

**RELATIONSHIP BETWEEN CAPITAL STRUCTURE AND FINANCIAL
PERFORMANCE OF FIRMS LISTED AT THE NAIROBI STOCK EXCHANGE.**

BY

BERYL ONDIEK

**A Research Project Submitted In Partial Fulfillment of the Requirements for the
Award of Masters in Business Administration (MBA) Degree, School Of Business,
University of Nairobi.**

October, 2010

DECLARATION

I, **Beryl Ondiek**, hereby certify that this project is my original work and has not been submitted for an award for a degree in any university.

Signed.....

Date.....

BERYL ONDIEK

D61/73303/2009

This project has been presented for examination with my approval as the University supervisor.

Signed.....

Date.....

MRS. ANGELA KITHINJI

Lecturer, Department of Finance and Accounting

School of Business.

University of Nairobi.

DEDICATION

This project is dedicated to my loving parents – my father Stephen and mother Concilia and to my brothers James, Paul, Bob, Steve and Solomon, sisters Nicola, Vivian, Lilian and Pauline and friends Daisy, Judy, Cynthia, Wintertone, Ruth, Sheila, Eva for their support, encouragement and prayers.

And to God Almighty, who brought all these people my way for this purpose and has seen me through it.

ACKNOWLEDGEMENT

I am greatly indebted to a number of people without whom this project work would not have been completed. I would like to extend my gratitude.

To my supervisor Mrs. Kithinji, I would like to express my thanks for the wise counsel and expertise provided, comments, guidance on the development provided throughout this research project.

To my family and friends for constant support and love during the period of my study.

My heartfelt thanks to everyone who played any part in this study.

ABBREVIATIONS

NSE – Nairobi Stock Exchange

ROE – Return on Equity

BR – Business Risk

MTB- Market to Book Ratio

ABSTRACT

The capital structure of a firm is basically the mix of debt and equity which a firm deems as appropriate to enhance its operations in the midst of several constraints it poses. Important theories have been advanced to explain capital structure decisions.

The trade-off theories of corporate financing are built around the concept of target capital structure that balances various costs and benefits of debt and equity.

The government of Kenya will be enlightened in a bid to make policies relating to capital structure. Through knowledge of the effect of capital structure on the performance of the firms, the study will assist finance managers of the quoted companies in ascertaining the appropriate amount of tax to pay for dividends paid out and their effects on performance of the firm. Investors who may need to know the relationship between capital structure policy and performance of the firm 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 subject.

Managers of Small and Medium Enterprises will also find this study invaluable as they will be able to use the findings to enable them understand the determinants of capital structure.

Since the actively trading firms in Kenya are exposed to a high degree of systematic risk, it is recommended that the firms' management take into account the factors that follow:

Changes in debt financing have to take into account the implied effects on firm's systematic risk. The increases (or decreases) in short-term (or long-term) debt that lower systematic risk is a desirable change. This will support the firm's claim for future equity financing.

TABLE OF CONTENTS

Declaration	i
Dedication	ii
Acknowledgement.....	iii
Abbreviations.....	iv
Table of Contents.....	v
List of Tables.....	vii

CHAPTER ONE

INTRODUCTION

1.1 Background of the study.....	1
1.1.1 The Nairobi Stock Exchange Market.....	2
1.2 Statement of the Problem.....	3
1.3 Objectives of the Study.....	4
1.4 Significance of the Study.....	4

CHAPTER TWO

LITERATURE REVIEW

2.1 Capital Structure.....	6
2.2 Theories of Capital Structure.....	9
2.2.1 Agency Theory.....	9
2.2.2 Pecking Order Theory.....	10
2.2.3 Trade- Off Theory.....	10
2.2.4 Bankruptcy Cost Theory.....	11
2.3 Firm Level Characteristics.....	12
2.4 Capital Structure and Ownership structure.....	14
2.5 Capital Structure and Financial Performance	16
2.5.1 Tests of the agency costs hypothesis	17

2.5.2 Profit Efficiency	18
2.5.3 Efficiency- Risk Hypothesis and the Franchise- Value Hypothesis	18
2.6 Measures of Firm Performance.....	19
2.7 Empirical Studies.....	20
2.8 Conclusion of Literature Review	23

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction.....	24
3.2 Research Design	24
3.3 Population and Sample.....	24
3.4 Data Collection Procedure.....	24
3.5 Data Analysis.....	25

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction	26
4.2 Descriptive Statistics of the Variables.....	27
4.3 Regression Model	28

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings and Conclusions.....	31
5.2 Recommendations	33
5.3 Limitations of the Study.....	34
5.4 Suggestion for Further Research	34

REFERENCES.....	35
------------------------	-----------

APPENDICES.....	38
------------------------	-----------

Appendix of Nairobi Stock Exchange Handbook (2008)

LIST OF TABLES

Table 1- Summary of the Descriptive Statistics of the Variable.....	27
Table 2 – Regression Model Results	page 28

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The capital structure of a firm is basically the mix of debt and equity which a firm deems as appropriate to enhance its operations in the midst of several constraints it poses. Berger and Bonaccorsi di Patti (2006) have noted that high leverage or low equity/assets ratio reduces agency cost of outside equity and thus increases firm value by compelling managers to act more in the interest of shareholders. Important theories have been advanced to explain capital structure decisions. The trade-off theories of corporate financing are built around the concept of target capital structure that balances various costs and benefits of debt and equity.

An economic intuition indicates that, economy's business cycle phase should be an important determinant of capital structure decisions. Studies conducted by Bebczuk (2000) have indicated that credit markets are markedly segmented in Argentina and that the volatility of the environment and external shocks affects firm's capital structure decisions.

It could also be argued that if a firm's cash flow and value is sensitive to exchange rate fluctuations, then the firm may have to issue some of its debt in foreign currencies and also ascertain in which currency its cash flow will be denominated.

Financial Performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. Measuring the results of a firm policies and operations in monetary terms. These results are reflected in the firm's return on investment, return on assets, value added return, etc.

1.1.1 The Nairobi Stock Exchange Market

The Nairobi Stock Exchange which was formed in 1954 as a voluntary organization of stock brokers is now one of the most active capital markets in Africa. The administration of the Nairobi Stock 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 (NSE, 2007).

The Nairobi Stock Exchange is at present made up of 20 stock broking firms but currently 3 stock broking firms are under statutory management. The members of the Nairobi Stock Exchange transact business mainly within Nairobi Stock Market, with a limited proportion of business conducted in foreign securities through overseas agents. The stockbrokers act as financial advisers to their clients and carry out their orders. The Nairobi Stock Exchange deals in both variable income securities and fixed income securities (NSE, 2007).

As of December 2009, 52 companies and 67 government bonds were listed at the NSE. 48 companies have floated over 5.1 billion shares valued at over Kshs 300 billion. The remaining 4 companies have listed bonds worth Kshs 8.7 billion. (The NSE Hand book 2004 -2005). The stock market consists of both the primary and secondary markets. In the primary or new issue market.

1.2 Statement of the Problem

The capital structure decision is crucial for any business organization. The decision is important because of the need to maximize returns to various organizational constituencies, and also because of the impact such a decision has on a firm's ability to deal with its competitive environment. The capital structure of a firm is actually a mix of different securities. In general, a firm can choose among many alternative capital structures. It can issue a large amount of debt or very little debt. It can arrange lease financing, use warrants, issue convertible bonds, sign forward contracts or trade bond swaps. It can issue dozens of distinct securities in countless combinations; however, it attempts to find the particular combination that maximizes its overall market value.

Controversial evidence on the relation between capital structure and performance (Harris and Raviv, 1991) and the ambiguous results that have emerged regarding the existence of a relation of optimal debt are thus connected to the necessity to take the specific structure of corporate governance into consideration. The causal model represents a complex phenomenon that nevertheless could stimulate a promising thread of future research.

The relation between capital structure and corporate governance becomes extremely important when considering its fundamental role in performance generation and distribution. Through its interaction with other instruments of corporate governance, firm capital structure becomes capable of protecting an efficient value creation process, by establishing the ways in which the generated value is later distributed in other words the surplus created is influenced.

Many theoretical and empirical analyses have dealt with capital structure, corporate governance and firm performances, but most of them have concentrated on only one of the five relations. Thus only one aspect of the relation has been taken into account and the presence of reciprocal causations and complementarities between capital structure and other governance instruments have not been considered important in determining firm performance.

Consequently, a positive relationship could be expected between debt level and firm's performance (i.e. profitability). A number of studies provide empirical evidence supporting this positive relationship between debt level and firm's performance.

1.3 Objectives of the Study.

1.3.1 Specific Objectives of the Study

The specific objective of this study is:

To assess the relationship between capital structure and financial performance of firms listed at the Nairobi Stock Exchange.

1.4 Significance of the Study

Difficulties arise in trying to establish the effect of change in capital structure and its impacts on performance of the firm. Its output will be significant to the management of quoted companies and they will be able to determine the effect of capital structures on the share value of their firms so that they can make prudent decisions regarding capital policies.

The government of Kenya will be enlightened in a bid to make policies relating to capital structure. Through knowledge of the effect of capital structure on the performance of the firms, the study will assist finance managers of the quoted companies in ascertaining the appropriate amount of tax to pay for dividends paid out and their effects on performance of the firm. Investors who may need to know the relationship between capital structure policy and performance of the firm 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 subject.

Managers of Small and Medium Enterprises will also find this study invaluable as they will be able to use the findings to enable them understand the determinants of capital structure.

The Nairobi Stock exchange will also use the findings of this study to determine the effect of capital structure on the companies listed in the market.

Other companies that are not already listed in the stock exchange market will find the study invaluable as they will use the findings of the study to make decisions on capital structure that would result to improved performance.

CHAPTER TWO

LITERATURE REVIEW

2.1 Capital Structure

Capital structure became one of the main elements that studies have shown as being essential in determining value of a firm. Half a century of research on capital structure attempted to verify the presence of an optimal capital structure that could amplify the company's ability to create value. Important, and still in vogue, is the debate between the two main theoretical perspectives, the trade-off approach, that balance the advantages and disadvantages of debt, and the pecking order approach (Myers, 1984, Myers and Majluf, 1984), that makes it evident the active and intentional role of management in how the firm's financial resources are decided on follows an order of preference (self-generated resources, debt and new equity). The controversy that has emerged in trying to verify the validity of these theories (Harris and Raviv, 1991) has stimulated an attempt to find solutions that can “strengthen” theoretical hypotheses and improve econometric models, also because of the difficulties found when trying to apply the theories to reality.

The relationship between capital structure and firm value has been the subject of considerable debate. Throughout the literature, debate has centered on whether there is an optimal capital structure for an individual firm or whether the proportion of debt usage is irrelevant to the individual firm's value. The capital structure of a firm concerns the mix of debt and equity the firm uses in its operation. Brealey and Myers (2003) contend that the choice of capital structure is fundamentally a marketing problem. They state that the firm can issue dozens of distinct securities in countless combinations, but it attempts to find the particular combination that maximizes market value. According to Weston and Brigham (1992), the optimal capital structure is the one that maximizes the market value of the firm's outstanding shares.

The seminal work by Modigliani and Miller (1958) in capital structure provided a substantial boost in the development of the theoretical framework within which various theories were about to emerge in the future. Modigliani and Miller (1958) concluded to the broadly known theory of “Capital Structure Irrelevance” where financial leverage does not affect the firm’s market value. However their theory was based on very restrictive assumptions that do not hold in the real world. These assumptions include perfect capital markets, homogenous expectations, no taxes, and no transaction costs. The presence of bankruptcy costs and favorable tax treatment of interest payments lead to the notion of an “optimal” capital structure which maximizes the value of the firm, or respectively minimizes its total cost of capital.

Modigliani and Miller (1963) reviewed their earlier position by incorporating tax benefits as determinants of the capital structure of firms. The key feature of taxation is that interest is a tax-deductible expense. A firm that pays taxes receives a partially offsetting interest “tax-shield” in the form of lower taxes paid. Therefore, as Modigliani and Miller (1963) propose, firms should use as much debt capital as possible in order to maximize their value. Along with corporate taxation, researchers were also interested in analyzing the case of personal taxes imposed on individuals. Miller (1977), based on the tax legislation of the USA, discerns three tax rates that determine the total value of the firm. These are: the corporate tax rate; the tax rate imposed on the income of the dividends; and the tax rate imposed on the income of interest inflows. According to Miller (1977), the value of the firm depends on the relative level of each tax rate, compared with the other two.

Other theories that have been advanced to explain the capital structure of firms include bankruptcy cost, agency theory, and the pecking order theory. Bankruptcy costs are the cost directly incurred when the perceived probability that the firm will default on financing is greater than zero. The bankruptcy probability increases with debt level since it increases the fear that the company might not be able to generate profits to pay back the interest and the loans. The potential costs of bankruptcy may be both direct and indirect. Examples of direct bankruptcy costs are the legal and administrative costs in the bankruptcy process. Examples of indirect bankruptcy costs are the loss in profits incurred

by the firm as a result of the unwillingness of stakeholders to do business with them (Titman, 1984). The use of debt in capital structure of the firm also leads to agency costs. Agency costs arise as a result of the relationships between shareholders and managers and those between debt-holders and shareholders (Jensen and Meckling, 1976). The need to balance gains and costs of debt financing emerged as a theory known as the static trade-off theory by Myers (1984). It values the company as the value of the firm if unlevered plus the present value of the tax shield minus the present value of bankruptcy and agency costs.

The concept of optimal capital structure is also expressed by Myers (1984) and Myers and Majluf (1984), based on the notion of asymmetric information. The existence of information asymmetries between the firm and likely finance providers causes the relative costs of finance to vary between the different sources of finance. For instance, an internal source of finance where the funds provider is the firm will have more information about the firm than new equity holders; thus, these new equity holders will expect a higher rate of return on their investments. This means that it will cost the firm more to issue fresh equity shares than using internal funds. Similarly, this argument could be provided between internal finance and new debt holders. The conclusion drawn from the asymmetric information theories is that there is a hierarchy of firm preferences with respect to the financing of their investments (Myers and Majluf, 1984).

This “pecking order” theory suggests that firms will initially rely on internally generated funds, i.e. undistributed earnings, where there is no existence of information asymmetry, and then they will turn to debt if additional funds are needed and finally they will issue equity to cover any remaining capital requirements. The order of preferences reflects the relative costs of various financing options.

The pecking order hypothesis suggests that firms are willing to sell equity when the market overvalues it (Myers, 1984; Chittenden et al., 1996). This is based on the assumption that managers act in favor of the interest of existing shareholders. As a consequence, they refuse to issue undervalued shares unless the value transfer from “old” to new shareholders is more than offset by the net present value of the growth

opportunity. This leads to the conclusion that new shares will only be issued at a higher price than that imposed by the real market value of the firm. Therefore, investors interpret the issuance of equity by a firm as signal of overpricing. If external financing is unavoidable, the firm will opt for secured debt as opposed to risky debt and firms will only issue common stocks as a last resort. Myers and Majluf (1984), maintain that firms would prefer internal sources to costly external finance. Thus, according to the pecking order hypothesis, firms that are profitable and therefore generate high earnings are expected to use less debt capital than those that do not generate high earnings. Several researchers have tested the effects of profitability on firm leverage. Friend and Lang (1988) and Kester (1986) find a significantly negative relation between profitability and debt/asset ratios. Rajan and Zingales (1995) and Wald (1999) also confirm a significantly negative correlation between profitability and leverage.

2.2 Theories of Capital Structure

2.2.1 Agency Theory

Debt financing may lead to agency costs. Agency costs are the costs that arise as a result of a principal-stakeholder relationship, such as the relationship between equity-holders or managers of the firm and debt holders. (Myers and Majluf 1984) showed that, given the incentive for the firm to benefit equity-holders at the expense of debt holders, debt-holders need to restrict and monitor the firm's behaviour. These contracting behaviours increase the cost of capital offered to the firm. Thus, firms with relatively higher agency costs due to the inherent conflict between the firm and the debt-holders should have lower levels of outside debt financing and leverage.

Firms also consider within the static trade-off framework, the tax benefits associated with the use of debt. This benefit is created as the interest payments associated with debt are tax deductible while payments associated with equity such as dividends are appropriated from profit. This tax effect encourages the use of debt by firms as more debt increases the after-tax proceeds to the owner. The theory among other things predicts a positive relationship between tax and leverage (Harris and Raviv 1990).

2.2.2 Pecking Order Theory

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

2.2.3 Trade-off Theory

According to trade-off theory, optimal capital structure could be determined by balancing the different benefits and costs associated with debt financing. Debt benefits include tax shields (saving) induced by the deductibility of interest expenses from pre-tax income of the firm (Modigliani and Miller, 1963), reduction of agency costs through the threat of liquidation which causes personal losses to managers of salaries, reputation, perquisites, and through the need to generate cash flow to pay interest payment (Grossman and Hart, 1982; Williams, 1987). High leverage can also enhance the firm's performance by mitigating conflicts between shareholders and managers concerning the free cash flow (Jensen, 1986), optimal investment strategy (Myers, 1977), the amount of risk to be undertake (Jensen and Meckling, 1976). On the other hand, debt costs include direct and indirect bankruptcy costs; debt financing brings with it commitment for future cash outflows in terms of periodic interest and the principal borrowed, and these commitments increase the likelihood of firm's financial default and bankruptcy.

However, several studies suggest that bankruptcy costs do exist but they are reasonably small relative to tax saving associated with debt (Miller, 1977; Warner, 1977). Thus,

according to trade-off theory more profitable firms have higher income to shield and thus should borrow more to take tax advantages (i.e. operate with higher leverage).

Consequently, a positive relationship could be expected between debt level and firm's performance (i.e. profitability). A number of studies provide empirical evidence supporting this positive relationship between debt level and firm's performance.

2.2.4 Bankruptcy Cost Theory

Bankruptcy costs are the cost directly incurred when the perceived probability that the firm will default on financing is greater than zero. The bankruptcy probability increases with debt level since it increases the fear that the company might not be able to generate profits to pay back the interest and the loans. The potential costs of bankruptcy may be both direct and indirect. Examples of direct bankruptcy costs are the legal and administrative costs in the bankruptcy process. Examples of indirect bankruptcy costs are the loss in profits incurred by the firm as a result of the unwillingness of stakeholders to do business with them (Titman, 1984). The use of debt in capital structure of the firm also leads to agency costs. Agency costs arise as a result of the relationships between shareholders and managers and those between debt-holders and shareholders (Jensen and Meckling, 1976). The need to balance gains and costs of debt financing emerged as a theory known as the static trade-off theory by Myers (1984). It values the company as the value of the firm if unlevered plus the present value of the tax shield minus the present value of bankruptcy and agency costs.

Another cost that is associated with the bankruptcy cost is distress cost. This is the cost a firm incurs if non-lending stakeholders believe that the firm will discontinue. If a business is perceived to be close to bankruptcy, customers may be less willing to buy goods and services due to the risk of a firm not being able to meet its warranty obligations. In addition, employees might be less inclined to work for the business and suppliers less likely to extend trade credit. These stakeholders' behaviour effectively reduces the value of the firm. Therefore, firms which have high distress cost would have incentives to decrease debt financing so as to lower these costs. Given these bankruptcy costs, the operating risk of the firm would also influence the capital structure choice of

the firm because firms which have higher operating risk would be exposed to higher bankruptcy costs, making cost of debt financing greater for higher risk firms. Research has found that high growth firms often display similar financial and operating profiles (Hutchinson and Mengersen, 1989).

2.3 Firm Level Characteristics

Theoretical constructs of any empirical research are proxied indirectly through the use of firm characteristics. Thus, the hypotheses and results are interpreted on the basis that several theoretical effects are represented by each variable. The firm variables discussed are profitability, growth, tax, asset structure, risk and size.

Different authors on capital structure have given different interpretations of the impact of taxation on corporate financing decisions in the major industrial countries. Some are concerned directly with tax policy. For instance Auerbach (1985), and MacKie-Mason (1990), studied the tax impact on corporate financing decisions. The studies provided evidence of substantial tax effect on the choice between debt and equity. They concluded that changes in the marginal tax rate for any firm should affect financing decisions. A firm with a high tax shield is less likely to finance with debt.

The reason is that tax shields lower the effective marginal tax rate on interest deduction. Graham (1996) on his part concluded that, in general, taxes do affect corporate financial decisions, but the extent of the effect is mostly not significant. Ashton (1991) confirms that any tax advantage to debt is likely to be small and thus have a weak relationship between debt usage and tax burden of firms. De Angelo and Masulis (1980) on the other hand, show that depreciation, research and development expenses and investment deductions could be substitutes for the fiscal role of debt. Titman and Wessels (1988) provided that, empirically, the substitution effect has been difficult to measure as finding an accurate proxy for tax reduction that excludes the effect of economic depreciation and expenses is tedious.

Asset structure is an important determinant of the capital structure of a new firm. The extent to which the firm's assets are tangible and generic would result in the firm having a

greater liquidation value (Harris and Raviv, 1991; Titman and Wessels, 1988). Studies have also revealed that leverage is positively associated with the firm's assets. This is consistent with Myers (1977) argument that tangible assets, such as fixed assets, can support a higher debt level as compared to intangible assets, such as growth opportunities. Assets can be redeployed at close to their intrinsic values because they are less specific (Williamson, 1988; Harris, 1994). Thus, assets can be used to pledge as collateral to reduce the potential agency cost associated with debt usage (Smith and Warner, 1979; Stulz and Johnson, 1985). Feri and Jones (1979), Marsh (1982), Long and Matlitz (1985) and Allen (1995) provide empirical evidence of a positive relationship between debt and fixed assets. The empirical evidence suggests a positive relation consistent with the theoretical arguments between asset structure and leverage for large firms (Van der Wijst and Thurik, 1993; Chittenden et al., 1996; Michaelas et al., 1999).

Given agency and bankruptcy costs, there are incentives for the firm not to utilize the tax benefit of debt within the static framework model. As a firm is exposed to such costs, the greater its incentive to reduce its level of debt within its capital structure. One firm variable which impacts upon this exposure is firm operating risk, in that the more volatile a firm's earnings streams, the greater the chance of the firm defaulting and being exposed to such costs. Firms with relatively higher operating risk will have incentives to have lower leverage than more stable earnings firms. Empirical evidence suggests that there is a negative relationship between risk and leverage of small firms (Ooi, 1999; Titman and Wessels, 1988).

Size plays an important role in determining the capital structure of a firm. Researchers have taken the view that large firms are less susceptible to bankruptcy because they tend to be more diversified than smaller companies (Hall 1995). Following the trade-off models of capital structure, large firms should accordingly employ more debt than smaller firms. According to Berryman (1982), lending to small businesses is riskier because of the strong negative correlation between the firm size and the probability of insolvency. Hall (1995) added that, this could partly be due to the limited portfolio management skills and partly due to the attitude of lenders. Marsh (1982) and Titman and Wessels (1988) report a contrary negative relationship between debt ratios and firm size.

Marsh (1982) argues that small companies, due to their limited access to equity capital market tend to rely heavily on loans for their funding requirements. Titman and Wessels (1988) further posit that small firms rely less on equity issue because they face a higher per unit issue cost. The relationship between firm size and debt ratio is, therefore, a matter for empirical investigation.

2.4 Capital Structure and Ownership Structure

According to the pecking order theory in the presence of asymmetric information, a firm would prefer internal finance over other sources of funds, but would issue debt if internal finance was exhausted. The least attractive alternative for the firm would be to issue new equity. Profitable firms are likely to have more retained earnings. Thus, a negative relationship is expected between leverage and past profitability (Donaldson, 1961; Myers, 1984; Myers and Majluf, 1984).

It is expected that institutional investors will prefer to invest in profitable firms. This is because the more profitable the firm is, the lower the likelihood of default and of having to face financial difficulties and bankruptcy. Therefore, a positive relationship is expected between profitability and institutional ownership. However, Tong and Ning (2004) find that there is limited evidence that institutional investors prefer to invest in a profitable firms. They find that profitability (measured as the return on equity) is negatively related to average shares held by institutional investors. The return on equity is used as an index for firm profitability in this study (return on equity ratio (ROE)).

Business risk (BR) is considered to be one of the key factors that can affect the capital structure of the firm. Bhaduri (2002) states that: Since debt involves a commitment of periodic payment, highly leveraged firms are prone to financial distress costs. Therefore, firms with volatile incomes are likely to be less leveraged (Bhaduri, 2002, p. 202).

Thus, according to the bankruptcy theory, there is a negative relationship between BR and capital structure. Institutional investors tend to invest in firms with low BRs because firms with high volatility in their returns are likely to have a high probability to default and to become bankrupt. Therefore, a negative relationship is expected between firm's

BR and the firm's institutional ownership. The current study uses the standard deviation of return on assets as an indicator for firm's business risk.

According to the agency cost theory, the shareholders of a leveraged firm have an incentive to invest sub-optimally (Titman and Wessels, 1988). However, the more tangible the firm's assets are, the more such assets can be used as collateral. Collateralized assets can restrict such opportunistic behaviour. Therefore, a positive relationship between tangible assets and debt is expected (Bhaduri, 2002; Huang and Song, 2006; Jensen and Meckling, 1976; Rajan and Zingales, 1995; Titman and Wessels, 1988).

In addition, agency theory suggests that the optimal capital and ownership structures may be used to minimize agency costs (Jensen and Meckling, 1976; Jensen, 1986). Thus, a negative relationship between asset tangibility and ownership structure is expected. This is because tangible assets can act as collateral for higher levels of debt. Therefore, institutional investors prefer to invest in firms with low tangible assets. The current study uses the fixed assets to total assets ratio as indicator of firm's tangibility.

Agency problems are likely to be more severe for growing firms, because they are more flexible in their choice of future investments. Thus, the expected growth rate should be negatively related to long-term leverage.

Moreover, firms with high-growth opportunities provide a positive signal about the firm's future performance. Hence institutional investors prefer to invest in high-growth firms rather than lower ones. In addition, Hovakimian et al. (2004) suggest that high-growth firms may bring more capital gains to institutional investors than lower growth ones. This is because institutional investors, as taxpayers, would prefer to invest in capital-gain stocks to delay tax payments and to avoid double taxation. Thus, a firm's growth opportunities are considered to be a positive signal for institutional investors. The study uses market-to-book ratio (MB) as an indicator of the growth opportunities of a firm (Titman and Wessels, 1988).

There is considerable evidence that the size of a firm plays an important role in the capital structure decision. Large firms tend to be more diversified and less prone to bankruptcy. Therefore, a positive relationship is expected between a firm's size and its leverage (Titman and Wessels, 1988; Bhaduri, 2002). Institutional investors prefer to invest in large firms in the belief that they have a low risk of bankruptcy. This is because large firms have the required resources and ability to minimize the risk of their stock investment. Therefore they are less subject to financial distress and bankruptcy risk (O'Brien and Bhushan, 1990; Tong and Ning, 2004). The natural logarithm of total assets is used as a proxy for firm size.

2.5 Capital Structure and Financial Performance

The separation of ownership and control in a professionally managed firm may result in managers exerting insufficient work effort, indulging in perquisites, choosing inputs or outputs that suit their own preferences, or otherwise failing to maximize firm value. In effect, the agency costs of outside ownership equal the lost value from professional managers maximizing their own utility, rather than the value of the firm. Theory suggests that the choice of capital structure may help mitigate these agency costs. Under the agency costs hypothesis, high leverage or a low equity/asset ratio reduces the agency costs of outside equity and increases firm value by constraining or encouraging managers to act more in the interests of shareholders Jensen (1986).

Since the seminal paper by Jensen and Meckling (1976), a vast literature on such agency-theoretic explanations of capital structure has developed (see Harris and Raviv 1991 and Myers 2001 for reviews). Greater financial leverage may affect managers and reduce agency costs through the threat of liquidation, which causes personal losses to managers of salaries, reputation, perquisites, etc. (e.g., Grossman and Hart 1982, Williams 1987), and through pressure to generate cash flow to pay interest expenses Jensen (1986). Higher leverage can mitigate conflicts between shareholders and managers concerning the choice of investment Myers (1977), the amount of risk to undertake (Jensen and Meckling 1976, Williams 1987), the conditions under which the firm is liquidated (Harris and Raviv 1990), and dividend policy Stulz (1990).

A testable prediction of this class of models is that increasing the leverage ratio should result in lower agency costs of outside equity and improved firm performance, all else held equal. However, when leverage becomes relatively high, further increases generate significant agency costs of outside debt – including higher expected costs of bankruptcy or financial distress – arising from conflicts between bondholders and shareholders¹. Because it is difficult to distinguish empirically between the two sources of agency costs, we follow the literature and allow the relationship between total agency costs and leverage to be non-monotonic. Despite the importance of this theory, there is at best mixed empirical evidence in the extant literature (Harris and Raviv 1991, Titman 2000, and Myers 2001).

2.5.1 Tests of the Agency Costs Hypothesis

Typically regression measures of firm performance on the equity capital ratio or other indicator of leverage plus some control variables. At least three problems appear in the prior studies that we address in our application. In the case of the industry studied here, there are also regulatory costs associated with very high leverage. First, the measures of performance are usually ratios fashioned from financial statements or stock market prices, such as industry-adjusted operating margins or stock market returns Stulz (1990).

These measures do not net out the effects of differences in exogenous market factors that affect firm value, but are beyond management's control and therefore cannot reflect agency costs. Thus, the tests may be confounded by factors that are unrelated to agency costs. As well, these studies generally do not set a separate benchmark for each firm performance that would be realized if agency costs were minimized. We address the measurement problem by using profit efficiency as our indicator of performance. The link between productive efficiency and agency costs was first suggested by Stigler (1976), and profit efficiency represents a refinement of the efficiency concept developed since that time.

2.5.2 Profit Efficiency

Profit efficiency evaluates how close a firm is to earning the profit that a best-practice firm would earn facing the same exogenous conditions. This has the benefit of controlling

for factors outside the control of management that are not part of agency costs. In contrast, comparisons of standard financial ratios, stock market returns, and similar measures typically do not control for these exogenous factors. Even when the measures used in the literature are industry adjusted, they may not account for important differences across firms within an industry – such as local market conditions – as we are able to do with profit efficiency. In addition, the performance of a best-practice firm under the same exogenous conditions is a reasonable benchmark for how the firm would be expected to perform if agency costs were minimized. Second performance, the prior research generally does not take into account the possibility of reverse causation from performance to capital structure (Jensen and Meckling 1976, Williams 1987).

If firm performance affects the choice of capital structure, then failure to take this reverse causality into account may result in simultaneous-equations bias. That is, regressions of firm performance on a measure of leverage may confound the effects of capital structure on performance with the effects of performance on capital structure Stigler (1976).

2.5.3 Efficiency-Risk Hypothesis and the Franchise-Value Hypothesis

By construct a two-equation structural model and estimate it using two-stage least squares (2SLS). An equation specifying profit efficiency as a function of the Stigler's argument was part of a broader exchange over whether productive efficiency (or X-efficiency) primarily reflects difficulties in reconciling the preferences of multiple optimizing agents – what is today called agency costs – versus “true” inefficiency, or failure to optimize firms equity capital ratio and other variables is used to test the agency costs hypothesis, and an equation specifying the equity capital ratio as a function of the firm's profit efficiency and other variables is used to test the net effects of the efficiency-risk and franchise-value hypotheses. Both equations are econometrically identified through exclusion restrictions that are consistent with the theories.

Not all of the prior studies did not take ownership structure into account. Under virtually any theory of agency costs, ownership structure is important, since it is the separation of ownership and control that creates agency costs .Greater insider shares may reduce agency costs, although the effect may be reversed at very high levels of insider holdings

(Morck, Shleifer, and Vishny 1988). As well, outside block ownership or institutional holdings tend to mitigate agency costs by creating a relatively efficient monitor of the managers.

Exclusion of the ownership variables may bias the test results because the ownership variables may be correlated with the dependent variable in the agency cost equation performance and with the key exogenous variable (leverage) through the reverse causality hypotheses. Some studies in this literature find evidence of the link between the efficiency of firms and variables that are recognized to affect agency costs, including leverage and ownership structure (Berger and Mester 1997). Although banking is a regulated industry, banks are subject to the same type of agency costs and other influences on behavior as other industries. The banks in the sample are subject to essentially equal regulatory constraints, identifying differences across banks, not between banks and other firms. Most banks are well above the regulatory capital minimums, and our results are based primarily on differences at the margin, rather than the effects of regulation. The test of the agency costs hypothesis using data from one industry may be built upon to test a number of corporate finance hypotheses using information on virtually any industry Leibenstein (1978).

2.6. Measures of the Firm Performance

The literature employs a number of different measures of firm performance to test agency cost Hypotheses. These measures include; financial ratios from balance sheet and income statements (Demsetz and Lehn 1985). The argument is that profit efficiency that frontier efficiency computed using a profit function – is a more appropriate measure to test agency cost theory because it controls for the effects of local market prices and other exogenous factors and because it provides a reasonable benchmark for each individual firm's performance if agency costs were minimized. Profit efficiency is superior to cost efficiency for evaluating the performance of managers, since it accounts for how well managers raise revenues as well as control costs and is closer to the concept of value maximization. Other studies of agency problems use different methodologies. For example, one study of agency costs estimates the effect of debt on input misallocation using elasticities derived from a cost function .Some studies of expense preference

behavior use input demand functions (Hannan and Mavinga, 1980, Mester, 1989). Frontier efficiency is sometimes called X-efficiency or managerial efficiency. The only study that uses profit efficiency in a similar context is DeYoung, Spong, and Sullivan (2001), who analyzed the effect of managerial ownership on the performance of a sample of small, closely held banks. However, they test only the effects of managerial ownership and do not include capital structure or test the agency costs hypothesis. The losses of accounting profits that are measured by profit efficiency. Profit efficiency is measured in two different ways, standard profit efficiency and alternative profit efficiency. The standard profit function takes variable output prices as given and allows output quantities to vary, so that it accounts for revenues that can be earned by varying outputs as well as inputs (Demsetz and Lehn 1985).

2.7 Empirical Studies

Several researchers have tested the effects of profitability on firm leverage. Friend and Lang (1988) and Kester (1986) find a significantly negative relation between profitability and debt/asset ratios. Rajan and Zingales (1995) and Wald (1999) also confirm a significantly negative correlation between profitability and leverage.

Corporate performance has been identified as a potential determinant of capital structure. The tax trade-off models show that profitable firms will employ more debt since they are more likely to have a high tax burden and low bankruptcy risk (Ooi, 1999). However, Myers (1984) prescribes a negative relationship between debt and profitability on the basis that successful companies do not need to depend so much on external funding. They, instead, rely on their internal reserves accumulated from past profits. Titman and Wessels (1988) and Barton et al. (1989), agree that firms with high profit rates, all things being equal, would maintain relatively lower debt ratio since they are able to generate such funds from internal sources. Empirical evidence from previous studies (Chittenden et al., 1996; Coleman and Cole, 1999; Al-Sakran, 2001) appears to be consistent with the pecking order theory. Most studies found a negative relationship between profitability and debt financing.

Applying pecking order arguments, growing firms place a greater demand on their internally generated funds. Consequentially, firms with high growth will tend to look to external funds to finance the growth. Firms would; therefore, look to short-term, less secured debt then to longer-term more secured debt for their financing needs. Myers (1977) confirms this and concludes that firms with a higher proportion of their market value accounted for by growth opportunity will have debt capacity. Auerbach (1985) also argues that leverage is inversely related to growth rate because the tax deductibility of interest payments is less valuable to fast growing firms since they usually have non-debt tax shields. Michaelas et al. (1999) found future growth positively related to leverage and long-term debt, while Chittenden et al. (1996) and Jordan et al. (1998) found mixed evidence.

Fama and French (1998), analyzing the relationship among taxes, financing decisions, and the firm's value, concluded that the debt does not concede tax benefits. Besides, the high leverage degree generates agency problems among shareholders and creditors that predict negative relationships between leverage and profitability. Therefore, negative information relating debt and profitability obscures the tax benefit of the debt. Booth et al. (2001) developed a study attempting to relate the capital structure of several companies in countries with extremely different financial markets.

They concluded that the variables that affect the choice of the capital structure of the companies are similar, in spite of the great differences presented by the financial markets. Besides, they concluded that profitability has an inverse relationship with debt level and size of the firm. Graham (2000) concluded in his work that big and profitable companies present a low debt rate. Mesquita and Lara (2003) found in their study that the relationship between rates of return and debt indicates a negative relationship for long-term financing. However, they found a positive relationship for short-term financing and equity.

Hadlock and James (2002) concluded that companies prefer loan (debt) financing because they anticipate a higher return. Taub (1975) also found significant positive

coefficients for four measures of profitability in a regression of these measures against debt ratio. Petersen and Rajan (1994) identified the same association, but for industries.

Baker (1973), who worked with a simultaneous equations model and Nerlove (1968) also found the same type of association for industries. Roden and Lewellen (1995) found a significant positive association between profitability and total debt as a percentage of the total buyout-financing package in their study on leveraged buyouts. Champion (1999) suggested that the use of leverage was one way to improve the performance of an organization. Liquidity ratios have both a positive and a negative effect on the capital structure decision, and so the net effect is unknown. First, firms with high liquidity ratios may have relatively higher debt ratios due to their greater ability to meet short-term obligations. This argument suggests a positive relationship between a firm's liquidity and its debt ratio. Alternatively, firms with more liquid assets may use such assets as sources of finance to fund future investment opportunities. Thus, a firm's liquidity position would have a negative impact on its leverage ratio. A further argument for a negative relationship is provided by Myers and Rajan (1998) who argue that when agency costs of liquidity are high, outside creditors limit the amount of debt financing available to the company. Thus, a negative relationship between debt and liquidity would be expected.

Similarly, the effect of asset liquidity is an ambiguous signal to institutional investors. A high liquidity ratio may be considered to be a negative signal because it indicates that the firm faces problems regarding opportunities for its long-term investment decisions. Hence a high liquidity ratio may be considered to be a negative signal for institutional investors. However, a high liquidity ratio may be considered to be a positive signal from the firm, because it indicates that the firm can easily pay its obligations and hence faces lower risk of default. Thus, high liquidity would be a positive signal for institutional investors. Whatever, in order to measure the effect of liquidity, the study uses the ratio of current assets to current liabilities as a proxy for the liquidity of the firm's assets.

2.8 Conclusion of Literature Review.

It can be concluded that many of the existing theories of capital structure have not been developed with small businesses in mind. This study has attempted to extend the theory

of capital structure in small firms, by providing qualitative evidence of the financial as well as non financial and behavioral influences upon the capital structure of small privately held firms and the capital structure decision making in the business. Capital structure research both theoretical and empirical has tended to understate the role of management in capital structure decisions.

The capital structure decision is crucial for any business organization. The decision is important because of the need to maximize returns to various organizational constituencies, and also because of the impact such a decision has on an organization's ability to deal with its competitive environment. The literature explores significantly positive relation between Short-term Debt Ratio (SDR) and Return on Equity (ROE), suggesting that profitable firms use more short-term debt to finance their operation. Short-term debt is an important component or source of financing for firms. However, studies show a negative relationship between Long-term Debt Ratio (LDR) and Return on Equity (ROE). This suggests that profitable firms depend more on debt as their main financing option.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section discusses the methods to be applied in carrying out this research study. It is organized under the following headings: research design, target population data collection procedures and data analysis technique.

3.2 Research Design

This is a causal research design. A causal survey design is a process of collecting data from the members of a population in order to determine the current status of the subject under study with respect to one or more variables. The major emphasis of a descriptive study is to determine the frequency of occurrence or the extent to which variables are related. This design is suitable because the study requires an accurate examination of the effects of change of capital on the performance of listed companies.

3.3 Population

The population for this study comprises all companies quoted at the Nairobi Stock Exchange Market as June 2010, thus no sampling is required.

3.4 Data Collection

The researcher used secondary data for this particular study. Collection of secondary data allows the researcher to economize on resources, provide more efficient management of the time needed to collect the information, as well as obtaining a greater number of observations. The data for this particular study was retrieved from the companies' financial statements such as income statements, balance sheets and annual reports of the NSE. Other data necessary for the study listed was extracted from the annual reports of NSE, as well as from the companies' libraries.

3.5 Data Analysis

Data obtained was verified and coded to enable grouping into categories. The data was then be analyzed using a regression model to establish the relationship of capital structure on financial performance. The data analysis tools of Statistical Package for Social Sciences (SPSS) version 17.0 was used, to give a deeper insight into the responses from the respondents into the subject of the research. The generated data was quantitative in nature. The output was analyzed using descriptive statistics e.g. mean score and standard deviation. Graphs, bar charts and pie charts was used for representation.

The change in firm's capital structure was measured by the debt ratio (total debt/total assets). The variables were firms' long-term debt ratio (Ldebt) and short-term debt ratio (Sdebt), profitability, return on equity and return on assets. The variables were used to measure firm's adjustment to a target value. Coefficient of determination will be estimated to determine the strength of the relationship between the variables.

Debt was measured using book value and the capital structure was proxied by the total debt ratio. This total debt ratio was computed by adding the long-term debt to the short-term debt and the current portion of the long-term debt; this amount was then divided by total assets. Financial debts, rather than total liabilities, were used in this study owing to the preponderance of accounts payable in the firms' financial statements, representing a portion of their working capital. Descriptive statistics was used to test the performance of firms in the NSE.

CHAPTER FOUR

DATA ANALAYSIS AND FINDINGS

4.1 Introduction

This study sampled firms that are listed on the NSE. Variables used for the analysis include profitability and leverage ratios. Profitability is operationalised using a commonly used accounting-based measure: the ratio of earnings before interest and taxes (EBIT) to equity. The leverage ratios used included: short-term debt to the total capital; long-term debt to total capital; and total debt to total capital.

Firm size and sales growth were also included as control variables. A general model for panel data that allows the researcher to estimate panel data with great flexibility and formulate the differences in the behavior of the cross-section elements was adopted. The relationship between debt and profitability was thus estimated in the following regression models:

$$ROE_{i,t} = \beta_0 + \beta_1 SDA_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 SG_{i,t} + e_{i,t} \quad (1)$$

$$ROE_{i,t} = \beta_0 + \beta_1 LDA_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 SG_{i,t} + e_{i,t} \quad (2)$$

$$ROE_{i,t} = \beta_0 + \beta_1 DA_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 SG_{i,t} + e_{i,t} \quad (3)$$

Where:

$ROE_{i,t}$ is EBIT divided by equity for firm i in time t ;

$SDA_{i,t}$ is short-term debt divided by the total capital for firm i in time t ;

$LDA_{i,t}$ is long-term debt divided by the total capital for firm i in time t ;

$DA_{i,t}$ is total debt divided by the total capital for firm i in time t ;

$SIZE_{i,t}$ is the log of sales for firm i in time t ;

$SG_{i,t}$ is sales growth for firm i in time t ; and

$e_{i,t}$ is the error term.

Table 1: Summary of the Descriptive Statistics of the Variables.

	Mean	SD	Minimum	Median	Maximum
ROE	0.3694	0.5186	-1.0433	0.2836	3.8300
SDA	0.4876	0.2296	0.0934	0.4547	1.1018
LDA	0.0985	0.1803	0.0000	0.0186	0.7665
DA	0.5861	0.2032	0.2054	0.5571	1.1018
SIZE	18.2124	1.6495	14.1875	18.2361	22.0995
SG	0.3288	0.3457	-0.7500	0.2561	1.3597

Source: Research Data NSE HANDBOOK (2008)

Table I provides a summary of the descriptive statistics of the dependent and independent variables for the sample of firms. This shows the average indicators of variables computed from the financial statements. The return rate measured by return on equity (ROE) reveals an average of 36.94 percent with median 28.4 percent. This picture suggests a good performance during the period under study. The ROE measures the contribution of net income per KSH invested by the firms' stockholders; a measure of the efficiency of the owners' invested capital. The variable SDA measures the ratio of short-term debt to total capital. The average value of this variable is 0.4876 with median 0.4547. The value 0.4547 indicates that approximately 45 percent of total assets are represented by short-term debts, attesting to the fact that Kenyan firms largely depend on short-term debt for financing their operations due to the difficulty in accessing long-term

credit from financial institutions. Another reason is due to the under-developed nature of the Kenyan long-term debt market. The ratio of total long-term debt to total assets (LDA) also stands on average at 0.0985. Total debt to total capital ratio (DA) presents a mean of 0.5861. This suggests that about 58 percent of total assets are financed by debt capital. The above position reveals that the companies are financially leveraged with a large percentage of total debt being short-term.

Table 2: Regression Model Results

Profitability (EBIT/equity) Ordinary least squares			
Variable	1	2	3
SIZE	0.0038 (0.0000)	0.0500 (0.0000)	0.0411 (0.0000)
SG	0.1314 (0.0000)	0.1316 (0.0000)	0.1413 (0.0000)
SDA	0.6825	-	-
LDA	-	20.3722 (0.0000)	-
DA	-	-	-0.7609 (0.0000)
R ²	0.6825	0.3968	0.8639
SE	0.4365	0.4961	0.4735
Prob.(F)	0.0000	0.0000	0.0000

Source: Research Data NSE HANDBOOK (2008)

Regression analysis was used to investigate the relationship between capital structure and profitability measured by ROE. Ordinary least squares (OLS) regression results are

presented in Table 2. The results from the regression models (1), (2), and (3) denote that the independent variables explain the debt ratio determinations of the firms at 68.3, 39.7, and 86.4 percent, respectively. The F-statistics prove the validity of the estimated models. Also, the coefficients are statistically significant in level of confidence of 99 percent.

The results in regression (1) reveal a significantly positive relationship between SDA and profitability. This suggests that short-term debt tends to be less expensive, and therefore increasing short-term debt with a relatively low interest rate will lead to an increase in profit levels. The results also show that profitability increases with the control variables (size and sales growth). Regression (2) shows a significantly negative association between LDA and profitability. This implies that an increase in the long-term debt position is associated with a decrease in profitability. This is explained by the fact that long-term debt is relatively more expensive, and therefore employing high proportions of long term debt could lead to low profitability. The results support earlier findings by Miller (1977), Fama and French (1998), Graham (2000) and Booth et al. (2001). Firm size and sales growth are again positively related to profitability.

The results from regression (3) indicate a significantly positive association between DA and profitability. The significantly positive regression coefficient for total debt implies that an increase in the debt position is associated with an increase in profitability: thus, the higher the debt, the higher the profitability. Again, this suggests that profitable firms depend more on debt as their main financing option. This supports the findings of Hadlock and James (2002), Petersen and Rajan (1994) and Roden and Lewellen (1995) that profitable firms use more debt. In this case, a high proportion (85 percent) of debt is

represented by short-term debt. The results also show positive relationships between the control variables (firm size and sale growth) and profitability.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS.

5.1. Summary of Findings and Conclusions

5.1.1 Summary of Findings

The companies listed in Nairobi Stock Exchange adjust actual level of debt towards target debt ratio, corroborating what is forecast by the trade-off theory. The findings reveal that companies in Nairobi Stock Exchange look for a target debt ratio. However, adjustment is not particularly great, when compared with the debt adjustment found in listed companies in developed economies such as the USA and some European countries such as Germany, Spain and the UK. The fact of not finding great adjustment of actual debt towards optimal level of debt indicates the relevance of transaction costs borne by the listed companies.

The capital structure decision is crucial for any business organization. The decision is important because of the need to maximize returns to various organizational constituencies, and also because of the impact such a decision has on an organization's ability to deal with its competitive environment. This study evaluated the relationship between capital structure and performance of listed firms on the Nairobi Stock Exchange. The results revealed significantly positive relation between Short-term debt and Return on Equity, suggesting that profitable firms use more short-term debt to finance their operation. Short-term debt is an important component or source of financing for the

firms, representing 85 percent of total debt financing. However, the results showed a negative relationship between Long term debt and Return on Equity. With regard to the relationship between total debt and profitability, the regression results showed a significantly positive association between total debt and Return on Equity. This suggests that profitable firms depend more on debt as their main financing option. In this case, a high proportion (85 percent) of the debt is represented in short-term debt.

5.1.2 Conclusions

The specific determinants of listed companies are not similarly relevant in explaining adjustment of debt towards optimal level. The findings obtained in this study conclude that the level of tangible assets, and above all company size, are relevant specific determinants for listed companies making greater adjustment of actual debt towards optimal level of debt. The greater possibility to diversify, less probability of bankruptcy and greater level of collateral are seen to be fundamental aspects for the companies making greater adjustment of debt towards optimal level. Profitability and Market to book ratio are seen not to be determinants of greater adjustment of debt towards optimal level in listed companies.

The results show that the capital structure of listed companies is influenced by tangibility of assets, by size and by profitability. Higher level of tangible assets and greater size contribute to increased debt, while profitability means diminished debt. The results suggest that the capital structure decisions of listed companies can be explained in the light of trade-off and pecking order theories, but not according to what is forecast by the market timing theory.

Conjointly, the results of the study suggest that listed companies with capacity to generate internal funds use these funds before turning to debt. This result is according to the pecking order theory, suggesting that listed companies prefer internal funds over debt and external equity. The slow adjustment towards the target leverage suggests that listed companies have high transaction costs. However, the listed companies' level of debt as well as the fact that these companies resort to debt, rather than the equity market for finance, suggest that a low risk premium charged by creditors when companies are in financial disequilibrium explains the slow adjustment of companies towards target leverage. However, level of tangible assets, and above all company size, of listed companies contributes to greater adjustment of debt towards optimal level.

5.2 Recommendations

Since the actively trading firms in Kenya are exposed to a high degree of systematic risk, it is recommended that the firms' management take into account the factors that follow:

Changes in debt financing have to take into account the implied effects on firm's systematic risk. The increases (or decreases) in short-term (or long-term) debt that lower systematic risk is a desirable change. This will support the firm's claim for future equity financing.

Firms' management has to differentiate between the short- and long-term debt in terms of the source of financing and the use of financing as well.

The adjustment of either or both types of debt to the industry target debt ratio is an acceptable practice that causes a great deal of consistency in debt financing decisions.

The choice of the right timing for borrowing (in terms of timing the interest rate) is a critical factor for making sound debt financing decisions.

Firms' management has to take into account the expected profitability when making the borrowing decision. Profitability turned out to be a critical factor that determines the extent to which a firm may seek external financing.

5.3 Limitations of the Study

This study relied on secondary data (reported accounting/financial statement) and therefore the reliability and quality of the data used was not a hundred percent. The researcher also had no control over the quantity and form of data for the study and this contributed to shortage of data; some of the financial statements used by the researcher did not give enough information leaving the researcher to hunt for more facts; and financial/accounting statements are prone to errors and therefore the researcher had to be familiar with other empirical studies that have used similar dataset. Another limitation of the research concerns the implicit assumption of debt homogeneity in the capital structure model. This assumption is not accurate since debt instruments may, in practice, differ in several important aspects. For example, debt with varying maturity dates may not possess the same attributes. Similarly, the characteristics of bank borrowing may not be the same as that of debt raised through public issues. Capital structure management, therefore, goes beyond simply determining the right mix of debt and equity in a firm's capital structure

5.4. Suggestion for Further Research

Further research should examine the relationship between maturity structure of the firm's debt, its decisions and performance; determine the joint impact of both capital structure and ownership structure on firms' performance; and investigate effects of systematic risks of changing debt financing. Further research should also be done to differentiate between the short- and long-term debt in terms of the source of financing and the use of

financing as well and evaluate the adjustment of either or both types of debt to the industry target debt ratio. It would also seem appropriate that further research focus on the role played by the institutional framework, such as the impact of taxation and that of the relative importance of the various sources of credit (securitized debt vs. bank debt). Further research focus on the ownership structure of the companies listed in the Nairobi Stock Exchange market to examine how the firms make their financing decisions and determine the choice of the right timing for borrowing (in terms of timing the interest rate) as a critical factor for making sound debt financing decisions.

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*, Vol. 27 No.10/11, pp.58-86.

Antoniou, A., Guney, Y., Paudyal, K. (2002), /Determinants of Corporate Capital Structure: Evidence from European Countries/, Working Paper, Durham, University of Durham,

Banjeree, S., Heshmati, A., Whilborg, C. (2004), "The Dynamics of Capital Structure", /Research in Banking and Finance/, Vol. 4 No.1, pp.275-97.

Barton, S.L., Hill, N.C., Srinivasan, S. (1989), "An empirical test of stakeholder theory predictions of capital", *Financial Management*, Vol. 18 No.1, pp.36-44.

Bebczuk, R. (2000), "Corporate Saving and Financing Decisions in Argentina", paper presented at the Quintas Jornadas de Economía Monetaria e Internacional, Universidad Nacionald.

Berger, A.N., Bonaccorsi di Patti, E. (2006), "Capital Structure and Firm Performance: A New Approach to Testing Pecking Order Theory and an Application to Banking Industry", /Journal of Banking & Finance/, Vol.30 No.4, pp.1065-102.

Bhaduri, S. (2002), "Determinants of corporate borrowing: some evidence from the Indian corporate structure", *Journal of Economic and Finance*, Vol. 26 pp.200-15

Cassar, G., Holmes, S. (2003), "Capital structure and Financing of SMEs: Australian evidence", *Accounting and Finance*, Vol. 43 pp.123-47.

Choe, H., Masulis, R.W., Nanda, V. (1993), "Common Stock Offerings Across Business Cycle", /Journal of Empirical Finance/, Vol. 1 pp.13-31.

Coleman, S., Cole, R. (1999), "Small Firms' use of financial leverage: evidence from the 1993 National Survey of Small Business Finances", University of Hartford, Hartford, CT, working paper.

Donaldson, G. (1961), "Corporate Debt Capacity: A Study of Corporate Debt Policy and the Determination of Corporate Debt Capacity", Boston, MA, Harvard Graduate School of Business Administration, Division of Research, Harvard University.

Harris, M., Raviv, A. (1991), "The Theory of Capital Structure", *The Journal of Finance*, Vol. 46 No.1, pp.297-355

Henderson, B., Jegadeesh, N., Weisbach, M.S. (2006), "World Markets for Raising New Capital", *Journal of Financial Economics*, Vol. 82 No.1, pp.63-101

Hovakimian, A., Hovakimian, G., Tehranian, H. (2004), "Determinants of Target Capital Structure: The Case of Dual Debt and Equity Issues", *Journal of Financial Economics*, Vol. 71 pp.517-40.

Huang, S.G., Song, F.M. (2002), "The Determinants of Capital Structure: evidence from China", Hong Kong, Working Paper No. 1042, Hong Kong Institute of Economics and Business Strategy,

Hutchinson, P., Mengersen, K. (1989), "The Financial Profile of Growth Firms", University of New England, Armidale, New South Wales, working paper,

Jensen, M. (1986), "Agency Costs of Free Cash Flow, Corporate Finance and Takeovers", *American Economic Review*, Vol. 76 pp.323-9.

John, K., Williams, J. (1985), "Dividends, Dilution, and Taxes: a Signaling Equilibrium", *The Journal of Finance*, Vol. 40 pp.1053-1070

Korajczuk, R., Levy, A. (2000), "Capital Structure Choice: Macroeconomic Conditions and Capital Constraints", Evanston, IL, Working Paper, Northwestern University, .

Marsh, P. (1982), "The Choice Between Equity and Debt: An Empirical Study", *Journal of Finance*, Vol. 37 No.1, pp.121-44.

Modigliani, F., Miller, M.H. (1963), "Corporate Income Taxes and The Cost of Capital: a Correction", *The American Economic Review*, Vol. 53 No.2, pp.433-43.

Miller, M.H. (1977), "Debt and taxes", *Journal of Finance*, Vol. 32 No.2, pp.261-75.

Nairobi Stock Exchange Hand Book 2004-2005.

Ooi, J. (1999), "The Determinants of Capital Structure: Evidence On UK Property Companies", *Journal of Property Investment & Finance*, Vol. 17 No.5, pp.464-80.

Rajan, R.G., Zingales, L. (1995), "What Do We Know About Capital Structure? Some Evidence from International Data", *The Journal of Finance*, Vol. 50 No.5, pp.1421-60.

Schmuckler, S., Vesperoni, E. (2000), "Does Integration With Global Markets Affect Firm's Financing Choices? Evidence from Emerging Economies", Washington, DC, Mimeo, World Bank

Short, H., Zhang, H., Keasey, K. (2002), "The Link Between Dividend Policy and Institutional Ownership", *Journal of Corporate Finance*, Vol. 8 pp.105-22.

Storey, D.J. (1994), "The Role of Legal Status in Influencing Bank Financing and New Firm Growth", *Applied Economics*, Vol. 26 pp.129-36

Titman, S., Wessels, R. (1988), "The Determinants of Capital Structure Choice", *Journal of Finance*, Vol. 43 pp.1-19.

Tong, S., Ning, Y. (2004), "Does Capital Structure Affect Institutional Investor Choices?", *The Journal of Investing*, Vol. 28 pp.53-66.

Williamson, O. (1988), "Corporate Finance and Corporate Governance", *The Journal of Finance*, Vol. 43 pp.567-91

Zeckhauser, R., Pound, J. (1990), "Are Large Shareholders Effective Monitors? An Investigation of Share Ownership and Corporate Performance", in Hubbard, R.G. (Eds), *Asymmetric Information, Corporate Finance and Investment*, University of Chicago Press, Chicago, IL, pp.149-80.