THE RELATIONSHIP BETWEEN CAPITAL STRUCTURE AND VALUE OF FIRMS LISTED AT NAIROBI STOCK EXCHANGE

BY

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DECLARATION

This research project is my original work and has not been presented for any a degree in any other university.

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

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DEDICATION

I would like to dedicate this work to my wife, parents and my daughter for their inspirations, tolerance, understanding and moral support throughout the course.

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ABSTRACT

Corporate finance literature suggests that the capital structure decision has played a pivotal role over the years in driving the establishment and growth of firms. There is also a body of evidence that financial markets take a keen interest in firm value, especially for those listed on the Stock Exchange. There is no empirical evidence that there is a causal relationship between capital structure and the firm's value despite the importance of the two concepts.

This study uses debt/equity ratio as the proxy for capital structure and a selected few financial ratios to represent the attributes of firms value (profitability ratio, dividend payout ratio, asset and operating efficiency, growth rate, liquidity and business risks) in investigating the relationship between the two in the Kenyan context. The data obtained from the published annual financial reports and the authorized Nairobi stock Exchange Data vendors from January 2005 to December 31, 2010 was analyzed using a cross sectional regression and time series analyses .The study also used correlation analyses to describe the degree to which one variable linearly relate to another in this study.

Findings show that the value of the firm is highly correlated with dividend per share. Dividend per share and the value of the firm are positively correlated. From this we can understand that price of stock in these four sectors mostly depends on dividend per share. Findings show that when the dividend per share increases, price for particular share tends to increase. Findings also show that value of the firm as measured by share price and sales growth is inversely related.

The study found that price and share capital are negatively correlated. It can be inferred from the analysis that none of the variables are perfectly correlated or inversely correlated. Each and every variable has some relationship with each other.

When there is sales growth in a company the future earning expectation increase and market price of share also increase in association with that expectation. From the analysis, the relationship is negative: the logic behind this may be the fact that at the time of growth companies generally retain most of their profit for future and usually don't declare dividend; as the dividend amount is reduced the price may fall. In association with it the other thing may be true: to support the sales growth the companies need to borrow from outside, this increases the financial expenditure as well as the burden to the firm and affect the market price.

From the nature of these findings it is fairly concluded that there is a causal relationship between the capital structure and the value of the firm as all factors that influences capital structure choice indicates varying relationships with the value of the firm. Fluctuating levels of debts in the capital structures affects the value of the firm proportionately.

The results however are inconclusive but they lay foundation for potential future research and useful recommendations for policy direction and management of these firms.
Interesting insights are drawn from using some of the limitations identified in the literature to try and explain why the results are the way they are.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The capital structure of a firm is basically a mix of debt and equity which a firm deems as appropriate to enhance its operations in the midst of several constraints it poses .The main body of finance literature suggests that the continuing evolution of corporate finance reveals some divergence between finance practice and theory (Nguyen, 2006). This divergence has stimulated increased interest and research into the local aspects of corporate finance in order to establish the reasons for this anomaly and the common ground upon which theory may be modified and consistently applied to add value to the functioning of firms.

Over the past 50 years, the relationship between capital structure and firm value has been a significant, but controversial issue in finance. Theories of this relationship predict positive, negative, or no statistically significant relationship (Welch, 2004).

Modigliani and Miller, (1958) were the first ones to landmark the topic of capital structure and they argued that capital structure was irrelevant in determining the firm's value and its future performance. On the other hand, Lubatkin and Chatterjee, (1999) as well as many other studies have proved that there exists a relationship between capital structure and firm value.

Capital is an important and critical resource for all companies. The capital resources can be divided into two main categories, namely equity and debt. Equity arises when companies sell some of its ownership rights to gain funds for operation and investing activities.

Debt is a contractual agreement, whereby companies borrow an amount of money and repay it with interest within stipulated time frames. There are many definitions given to capital structure of companies. Brealey and Myers, (1995) defined capital structure as comprising of debt, equity or hybrid securities issued by the firm. Schlosser, (1998) defined capital structure as the proportion of debt to the total capital of the firms. Haugen and Senbet, (1988) defined capital structure as a choice of firms between internal and external financial instruments. Bos and Fetherston, (1993) pointed out that capital structure, being total debt to total asset at book value, influences both profitability and riskiness of the firm. From the definitions given by many previous researchers, capital structure can be referred to as "the mixture of sources of funds a firm uses" (debt, preferred shares, and ordinary shares). The amount of debt that a firm uses to finance its assets is called leverage. A firm with a lot of debt in its capital structure is said to be highly levered. A firm with no debt is said to be unlevered.

When financial leverage increases, it may bring better returns to some existing shareholders but its risk also increases as it causes financial distress and agency costs (Jensen and Meckling, 1976). The cost of financial distress can be both direct and indirect. The bankruptcy cost is an example of direct financial distress cost while extraordinary administrative costs, loss of trade credit, loss of sales and key personnel are examples of indirect financial distress costs. Therefore, optimal capital structure is determined by the trade-off between benefits and costs of debt financing. The benefits are typically tax savings and the costs are financial distress and agency costs (Titman and Tsyplakov, 2004). An appropriate capital structure is a critical decision for any business organization.

The decision is important not only because of the need to maximize returns to the shareholders, but it is also important because of the impact of such decision on an organization's ability to deal with its competitive environment (Simerly and Li, 2002). Over the past several decades, theories on a firm's capital structure choice have evolved along many directions, with many models being built to explain a firm's financing behavior. The theories suggest that firms select capital structure depending on attributes that determines the various costs and benefits associated with debt and equity financing. Prior to 1958, the traditional capital structure theory (the Naïve Theory) was based on the idea of weighted average cost of capital (WACC) principle, which states that companies issue debt in order to reduce their WACC as debt is considered less costly than equity (Prace, 2004).

To broaden the understanding of determinants of capital structure in the context of capital structure theories, Rajan and Zingales, (1995) have attempted to find out whether capital structure choices of the firms in other industries are based on the similar factors of those influencing capital structures of singly selected industry or are similar capital structure theories universally applicable across all industries. It showed clearly that there are many similarities than differences in the underlying factors of firm's debt to equity choices in reference to the re-known capital structure theories.

1.1.2 The Nairobi Stock Exchange

The NSE began in the early 1920s while Kenya was considered a colony under British control. It was an informal marketplace for local stocks and shares. By 1954, a true stock exchange was created when the NSE was officially recognized by the London Stock Exchange as an overseas

stock exchange. After Kenyan independence from Britain, the stock exchange continued to grow and become a major financial institution. The facilities have modernized since the original "handshake over coffee" method of trading. The NSE has recently adapted an automated trading system, to keep pace with other major world stock exchanges (Nairobi Stock Exchange, 2011).

The NSE is part of the African Stock Exchanges Association. The ASEA was founded in the early 1990s to create a way for all the stock exchanges in Africa to communicate and stay organized. There are about 20 exchanges in the ASEA.

As at the time of this study there were 57 businesses and companies listed in the Nairobi Stock Exchange, including Sasini Tea and Coffee Ltd., Kenya Airways, Jubilee Insurance, Kenya Commercial Bank Ltd., and KenGen Ltd. Most of the businesses in the exchange are in the financial or industrial sectors, though agriculture and other commercial services are also represented.

The NSE is located in the city's central business district, on the first floor of the Kimathi Street Nation Center. Trading takes place 5 days a week (Monday to Friday) but only between the hours of 10am and 12 noon.

Nairobi Stock Exchange is Africa's fourth largest stock exchange in terms of trading volumes, and fifth in terms of market capitalization as a percentage of GDP. According to the Nairobi Stock Exchange report (December, 2007), 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 reallocation of financial resources from dormant to active agents;

Long-term investments are made liquid, as the transfer of securities (shares and bonds) among the participating public is facilitated; The Exchange has also enabled companies to engage local participation in their shares ownership, thereby giving Kenyans a chance to own shares of reputable firms; Companies can also raise extra finance essential for expansion and development. To raise funds, a company (issuer) issues extra shares; an issuer publishes a prospectus, which gives all pertinent details about the operations and future prospects of a company, while at the same time stating the price per share of the Issue; A stock market also enhances the inflow of international capital; and Stock markets also facilitate government's privatization programmes. It is hoped that this will create a point of departure for corrective measures where necessary.

1.2 Statement of the Problem

For many years, the link between capital structure and the value of the firm has been the subject of intense global debate and research and yet there is insufficient empirical evidence to support the augment in the Kenya context. Kenya is considered as prominent emerging market in Africa hence need to address matters to do with capital structures as it impact on ventures within the country.

This study will seek to more importantly enlarge understanding of the relationship between capital structure and firm's value. Cross-sectional data and multiple regression models will be used to address this relation. In more recent literatures, authors have showed that they are less interested on how capital structure affects the firm value.

Instead they lay more emphasis on how capital structure impacts on the ownership/governance structure thereby influencing top management of the firms to make strategic decisions (Hitt, Hoskisson and Harrison, 2007).

Prasad et al (2001) surveyed the empirical studies on company capital structure, and they observed that most empirical research on company capital structure is concerned with the major industrial countries, and that there has been relatively little study on developing countries or the transition economies. Kenya is of interest for two reasons: The country is in transition from an old constitution to a new one and is seeking to attract investor confidence.

To date, there is less concrete empirical evidence to answer questions like,

i. What is the relationship between capital structure and the value of the firm?
ii. What are the factors affecting the capital structure choices of the firms listed in Nairobi Stock exchange?
iii. What is the relationship between the capital structure theories and the value of the firms quoted on Nairobi Stock Exchange?
iv. How does the choice of a given capital structure theory in determining capital structures affects the firm's value?

1.3 Objective of the Study

The objective of this study was to examine the relationship between capital structure and value of firms quoted at Nairobi Stock Exchange.

1.4 Significance of the Study

Future Researchers and Finance practitioners

The study will make a significant contribution to future researchers to advance or modify existing theories. The findings will provide a learning base for finance practitioners. The findings may also be used as a source of reference for other researchers. In addition, academic researchers may need the study findings to stimulate further research in this area and as such form a basis of good background for further researches. They has also identified areas where academic recommendations have not been fully implemented.

The management of Firms Listed on the Nairobi Stock Exchange

The management of firms listed on the Nairobi Stock exchange will gain a better understanding of how the various listed firms finance their operations and how the choice of a given capital structure affects the firms performances thus taking informed position to avoid pitfalls .

Policy Makers (Capital Markets Authority and other Regulatory Bodies)

The Capital Markets Authority (CMA) and other regulatory bodies that are responsible for the licensing, regulation and supervision of operators in the capital markets, including policy formulation, monitoring and evaluation will make informed decisions on the basis of the findings, when executing their mandates.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section forms the second part of the study known as the literature review which is a body of text that aims to review the critical points of knowledge. It further discusses the theoretical perspective on capital structure and an empirical literature on the study topic.

2.2 Theoretical Review

2.2.1 The Trade - off Theory

Developments in capital structure theory today are dominated by the search for the optimal capital structure. Some theories suggest that firms select capital structures depending on attributes that determine the various costs and benefits associated with debt and equity financing (Peterson, 2005). Others suggest that there is no definitive optimal capital structure and assume that the attraction of interest tax shields and the threat of financial distress are second order (Shyam-Sunder & Myers, 1999). It is referred to as "static" because it assumes that the firm is fixed in terms of its assets and operations and only changes in the debt-to-equity ratios are considered (Ross, 2003). This means that firms reduce their debt levels if the costs of financial distress become high and are observed to maintain their leverage levels at optimums where the benefits from debt financing marginally exceed the costs of financial distress and their financial performance is maximized, or their risk is minimized. To elaborate more on this financing behavior, it is essential to investigate the choices firms make regarding the costs and benefits presented by the use of debt in their capital structures.

2.2.1:1 The Predictors Of The Trade-Off Theory

When an organization takes on too much debt, it suffers the danger of failing to meet its financial Obligations to its creditors with the result that this "financial distress" impacts negatively on the firm's value since it affects, among other things, any tax relief the firm may receive (Arnold, 2005). Ultimately, the firm faces the danger of bankruptcy and liquidation.

Financial distress and agency costs:

Financial distress includes but is not restricted to bankruptcy. It will quite often occur when a firm has taken on excessive debt and is unable to meet its financial obligations to its creditors, although often, other various factors may contribute to this condition. The degree of financial distress varies among firms and may be temporary and short-lived. However, at its extreme, financial distress leads to bankruptcy and liquidation which involves large payments to lawyers, accountants, administrators and management. Severe limitations on management's freedom to operate become likely (Brigham & Gapenski, 1994).

Ross (2001) contends that as the debt-to-equity ratio rises, so does the probability that the firm will be unable to pay its bondholders. Hence, ownership of the firm's assets is transferred from the shareholders to the bondholders. When the value of a firm's assets equals the value of its debt, the firm becomes bankrupt in the sense that its equity is rendered worthless. The legal and administrative expenses associated with bankruptcy proceedings are identified as direct costs which serve as a disincentive to debt financing. Other indirect bankruptcy costs, or costs associated with avoiding bankruptcy, are incurred when a firm is financially distressed.

These are less tangible and include costs that impact on the current and future operations of the business.

The risk of bankruptcy will have an impact on the overall performance of a firm. Brigham and Ehrhardt (2003) identify the following indirect costs of bankruptcy or the impending threat of bankruptcy: Financial distress hurts the productivity of workers and managers as they start to worry about the going concern of their business. Suppliers tighten their credit standards, which reduces the firm's accounts payable and causes the net operating working capital to increase. Ultimately, the free cash flows of the business are reduced; the risk of bankruptcy increases the cost of debt. With higher bankruptcy risk, debt holders insist on higher promised returns which increases the pre-tax cost of debt; higher debt levels affect the behavior of managers in one of two ways: on the upside, the risk of bankruptcy causes managers, whose reputation and wealth is usually tied to a single company, to control wasteful spending. However, the downside is that such managers also become more risk averse and reject positive Net Present Value (NPV) projects if they are risky, and this leads to an underinvestment problem and agency costs to the business.

Financial distress or the risk of bankruptcy is directly linked to the trade-off theory of capital structure by the costs that arise with the excessive use of debt. According to Faulkender and Peterson (2005), firms for whom the tax shields of debt are greater, the costs of financial distress lower, and the mis-pricing of debt relative to equity more favorable, the leverage levels are usually high.

For the optimal capital structure to exist, the firm's net tax saving from an additional shilling in interest should equate closely with the marginal increase in the expected financial distress costs (Ross, 2001). Therefore, in order for firms to follow the trade-off theory, they have to reduce their debt usage when the costs of distress or the probability of bankruptcy becomes high.

Furthermore, since bankruptcy cost functions are specific to individual firms, these costs can be viewed as primary determinants of differences in capital structures across firms. Several other traditional factors and theories can be factored into the trade-off m del and linked directly or indirectly to the costs of financial distress or bankruptcy risk. For example, all other factors being equal, the greater the volatility of earnings or operating profits of a firm, the less the firm should borrow to lessen the chances of financial distress. Other costs of financial distress depend primarily on the firm's assets or on how easily ownership of those assets can be transferred, that is, how tangible or intangible they are (Ross, 2003). A safe, consistently profitable company, with few intangible assets or growth opportunities ought to find a relatively high debt ratio profitable, yet a risky growth company ought to avoid excess debt financing altogether (Chew, 1993).

Debt and taxes:

There are certain observable facts that relate to the use of debt and the interest tax benefit that may accrue to a firm that uses it wisely. Firstly, the tax benefit from debt is obviously only important to firms that are in a tax paying position. Firms with substantial accumulated losses will get little value from the interest tax shield. Furthermore, firms that have substantial tax shields from other sources, such as depreciation, will get less benefit from leverage.

Finally, not all firms have the same tax rate, but the higher the tax rate, the greater the incentive to borrow (Ross, 2001).

The Kenyan government taxes a statutory 30% levy on corporate income. But interest paid on debt is a tax deductible expense, so that a tax paying firm that pays an extra shilling of interest receives a partially off-setting interest tax-shield in the form of lower taxes paid. Financing with debt instead of equity therefore increases the total after-tax - return to equity investors and ultimately increases firm value.

Hypothetically, if this firm chose to borrow 50 million or 100 million, the gains from such an arrangement would be 30%. This outcome is now considered very unlikely for a number of reasons: Firstly, the firm may not always be profitable so that the average effective future tax rate is less than the statutory tax rate. Secondly, debt is not permanent or fixed, investors today cannot know the size and duration of future interest tax shields, making the inflows from the latter risky to investors; Thirdly, the corporate level tax advantages could be partially off-set by the tax advantage of equity to individual investors, namely, the ability to defer capital gains and then pay taxes at lower capital gains. The extra personal tax investors pay on their earnings will also offset more than half of the corporate interest tax shield (Myers, 2001).

Since the primary benefit of debt is the tax shield it offers on interest paid, it is essential to review in detail the literature and empirical evidence on the factors that influence the appropriate mix of debt that firms can use.

2.2.2 The Pecking-Order Theory

There is an argument that firms do not try to reach the 'optimal' target capital structure as directed by theory. This is because managers tend to follow the line of least resistance and finance their operations with the least costly form of financing (Arnold, 2005).

According to Frank and Goyal (2003), the pecking-order theory is among the most influential theories of corporate finance and it derives its influence from the view that it fits naturally with certain facts about how firms obtain and use external financing. The pecking-order theory presents the strongest challenge to the trade-off theory because it offers some explanation for the alternative financing patterns found among firms and which the trade-off theory has failed to explain (Smart, 2007).

The following corporate financing habits are typical of the pecking-order theory: Firms prefer internal financing (retained earnings) to external financing and that information asymmetries are assumed relevant for external financing; Managers tend to maintain dividend payments and they neither increase nor decrease them in response to temporary fluctuations in profits; If the firm must obtain external financing, it will issue the safest security first, that is, debt before equity. If the internally generated cash flows exceed capital investment opportunities, the excess will be used to pay down debt rather than retire equity; If the internally generated cash flows are exhausted, firms will work down the pecking order from safe to riskier debt and the firm's debt ratio reflects its cumulative requirement for external financing (Frank & Goyal, 2003).

Loosely defined, the capital structure decisions of firms under this theory are driven by the firm's desire to finance new investments with internally generated funds then with low-risk debt, and then new equity as a last resort. Under this theory, there is no optimal capital structure that maximizes firm value (Chen & Strange, 2003). The attraction of interest tax shields and the treatment of financial distress are assumed second-order, so that debt ratios change when there is an imbalance of internal cash flow, net of dividends and real investment opportunities. Highly profitable firms with limited investment opportunities work down to low debt ratios, while those firms whose viable investment opportunities exceed internally generated funds borrow more and more. Hence, changes in the firm's debt ratio are driven by the need for external financing and not by the need to reach the optimal capital structure (Myers & Shyam- Sunder, 1999).

The pecking-order theory is based on two assumptions: firstly, according to informational asymmetry, managers are better informed about their own firm's prospects than are outside investors. So, when they decide to issue new equity to finance new projects it is almost invariably taken by outside investors as a signal that the firm's prospects, as seen by management, are not good and that the said issue is therefore overvalued (Brigham & Ehrhardt, 2008). This causes the firm's share price to fall (Brigham & Ehrhardt, 2008).

Conversely, management's decision to offer new debt to finance a project is taken, by outside investors, as a positive signal that the firm's prospects are good. Empirical evidence supports the rationale that most firms with extremely bright prospects prefer not to finance new projects through new share offerings, while firms with poor prospects sell shares, because the latter means bringing in new investors to share the losses if and when they arise.

Secondly, the pecking-order assumes that managers act in the best interests of their existing. shareholders, maximizing the value of existing shares, so that, they will even forego positive NPV projects if accepting them forces the firm to issue undervalued equity at higher issuing costs to new investors which would, in part, disadvantage their existing shareholders (Samuels, 1997).

Therefore, in order to capitalize on viable future investment opportunities and to avoid subjecting themselves to the discipline of capital markets, firm managers decide to maintain a reserve borrowing capacity of retained earnings comprising cash and marketable securities or an unused debt capacity. Such financial slack provides them with the necessary financial flexibility to take on projects without having to issue external financing.

The pecking-order model helps to explain why these profitable firms often borrow so little. It is not that they have very low target ratios but that they do not need outside financing. Less profitable companies, with an extensive investment programme, issue debt because they do not have sufficient funds available for these capital investment programmes and because debt is first in the pecking-order for externally raised financing (Arnold 2005). Nonetheless, recent studies are gradually finding a positive relationship between profitability and leverage, thereby shifting their focus to the trade-off theory as a better predictor of this financing pattern (Frank & Goyal, 2003).

Predictors of The Pecking-Order Theory: The pecking-order theory is based primarily on the existence of informational asymmetry between firm managers and outside investors (Chen & Strange, 2005). If, for example, a firm announces an issue of ordinary shares, this will be assumed to be good news for investors as it reveals a growth opportunity with positive NPV. However, it would be a bad signal if the managers believe that the assets-in-place are overvalued by investors and decide to try and issue overvalued shares (issuing shares at too low a price transfers value from existing shareholders to new investors with the reverse here also true). Therefore, share prices will eventually fall because an announcement to issue new shares is usually taken as a signal that management have lost confidence in the firm's prospects (Myers, 2001)

Conversely, a debt offering is usually taken as a positive signal (Brigham, 2008). Investors in debt are less exposed to errors in valuing a firm, since debt has the prior claim on assets and earnings. Therefore, an announcement to issue debt has a smaller impact on the stock price than an announcement to issue equity. For investment-grade issues, where the default risk is very small, the share price impact should be negligible (Myers, 2001).

The pecking-order theory also attempts to explain the stock market's reaction to leverage increasing and leverage-decreasing events. According to Smart (2007), firms with valuable investment opportunities finance projects internally or use the least risky form of debt if they have to obtain external financing. If they issue equity, however, investors will most likely translate this into an indication that the firm's shares are overvalued. This results in a decline of the firm's share price.

2.2.3 Free Cash Flow Theory

The free cash flow theory argues that firms seek to maintain dangerously high levels of debt because they believe these high levels will increase value, despite the threat of financial distress. Free cash flows occur when a firm's operating cash flow significantly exceeds its profitable investments and is a common practice for mature firms that are prone to over-invest (Myers 2001).

According to Brealey (1995), the free cash flow theory predicts that mature, "cash cow" companies are the most likely targets for leveraged buyouts (LBOs), yet they do not endorse this theory as the sole explanation for the existence of LBOs. However, for the purposes of this review free cash flows provide an alternative explanation for financing behavior among firms.

2.3 Empirical Review

The essence of financial management is the creation of shareholder value. According to Ehrhard and Bringham (2003), the value of a business based on the going concern expectation is the present value of all the expected future cash flows to be generated by the assets, discounted at the company's weighted average cost of capital (WACC). From this it can be seen that the WACC has a direct impact on the value of a business (Johannes and Dhanraj, 2007).

The choice between debt and equity aims to find the right capital structure that will maximize stockholder wealth. WACC is used to define a firm's value by discounting future cash flows. Minimizing WACC of any firm will maximize value of the firm (Messbacher, 2004).

Debt policy and equity ownership structure "matter" and the way in which they matter differs between firms with many and firms with few positive net present value project (McConnel and Servaes, 1995). Leland and Pyle (1977) propose that managers will take debt-equity ratio as a signal, by the fact that high leverage implies higher bankruptcy risk (and costs) for low quality firms. Since managers always have information advantage over the outsiders, the debt structure may be considered as a signal to the market.

Ross's (1977) model suggests that the values of firms will rise with leverage, since increasing the market's perception of value. In their second seminal paper on corporate capital structure, Modigliani and Mill (1963) show that firm value is an increasing function of leverage due to the tax deductibility of interest payments at the corporate level. In the 30 years since, enormous academic effort has gone into identifying the relevant costs associated with debt financing that firms presumably trade off against this substantial corporate tax benefit. Although direct bankruptcy costs are probably small, other potentially important factors include personal tax, agency cost, asymmetric information, product/input market interactions, and corporate control considerations.

Early empirical evidence on the trade-off theory (Bradley, Jarrell, and Kim, 1984) yielded mixed results. However, recent studies examining capital structure response to change in corporate tax exposure provide evidence supporting the trade-off theory. Myers (1984) argues that the trade-off theory also fails to predict the wide degree of cross-sectional and time variation of observed debt ratios. Return on stock increases for any announcement of issuer exchange offers.

Under some conditions capital structure does not affect the value of the firm. Splitting a fund into some mix of shares relating to debt, dividend and capital directly adds value to the company (Gemmille, 2001).

The issue of whether financial structure influences economic growth or not. Through heterogeneous panel it was found that significant effects of financial structure on real per capita output, which is in sharp contrast to some recent findings (Arestis and Luintel, 2004). Firms have increased their level of debt relative to their profit. As a result, firm debt in general has risen substantially. They found that those firms having lower debt have higher value than the firm, which has high debt. Thus, firm can maximize its value by choosing low debt or zero debt (Kinsman and Newman, 1998). When the firm's investment is large, countervailing incentives lead both high and low cost firms to choose the same capital structure in capital structure in equilibrium, thus decoupling capital structure from private information. When investment is small or medium size, the model may admit separating equilibrium in which high cost firms issued greater equity and low cost firms rely more on debt financing (Spiegel and Spulber, 1997).

The presence of corporate tax shield substitutes for debt implies that each firm has a unique interior optimum leverage decision and when firms, which issue debt, are moving toward the industry average from below, the market will react more positively then when the firm is moving away from the industry average. The overall finding is that the relationship between a firm's debt level and that of its industry does not appear to be of concern to the market (Hatfield et al., 1994). Debt ratios are found to be decreasing in cash flow or profitability and increasing in the investment of the firm in both countries. The study found positive with pecking order approach and generally inconsistent with the tradeoff approach (Benito, 1999). The firm-specific nature of strategic assets implies that they should be financed primarily through equity; other less specific assets should be finance through debt.

Firms are likely to suffer increased costs and decrease performance if they do not adopt suitable governance structures in their transactions with potential suppliers of funds (Kochhar, 1997). It is considered "customer-driven" financial distress where prices for the firm output decline whenever firm has poor financial status. "Employee driven" financial distress originates from loss of intangible assets when firm revenue decline. Babenko (2003) examines the state tax effect on optimal leverage and yield spreads to find out the optimal capital structure at the time of financial distress. A negative relationship exists between the ownership of shareholders with large blocks, on the one hand, and the degree of control, on the other hand, with regard to firm value, the second relationship being significant. However, endogenous treatment of these variables then reveals a positive effect for the ownership of the major shareholders on firm value.

Ross (1999) proposes that managers will take debt/equity ratio as a signal, by the fact that high leverage implies higher bankruptcy risk (and cost) for low quality firms. Since managers always have information advantage over the outsiders, the debt structure may be considered as a signal to the market. Ross's model suggests that the value of firms will rise with leverage, since increasing leverage increases the market's perception of value. Suppose there is no agency problem, i.e. management acts in the interest of all shareholders. The manager will maximize company value by choosing the optimal capital structure; highest possible debt ratio. High-quality firms need to signal their quality to the market, while the low-quality firms' managers will try to imitate. According to this argument, the debt level should be positively related to the value of the firm.

Assuming information asymmetry, the pecking order theory (Myers and Majluf, 1998) predicts that firm will follow the pecking order as an optimal financing strategy. The reason behind this theory is that if the manager act on behalf of the owners, they will issue securities at a higher price than they are truly worth. The more sensitive of the security, the higher the cost of equity capital, since the action of the manager is giving a signal to the market that the securities is overpriced.

Stulz (2006) argues that debt can have both a positive and negative effect on the value of the firm (even in the absence of corporate taxes and bankruptcy cost). He develops a model in which debt financing can both alleviate the overinvestment problem and the underinvestment problem.

Stulz (2006) assumes that managers have no equity ownership in the firm and receive utility by managing a larger firm. The "power of manger" may motivate the self-interested managers to undertake negative present value project. To solve this problem, shareholders force firms to issue debt. But if firms are forced to pay out funds, they may have to forgo positive present value projects. Therefore, the optimal debt structure is determined by balancing the optimal agency cost of debt and the agency cost of managerial discretion.

2.4 Summary of the Literature Review

From the review of the related literature, it is evident that theories advanced to explain the financing behavior of firms fall short of that objective. These theories clearly fail to explain certain financing patterns among firms, and the possible explanations for this are numerous. It is logical to suggest that there are other numerous economic variables that these theories do not incorporate that may have an influence on the observed financing patterns.

Graham and Harvey (2001) contend that the relatively weak support for many of the capital structure theories indicates that it is time to critically reevaluate the assumptions and implications of these mainline theories. Alternatively, perhaps the theories are valid descriptions of what firms should do, but corporations ignore the theoretical advice.

Against this observation, it is important to investigate the capital structure patterns of listed firms in Nairobi Stock exchange in order to check for any variations or consistencies in the capital structure patterns with what has so far been presumed from theory.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The research methods used are outlined in this chapter. The chapter contained the following headings: introduction, research design, study population, target population, sampling design, data collection instruments, data collection, and data analysis procedures.

3.2 Research Design

According to Brown (2003), research design provides the glue that holds the research project together. A design is used to structure the research, to show how all of the major parts of the project, which include the samples or groups, measures, treatments or programs, and methods of assignment that work together to try to address the central research questions.

The research design in this project was descriptive as it sought to survey relationship between capital structure and the value of the firm.

3.3 Population

The study focused on companies which had been quoted in Nairobi Stock Exchange (NSE) between the year 2005 to year 2010 and their shares traded continuously in NSE over the same period. The study propose to analyze (57) listed companies which capture all the market segments, namely Agricultural, Commercial, Finance and Investment, industrial & Allied and Alternative Investment Market (AIMS)

3.4 Sample

The study adopted a statistical sampling method. Non-probabilistic sampling method and specifically purposive sampling were used in selecting the sample within strata of segment. The adoption of the stratified random sampling method was informed by the fact that the population of the study was stable and could be categorized into groups (strata) having unique characteristics as Alternative market Segment, Agricultural; Commercial and Services; Finance and Investment and Industrial and Allied sectors with each stratum capable of being studied independently. This constituted a total of 57 firms. The purposive sampling method ensured that the sample firms selected were listed in the NSE by the year 2005 and had continuously and freely had their shares traded in the NSE up to the year 2010 ensuring that all the data set required for the study were available.

3.5 Data Collection

This study used only Secondary data, which consisted of Share prices, share capital, Earning per shares, debt levels, sales, retained earnings, both current and fixed assets and dividend payment ratios for the period January 1,2005 to December 31,2010. The data were obtained from the published annual reports of selected companies. This study carefully attempted to select a number of factors that are essential to enhance the present status of the capital structure as well as the value of the firm to take a further movement towards success.

3.6 Data Analysis

This study used cross sectional time series fixed effect model to analyze available data to find out the relationship between capital structure and the value of the firm (expressed by the share price in the market).

Cross sectional regression analysis measures the observations at the same point in time or over the same period but differ along another dimension. Time series analysis identifies the nature of phenomenon represented by the sequence of observation and forecast the future and observes a trend.

This study also used correlation analysis which is a statistical tool that could be used in this study to describe the degree to which one variable is linearly related to another. Through conducting correlation analysis this study shall be able to identify the degree of association among the variables. This model put value of the firm (share price) as dependent variable; firm size, profitability, public ownership in capital structure, dividend payout, asset and operating efficiency, growth rate, liquidity and business risk were taken as independent variables.

Firm size was represented by share capital, profitability is measured through EPS, public ownership is in percentage, capital structure is represented by the ratio of long term debt to total assets, dividend payout at actuai, efficiency is measured through fixed asset turnover, growth rate is noted through sales growth rate, liquidity is measured by current ratio, and business risk was represented by operating leverage.

$$Vof = a + \beta_1 eps + \beta_2 dp\ ratio + \beta_3\ public + \beta_4\ fato + \beta_5\ ltdebtas + \beta_6\ curatio + \beta_7\ operlev + \beta_8\ salesgr + \beta_9\ sharecap + e_i$$

Where: vof-value of the firm, *eps* - earnings per share; *dpratio* - dividend payout ratio; *public* – a percentage of public shareholding; *fato* - fixed asset turnover; *ltdebtas* - long term debt to total assets; *curatio* - current ratio; *operlev* - operating leverage; *salesgr* - sales growth; *sharecap* - share capital; α - constant, ε - residual component; $i = 1, \ldots, 12$; t - time 1, … , 6.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION, AND PRESENTATION

4.1 Introduction

The study was based on selected four sectors out of total ten economic groups or sectors of Kenyan economy within Nairobi Stock exchange. These four sectors include; Agriculture, Manufacturing and allied, energy and petrol and commercial and services.

The analysis section of the paper is based on published data of companies listed on the Nairobi two Stock Exchanges of the country. In the following statements of the section this study presented sector-wise capital structures and followed by sector-wise ratio analysis of selected companies.

Capital structure consists of balance sheet items like shareholders' equity, non-current liabilities, and total capital employed. Capital structures of selected companies are shown as: shareholders' equity is the sum of ordinary share capital, revaluation, and capital reserves other reserves and surplus. Non-current liabilities are preference share, debenture, and other non-current liabilities. The capital employed is sum of debt equity ratio, gearing, book value per share, and net asset value per share.

4.2 Data Analysis and Interpretation

4.2.1 Correlation analysis

Output of correlation analysis is represented in matrix of pair-wise correlation. This study calculated correlation of variables with each other. It was found that price is positively correlated

with EPS, dividend per share, and book value per share, fixed assets turnover, current ratio, inventory turnover ratio, P/E ratio, dividend growth, and net profit margin.

As illustrated in appendix II, price is highly correlated with dividend per share, which is 0.507. DPS and price are most positively correlated. From this we can understand that price of stock in these four sectors mostly depends on dividend per share. When the DPS increase, price for particular share tends to increase. Price and EPS have positively correlation of 0.33. Price and dividend payout ratio are slightly negatively correlated by -0.001. The correlation value is insignificant. Price and public shareholding has negative correlation of -0.027. Price and fixed assets turnover have positive correlation of 0.21. Price and long term debt to total asset ratio have negative correlation of 0.348.

Price to current ratio has correlation of 0.013. Price and sales growth have correlation of -.032. This means price and sales growth are inversely related. But in real world price tend to increase with the increase of sales growth. The study found that price and share capital are negatively correlated, correlation value -0.0711. It can be inferred from the analysis that that none of the variables are perfectly correlated or inversely correlated. Each and every variable has some relationship with each other.

4.2.2 Cross sectional time series regression analysis

This study conducted fixed between cross sectional time series regression models. The cross sectional time series regression was conducted considering price as dependent variable; and independent variables were EPS, dividend payout ratio, percentage of public shareholding, fixed

asset turnover, long term debt to total assets, current ratio, operating leverage, sales growth and total share capital. This study gathered last 6 years financial data of 12 companies belonging to these four sectors. The study acquired the data from 1st January 2005 to 31st December 2010 to conduct cross sectional time series regression analysis.

EPS has coefficient of 3.83, which says that one unit increase in EPS will increase price by 3.83. Standard error is 0.461, this indicates that the data given into the table are acceptable; *t* value of EPS on price is 8.319 and this is the highest *t* value in the regression table. As the *t* value is highest it indicates that sign confirmed by coefficient is supported by *t* value. These statistically satisfy that EPS change will affect price by 3.83 times. So, this study suggests that by increasing EPS of any firm, financial manager can increase the value of the share price.

Dividend payout ratio has coefficient of 1.87 which is less than the coefficient of EPS on price. Its standard error is 11.4, which is higher than the standard error of EPS. The *t* value is 0.164. This implies that firm may increase the value through paying more dividend out of their current income or from their previous income.

Public shareholding has negative coefficient of -2.52 with price. This implies that if any firm has greater shareholding by the public then the price of that particular company will decrease. Standard error is 11.40 and the *t* value is -0.18. This also shows that a firm can increase its price by reducing public shareholding.

Fixed asset turnover has very low negative impact on price. It shows that if fixed asset turnover increase by 1 unit then price will reduce by .66. In real world we have seen that the more a company will be able to generate sales through its fixed assets, the more efficient will be the firm and profit will be relatively higher. But in our statistical result implying that fixed asset turnover reduces the price of stocks or value of firm.

Long term debt to total asset has the highest coefficient of 88.56. This indicates the most influential variable. Long term debt to total asset indicates the portion of long term liability or credit on total firm's fixed assets. Standard error is 82.64. Here it is accepting due to much variability of long term debt to total assets in observed data. *t* value is 1.07 which shows that by taking debt to its capital structure one firm can increase the market value of share. The portion of or the mix of long term debt to total assets may widely vary from company to company.

Current ratio has coefficient of 0.0278 with price. This shows that current ratio has positive relationship with price. Current ratio increases with the increase of current asset or with the decrease in current liability. When the current asset is higher than the current liability that means some portion of the current asset is being financed by its long term debt. *t* value of 0.049 is acceptable to us as its standard error is low.

Price and operating leverage has negative coefficient of -0.091. Its standard error is 0.33. *t* value is -0.27. Operating leverage shows the extent to which a firm has fixed burden. If any firm has high fixed cost or operating leverage then a little change in sales price will adversely affect the

profitability of any firm. Low operating leverage gives any firm flexibility. So by reducing operating leverage any firm can increase its value.

Share capital and price have negative coefficient of -6.32, standard error is 2.98, and *t* value is -.12. This explains that the larger the equity capital of a firm, the lower the share price in the market. This may happen for the expectation of the shareholder.

Second regression model made price as dependent variable and independent variables included EPS, dividend payout ratio, public shareholding, fixed asset turnover, long term debt to total assets, current ratio, operating leverage, and sales growth. *R2* indicates that independent variables can explain 11.53% of variability in the model.

This model ignored the impact of share capital on the market price of stocks. Because number of shares have multiple indirect influences on other variables considered in the model, like EPS, DPS, long term debt to total assets, and leverage ratio. Therefore, the second regression was considered the roundabout impact of share capital rather than both direct and indirect sways.

It was observed that long term debt to total asset has coefficient of 128.86 which is the most influencing the price if someone consider only the coefficient figure. This means one unit increase in long term debt to total asset will increase price by 128.86. Its associated *t* value is 1.599. Although the coefficient is not statistically significant, the positive impact of debt ratio on stock price has important implications.

After the long term debt to total assets, earning per share has coefficient of 3.77 with price. This means one unit increase in earnings per share will increase price by 3.77. As the *t* value is high it indicates that sign confirmed by coefficient is supported by this value. This also indicates that any increase in EPS of any firm will increase the price of that firm. Dividend payout ratio (DP ratio) has coefficient of 2.7475 with price, this indicates that 1 unit increase in DP ratio will increase price by 2.74. The *t* value is small at .24 this indicates less sign of confirmation by coefficient to draw any idea or impact. If we compare std. error of EPS and DP ratio, we will see that DP ratio has higher std. error than EPS.

Percentage of public shareholding, fixed asset turnover, operating leverage and sales growth have negative coefficient with price. Of which sales growth has higher negative coefficient. Sales growth has coefficient of -26.508 with price and *t* value of -1.236. This indicates one unit sales growth will reduce the price by 26.508.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In the previous chapter, analysis was conducted where the financial reporting's were collected and analyzed and presentation done. This chapter discussed the main findings and conclusions based on data analyzed in chapter four above. The purpose of these conclusions is to answer the objective of the study.

5.2 Summary of Findings and Discussions

Fluctuations in the capital structure of the firms were influenced not only by a conscious effort by managers to meet particular objectives, but by some external factors as well. An element of support for this comes from Welch (2004) who extends the dynamic of capital structure theory to argue that over a long period, the value of the firm (Share price) relates to its capital structure.

In line with the agency costs theory and information asymmetry hypothesis, the market favours firms that issue more debt as they are viewed as being more transparent and the issuers of debt believe that they have move more control over them thus typically translating improve firm's value.

Findings show that the value of the firm is highly correlated with dividend per share. Dividend per share and the value of the firm are most positively correlated. From this we can understand that price of stock in these four sectors mostly depends on dividend per share. It is also shown that when the dividend per share increases, price for particular share tends to increase.

Findings show value of the firm (measured by share price) and sales growth are inversely related. The study found that price and share capital are negatively correlated. It can be inferred from the analysis that none of the variables are perfectly correlated or inversely correlated. Each and every variable has some relationship with each other.

In the first regression model, EPS, dividend payout ratio, long term debt to total assets, and current ratio have positive coefficient and public shareholding, fixed asset turnover, operating leverage, sales growth, and total share capital have negative coefficient and *R2* of 0.1249 indicates that 12.49% of variables in the dependent variables can be explained by independent variables. It is observed that EPS change affect the firm's value. It is noted that by increasing EPS of any firm, financial manager can increase the value of the share price. Findings show that the firm may increase the value through paying more dividends out of their current income or from their previous income.

Findings also show that public shareholding has negative coefficient of -2.52 with price. This also shows that a firm can increase its price by reducing public shareholding. It is noted that fixed asset turnover has very low negative impact on price. It is noted that in real world we have seen that the more a company will be able to generate sales through its fixed assets, the more efficient will be the firm and profit will be relatively higher. But in our statistical result implying that fixed asset turnover reduces the price of stocks or value of firm.

Findings show that long term debt to total asset has the highest coefficient meaning it is long term debt to total asset indicates the portion of long term liability or credit on total firm's fixed assets. The portion of or the mix of long term debt to total assets may widely vary from company to company.

Findings show that any firm has high fixed cost or operating leverage then a little change in sales price will adversely affect the profitability of any firm. Low operating leverage gives any firm flexibility. So by reducing operating leverage any firm can increase its value.

Findings show that sales growth has negative coefficient with price. This result is not supported by real life phenomenon, because sales growths supposed to have positive impact on a firm. Sales growth will make higher the net profit margin. The economics of scale could be attained by increase any companies sales growth. The obtained statistical result data shows that there exists a negative relationship with the firm value. As the real life experience and our statistical data are not matching, one could ignore any result out of it.

Findings show that generally, when there is sales growth in a company the future earning expectation increase and market price of share also increase in association with that expectation. Our analysis suggests the relationship as negative: the logic behind this may be the fact that at the time of growth companies generally retain most of their profit for future and usually don't declare dividend; as the dividend amount is reduced the price may fall. In association with it the other thing may be true: to support the sales growth the companies need to borrow from outside,

this increases the financial expenditure as well as the burden to the firm and affect the market price.

Through the analysis it is seen that capital structure has impact on the market value of a firm. Furthermore, it is also observed that by changing its current ratio, operating leverage, EPS, dividend payout ratio or share capital of a firm may increase its value in the market. Most interesting finding is about the value of *R2* which is expectedly very low like other findings in other similar research papers. Because share price is not only dependent on the fundamental financial information of the company but also on the qualitative decision of management, level of good governance, investor psychology, market reputation, business cycle, etc.

5.3 Conclusion and Recommendations

The study objective was to find out the relationship between capital structure and value of firms quoted at Nairobi stock exchange. In order to achieve the goal this paper gathered secondary data of publicly listed companies and used some statistical tools to analyze all the financial information. To investigate the relationship between capital structure and firm value in Kenyan context, this paper considered share price as proxy for value and debt/equity ratios for capital structure decision.

The interesting finding of this paper suggests that maximizing the wealth of shareholders requires a perfect combination of debt and equity, whereas cost of capital has a negative correlation in this decision and it has to be as minimum as possible. This is also seen that by changing the capital structure composition a firm can increase its value in the market.

Nonetheless, this could be a significant policy implication for finance managers, because they can utilize debt to form optimal capital structure to maximize the wealth of shareholders.

Conclusion is made that that price is highly correlated with dividend per share. Dividend per share and price are most positively correlated. It is noted that when the dividend per share increases, price for particular share tends to increase. The study concludes that price and sales growth are inversely related. Price and share capital are negatively correlated. It was noted that each and every variable has some relationship with each other. The study concludes that EPS change affect price. It was observed that a firm can increase its price by reducing public shareholding. It is noted that fixed asset turnover has very low negative impact on price. The study concludes that long term debt to total asset has the highest coefficient meaning it is long term debt to total asset indicates the portion of long term liability or credit on total firm's fixed assets. The portion of or the mix of long term debt to total assets may widely vary from company to company.

5.4 Limitations of the Study

The study focused on companies which had been quoted in Nairobi Stock Exchange (NSE) between the year 2005 to year 2010 and their shares traded continuously in NSE over the same period. A total of 12 companies were studied.

The study was limited to a statistical sampling method. Non-probabilistic sampling method and specifically purposive sampling were used in selecting the sample within strata of segment. The adoption of the stratified random sampling method was informed by the fact that the population

of the study was stable and could be categorized into groups (strata) having unique characteristics as Alternative market Segment, Agricultural; Commercial and Services; Finance and Investment and Industrial and Allied sectors with each stratum capable of being studied independently.

This study used only secondary data, which were essential from the selected companies' balance sheets and income statements from January 1, 2005 to December 31, 2010 limiting the scope of the study.

The study used cross sectional tie series fixed effect model to analyze available data to find out the impact of capital structure on the firm value (expressed by the share price in the market). This study also used correlation analysis which is a statistical tool that could be used in this study to describe the degree to which one variable is linearly related to another.

The study was conducted within a time frame of five months dating July 2011 to October 2011 when final presentation of the study was carried out.

5.5 Suggestions for Further Research

Future research should focus on the un researched companies that are listed in Nairobi Stock Exchange. Future research can also focus on the private companies. The given time frame can as well be adjusted to cover a wider scope. Other statistical sampling methods can me adopted such as the probabilistic sampling method to determine the population of study. Other segment unlike Alternative market Segment, Agricultural; Commercial and Services; Finance and Investment and Industrial and Allied sectors can be adopted for future research.

This study proposes the use of primary data where management of the companies can be question on the positions of the companies with regard to capital structure unlike concentrating on only secondary data, which were essential from the selected companies' balance sheets and income statements in a given period.

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Appendix I: NSE Listed Companies

AGRICULTURAL	FINANCE AND INVESTMENT	INDUSTRIAL AND ALLIED	ALTERNATIVE INVESTMENT MARKET SEGMENT(AIMS)
Kakuzi	Barclays Bank Ltd	Athi River Mining	City Trust Ltd
Rea Vipingo Plantations Ltd	CFC Stanbic Holdings Ltd	B.O.C Kenya Ltd	Eaagads Ltd
Sasini Ltd	Diamond Trust Bank Kenya Ltd	Bamburi Cement Ltd	Express Ltd
COMMERCIAL AND SERVICES	Housing Finance Co Ltd	British American Tobacco Kenya Ltd	Kapchorua Tea Co. Ltd Ord
Car and General (K) Ltd	Centum Investment Co Ltd	Carbacid Investments Ltd	Limuru Tea Co. Ltd
CMC Holdings Ltd	Jubilee Holdings Ltd	Crown Berger Ltd	Williamson Tea Kenya Ltd
Olympia Capital Holdings ltd	Kenya Commercial Bank Ltd	E.A.Cables Ltd	Transcentury
Kenya Airways Ltd	National Bank of Kenya Ltd	E.A.Portland Cement Ltd	Kenya Orchards Ltd
Marshalls (E.A.) Ltd	NIC Bank Ltd	East African Breweries Ltd	A.Baumann CO Ltd
Nation Media Group	Pan Africa Insurance Holdings Ltd	Sameer Africa Ltd	
Standard Group Ltd	Standard Chartered Bank Ltd	KenolKobil Ltd	
TPS Eastern Africa (Serena) Ltd	Equity Bank Ltd	Mumias Sugar Co. Ltd	
Scangroup Ltd	Kenya Re-Insurance Corporation Ltd	Total Kenya Ltd	
AccessKenya Group Ltd	The Co-operative Bank of Kenya Ltd	Unga Group Ltd	
Safaricom Ltd	CFC Insurance Holdings	KenGen Ltd	
Uchumi Supermarket Ltd		Eveready East Africa Ltd	
Hutchings Biemer Ltd			

Appendix II: Correlations Among price, eps, dps, bops, fato and itdebtas

	eps	dps	bvps	ato	ltdebtas	ltdebteq
price	1.0000					
eps	0.3357	1.0000				
dps	0.5070	0.5368	1.0000			
bvps	0.2074	0.6092	0.4679	1.0000		
fato	0.0214	0.0731	0.0065	0.0346	1.0000	
ltdebtas	-0.0348	-0.2411	-0.1427	-0.4736	-0.0942	1.0000
ltdebteq	-0.0326	-0.0357	0.0489	0.1062	-0.0023	-0.0807

Source; Research Data (2011)

Appendix III: Correlations Among price, curatio, invturn, patio, salesgr, epsgr and epsgr

	price	curatio	invturn	peratio	salesgr	epsgr
price	1.0000					
curatio	0.0126	1.0000				
invturn	0.0004	-0.0182	1.0000			
peratio	0.0519	-0.0037	0.0050	1.0000		
salesgr	-0.0318	-0.0066	0.1893	-0.0342	1.0000	
epsgr	-0.0148	0.0001	0.0390	-0.0085	0.0938	1.0000

Source; Research Data (2011)

Appendix IV: Correlations Among price, divgr, operlev, finlev, netsales, npmargin, sharecap and public

	price	divgr	operlev	finlev	netsales	npmargin	sharecap	public
price	1.0000							
curatio	0.0338	1.0000						
invturn	-0.0055	-0.0033	1.0000					
peratio	-0.0013	-0.0073	0.0070	1.0000				
salesgr	-0.0035	-0.0237	-0.0140	-0.0059	1.0000			
epsgr	0.0335	0.0152	0.0023	0.0206	0.0214	1.0000		
sharecap,	-0.0711	0.0126	-0.0179	-0.0484	0.1852	0.0456	1.0000	
public	-0.0267	-0.0098	-0.0019	-0.0064	-0.0339	0.0045	-0.0339	1.0000

Source; Research Data (2011)

Appendix V: Cross Sectional Time Series Fixed Effect Regression Analysis

Number of Obs	12		
Number of groups	7		
R-sq:	Within 0.1311		between 0.1251
overall 0.1249			
		F(9,496)= 8.32	
		Prob>F= 0.00	
price	Coef.	t	P>t
eps	3.835133	8.319	0.000
dpratio	1.873811	0.164	0.870
public	-2.52147	-0.181	0.856
fato	-0.6622866	-0.449	0.654
ltdebtas	88.56484	1.072	0.284
curatio	278682	0.049	0.961
operlev	914526	-0.271	0.786
salesgr	-26.54536	-1.241	0.215
sharecap	-6.32e-07	-2.119	0.035
cons	325.0554	6.824	0.000

Source; Research Data (2011)

Appendix VI: Cross Sectional Time Series Fixed Effect Regression Analysis

Number of Obs	12		
Number of groups	7		
R-sq:	Within 0.2236		between 0.0609
overall 0.1153			
		F(8,497)= 8.76	
		Prob>F= 0.00	
price	Coef.	t	P>t
eps	3.772985	8.177	0.000
dpratio	2.747591	0.240	0.810
public	-4.61E-08	-0.515	0.607
fato	-0.3330763	-0.226	0.821
ltdebtas	128.8642	1.599	0.110
curatio	0.0475077	0 084	0.933
operlev	0.0775599	-0.229	0.819
salesgr	–26.50842	-1.236	0.217

Source; Research Data (2011)

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section forms the second part of the study known as the literature review which is a body of text that aims to review the critical points of knowledge. It further discusses the theoretical perspective on capital structure and an empirical literature on the study topic.

2.2 Theoretical Review

2.2.1 The Trade - off Theory

Developments in capital structure theory today are dominated by the search for the optimal capital structure. Some theories suggest that firms select capital structures depending on attributes that determine the various costs and benefits associated with debt and equity financing (Peterson, 2005). Others suggest that there is no definitive optimal capital structure and assume that the attraction of interest tax shields and the threat of financial distress are second order (Shyam-Sunder & Myers, 1999). It is referred to as "static" because it assumes that the firm is fixed in terms of its assets and operations and only changes in the debt-to-equity ratios are considered (Ross, 2003). This means that firms reduce their debt levels if the costs of financial distress become high and are observed to maintain their leverage levels at optimums where the benefits from debt financing marginally exceed the costs of financial distress and their financial performance is maximized, or their risk is minimized. To elaborate more on this financing behavior, it is essential to investigate the choices firms make regarding the costs and benefits presented by the use of debt in their capital structures.