	5.06e-06	0.271522	1.833761
N M G	1.354839	1.264396	0.230059	0.919466	0.005557	0.187437	1.654552
Standard	1.671747	2.025003	0.120268	0.622804	0.013436	0.091045	4.35441
TPS	1.653018	0.609031	0.027929	0.682624	0.548894	0.137777	1.243635
Athi-River	2.871566	0.681986	0.091371	0.781862	0.259057	0.262693	3.018108
Bamburi	0.601306	0.981281	0.205257	0.560592	0.019371	0.221103	2.93939
B A T	2.353324	1.791753	0.321619	0.839905	0.02846	0.215006	2.51139
BOC Kenya	2.4588	0.611925	0.18055	0.937898	0.045424	0.091941	2.64777
Crown-Berger	2.159961	1.145865	0.05539	0.905757	0.030419	0.18615	2.77609
East A Cables	1.549182	1.104423	0.279456	0.903252	0.213922	0.124475	4.22235
East A Portland	4.977272	0.694905	0.140748	0.857733	0.036621	0.341918	3.42176
E ABL	1.749497	1.525069	0.378172	0.855881	0.011684	0.052665	3.25143
Sameer	0.845046	1.048207	0.091824	0.565705	0.012453	0.958714	5.42719
Limuru	14.69728	0.95945	0.060578	0.961484	0.04787	0.670409	1.52859
Williamson	4.085789	1.03445	0.070559	0.921518	0.209569	0.940378	0.87038
kapchorua	1.19208	1.32956	0.023229	0.924888	0.002313	0.945457	0.819495
Eaagads	4.457944	1.20174	0.220952	0.933939	0.090534	0.973962	1.711566
Scan group	1.853158	1.80682	0.124939	0.620553	0.130211	0.970137	0.97828
Hutchings	1.603627	0.81405	0.096149	0.707747	0.016518	0.942705	1.102267
Uchumi	1.396739	0.80924	0.085078	0.651293	0.13009	0.939562	1.043911
Express	2.383471	0.82938	0.188103	0.877456	0.026399	0.832017	1.807887
City trust	2.360808	1.61144	0.285958	0.836648	0.005142	0.621852	1.483464
Olympia	1.9541	0.746972	0.235803	0.713293	0.06406	0.823006	1.432085
Centum	1.078856	0.531724	0.081225	0.58709	0.168662	0.912403	1.507651
Carbacid	4.076334	0.612325	0.09117	0.833939	0.238789	0.892121	0.976995
Mumias	2.631956	0.903311	0.202	0.904474	0.071684	0.94612	2.286005
Unga	3.581474	1.629298	0.224603	0.871397	0.065802	0.922253	1.264188
Eveready	4.327228	0.650648	0.195681	0.941255	0.031944	0.968455	2.485039

Orchard	6.438134	1.100922	0.052354	0.9227	0.069872	0.877162	1.597635
A.Bauman	1.83203	1.069654	0.221639	0.946639	0.186203	0.936799	1.619229
Kenol kobil	2.139984	0.346494	0.018489	0.940378	0.012979	0.348788	2.025583
Total	9.670245	0.904092	0.12605	0.945457	0.034694	0.03485	1.316808
Kengen	21.61965	0.962648	0.094291	0.973962	0.006193	0.027567	1.523166
KPLC	1.59363	0.942316	0.071546	0.968927	0.01333	0.035618	1.568318

company	debt to equity	size	Performance	Firm growth	Effective tax	Tangibility	liquidity
A.Bauman	1.073657	0.922159	0.103788	0.948507	0.230958	0.621852	4.106839
Kenol kobil	1.73229	1.275859	0.062547	0.927223	0.061106	0.823006	2.833761
Total	1.354839	1.264396	0.230059	0.919466	0.005557	0.912403	2.54552
Kengen	1.67147	2.025003	0.120268	0.622804	0.013436	0.892121	4.635441
kPLC	1.9541	0.746972	0.235803	0.713293	0.06406	0.94612	1.432085
Unilever	2.154897	0.89818	0.107072	0.905142	0.042533	0.027113	1.830702
Kakuzi	10.7656	0.66399	0.043347	0.95432	0.001951	0.113886	0.642481
Rea	1.177786	0.84907	0.172983	0.626217	0.070529	0.143826	1.580164
Sasini	4.274013	0.25866	0.27471	0.952716	0.23911	0.018489	2.570812
Car General	3.086563	0.84811	0.059326	0.849821	0.001189	0.348788	1.386866
CMC	1.69728	0.95945	0.060578	0.961484	0.04787	0.03485	1.52859
KQ	4.085789	1.03445	0.070559	0.921518	0.209569	0.027567	0.87038
Marshalls	1.19208	1.32956	0.023229	0.924888	0.002313	0.035618	0.819495
N M G	4.457944	1.20174	0.220952	0.933939	0.090534	0.115034	1.711566
Standard	1.853158	1.80682	0.124939	0.620553	0.130211	0.017637	0.97828
TPS	1.603627	0.81405	0.096149	0.707747	0.016518	0.035034	1.102267
Athi-River	1.396739	0.80924	0.085078	0.651293	0.13009	0.099519	1.043911
Bamburi	2.383471	0.82938	0.188103	0.877456	0.026399	0.022119	1.807887
B A T	2.360808	1.61144	0.285958	0.836648	0.005142	0.005692	1.483464
BOC Kenya	3.123616	0.56651	0.150707	0.931677	0.055754	0.012979	2.975987
Crown-Berger	4.112243	1.11399	0.066938	0.89216	0.01784	0.034694	1.715208
East A Cables	1.720851	1.67674	0.363286	0.79319	0.003019	0.006193	2.656429
East A Portland	1.9541	0.746972	0.235803	0.713293	0.06406	0.07172	1.432085
E ABL	1.078856	0.531724	0.081225	0.58709	0.168662	0.144916	1.507651
Sameer	4.076334	0.612325	0.09117	0.833939	0.238789	0.077309	0.976995
Limuru	2.631956	0.903311	0.202	0.904474	0.071684	0.033694	2.286005
Williamson	3.581474	1.629298	0.224603	0.871397	0.065802	0.271522	1.264188
kapchorua	4.327228	0.650648	0.195681	0.941255	0.031944	0.187437	2.485039
Eaagads	6.438134	1.100922	0.052354	0.9227	0.069872	0.091045	1.597635
Scan group	1.83203	1.069654	0.221639	0.946639	0.186203	0.137777	1.619229
Hutchings	1.19208	1.32956	0.023229	0.924888	0.002313	0.262693	0.819495
Uchumi	4.457944	1.20174	0.220952	0.933939	0.090534	0.221103	1.711566
Express	1.853158	1.80682	0.124939	0.620553	0.130211	0.215006	0.97828
City trust	1.603627	0.81405	0.096149	0.707747	0.016518	0.091941	1.102267
Olympia	1.396739	0.80924	0.085078	0.651293	0.13009	0.18615	1.043911
Centum	2.383471	0.82938	0.188103	0.877456	0.026399	0.124475	1.807887
Carbacid	2.360808	1.61144	0.285958	0.836648	0.005142	0.341918	1.483464
Mumias	1.9541	0.746972	0.235803	0.713293	0.06406	0.052665	1.432085
Unga	1.078856	0.531724	0.081225	0.58709	0.168662	0.942705	1.507651
Eveready	1.006454	0.914575	0.243782	0.904043	0.237552	0.939562	3.805666
Orchard	16.5386	0.965958	0.06548	0.965564	0.016787	0.832017	2.51981

Table of Year 2011

company	debt-to-equity	size	Performance	Firm growth	Effective tax	Tangibility	liquidity
Unilever	0.9721195	0.97212	0.12711	0.492176828	0.10570518	0.0826	1.36793
Kakuzi	0.898494783	0.737035	0.21389	0.450059069	0.15657079	0.01333	5.56784
Rea	0.565300892	1.156914	0.24383	0.316384018	0.10569183	0.263493	1.57894
Sasini	0.463909011	1.156914	0.36714	0.206723723	0.00237292	0.019164	4.21581
Car General	1.310527575	1.004092	0.32605	0.588185479	0.13469387	0.006841	1.34369
CMC	1.295686639	1.262648	0.19429	0.594400479	0.016193	0.06406	1.53317
KQ	2.571487985	1.260697	0.17731	1.420712866	0.41302332	0.168662	1.30942
Marshalls	1.26340834	1.128494	0.13369	0.560240833	0.13491643	0.238789	1.2171
N M G	0.657525084	1.502953	0.27152	0.482410063	0.13439776	0.071684	1.80693
Standard	2.553116482	1.483375	0.20744	0.799165854	0.35478837	0.071546	1.42549
TPS	0.843464202	0.840872	0.10105	0.557543033	0.04484992	0.10087	1.15177
Athi-River	1.568987513	0.961712	0.14778	0.693359182	0.02256735	0.049319	1.11938
Bamburi	0.396780769	1.167133	0.27269	0.413368726	0.23561776	0.21746	1.19919
B A T	1.256203909	1.801233	0.2311	0.626982545	0.21503442	0.235803	1.22662
BOC Kenya	0.394569	1.309439	0.23501	0.474073526	0.02763749	0.081225	2.68785
Crown-Berger	1.354839	1.264396	0.23005	0.919466	0.005557	0.09117	2.54552
East A Cables	0.901155742	1.569667	0.10194	0.582183091	0.04503352	0.221639	1.87491
East A Portland	2.5795542	1.297884	0.06264	0.836300482	0.20971573	0.102115	1.04019
E ABL	2.8015819	1.078649	0.18615	0.765647495	0.09951899	0.343082	1.55239
Sameer	1.4780564	0.716304	0.12448	0.59645713	0.02211863	0.04491	2.20893
Limuru	0.8157474	1.876828	0.15093	0.570640965	1.7608947	0.243782	2.20669
Williamson	4.085789	1.03445	0.07055	0.921518	0.209569	0.06548	0.87038
kapchorua	1.19208	1.32956	0.02322	0.924888	0.002313	0.103788	0.819495
Eaagads	4.457944	1.20174	0.22095	0.933939	0.090534	0.062547	1.711566
Scan group	1.853158	1.80682	0.12493	0.620553	0.130211	0.230059	0.97828
Hutchings	1.603627	0.81405	0.09614	0.707747	0.016518	0.120268	1.102267
Uchumi	1.396739	0.80924	0.08507	0.651293	0.13009	0.027929	1.043911
Express	2.383471	0.82938	0.18810	0.877456	0.026399	0.091371	1.807887
City trust	1.19208	1.32956	0.02322	0.924888	0.002313	0.205257	0.819495
Olympia	4.457944	1.20174	0.22095	0.933939	0.090534	0.321619	1.711566
Centum	1.853158	1.80682	0.124939	0.620553	0.130211	0.18055	0.97828
Carbacid	1.603627	0.81405	0.096149	0.707747	0.016518	0.5539	1.102267
Mumias	1.396739	0.80924	0.085078	0.651293	0.13009	0.279456	1.043911
Unga	2.383471	0.82938	0.188103	0.877456	0.026399	0.237552	1.807887
Eveready	2.360808	1.61144	0.285958	0.836648	0.005142	0.016787	1.483464
Orchard	1.9541	0.746972	0.235803	0.713293	0.06406	0.230958	1.432085
A.Bauman	1.078856	0.531724	0.081225	0.58709	0.168662	5.06E-06	1.507651
Kenol kobil	3.581474	1.629298	0.224603	0.871397	0.065802	0.005557	1.264188
Total	4.327228	0.650648	0.195681	0.941255	0.031944	0.013436	2.485039
Kengen	1.006454	0.914575	0.243782	0.904043	0.237552	0.548894	3.805666
kPLC	1.603627	0.81405	0.096149	0.707747	0.016518	0.259057	1.102267

APPENDIX II

LISTED COMPANIES AT THE NSE BY SECTOR

AGRICULTURAL

1. Ltd Eaagads Ltd
2. Kapchorua Tea Co. Ltd
3. Kakuzi
4. Limuru Tea Co. Ltd
5. Rea Vipingo Plantations Ltd
6. Sasini Ltd
7. Williamson Tea Kenya

COMMERCIAL AND SERVICES

1. Express Ltd
2. Kenya Airways Ltd
3. Nation Media Group
4. Standard Group Ltd
5. TPS Eastern Africa (Serena) Ltd
6. Scangroup Ltd
7. Uchumi Supermarket Ltd
8. Hutchings Biemer Ltd

TELECOMMUNICATION AND TECHNOLOGY

1. AccessKenya Group Ltd
2. Safaricom Ltd

AUTOMOBILES AND ACCESSORIES

1. Car and General (K) Ltd
2. CMC Holdings Ltd
3. Sameer Africa Ltd
4. Marshalls (E.A.) Ltd

BANKING

1. Barclays Bank Ltd
2. CFC Stanbic Holdings Ltd.
3. Diamond Trust Bank Kenya Ltd .
4. Housing Finance Co Ltd.
5. Kenya Commercial Bank Ltd
6. National Bank of Kenya Ltd.
7. NIC Bank Ltd 0rd
8. Standard Chartered Bank Ltd
9. Equity Bank Ltd
10. The Co-operative Bank of Kenya Ltd

INSURANCE

1. Jubilee Holdings Ltd
2. Kenya Re-Insurance Corporation Ltd
3. Pan Africa Insurance Holdings Ltd
4. CFC Insurance Holdings
5. British-American Investments Company (Kenya) Ltd.

INVESTMENT

1. City Trust Ltd
2. Olympia Capital Holdings ltd
3. Centum Investment Co Ltd
4. Trans-Century Ltd

MANUFACTURING AND ALLIED

1. B.O.C Kenya Ltd Ord
2. British American Tobacco Kenya Ltd
3. Carbacid Investments Ltd
4. East African Breweries Ltd
5. Mumias Sugar Co. Ltd
6. Unga Group Ltd
7. Eveready East Africa Ltd
8. Kenya Orchards Ltd
9. A. Baumann CO Ltd

CONSTRUCTION AND ALLIED

1. Athi River Mining
2. Bamburi cement ltd
3. Crown berger ltd
4. East African cables ltd
5. E .A. Portland cement limited

ENERGY AND PETROLEUM

1. KenolKobil Ltd
2. Total Kenya Ltd
3. KenGen Ltd
4. Kenya Power

APPENDIX III: LIST OF MBA PROJECTS ON CAPITAL STRUCTURE

Name	Title	Objective	Methodology	Findings
Kuria Ruth Wathera		To investigate the determinants of capital structures of companies quoted in NSE	Multiple regressive variables Dependent Variable-Leverage Independent Variable-Size-sales Profitability- EBIT Growth-equity/assets Non-debt that should depreciate/total assets Liquidity of the firm Dividend policy Firm risk Taxation	Profitability and assets are determinants of capital structure and perking order theory is particularly accepted among the limited companies.
Kamau James Ndirangu	The relationship between capital structure and financial performance of insurance companies in Kenya	To establish the relationship between capital structure and financial performance of insurance companies in Kenya.	Dependent Variable-Performance Independent Variable-Capital Structure. Debt/equity ratio ROE equity ROA assets Debt/Equity ratio	Corporate performance is a potential determinant of capacity structure Debt and equity ratio accounts for a small percentage of financial performances of all insurance companies.
Arimi Jesse Kumbuthu	The relationship between structure and financial performance. A study of firms listed under industrial and allied sector of NSE.	To establish the relationship between debt equity ratio and return on equity for industrial and allied sector (IAS) companies listed at NSE.	Y=a+bx Y=ROE X=debt to equity ratio. All other factors held constant.	There is a negative relationship between debt/equity ratio and ROE. The study confirms the peeking order theory that firms will use retentions first then debt and equity as the capital result.
Ondiek Beril	Relationship between capital structure and	To asses the relationship between capital structure and financial	Regressive model Dependent variable-capital structure debt/ratio	The level of tangible assets and above all company size are

	financial performance of firms listed at NSE	performance of firms listed at the NSE	Independent variable-long term debt Short term debt Profitability-ROE ROA	relevant specific determinants for listed companies making greater adjustments of actual debt towards optimal level of debt capital structure is influenced by tangibility of assets, size and profitability.
Kanyuru M.Mwangi	Relationship between capital structure and financial performance of firms listed at NSE.	1)Determine the relationship between capital structure and financial performance of firms listed at NSE.2) investigate capital structure dynamical of listed forms and their relative impact on firm financial performance.3)Investigate whether there is any financial performance relationship amongst listed firms with homogeneous capital structure	Correlation and regression Dependent variable-leverage Independent variable-financial performance variable. R-ROA E-ROE P-Price earning ratio C-capitalization ratio-fixed asset/total assets L-liquidity ratio I-Investment ratio-net implement asset and total asset	There is relationship between leverages return on equity ,return on asset liquidity and return on investment The relationship is negative As debt financing reduces firm performance increases.

Juma w John		The moderating influence of corporate government on the relationship between capital structure and the firm value of companies quoted at NSE	Model;tobin Q=f,(CG,Leverage,z;)...i Tobin Q=Firms value and capital structure OG-Corporate Governance -Board independence -Audit committee independence -Equity of block holders Leverage-debt/equity Zi-control variable log of total asset, stock return and ROA -Residual error term	The firm value has a positive relationship with correct governance, size of the firm, stock return and ROA where it has a negative relationship with leverage.
Limo Emily chepkrui	Relationship between corporate governance and capital structure for companies listed in the Nairobi Stock Exchange.	To investigate the relationship between the corporate governance & capital structure of companies listed at NSE.	<u>Independent variable</u> Corporate governance <u>Dependent variable</u> • Board size – number of members • Profitability • Size of the firm • Growth=equity/total assets • Tangibility of assets	Corporate governance has positive influence on a firms capital structure as exhibited from the results

Philip Makura Nyaata	Relationship between capital structure earnings growth and price earning ratio of firms	To determine the relationship between capital structure and the price earnings ratio and between earning growth and the said ratio	$YIJ=A_O+A_IX_{IJ}+A_2X_{2J}+e_j$ A_I and A_2 – are regression coefficients A_O is P/E when capital structure and earnings growth are zero. X_i capital structure X_2 earnings growth Dependent variable= Price/Earning Independent variable -capital structure -earning growth	P/earnings ratio is negatively correlated with earnings growth for companies. -there is no relationship between capital structure & the price earning ratios.

Mutuku Charles Muthama	An empirical analysis of macroeconomic influence on corporate capital structure of listed companies in Kenya.	To determine the magruture and direction ofthe relationship between capital structure of quoted companies and the micro economic factors (inflation GDP Growth rate, interest rate etc.)	Dependent variable- leverage=Debt/equity Independent variables Annual GDP growth Annual inflation rate Interest rate	Macro economic factors influence corporate capital structure in different ways eg.GDP Growth has positive influence on long term debt and a negative influence on total debt ratio and short term debt ratio. Inflation has a negative influence on the short term debts but has no influence on long term debts ratio and total debt ratio. Interest rate has a positive influence on the long term debt ratio and total debt ratio and a negative influence on the short term debt ratio.