

**THE RELATIONSHIP BETWEEN CAPITAL STRUCTURE AND STOCK
RETURNS OF FIRMS QUOTED IN THE NAIROBI SECURITIES EXCHANGE**

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DECLARATION

I, the undersigned, declare that this project is my original work and that it has not been presented in any other university or institution for academic purposes.

REG NO.: D61/60337/2013

Signature. Date.

This project has been submitted for examination with our approval as university supervisor.

Supervisor

Signature. Date.

DR LISHENGA

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I also acknowledge the companies quoted in the NSE who helped me with collection of data to enable me complete this project.

I also acknowledge the moral support offered by my family and friends whose patience and encouragement has seen me thru the whole process,

Above all I humbly give thanks to God for his gracious mercies and for blessing me with good health, clarity of mind and focused attention, may his name be glorified forever.

DEDICATION

This work is dedicated to my loving mother, Lilian Wangui Wainaina.

ABSTRACT

The study's objective was to determine the relationship between capital structure and stock returns of firms quoted in the Nairobi Securities Exchange. The researcher adopted an empirical research design. In this case, data was gathered relating to capital structure and stock returns of firms quoted in the Nairobi Securities Exchange over a three year period between 2011 and 2013. The target population for this study therefore comprised of all 50 presently listed companies in the Nairobi securities Exchange's main segment. However, banking and insurances companies were excluded from the study because their capital is regulated by Central Bank of Kenya and Insurance Regulatory Authority respectively. This study collected secondary data relating to stock returns and firm's capital structure of the listed companies at the Nairobi Stock Exchange for the period between 2011 and 2013. Secondary data was collected from the annual reports of the publicly listed companies. Data analysis method was based on Pearson correlation analysis and a multiple regression model conducted on Statistical Package for Social Sciences (SPSS) on the accounting based measures of firm's capital structure used in this study. Analysis of firm's stock return was performed using one year stock returns (Y) based on the market share prices, while capital structure was measured using the following variables: Leverage ratio ($X1 = \text{Total market Debt}/\text{market Equity}$); Firm size ($X2 = \text{natural log of sales}$); Cash generation capacity ($X3 = \text{Earnings before interest tax depreciation and amortization}$); Operating leverage ($X4 = \text{change in EBITDA divided by change in sales}$); Industry dummy variable ($X5$). Adjusted R Square value and Analysis of Variance (ANOVA) was used to test the significance of the model. The Pearson product-moment correlation coefficient (PPMCC or PCC) was used as a measure of the correlation (linear dependence) between stock price return as the dependent variable and other variables as the independent variables, giving a value between +1 and -1 inclusive for each tested variable. The researcher then presented the findings using appropriate pie-charts, graphs and tables. Research findings indicated that stock returns increase with increase in the company's leverage ratio of firms listed in the NSE and is consistence with the theoretical review. It can therefore be concluded that management of such firms should aim at maintaining high leverage ratio which will in turn drive an increase in stock returns which will be favorable for the firm's shareholders. Findings indicated that although the increase in firm size results in a decrease in stock returns, this relationship is not significant for publicly listed companies in the NSE. It can therefore be concluded that management of firms listed in the NSE should not be too concerned with the firm size as it is not significant in determining stock returns. Findings also indicated that firm profitability has no significant impact on stock returns for firms listed in the NSE. Findings further indicated that that an increase in operating leverage increases the firm's stock returns. It can therefore be concluded that management of firms listed in the NSE should target higher operating leverage in order to increase stock returns. The study recommended that on the effect of policy and decision making of the board with regard to stock returns, it is recommended that the board of directors of companies quoted in the NSE should set up policies that link firm performance to stock returns both in the short term and long term to further reinforce the executive alignment to stockholders' wealth maximization.

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ABBREVIATIONS

CBK	-	Central Bank of Kenya
CMA	-	Capital Markets Authority
FSD	-	Financial Sector Deepening
GDP	-	Gross Domestic Product
GoK	-	Government of Kenya
KES	-	Kenya Shillings
MM	-	Modigliani and Miller
NPV	-	Net Present Value
NSE	-	Nairobi Securities Exchange
WACC	-	Weighted Average Cost of Capital

CHAPTER ONE: INTRODUCTION

1.1 Background to the study

Capital structure of a firm is the mix of debt, equity and other sources of finance that management of a firm uses to finance its activities. Different firms use different proportion or mix. A firm may adopt to use all equity or all debt. All equity is preferred by investors as they are not given conditions on the type of investment and usage of funds from providers. All debt is preferred by investors in a country where debt interest is tax deductible. Decisions concerning the most optimal choice of financing sources is some of the most difficult financial decisions. The issue of the optimal capital structure (target capital structure), remains unsolved.

The study's objective therefore is to establish relationship between capital structure and stock returns of the companies quoted in Nairobi Securities Exchange and whether this relationship varies with the size of the firm and the industry in which the firm operates.

1.1.1 Capital Structure

Firms use a mix of debt and equity in various proportions in order to maximize the overall market value of the firm. When a firm is financed entirely by common stock then all the cash flow from investments belong to the stockholders. However when it issues both debt and equity securities, it undertakes to split up the cash flows into streams such that a relatively safe stream goes to the debt-holders whereas a more risky one goes to the stockholders. An adjustment towards target capital structure stems from the trade off theories of capital structure.

The theories on capital structure demonstrate the effect of capital gearing on WACC, the value of the business and shareholder's wealth. The traditional theory encourages companies to take on debt so as to reduce WACC, since at low levels of gearing the increased cost of equity is not important. At high levels of gearing the returns expected by both shareholders and lenders increases pushing WACC higher.

Specifically, due to high adverse selection costs firms prefer internal funds. The reasons why managers are reluctant to issue shares is because of the high issue costs, shares being issued at a discount during the period of the share issue and the uncertainty over the subscription of shares during an IPO and Rights issue. However, some investors prefer firms with lower debt content, since increased use of debt by a firm lowers the earnings available for equity shareholders and investors become apprehensive about their returns. In developing countries control on the prices in the security markets along with government directed credit programmes to preferred sectors could have a significant impact on corporate financing patterns.

1.1.2 Stock Return

In Kenya a developing country debt interest is tax deductible. The use of all debt to finance the operations of a firm will be advantage on one side as debt interest will be tax and on the other side the firm will be under the control of creditor in order to control their stake in the use of debt capital increases agency cost between shareholders and debt holders. Many researchers still disagree on factors that significantly affect firms capital structure, hence determination of optimal capital structure is a difficult task that go beyond many theories though many researchers

agree that the economic and institutional environment in which the firms operate significantly affect the capital structure of a firm (Owolabi and Inyang, 2013).

This is particularly so in the case of the Nairobi Securities Exchange (NSE) which comprises of companies grouped in the following ten sectors Agricultural Sector, Automobiles & Accessories, Banking, Commercial & Services, Construction & Allied Sector, Energy & Petroleum, Insurance, Investment, Manufacturing & Allied and Telecommunication & Technology. Consequently, an appropriate capital structure should be profitable to the firm to enable it meet its obligations when due, and should be flexible so as to adjust to various challenges in economic conditions. Moreover, shares prices are highly affected by the business fundamentals, which are either economic or political. These are factors that affect the share prices but are outside the share market itself. The many traders and investors in the market are at all times seeking to know the trend of the share prices, thus making the relationship between capital structure and stock returns of firms quoted in the Nairobi Securities Exchange a subject of interest.

1.1.3 Relationship between capital structure and stock returns

Capital structure is an amalgam of a firm's liabilities and equity. Capital structure and composition is a crucial aspect of business, and plays a vital role in firms' survival, performance, and growth (Voulgaris, Asteriou, & Agiomirgianakis, 2004). Firms choose different levels of financial leverage in their attempt to achieve an optimal capital structure, and capital structure policy involves a tradeoff between risk and return. An increase in debt intensifies the risk of a firm's earnings, which leads to a higher rate of return to investors. High risk tends to lower the stock's price, while a

high rate of return increases it, so the firm's capital structure policy determines its returns (Ahmad, Fida and Zakaria, 2013).

According to Ahmad et al. (2013) capital structure, stock returns, and their determinants have garnered considerable attention among researchers in financial management. Although many studies have examined the determinants of either capital structure or stock returns, few have investigated both. Some show that stock returns determines capital structure (Baker & Wurgler, 2002; Welch, 2004), while others argue the opposite: that capital structure determines stock returns (Bhandari, 1988). Some studies show that capital structure and stock returns affect each other simultaneously (Yang, Lee, Gu, & Lee, 2010).

1.1.4 Listed firms in the Nairobi Securities Exchange

The Nairobi Securities Exchange comprises approximately 55 listed companies with a daily trading volume of over USD 5 million and a total market capitalization of approximately USD 15 billion. These firms are categorized into the following market segments: Agricultural Sector; Automobiles and Accessories; Banking; Commercial and Services; Construction and Allied Sector; Energy and Petroleum; Insurance; Investment; Manufacturing and Allied; and, Telecommunication and Technology. Aside from equities, Government and corporate bonds are also traded on the Nairobi Securities Exchange. Automated bond trading started in November 2009 with the KES 25 billion KenGen bond. Average bond daily trading is USD 60m and trading hours are from 09:00 to 15:00. Delivery and settlement is done scripless via an electronic Central Depository System (CDS) which was installed in 2005. The daily

price movement for any security in a single trading session shall not be more than 10% except during major corporate announcements (Kestrel Capital, 2014).

In July 2011, the Nairobi Stock Exchange Limited, changed its name to the Nairobi Securities Exchange Limited. The change of name reflected the strategic plan of the Nairobi Securities Exchange to evolve into a full service securities exchange which supports trading, clearing and settlement of equities, debt, derivatives and other associated instruments. In the same year, the equity settlement cycle moved from the previous T+4 settlement cycle to the T+3 settlement cycle. This allowed investors who sell their shares, to get their money three (3) days after the sale of their shares. The buyers of these shares will have their CDS accounts credited with the shares, in the same time. In October 2011, the Broker Back Office commenced operations. The system has the capability to facilitate internet trading which improved the integrity of the Exchange trading systems and facilitates greater access to our securities market. In November 2011 the FTSE NSE Kenya 15 and FTSE NSE Kenya 25 Indices were launched. The launch of the indices was the result of an extensive market consultation process with local asset owners and fund managers and reflects the growing interest in new domestic investment and diversification opportunities in the East African region. As of March 2012, the Nairobi Securities Exchange became a member of the Financial Information Services Division (FISD) of the Software and Information Industry Association (SIIA) (<https://www.nse.co.ke/nse/history-of-organisation.html>).

1.2 Research Problem

Capital structure is arguably the core of modern corporate finance (Drobetz and Wanzenried, 2006). While Modigliani and Miller (1958) derived conditions under which capital structure is irrelevant for firm valuation, the subsequent theoretical literature has shown that a firm can influence its value and improve its future prospects by varying its optimal ratio between debt and equity. Fama and French (1992) argue that the two competing models of financing decisions are the trade off theory and the pecking order theory. The trade off theory model is whereby firms identify their optimal leverage by weighing the costs and benefits of an additional dollar of debt. The alternative model is the pecking order model of financing decisions which was developed by Myers (1984). However, literature provides conflicting assessments about how firms choose their capital structures, with the trade off, pecking order and market timing hypothesis all receiving some empirical support. For instance, Miller-Modigliani (1958) report evidence of a positive relationship between equity returns and leverage in selected industries. Evidence in the cross-section of all stocks is mixed: Bhandari (1988) report a positive relationship while empirical evidence reported by Korteweg (2004) and Masulis (1983) is negative. Fama and French (1992) find that market leverage is positively associated with returns, while book leverage is negatively related. Therefore, they argue that the difference between the two measures, book-to-market equity, helps to explain average returns. DeAngelo et al. (2006) explain that although high leverage mitigates agency problems, it also reduces financial flexibility because the utilization of the current borrowing capacity translates into less availability in the future.

Empirical studies also report mixed results in relation to firm's capital structure and stock returns. Musyoki (2012) undertook a study on changes in share prices as a

predictor of accounting earnings for financial firms listed in Nairobi Securities Exchange. Findings indicated that out of the eleven companies that were analyzed, all of them had positive change towards the accounting earnings in relation to the share price. Additionally, the relationship between accounting variables and the Nairobi Stock Exchange information indicated mixed results, with some companies showing a strong positive correlation and others weak correlation.

Mwangi, Anyango & Ameyia (2012) undertook a study on capital structure adjustment, speed of adjustment and optimal target leverage among firms quoted on the Nairobi Stock Exchange. Findings indicated that on average however, a typical firm closes about 5.3% of the gap between the current and the desired leverage within one year. At this rate it takes about 10 years to close half of the gap between a typical firm's current and the desired leverage ratios. The slow adjustment is consistent with the hypothesis that other considerations such as market timing or pecking order outweigh the costs of deviating from the optimal leverage.

Maniagi, Mwalati & Ondiek (2013) researched on capital structure and performance based on evidence from listed non-financial firms on Nairobi Securities Exchange (NSE) Kenya. Results showed that firms on NSE appear to use less debt in their capital structure making many firms to pay less interest. Thus not increasing the risks the firm may be exposed to as debt tend to reduce performance. Pecking order hypothesis takes preference. It therefore becomes especially worthwhile to investigate the firm-specific determinants since different outcomes are expected when comparing the static trade-off theory and the pecking-order theory with one and another. Moreover, previous studies do not fully determine the relationship between capital structure and stock returns, especially in the case of firms quoted in the Nairobi Securities Exchange. This study therefore aims at filling this research gap by

answering the following research question: what is the relationship between capital structure and stock returns of firms quoted in the Nairobi Securities Exchange?

1.3 Research Objective

The study's objective was to determine the relationship between capital structure and stock returns of firms quoted in the Nairobi Securities Exchange.

1.4 Value of Study

The study assists the management of companies quoted in the NSE to appreciate different capital structure mix and their impact on stock returns. Management will also have opportunity to review their respective firm's capital structure with an aim of increasing stock returns as well as overall investor return.

The study also assists Capital Markets Authority (CMA) and other government agencies in developing regulatory and legislative framework that will assist companies listed in the NSE in developing and adopting appropriate capital structure that maximizes stock returns and investor return on investment in Kenya.

In addition, the study is of importance to the academic community since it broadened the knowledge on capital structure and its relationship with stock returns of firms quoted in the Nairobi Securities Exchange. This provides a basis for future research.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter reviews theoretical literature on capital structure, section 2.2 presents the theoretical review of capital structure and sub sections 2.2.1 presents Modigliani and Miller Theory, 2.2.2 presents Static Trade off Theory, 2.2.3 presents Agency costs based Theory, 2.2.4 presents Asymmetric Information based Theory. Section 2.3 presents the determinants of stock returns under which sub sections 2.3.1 presents size of the firm, 2.3.2 presents leverage ratio, 2.3.3 presents the earnings before interest, tax, depreciation and amortization and 2.3.4 presents the operating leverage. Section 2.4 presents the empirical review of capital structure and stock return and section 2.5 is the summary of the literature review.

2.2 Theoretical Review of Capital Structure

Capital structure describes the proportionate relationship between debt and equity. While debt is majorly made up of long term loans such as debenture, equity includes paid up share capital, share premium, reserves, and surplus or retained earnings. Therefore, a company can finance its investments by debts and/or equity (Owolabi & Inyang, 2012). Capital structure has aroused intense debate in the financial management arena for nearly half-century. Since the seminal work of Modigliani and Miller (1958), the basic question of whether a unique combination of debt and equity capital maximizes the firm value, and if so, what factors could influence a firm's optimal capital structure have been the subject of frequent debate in the capital structure literature (Güven, Hakan & Güray, 2006).

Sidra, Bilal & Sumaira (2013) point out that capital structure theories help firm managers in understanding how this mix will have an impact on the value of the organization. Modigliani and Miller (1958) proposed *Capital Irrelevance Theory* by analyzing the affect of capital structure on firm's value and they made the base to think about the capital structure. They suggested that under perfect market an organization's value is not affected by its chosen capital structure. In other words, capital structure of the firm is not affected by selling debt or issuing stocks and cost of capital will remain constant.

2.2.1 Modigliani and Miller (MM) Theory

Xiaoyan (2008) writes that MM theory is regarded as the starting of modern theory of capital structure. Modigliani and Miller (1958) illustrates that under certain key assumptions, firm's value is unaffected by its capital structure. Capital market is assumed to be perfect in MM world, where insiders and outsiders have symmetric information; no transactions cost, bankruptcy cost or distortionary taxation exist; equity and debt choice becomes irrelevant and internal and external funds can be perfectly substituted. If these key assumptions are relaxed, capital structure may become relevant to the firm's value. So following research efforts have been contributed to relaxing the ideal assumptions and describing the consequences.

According to Chen (2003) in their landmark paper in 1958, Modigliani and Miller (MM) showed that if a company's investment policy was taken as given, then in a world of perfect markets (a world without taxes, perfect and credible disclosure of all information, and no transaction costs associated with raising money or going bankruptcy) the extent of debt in a company's capital structure would not affect the

firm's value. The perfect capital markets they assumed have attracted a wide variety of research of somewhat-less-than-perfect capital markets.

2.2.2 Static Trade-off Theory

Xiaoyan (2008) writes that in a static trade-off framework, the firm is viewed as setting a target debt-equity ratio and gradually moving towards it. Debt financing has one important advantage over equity: the interests that firm pays are tax-deductible while equity income is subject to corporate tax. But debt also increases financial risk that makes debt-financing choice not cheaper than equity. So, in a static trade-off consideration, managers regard the firm's debt-equity decision as a trade-off between interest tax shields of debt and the costs of financial distress. In particular, capital structure moves towards targets that reflect tax rates, assets type, business risk, profitability and bankruptcy costs. Actually, the firm is balancing the costs and benefits of borrowings, holding its assets and investment plans constant (Myers, 1984).

The general results of various work in this aspect of leverage choice is that if there are significant "leverage-related" costs, such as bankruptcy costs, agency costs of debt, and loss of non-debt tax shields, and if the income from equity is untaxed, then the marginal bondholder's tax rate will be less than the corporate rate and there will be a positive net tax advantage to corporate debt financing. The firm's optimal capital structure will involve the trade-off between the tax advantage of debt and various leverage-related costs (Xiaoyan, 2008).

Due to the distinctions in firm-specific characteristics, target leverage ratios will vary from company to company. Institutional differences, such as different financial

systems, tax rate and bankruptcy law etc, will also lead the target ratio to differ across countries. The trade-off theory predicts that safe firms, firms with more tangible assets and more taxable income to shield should have high debt ratios. While risky firms, firms with more intangible assets that the value will disappear in case of liquidation, ought to rely more on equity financing. In terms of profitability, trade-off theory predicts that more profitable firms should mean more debt-serving capacity and more taxable income to shield, therefore a higher debt ratio will be anticipated. Under trade-off theory, the firms with high growth opportunities should borrow less because it is more likely to lose value in financial distress (Xiaoyan, 2008).

2.2.3 Agency Costs Based Theory

The development of agency theory in the 1980s, coupled with detailed research into the extent and effects of bankruptcy costs, has led to the current mainstream view that corporations act as if there is a unique, optimal capital structure for individual firms that results from a trade-off between the tax benefits of increasing leverage and increasing agency and bankruptcy costs that higher debt entails (Chen, 2003).

Theory based on agency costs illustrates that firm's capital structure is determined by agency costs, which includes the costs for both debt and equity issue. The costs related to equity issue may include: i) the monitoring expenses of the principal (the equity holders); ii) the bonding expenses of the agent (the manager); iii) reduced welfare for principal due to the divergence of agent's decisions from those which maximize the welfare of the principal. Besides, debt issue increases the owner-manager's incentive to invest in high-risk projects that yield high returns to the owner-manager but increase the likelihood of failure that the debt holders have to

share if it is realized. If debt holders anticipate this, a higher premium will be required, which in turns increase the costs of debt. Then, the agency costs of debt include the opportunity costs caused by the impact of debt on the investment decisions of the firm; the monitoring and bond expenditures by both the bondholders and the owner-manager; and the costs associated with bankruptcy and reorganization. Since both equity and debt incur agency costs, the optimal debt-equity ratio involves a trade-off between the two types of cost (Xiaoyan, 2008).

Chen (2003) notes that although remaining as the mainstream theory of capital structure, the trade-off theory has failed to explain the observed corporate behaviour particularly witnessed with the stock market reaction to leverage-increasing and leverage-decreasing transactions, which consistently yields stock price increases and decreases, respectively.

2.2.4 Asymmetric Information Based Theory

Theories based on asymmetric information assumed that firm managers and insiders possess private information about the firm's characteristics of return stream or investment opportunities that are rarely known by outside investors. Leverage choice under this framework is either designed to mitigate the inefficiencies of investment decisions that are caused by information asymmetry (Myers and Majluf, 1984) or used as a signal to outside investors about the information of insiders (Ross, 1977). And the pecking order theory results from asymmetric information will also be discussed in this section.

Myers and Majluf (1984) draw attention to the use of debt to avoid the inefficiencies in a firm's investment decisions that would otherwise result from information

asymmetries. The nature of the asymmetric information in this case is that insiders (managers) know more about the companies' prospects, risks and values than do outside investors. Because this information asymmetry between investors and firm insiders, if firms need to finance the new projects by issuing equity, the equity may be under-priced by the market. This has the effect of also under-pricing new equity which is used to finance new investment projects. Since theory under asymmetric information assumes that managers act at the interests of existing shareholders. The managers may even forgo a positive-NPV project if it would require the issue of new equity, since this would give much of the project's value to new shareholders at the expense of the old.

The fact that firms prefer internal to external financing and debt to equity if they issue securities is known as the hypothesis of pecking order (Myers, 1984). As internal funds (retained earnings) incur no flotation costs and require no additional disclosure financial information about the firms' investment opportunities and their potential profits that managers don't want to be made public. If a firm must use external funds, the preference is to use the following order of financing sources: debt, convertible securities, preferred stock, and common stock. Since only common stocks hold the right in the management, this preference reflects managers' incentives to retain control of the firms and willingness to avoid the negative market reaction to an announcement of a new equity issue. Myers (1984) also presents an asymmetric information model to explain this financing hierarchy. Firms prefer to finance real investment by issue less risky securities, that is, bonds other than equity. In case of equity issuing, firms will fall into the dilemma of either passing up positive NPV projects or issuing stocks at a price they think is too low.

2.3 Determinants of Stock Return

Based on the different theories, a number of empirical studies have identified firm-level characteristics that affect the stock return of firms. Among these characteristics are the size of the firm, leverage, profitability (earnings before interest, tax, depreciation and amortization) and liquidity.

2.3.1 Size of the firm

According to the trade-off theory, larger firms, which are more diversified, have lower bankruptcy costs, and easier access to capital markets, obtain more debt. The pecking order theory, however, suggests that larger firms rely on internal sources of finance and, hence, do not choose debt or equity as their first option for financing.

Empirically, studies have found that larger firms borrow more in order to take maximum advantage of tax shields. Thus, firm size is expected to have a positive effect on leverage. Since smaller firms may suffer from earnings depression and information asymmetry, it involves more risk than larger firms, and investors demand more return on their stock (Gallizo & Salvador, 2006). Hence, firm size is expected to have a negative effect on stock returns.

2.3.2 Leverage

Theoretically, if a firm is highly leveraged, then the investor will demand a higher return on its stock due to the high risk of bankruptcy (Bhandari, 1988; Yang et al., 2010). Therefore, one would expect leverage to have a positive effect on stock returns. Moreover, according to the pecking order theory, if a firm's internal sources

are not enough to fund new projects; it will opt for debt financing. This shows that high-growth firms are highly leveraged because they can acquire more debt due to their need for greater financing. The trade-off theory hypothesizes that growth opportunities cannot be collateralized to acquire debt and that growing firms have enough resources to finance new activities. So, there is a negative relationship between growth and leverage. Empirical studies have also found that growth has positive and negative effects on leverage. Chen and Chen (2011) explain that a firm's growth causes variation in its value, and greater variation is associated with greater risk. This implies that growth positively affects stock returns.

2.3.3 Profitability (Earnings before Interest, Tax, Depreciation and Amortization)

The pecking order theory of capital structure implies that profitable firms will not opt for debt or equity financing because they have sufficient funds to finance their assets. However, the trade-off theory proposes a positive relationship between profitability and leverage. Intuitively, this suggests that higher-profit firms can, on the strength of their reputation, easily acquire debt and take maximum advantage of tax shields. Hovakimian, Opler, and Titman (2001) argue that there is no association between profitability and leverage because unprofitable firms also issue equity to offset the effect of excessive leverage. Empirically, a negative relationship emerges between firm profitability and leverage (Chen & Chen, 2011; Yang et al., 2010). Thus, we expect profitability to have a negative effect on leverage. Since higher-profit firms provide more return on their stocks, profitability should have a positive effect on stock returns.

2.3.4 Liquidity

The pecking order theory explains that retained earnings increase liquid assets; excess liquid assets are negatively associated with firm leverage. The trade-off theory suggests that firms with a high ratio of liquid assets should borrow more because they have the ability to meet their contractual obligations on time. This theory predicts a positive relationship between liquidity and leverage. Based on the empirical studies carried out, firms with high levels of liquid assets are likely to acquire less debt and rely on internally generated funds. Thus, liquidity should negatively affect leverage. While analyzing the effect of liquidity on stock returns, many empirical studies have found a negative relationship between liquidity and stock returns. Most theoretical and empirical studies have demonstrated that liquidity has a negative effect on stock returns since liquid stock involves less risk, so the return on liquid stock is low (Chen & Chen, 2011; Yang et al., 2010). Thus, there is a negative relationship between liquidity and stock returns.

2.4 Empirical Review of Capital Structure and Stock Return

Voulgaris, Asteriou and Agiomirgianakis (2004) indicate that capital structure and composition is a crucial aspect of business, and plays a vital role in firms' survival, performance, and growth. Firms choose different levels of financial leverage in their attempt to achieve an optimal capital structure, and capital structure policy involves a tradeoff between risk and return. An increase in debt intensifies the risk of a firm's earnings, which leads to a higher rate of return to investors. High risk tends to lower the stock's price, while a high rate of return increases it, so the firm's capital structure policy determines its returns.

While studying the impacts of stock return Gulnur and Sivaprasad (2010) pointed out that in his work in MM proposition II *The Abnormal Stock Returns and Leverage* by testing 2673 listed companies on London Stock Exchange. The findings indicate that leverage has negatively and significantly affect the stock returns and affect remain negative and significant even if other risk factors like tax rate and industry concentration were added.

By utilizing an additional examination of pure capital structure changes, Masulis (2013) shows that change in leverage is positively related to change in stock returns. He studies daily stock returns following exchange offers and re-capitalizations where recapitalizations occur at a single time. However, his work also contains limitations. His sample contains a group of all companies that have gone through pure capital structure changes, which might represent a certain risk class itself. Therefore, one must be careful in assuming that characteristics of firms in this sub-sample are representative of all firms.

Bhandari (2008) indirectly tests the second of MM's propositions by examining whether expected common stock returns are positively related to the ratio of debt in the cross-section of all firms without assuming various industry-defined risk classes. His results provide evidence that leverage has a significant positive effect on expected common stock returns. His returns are adjusted for inflation, whereas our abnormal returns are market-adjusted, but using interest rates as an explanatory variable to account for changes in the cost of capital in the time series.

Dimitrov and Jain (2005) measure the effect of leverage changes on stock returns as well as on earnings-based measures of performance. Their results reveal a negative correlation between debt-to-equity ratio and risk-adjusted stock returns. The authors

study how changes in levels of debt are negatively associated with contemporaneous and future-adjusted returns.

Miao (2005) develops an industry model of equilibrium between capital structure choices and production decisions made by firms facing idiosyncratic technological shocks. His results show that technology (i.e., productivity) is important in determining a firm's probability of survival and leverage ratio. His work also looks into understanding the theoretical impact of financing policies on firm turnover. Hull (1999) examines how stock value is influenced by changes in a firm's leverage relative to its industry leverage. He measures industry leverage in terms of the median leverage for a given industry.

Mackay (2005) investigate the importance of industry with regard to a firm's real and financial decisions. They find that industry-related factors other than industry fixed effects can partly explain the variation of financial structures amongst competitive industries. Hou (2006) examine the effect of industry concentration and average stock returns. After controlling for determinants such as size, book-to-market and momentum they find that firms in more competitive industries earn higher stock returns.

Penman (2007) investigated the book-to-price effect in expected stock returns and its relation to leverage. They divide the book to price value into an enterprise and a leverage component. These stand for the operational risk and financial risk. They show that the leverage component is negatively related to expected stock returns.

2.5 Summary

As mentioned in the literature reviewed (Xiaoyan, 2008; Myers, 1984), the static trade-off theory explains that a firm's decision for getting to their optimal capital structure is related to the trade-off between the tax advantage of debt and several leverage-related costs. This static trade-off theory has dominated thinking about capital structure for a long time, however it has some shortcomings. Perhaps the main shortcoming is that many large, financially sophisticated and highly profitable firms make little use of debt in their financing. This is in contrast with the static-trade-off theory which assumes that these firms use relatively most debt. The thinking behind it from the static trade-off theory is that these firms face little risk of going bankrupt and there are high tax advantages from the tax shield to be obtained. Literature also discusses some firm-specific determinants of capital structure where both the static trade-off theory and the pecking-order describe assumptions on the relationship between a determinant and leverage, which ultimately affect stock returns. For instance, Oolderink (2013) points out that these determinants are profitability, firm size and asset tangibility.

Empirical literature review reveals that although many studies have examined the determinants of either capital structure or stock returns, few have investigated both. Some show that stock returns determines capital structure (Baker and Wurgler, 2002; Welch, 2004), while others argue the opposite: that capital structure determines stock returns (Bhandari, 2008). Some studies show that capital structure and stock returns affect each other simultaneously (Yang, Lee, Gu, and Lee, 2010).

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

In this chapter the research methodology used in the study is described. Section 3.2 presents the research design, section 3.3 presents study's target population, section 3.4 presents data collection and section 3.5 presents the analysis procedure.

3.2 Research Design

The researcher adopted an empirical research design. This is a design in which data is gathered systematically over a period of time in order to answer a research question. The design is appropriate to describe and undertake comparative analysis of an event, situation, and a group of people, community or a population over a particular period of time (Chandran, 2004).

In this case, data was gathered relating to capital structure and stock returns of firms quoted in the Nairobi Securities Exchange over a three year period between 2011 and 2013.

3.3 Population

Mugenda & Mugenda (2003) define population as an entire group of individuals, events or objects having a common observable characteristic. The target population for this study therefore comprised of all 50 presently listed companies in the Nairobi securities Exchange's main segment.

However, banking and insurances companies were excluded from the study because their capital is regulated by Central Bank of Kenya and Insurance Regulatory Authority respectively.

3.4 Data Collection

This study collected secondary data relating to stock returns and firm's capital structure of the listed companies at the Nairobi Stock Exchange for the period between 2011 and 2013. Secondary data was collected from the annual reports of the publicly listed companies.

Specifically, the income statement, statement on change in equity, cash flow statement, statement of financial position and notes to the accounts were used to extract relevant data/information relating to the study's variables. Stock prices were obtained NSE data on daily stock prices.

3.5 Data Analysis

Data analysis method was based on Pearson correlation analysis and a multiple regression model conducted on Statistical Package for Social Sciences (SPSS) on the accounting based measures of firm's capital structure used in this study.

Analysis of firm's stock return was performed using one year stock returns (Y) based on the market share prices, while capital structure was measured using the following variables: Leverage ratio ($X_1 = \text{Total market Debt}/\text{market Equity}$); Firm size ($X_2 = \text{natural log of sales}$); Cash generation capacity ($X_3 = \text{Earnings before interest tax depreciation and amortization}$); Operating leverage ($X_4 = \text{change in EBITDA divided}$

by change in sales); Industry dummy variable (X_5). Therefore, the general form of the model was as follows:

$$Y = f(X_1, X_2, X_3, X_4, X_5)$$

Where:

Y = Stock returns (one-year) (capital gains and dividends)

X_1 = Total market Debt/market Equity (leverage ratio)

X_2 = Firm size (natural log of sales)

X_3 = Earnings before interest tax depreciation and amortization (this approximates cash generation capacity)

X_4 = change in EBITDA divided by change in sales (measure of operating leverage)

X_5 = Dummy variables (for industry)

Adjusted R Square value and Analysis of Variance (ANOVA) was used to test the significance of the model. The Pearson product-moment correlation coefficient (PPMCC or PCC) was used as a measure of the correlation (linear dependence) between stock price return as the dependent variable and other variables as the independent variables, giving a value between +1 and -1 inclusive for each tested variable. The researcher then presented the findings using appropriate pie-charts, graphs and tables.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter outlines the analysis and findings of collected secondary data relating to stock returns and firm's capital structure of the listed companies at the Nairobi Stock Exchange for the period between 2011 and 2013. Table 4.1 illustrates the study's percentage of representation of the listed companies in NSE's respective market segments as at 1st January 2013.

According to the table the study's overall percentage of representation was 53% which according to Mugenda and Mugenda (2003), a response rate of 50% is adequate for analysis and reporting. However, several companies were excluded from the study due to the following reason(s): (1) the company was not listed in the NSE as at 1st January 2011; (2) the company had made changes to the ending dates of its reporting financial year; (3) the company had not disclosed adequate financial data relating to the study's variables over the three year period (2011 - 2013). The share price was adjusted to reflect the impact of bonus shares issued for the period 1 January 2011 and 31 December 2013 have prior to their being awarded to avert distortion of annual share price returns.

Table 4.1: Study’s Percentage of Representation

Segment	Representation	Population	Percentage
Agricultural	3	7	43%
Commercial and Services	4	9	44%
Automobiles and Accessories	3	4	75%
Manufacturing and Allied	3	9	33%
Construction and Allied	5	5	100%
Energy and Petroleum	3	4	75%
Total	21	40	53%

Source: Nairobi Securities Exchange (2013)

4.2 Regression Analysis

In this study, the “simultaneous” method (which SPSS calls the Enter method) was used whereby the researcher specified the set of predictor variables that made up the model. The success of this model in predicting the criterion variable was then assessed. Table 4.2 indicates that all the requested variables were entered.

Table 4.2: Variables Entered/Removed

Variables Entered	Variables Removed	Method
X1, X2, X3, X4, X5.	.-	Enter

a. All requested variables entered.

b. Dependent Variable: Y

Table 4.3 illustrates the model summary used in this study and indicates the adjusted R Square value which gives the most useful measure of the success of the model, hence from the table it is evident that the model had accounted for 24.7% of the variance in stock returns (criterion variable).

Table 4.3: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
.552	.305	.247	188260.1462	.305	5.269	8	96	.000

a. Predictors: (Constant), X1, X2, X3, X4, X5

Table 4.4 illustrates the Analysis of Variance (ANOVA) which assesses the overall significance of the model. According to the table $p < 0.05$ indicating that we have sufficient evidence that the model is useful in explaining the stock returns.

Table 4.4: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	1493897451731.904	8	186737181466.488	5.269	.000
Residual	3402420733852.994	96	35441882644.302		
Total	4896318185584.900	104			

a. Predictors: (Constant), X1, X2, X3, X4, X5

b. Dependent Variable: Y

Table 4.5 illustrates the coefficients which give a measure of the contribution of each variable to the study's model. According to the table leverage ratio (X1) explained more to the stock returns (Beta = 0.407) and is significant at 95% confidence level. This implied that stock returns increase with increase in the company's leverage ratio and is consistent with the theoretical review, whereby theoretically, if a firm is highly leveraged, then the investor will demand a higher return on its stock due to the high risk of bankruptcy (Bhandari, 1988; Yang et al., 2010). Therefore, one would expect leverage to have a positive effect on stock returns.

The firm's size (X2), negatively impacted on stock returns (Beta = -0.131) but is not significant at 95% confidence level. This implies that although the increase in firm size results in a decrease in stock returns, this relationship is not significant for publicly listed companies in the NSE. The finding is not consistent with theory whereby according to the trade-off theory, larger firms, which are more diversified, have lower bankruptcy costs, and easier access to capital markets, obtain more debt. The pecking order theory, however, suggests that larger firms rely on internal sources of finance and, hence, do not choose debt or equity as their first option for financing.

The firm's profitability (X3), positively impacted on stock returns (Beta = 0.159) but is not significant at 95% confidence level. Therefore, firm profitability has no significant impact on stock returns for firms listed in the NSE. This finding is consistent with the study's empirical literature, whereby empirically, a negative relationship emerges between firm profitability and leverage (Chen & Chen, 2011; Yang et al., 2010). Thus, it is expected profitability to have a negative effect on leverage. Since higher-profit firms provide more return on their stocks, profitability should have a positive effect on stock returns.

Moreover, operating leverage (X4), has positive impact on stock returns (Beta = 0.193) and is significant at 95% of confidence level. This implies that an increase in operating leverage increases the firm's stock returns. The finding is consistent with the trade-off theory which suggests that firms with a high ratio of liquid assets should borrow more because they have the ability to meet their contractual obligations on time. This theory predicts a positive relationship between liquidity and leverage.

Table 4.5 also indicates the correlation between the predictor variables. Generally, the closer to zero the tolerance value is for a variable, the stronger the relationship

between this and the other predictor variables. According to the table, the tolerance values were acceptable with firm's profitability (X3) exhibiting the strongest relationship at 0.484. An alternative approach to establish the multi-collinearity of the variables is to review the variance inflation factor (VIF). This shows how much of the variance of the coefficient estimate is being inflated by multi-collinearity. As a rule of thumb VIF of 10 and above indicate high correlation of the variables. VIF values for the variables as depicted in table 4.5 are all lower than 2.

Table 4.5: Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-366950.102	238482.110		-1.539	.127		
X1	359797.998	79128.498	.407	4.547	.000	.903	1.108
X2	-43720.490	36844.853	-.131	-1.187	.238	.591	1.693
X3	20823.871	15982.797	.159	1.303	.196	.484	2.000
X4	109544.206	51455.623	.193	2.129	.036	.880	1.137
DV	22546.095	11561.276	.175	1.950	.054	.897	1.115

a. Dependent Variable: Y

Table 4.6 illustrates the Pearson's correlation between the predictor variables. According to the table, there was strong positive relationship between stock returns (Y) and percentage of management share ownership (X1). There was weak positive relationship between stock returns and firm's profitability (X3) and company's market segment (industry) at 0.24 and 0.25 respectively. There was no or negligible relationship between stock returns (Y) and the rest of the variables under study. The correlation coefficient of the different pair of variables are at acceptable level further diminishing the concern for multi-collinearity and its effect on the model .

Table 4.6: Pearson's Correlation

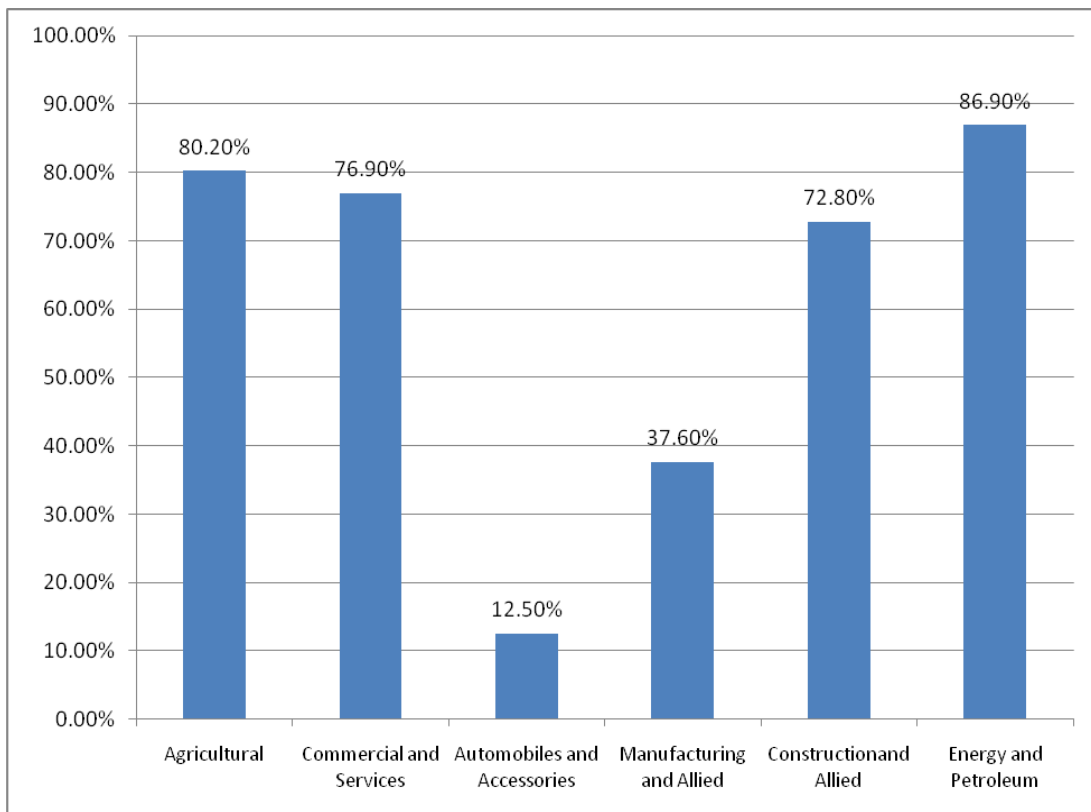
	Execom	EBITDA	OL	FS	DE	GR	SPR	MSO	DV
Execom	1.000	.179	.063	.240	.003	.160	.143	.402	.250
X1	.402	-.025	-.075	.028	.126	-.059	-.077	1.000	.184
X2	.003	.048	-.028	.359	1.000	.553	-.291	.126	.148
X3	.240	.324	.072	1.000	.359	.709	-.041	.028	.151
X4	.143	-.063	-.084	-.041	-.291	-.118	1.000	-.077	-.173
DV	.250	.100	.011	.151	.148	.212	-.173	.184	1.000

4.3 Industry Analysis

The study's objectives were to establish relationship between the stock returns and capital structure of the companies listed in Nairobi Securities Exchange; and to determine whether the relationship between stock returns and capital structure differ from industry to industry and among firms of different sizes. Consequently, the researcher undertook industry analysis with an aim of illustrating the relationship between stock returns and capital structure differ from industry to industry and among firms of different sizes.

Figure 4.1 illustrates the industry (market segment) model summary used in this study and indicates the adjusted R Square value which gives the most useful measure of the success of the model. According to the figure the model had accounted for 87% of the variance in stock returns (criterion variable) in publicly listed companies within NSE's Energy and Petroleum market segment. It accounted for 80%, 77%, 13%, 38%, and 73% of the variance in stock returns in publicly listed companies within NSE's Agricultural, Commercial and Services, Automobiles and Accessories, Manufacturing and Allied, and Construction and Allied market segments respectively.

Figure 4.1: Industry (market segment) Model Summary



4.4 Discussion

Research findings indicated that the model summary used in this study had accounted for 24.7% of the variance in stock returns (criterion variable). This therefore implies that 75.3% of the variance in stock returns of companies listed in the NSE is accounted for by other factors not considered in the study's model. Moreover, some studies show that stock returns determine capital structure (Baker and Wurgler, 2002; Welch, 2004), while others argue the opposite: that capital structure determines stock returns (Bhandari, 2008). Some studies show that capital structure and stock returns affect each other simultaneously (Yang, Lee, Gu, and Lee, 2010).

Findings indicated that leverage ratio explained more to the stock returns which implied that stock returns increase with increase in the company's leverage ratio and is consistent with the theoretical review, whereby theoretically, if a firm is highly leveraged, then the investor will demand a higher return on its stock due to the high risk of bankruptcy (Bhandari, 1988; Yang et al., 2010). The firm's size negatively impacted on stock returns which imply that although the increase in firm size results in a decrease in stock returns, this relationship is not significant for publicly listed companies in the NSE. Firm's profitability positively impacted on stock returns but had no significant impact on stock returns for firms listed in the NSE. Moreover, operating leverage has positive impact on stock returns which implies that an increase in operating leverage increases the firm's stock returns.

These findings therefore, indicate that leverage ratio and operating leverage had a positive and significant relationship with stock returns of companies listed in the NSE. This is in line with Masulis (2013) who by utilizing an additional examination of pure capital structure changes, shows that change in leverage is positively related to change in stock returns. Consequently, companies listed in the NSE can significantly increase their stock returns by increasing the leverage ratio and operating leverage.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary and Conclusions

The study's research findings indicate that stock returns increase with increase in the company's leverage ratio of firms listed in the NSE and is consistent with the theoretical review. It can therefore be concluded that management of such firms should aim at maintaining high leverage ratio which will in turn drive an increase in stock returns which will be favorable for the firm's shareholders.

Findings indicated that the firm's size negatively impacted on stock returns but is not significant at 95% confidence level. This implies that although the increase in firm size results in a decrease in stock returns, this relationship is not significant for publicly listed companies in the NSE. It can therefore be concluded that management of firms listed in the NSE should not be too concerned with the firm size as it is not significant in determining stock returns.

Findings also indicated that the firm's profitability positively impacted on stock returns but is not significant at 95% confidence level. Therefore, firm profitability has no significant impact on stock returns for firms listed in the NSE. However, due to the significance of profitability to investors and other stakeholders in the NSE, it may be concluded that management of firms listed in the NSE should target higher profits and adopt an appropriate dividend policy which could in turn influence the firm's stock returns depending on investor reaction and perceptions of the firm's performance and adequacy of dividend payout.

Findings further indicated that operating leverage has positive impact on stock returns and is significant at 95% of confidence level. This implies that an increase in operating leverage increases the firm's stock returns. It can therefore be concluded that management of firms listed in the NSE should target higher operating leverage in order to increase stock returns.

5.2 Recommendations

In line with the findings and conclusions of the study the following were recommended:

On the effect of policy and decision making of the board with regard to stock returns, it is recommended that the board of directors of companies quoted in the NSE should set up policies that link firm performance to stock returns both in the short term and long term to further reinforce the executive alignment to stockholders' wealth maximization. To this end board of directors should consider policies that directly target the firms overall leverage ratio and operating leverage which are both significant in positively impacting on stock returns.

Management of firms listed in the NSE and CMA should consider putting in place policies that enhance firm's disclosure and corporate governance with an aim of providing further information and confidence to the investors in the NSE. Further the two should establish policies and guidelines of regulating excessive speculation in relation to the firm's share price which may distort the real value of the company and wealth generation to shareholders in the long term.

5.3 Suggestions for Further Study

A study on factors that the executive and the board of director consider when deciding on the form of financing of major projects should be undertaken to further help explain why debt financing is commonly used by firms quoted in the NSE. In addition, a research study is recommended to establish the relationship between capital structure and long term share price returns. This is particularly important to help in establishing policies and guidelines for determining firm's capital structure that would avert emphasizing on short term gains at the expense of higher long term shareholders' value maximization.

5.4 Limitations of the Study

Limited financial resources restricted the period of the study to only three years. A study covering a longer period would result in more reliable results. Old annual accounts for significant number of listed firms in the NSE could not be retrieved or be obtained, further limiting the period of the study.

Moreover, the study was limited by failure of some of the firms listed in the NSE to disclose some of the required data for the study. Such firms were dropped from the selected sample and this may have impacted the results of the study.

REFERENCES

- Al-Sakran, S. A. (2001). Leverage determinants in the absence of corporate tax system: The case of non-financial publicly traded corporations in Saudi Arabia. *Managerial Finance*, 27(10/11): 58–86.
- Baker, M., & Wurgler, J. (2002). Market timing and capital structure. *Journal of Finance*, 57(1), 1–32.
- Booth L, (2001). Capital structures in developing countries. *J Finance* 56(1):87 – 130.
- Bradley M, (1984). On the existence of an optimal capital structure. *J Finance* 39(3):857– 78.
- Bhandari, L. C. (2008). Debt/Equity Ratio and Expected Common Stock Returns: Empirical Evidence. *Journal of Finance* XLIII 507-528.
- Castanias, R. (1983). Bankruptcy risk and optimal capital structure. *The Journal of Finance*, 38: 1617–35.
- Chandran, E. (2004). *Research methods: a quantitative approach with illustrations from Christian ministries*. Nairobi: Daystar University.
- Chen, J. J. (2003). Determinants of capital structure of Chinese-listed companies. *Journal of Business Research*, Vol.57, 1341-1351
- Dimitrov, V. and Jain, P. C. (2005). *The Value Relevance of Changes in Financial Leverage* <http://ssrn.com/abstract=708281>
- Esperança, J. P. (2003). Corporate debt policy of small firms: An empirical (re)examination. *Journal of Small Business and Enterprise Development*, 10(1): 62–80.

- Fama, E. F. & French, K. R., (1992). Testing Trade-Off and Pecking Order Predictions About Dividends and Debt. *Review of Financial Studies*, 15(1), pp. 1-33.
- Graham, J. R. (1999). Do personal taxes affect corporate financing decisions? *Journal of Public Economics*, 73: 41–73.
- Green, C. J., V. Murinde, and J. Suppakitjarak. (2002). Corporate Financial Structure in India. *Economic Research Paper No. 02/4*. Centre for International, Financial and Economics Research, Department of Economics, Loughborough University, Loughborough.
- Green, C. J., P. Kimuyu, R. Manos and V. Murinde. (2002). How Do Small Firms in Developing Countries Raise Capital? Evidence from a Large-Scale Survey of Kenyan Micro and Small Scale Enterprises. *Economic Research Paper No. 02/6*. Centre for International, Financial and Economics Research, Department of Economics, Loughborough University.
- Graham, J. R. & Leary, M. T., (2011). A Review of Empirical Capital Structure Research and Directions for the Future. *Annual Review of Financial Economics*, Volume 3.
- Hall, G. C. (2004). Determinants of the capital structures of European SMEs. *Journal of Business Finance and Accounting*, 31(5/6): 711–28.
- Harris, M. & Raviv, A., (1991). The Theory of Capital Structure. *The Journal of finance*, 46(1), pp. 297-355.

- Heshmati, A. (2001). The dynamics of capital structure: Evidence from Swedish micro and small firms. *Research in Banking and Finance*, 2: 199–241.
- Hou, K. (2006). Industry Concentration and Average Stock Returns. *Journal of Finance* 61(4) 1927-1956.
- Hull, R. M. (1999). Leverage ratios, Industry norms, and Stock Price reaction: An Empirical Investigation of Stock-for –Debt Transactions. *Financial Management* 25 (2) 32-45.
- Mackay, P. (2005). How does Industry Affect Firm Financial Structure? *Review of Financial Studies* 18 1433-1466.
- Masulis, R. W. (2013). The Impact of Capital Structure Change on Firm Value: Some Estimates. *The Journal of Finance* 38 (1) 107-126.
- MacKie-Mason, J. K. (1990). Do taxes affect corporate financing decisions? *The Journal of Finance*, 45: 1471–93.
- Miao, J. (2005). Optimal Capital Structure and Industry Dynamics. *Journal of Finance* LX 6 2621-2659.
- Modigliani, F. & Miller, M. H., (1958). The cost of capital, corporation finance and the theory of investment. *American Economic Review*, Volume 48, pp. 261-297.
- Mugenda, O. M. & Mugenda, A. G. (2003). *Research methods: quantitative and qualitative approaches*. Nairobi: Acts press.

- Murinde, V., J. (2004). Patterns of corporate financing and financial system convergence in Europe. *Review of International Economics*, 12(4): 693–705.
- Myers, S. C., (1984). The Capital Structure Puzzle. *The Journal of Finance*, 39(3), pp. 575-592.
- Myers, S. C. & Majluf, N. S., (1984). Corporate Financing and Investment Decisions when Firms Have Information That Investors Do Not Have. *Journal of Financial Economics*, Volume 13, pp. 187-221.
- Oolderink, P. (2013). Determinants of capital structure: Static trade-off theory vs. Pecking-order theory - Evidence from Dutch listed firms. *IstIBA Bachelor Thesis*, University of Twente, The Netherlands
- Penman, S. H. (2007). *The Book-to-Price Effect in Stock Returns: Accounting for Leverage*.
- Petersen, M.A. and R.G. Rajan. (1994). The benefits of lending relationships: Evidence from small business data. *The Journal of Finance*, 49(1): 3–38.
- Titman, S. & Wessels, R., (1988). The Determinants of Capital Structure Choice. *The Journal of Finance*, 43(1), pp. 1-19.
- Welch, I. (2004). Capital structure and stock returns. *Journal of Political Economy*, 112(1), 106–132.
- Yang, C.-C., Lee, C.-F., Gu, Y.-X., & Lee, Y.-W. (2010). Co-determination of capital structure and stock returns – A LISREL approach: An empirical test of

Taiwan stock markets. *Quarterly Review of Economics and Finance*,
50(2), 222–233.

APPENDICES

LISTED COMPANIES AT THE NAIROBI SECURITIES

EXCHANGE

AGRICULTURAL

1. Eaagads Ltd Ord 1.25
2. Kapchorua Tea Co. Ltd Ord Ord 5.00
3. Kakuzi Ord.5.00
4. Limuru Tea Co. Ltd Ord 20.00
5. Rea Vipingo Plantations Ltd Ord 5.00
6. Sasini Ltd Ord 1.00
7. Williamson Tea Kenya Ltd Ord 5.00

COMMERCIAL AND SERVICES

1. Express Ltd Ord 5.00
2. Kenya Airways Ltd Ord 5.00
3. Nation Media Group Ord. 2.50
4. Standard Group Ltd Ord 5.00
5. TPS Eastern Africa (Serena) Ltd Ord 1.00
6. Scangroup Ltd Ord 1.00
7. Uchumi Supermarket Ltd Ord 5.00
8. Hutchings Biemer Ltd Ord 5.00
9. Longhorn Kenya Ltd

TELECOMMUNICATION AND TECHNOLOGY

1. AccessKenya Group Ltd Ord. 1.00
2. Safaricom Ltd Ord 0.05

AUTOMOBILES AND ACCESSORIES

1. Car and General (K) Ltd Ord 5.00
2. CMC Holdings Ltd Ord 0.50
3. Sameer Africa Ltd Ord 5.00
4. Marshalls (E.A.) Ltd Ord 5.00

BANKING

1. Barclays Bank Ltd Ord 2.00
2. CFC Stanbic Holdings Ltd ord.5.00
3. Diamond Trust Bank Kenya Ltd Ord 4.00
4. Housing Finance Co Ltd Ord 5.00
5. Kenya Commercial Bank Ltd Ord 1.00
6. National Bank of Kenya Ltd Ord 5.00
7. NIC Bank Ltd Ord 5.00
8. Standard Chartered Bank Ltd Ord 5.00
9. Equity Bank Ltd Ord 0.50
10. The Co-operative Bank of Kenya Ltd Ord 1.00

INSURANCE

1. Jubilee Holdings Ltd Ord 5.00
2. Pan Africa Insurance Holdings Ltd Ord 5.00
3. Kenya Re-Insurance Corporation Ltd Ord 2.50

4. CFC Insurance Holdings
5. British-American Investments Company (Kenya) Ltd Ord 0.10

INVESTMENT

1. City Trust Ltd Ord 5.00
2. Olympia Capital Holdings ltd Ord 5.00
3. Centum Investment Co Ltd Ord 0.50
4. Trans-Century Ltd

MANUFACTURING AND ALLIED

1. B.O.C Kenya Ltd Ord 5.00
2. British American Tobacco Kenya Ltd Ord 10.00
3. Carbacid Investments Ltd Ord 5.00
4. East African Breweries Ltd Ord 2.00
5. Mumias Sugar Co. Ltd Ord 2.00
6. Unga Group Ltd Ord 5.00
7. Eveready East Africa Ltd Ord.1.00
8. Kenya Orchards Ltd Ord 5.00
9. A.Baumann CO Ltd Ord 5.00

Source: *Nairobi Securities Exchange (2014)*