AN INVESTIGATION INTO APPLICATION OF PECKING ORDER CONCEPT BY COMPANIES LISTED AT NAIROBI STOCK EXCHANGE

BY

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DECLARATION

I declare that this research project is my original work and it has not been submitted in any other University for examination.

Signature .... Date ....15|11|2010.......................

Esther Wanjiru Mbugua   **D61/70976/2008**

This research project has been submitted for examination with my approval as the university supervisor:

Sign: ------------------------------------- Date: ------15/11/2010------------------------

Mr. Joseph. L. Barasa

DEDICATION

This study is dedicated

To my loving husband Patrick Kamore

And

My dear

Daughters Charlene and Linah

That you may excel beyond here.

ACKNOWLEDGEMENT

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ABSTRACT

Financing decisions of most firms consists of determining the ratio of debt to equity depending on their financing needs. Booth et al (2001) found out that factors affecting capital structure decisions in developed and developing countries are the same. This study seeks to fill the existing research gap by investigating the application of pecking order theory to companies listed at NSE. The objective of the study was to investigate the application of pecking order concept by companies listed at Nairobi Stock Exchange. Exploratory research design was chosen for this study as it enabled the researcher to generalise the findings to a larger population.The population of this study was all the companies listed at NSE, there are 55 companies that are currently listed in the NSE this study was restricted to those that have no regulated capital and those that have not been suspended from the NSE. The secondary data was collected from the financial statements of the company and books. The study established that capital structure decision of the company influenced their asset structure and size of their company since large firms are highly leveraged, large firms uses more of debts, small firms are more leveraged than large firms hence preferring to borrow short-term rather than long-term debt because of fixed costs associated with this alternative. Capital structure decision influence retained earnings, size, growth, company turnover, assets structure and reserves of the company to a great extent. According to the results obtained, the firms listed at NSE give priority to internal resources for finance as their total asset profitability, liquidity levels and sales amounts increase and prefer a lower level of external resource use. This condition supports the explanations made on the basis of pecking order theory. The study concludes that limited internal fund   and availability of internal funds influences the application of pecking order concepts to companies listed at NSE. The study further revealed that those companies with more internal funds utilize these internal funds to fund their new projects rather than using debt or even equity ,while those companies with limited internal funds opt to get debt to fund their projects and if debt is not readily available the opt for equity thus following the pecking order theory.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Effective management of the financing procedures is vital for the financial welfare of the firm. Firms manage their capital structure carefully. A false decision on capital structure may lead to financial distress and, eventually, to bankruptcy, as per the pecking order theory in Donaldson's (1961) study. A continuing debate in corporate finance exists over the question of how firms make their financing decisions, and the effect of these on the wealth of the organisation, the decision regarding the optimal mix of debt and equity finance is seen as crucial by financial executives Graham and Harvey (2001) and Bancel and Mittoo (2004).

In the theory of firm's capital structure and financing decisions, the pecking order theory was developed by Stewart C.Myers and Nicolas Majluf in 1984. It states that companies prioritize their sources of financing (from retained earnings to debt to equity) according to the law of least effort or of least resistance, preferring to raise equity as a financing means of resort. Hence, internal funds are used first, and when that is depleted, debt is issued, and when it is not sensible to issue any more debt, equity is issued. This theory maintains that businesses adhere to a hierarchy of financing sources and prefer internal financing when available, and debt is preferred over equity if external financing is required. Thus, the form of debt a firm chooses can act as a signal of its need for external finance.

The internationalization of finance in the markets has changed contemporary thinking among financial decision-makers in these markets, particularly as firms are now able to gain easier access to capital markets. On the other hand, asymmetry of information is expected to be especially large in transition economies and firms are less likely to turn to outside sources of finance, even if the investment opportunities exceed internal funds;

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capital markets therefore provide a suitable arena for testing some of the most important agency-based theoretical determinants of corporate financing choice. In this context, Demirguc-Kunt and Maksimovic (1996) show that differences in legal and financial systems affect a firm's use of external financing, while Lombardo and Pagano (2000) argue that cross sectional variation in legal institutions and practices is pronounced in most capital markets, although the use of debt helps mitigate against the agency problem.

Myers (1984) and Myers and Majluf (1984) reached a conclusion about the hierarchy of financing choices: firms will first rely on internally generated funds (i.e. undistributed earnings), then they will turn to debt if additional funds are needed and finally they will issue equity to cover any remaining capital requirements. The two main rationales that have been advanced as explanations of this pattern in preferences: external financing transaction costs; and asymmetric information theory.

According to the first set of arguments, transaction costs associated with obtaining new external financing play an important role in a firm's capital structure decisions. Internal funds do not bear any transaction (or flotation) costs. Furthermore, the total transaction costs of new debt are typically lower than the total costs of obtaining other new external financing (Emery and Finnerty, 1997). Lee et al. (1996) found that flotation costs for common stock are more than twice as high as those of new debt for all levels of amounts of capital raised.

According to the asymmetric information theory, internal financing avoids the scrutiny of suppliers of capital. If additional funds are needed then debt is preferred because debt issues are regarded as a positive signal by investors who possess less information than managers. The conclusion is based on the belief that management will never issue an undervalued security. Thus, if debt is issued, investors will assume that management believes that the stock is undervalued. According to Myers (1984) under the asymmetric information theory, the pecking order pattern implies that the firm should "issue the safest possible securities strictly speaking, securities whose future value changes least when the manager's inside information is revealed to the market". The order is based on

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value volatility (order of least resistance), the favoured source being the least volatile, therefore leaving the order of preferences (or "pecking order") as: retained earnings; new debt; new equity.

An obvious implication of the pecking order theory is that highly profitable firms that generate high earnings are expected to use less debt capital than those that are not very profitable. Several researchers have tested the effects of profitability on firm leverage. Kester (1986) and Friend and Lang (1988) conclude that there is a significantly negative relationship between profitability and debt/asset ratios. Rajan and Zingales (1995) and Wald (1999) find a significantly negative relationship between profitability and debt/asset ratios. Vasiliou et al. (2005) also find a negative relationship between profitability and debt ratios. Lemmon and Zender (2002) denote that the pecking order theory appears to be a good description of the financing policies of a large sample of firms, while DeMiguel and Pindado (2000) and Graham and Harvey (2001) also provide some support. Leary and Roberts (2008) show that approximately 36 per cent of their sample firms adhere to the pecking order's prediction of issuing debt before equity.

Nairobi Stock Exchange

This market was started in the 1920's by the British as an informal market for Europeans only. 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 stock exchange has also enabled companies to engage local participation in their equity, thereby giving Kenyans a chance to own shares NSE (Annual Report, 2009)

Companies can also raise extra finance essential for expansion and development. To raise funds, a new issuer publishes a prospectus which gives all pertinent particulars about the operations and future prospects and states the price of the issue. A stock market also

enhances the inflow of international capital. They can also be useful tools for privatization programmes. The Nairobi Stock Exchange is at present made up of eighteen stock broking firms. These members of the Nairobi Stock Exchange transact business mainly on the Nairobi market, with a limited proportion of business conducted in foreign securities through overseas agents. The stock brokers act as financial advisers to their clients and also carry out their orders (NSE, Annual Report, 2009).

The Nairobi Stock Exchange deals in both variable income securities and fixed income securities. Variable income securities are the ordinary shares which have no fixed rate of dividend payable as the dividend is dependent upon both the profitability of the company and what the board of directors decides (with ratification by the shareholders in an AGM). The fixed income securities include Treasury and Corporate Bonds, preference shares, debenture stocks - these have a fixed rate of interest/dividend, which is not dependent on profitability. The stock market consists of both the primary and secondary markets. In the primary or new issue market, shares of stock are first brought to the market and sold to investors. In the secondary market, existing shares are traded among investors (NSE, Annual Report, 2009).

1.2 Problem Statement

Financing decisions of most firms consists of determining the ratio of debt to equity depending on their financing needs. Academicians have highlighted various factors that would make financial managers have a hierarchy of financing options. Booth et al (2001) found out that factors affecting capital structure decisions in developed and developing countries are the same. However, the findings of Rutherford (1985) indicate that Japanese firms relied heavily on debt financing while US and UK firms relied more on equity financing. Factors influencing capital structure decisions are mostly firm specific or market based. Empirical evidence relating to implications and the significance of such factors among firms quoted at the Kenyan Stock Exchange is scanty. This research will endeavor to ascertain the effects of one those factors, firm value, on financing decisions of quoted companies. Allen (1993) notes that the pecking order theory suggests that managers display a hierarchy of preferences with respect to funding sources due to

information asymmetry. Since debt has little information asymmetry problems, most organizations would opt to finance themselves with it after the exhaustion of retained earnings then use equity as the resort.

Despite these academic recommendations, very few studies have been carried out in Kenya to ascertain the line between various organizational factors for financing decisions. Studies done show that the debt/equity levels of companies and factors considered significant in determining capital structure in other economies are significant in Kenya too. Kiogora (2000) sought to find out whether the capital structures of companies could provide evidence on existence of optimal capital structure in Kenya and to find the relationship between capital structures and value of the companies. He found out variations in capital structures among industry groups. Gachoki (2005) capital structure choice, an empirical testing of the pecking order theory among firms quoted on the NSE. To the researcher's knowledge, no local study have ever been conducted in Kenya which is an emerging economy. The study seeked to find whether firms do apply pecking order theory when making long term financing decisions influenced by its determinants such as assets structure, profitability, growth opportunities, liquidity, firm size, product uniqueness, earnings volatility, non-debt tax shields, dividend policy, and the effective tax rate. The study did not illicit the applicability of the pecking order theories in making financing decision the company quoted at NSE, this study seeks to fill the existing research gap by investigating the application of pecking order theory to companies listed at NSE.

1.3 Objective of the Study

The objective of the study is to investigate the application of pecking order concept by companies listed at Nairobi Stock Exchange.

1.4 Significance of the Study

The study is of great importance to stakeholders of companies listed or companies with prospects of being listed at NSE as it will help them in knowing the type of financing and

the capital structure decision to adopt, it will also help them to determine the right assets structure for their company.

The study is useful to the government in policymaking regarding taxation and other regulatory requirements of the companies listed at NSE.

Academicians have highlighted various factors that would make financial managers have a hierarchy of financing options. The study has provided a useful basis upon which further studies on applicability of pecking order concept to companies listed at NSE.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter is a review of related literature on past studies on pecking order theory, more precisely it looks into; the theoretical framework, pecking order, pecking order and financing pattern, debt financing, equity financing and the conceptual financing.

2.2 Theoretical Framework

Important theories of capital structure include the pecking order theory and trade-off theory. In the pecking order theory, external financing is more expensive for riskier securities (possibly due to informational asymmetries between managers and security holders). Thus, firms prefer to finance first with internal funds, then with debt, and lastly with equity. In the trade-off theory, the benefits of increased leverage (for example, tax benefits or reductions in agency costs) are weighed against the costs of increased leverage (for example, deadweight bankruptcy costs) in order to determine the optimal amount of leverage (Korajczyk and Levy, 2003). Thus, the trade-off theory suggests a proportional relationship between financial leverage and economic performance (Andersen, 2005). With respect to the bankruptcy costs, bankruptcy probability increases with debt level since it increases the risk that the firm might not be able to generate profits to repay the interest and the loans. In other words, if there is the likelihood of bankruptcy and the expected associated costs of bankruptcy are significant, the firm with high leverage may not be as attractive to investors as the one with limited leverage (Van Horne, 2002).

In fact, risk has been identified as an important factor in financial decisions. However, existing theoretical and empirical research does not provide an unambiguous answer to the question of whether an increase in a firm's business risk should lead it to lower the level of debt in its capital structure (Kale, 1991). The extant literature suggests an inverse relationship between business risk and optimal debt level. According to Kale (1991), the

probability of bankruptcy, and firms with more variable cash flows, that is, higher business risk, have a higher probability of bankruptcy for a given level of debt. The issue of risk and it effect on financing policy of firms is critical considering that the cost of capital and hence, the value of a firm, depends upon its debt-equity mix (Hovakimian, 2001).

Banks prefer borrowers with high current cash flows. Furthermore, in agency theory framework, if the market for corporate control is efficient, managers of profitable firms will seek debt because they regard it as a commitment to pay out cash in the future as in the context of Jensen (1986). These explanations also support a positive relationship between profitability and leverage (Yartey, 2006). The ratio of dividends to total capital is included because cash constrained firms are unlikely to pay out large dividends. According to Korajczyk and Levy (2003), a firm is financially constrained if it is unable to pay dividends.

2.2.1 Theories on Capital Structure

Modigliani-Miller and other diversified capital structure theories try to explain how firms supply their fund demands, how they should finance them, why some firms get into more debt or prefer different finance methods, the changing expectations of firm managers and shareholders paved the way for the emergence of new theories. The explanations related to the formation of capital structure in firms and actions directed to determining the factors affecting the formation of capital structure are attempts to clarify capital Structure which exhibits a dynamic characteristic out of a static condition (leverage level at the end of a specific period). Thus it is possible to come up with more than one explanation for any variable that is believed to affect capital structure. However it is possible to categorize under three groups the explanations concerning the formation of capital structure: Trade-off Theory, Agency Theory and Pecking Order Theory.

Trade-off Theory introduced by Myers (1984) advocates the necessity of establishing a balance between tax saving arising from debt, decrease in agent cost and bankruptcy,

financial distress costs. Because when they form a capital structure only with external resources or without any external resources, the firms cannot achieve value maximization. According to trade-off theory, in order to achieve an optimal capital structure, firms need to establish a balance between costs (Ghosh and Cai, 2001).

Agency theory is the theory that is related to agency problems caused by the organizational cash flows between managers and shareholders or benefit conflicts. Accordingly in the firms there are agent costs which are categorized under observation costs followed to diminish agency problems, agreement costs ensuring guaranty and unpreventable losses' cost (Chambers and Lacey, 1999).Capital structure decisions should be taken to diminish agent costs, to decrease agent costs of equity capital with high leverage level thus increase market value of the firm (Berger, 2002).

Another capital structure theory which is discussed in this study and tested in ISE is the pecking Order theory introduced by Myers and Majluf (1984). According as pecking order theory, capital Structure of a firm is created in accordance with the priority order of diversified resources aimed at answering the financial needs of firms (Frank and Goyal, 2007). In this study which discusses the relevance of Pecking Order Theory in capital structure

Figure 2. 1; Theoretical framework
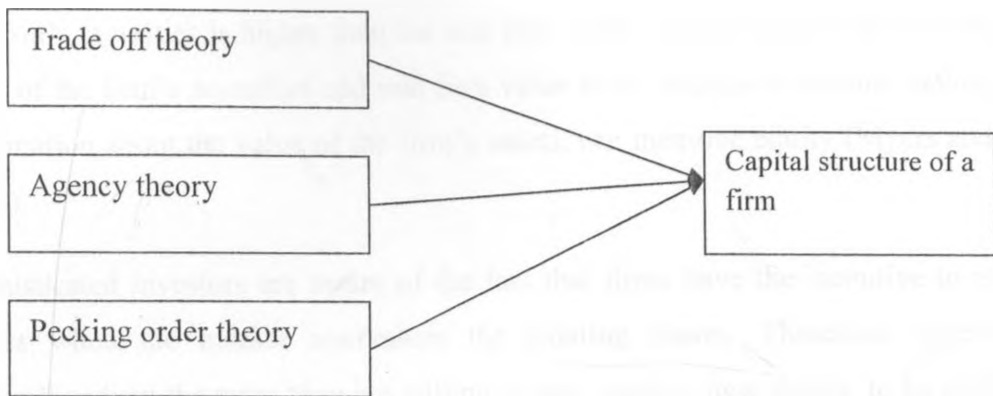
Source, Author (2010)

2.3 Pecking Order Theory

In the theory of firm's capital structure and financing decisions, the pecking order theory was developed by Stewart C.Myers and Nicolas Majluf in 1984. It states that companies prioritize their sources of financing (from retained earnings to debt to equity) according to the law of least effort or of least resistance, preferring to raise equity as a financing means of resort. Hence, internal funds are used first, and when that is depleted, debt is issued, and when it is not sensible to issue any more debt, equity is issued. This theory maintains that businesses adhere to a hierarchy of financing sources and prefer internal financing when available, and debt is preferred over equity if external financing is required. Thus, the form of debt a firm chooses can act as a signal of its need for external finance.

The pecking order theory is popularized by Myers (1984). The pecking order theory can be explained from the perspective of asymmetric information and the existence of transaction costs. Asymmetric information costs arise when a firm chooses not to use external financing and therefore pass up a positive NPV investment. Equity is a less preferred means to raise capital because when managers as firm's insiders (who are

assumed to know better about true condition of the firm than investors) issue new equity, investors believe that managers think that the firm is overvalued and managers are taking advantage of this over-valuation. Managers will issue securities when the market price of the firm's securities is higher than the real firm value. The deviation between the market price of the firm's securities and real firm value arise, because investors, having inferior information about the value of the firm's assets, can misprice equity (Myers and Majluf, 1984).

Sophisticated investors are aware of the fact that firms have the incentive to issue new shares when the market overvalues the existing shares. Therefore, investors will rationally adjust the price they are willing to pay, causing new shares, to be under priced in the market. If firms have to finance new projects by issuing equity, under pricing may be so severe that new investors capture more of the NPV of the new project, resulting in a loss to existing shareholders. If this is the case then the project will be rejected even if its NPV is positive, because managers act in favor of the existing shareholders. This underinvestment can be avoided by financing the new project with security that is not severely undervalued (Myers and Majluf, 1984).

The pecking order theory can also be explained by the existence of transaction costs. Transaction costs associated with external finance play an important role in selecting financing sources. Firms will first use internal equity financing, followed by external debt financing and finally external equity financing. Debt financing precedes equity issues because transaction costs for debt are lower than for equity issues (Baskin, 1989). The reliance on internal finance can also be a byproduct of the desire of managers to avoid external financing because it subjects them to the discipline of the market (Myers, 1984). Especially the owner-manager of the company does not like to lose control over the firm (Hamilton and Fox, 1998). Therefore managers are very reluctant to accept new shareholders and will try to finance their activities as much as possible with internal funds. If the firm's retained earnings do not suffice, management will choose the financing source without control restrictions. Therefore management will opt for short-

term debt because no collateral is required and no covenants are imposed, followed by long-term debt and finally equity issues.

Myers (1984) suggests that asymmetric information and transaction costs overwhelm the forces that determine optimal leverage in the trade-off models. To minimize these financing costs, firms prefer to finance their investment first with internal cash flows. Only if there's residual financing need they will use external capital in the following order; first safe debt, then risky debt and finally equity issues. So, contrary to the trade-off theory, the pecking order theory predicts no long run target capital structure. There is no optimal debt-equity mix because there are two kinds of equity, retained earnings at the top of the pecking order and the issue of new shares at the bottom (Myers, 1984).

The pecking order theory states that firms prefer to finance with internal funds. Ideally, a firm would have a debt ratio equal to zero. However, only firms that have enough internal funds can reach this long run equilibrium. Firms that are most likely to achieve a well-established source of internal equity are older, mature firms. Small, young or growing firms, that lack their own resources, will have to rely on debt (and equity) financing. So in the short run, the debt ratio tends to deviate from zero.

In the short run, Myers' (1984) simple pecking order theory suggests that firms increase or decrease their debt ratio if they have a negative free cash flow or positive free cash flow respectively, of the current period. A company's real debt-equity ratio, therefore, varies over time, depending on its need for external finance. Unprofitable firms or firms with relative high growth can exhibit high debt ratios. Firms, however, are not able to borrow indefinitely. A firm will eventually reach full debt capacity. Once the reserve borrowing power is exhausted, firms are forced to finance their positive NPV projects with equity issues or forgo these positive NPV projects. The full debt capacity level, however, cannot be observed. The only thing that could be observed is a different financing behavior of firms with relatively more debt as opposed to firms with relatively low debt.

In a more complex view of the pecking order model, firms are concerned not only with current but also with future financing costs. Firms climbing up the pecking order, face two increasing costs. The firm has a higher probability of incurring financial distress costs and a higher chance of having to surpass future positive NPV projects, because the firm is unwilling to finance with common stock. If firms are not only concerned with the current investments but also with the future growth opportunities, then they will favor a low debt ratio. Myers (1984) argues that a firm may issue new common stock, even if it has not reached is debt capacity, because reserve borrowing capacity is valuable. If their debt ratio is below their debt capacity, the likelihood of having to surpass future profitable investments is lower. Opposite to the simple pecking order, the complex pecking order predicts that firms, with future growth opportunities, will try to maintain reserve borrowing capacity for future projects.

2.4 Empirical Review

Donaldson (1961, p. 57) studied the financing practices of a sample of large corporations and observed that "Management strongly favored internal generation as a source of new funds even to the exclusion of external funds except for occasional bulges in the need for funds." In case external capital was needed, managers generally avoided to issue new stock.

Though few companies would go so far to rule out a sale of common under any circumstances, the large majorities have no such a sale and did not anticipate one in the foreseeable future. This was particularly remarkable in view of the very high Price-Earnings ratios of recent years. Several financial officers' shows that they were well aware that this had been a good time to sell common, but the reluctance still persisted (Donaldson, 1961).

The initial conclusion of Donaldson was analyzed later by Myers (1984) and Myers and Majluf (1984) who reached the following conclusion about the hierarchy of financing choices: firms will first rely on internally generated funds (i.e. undistributed earnings), then they will turn to debt if additional funds are needed and finally they will issue equity

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to cover any remaining capital requirements. There are two main rationales that have been advanced as explanations of this pattern in preferences: external financing transaction costs; and asymmetric information theory.

According to the first set of arguments, transaction costs associated with obtaining new external financing play an important role in a firm's capital structure decisions. Internal funds do not bear any transaction (or flotation) costs. Furthermore, the total transaction costs of new debt are typically lower than the total costs of obtaining other new external financing (Emery and Finnerty, 1997, p. 481). Lee. (1996) calculated the average flotation costs for debt and equity. They found that flotation costs for common stock are more than twice as high as those of new debt for all levels of amounts of capital raised.

According to the asymmetric information theory, internal financing avoids the scrutiny of suppliers of capital. If additional funds are needed then debt is preferred because debt issues are regarded as a positive signal by investors who possess less information than managers. This conclusion (and empirical finding) is based on the belief that management will never issue an undervalued security. Thus, if debt is issued, investors will assume that management believes that the stock is undervalued. According to Myers (1984, p. 584) under the asymmetric information theory, the pecking order pattern implies that the firm should "issue the safest possible securities – strictly speaking, securities whose future value changes least when the manager's inside information is revealed to the market". The order is based on value volatility, the favored source being the least volatile, therefore leaving the order of preferences (or "pecking order") as: retained earnings; new debt; new equity.

An obvious implication of the pecking order theory is that highly profitable firms that generate high earnings are expected to use less debt capital than those that are not very profitable. Several researchers have tested the effects of profitability on firm leverage. Kester (1986) and Friend and Lang (1988) conclude that there is a significantly negative relationship between profitability and debt/asset ratios. Rajan and Zingales (1995) and Wald (1999) find a significantly negative relationship between profitability and debt/asset

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ratios. Vasiliou et al. (2005) also found a negative relationship between profitability and debt ratios.

However, the inverse relationship between profitability and leverage does not prove the existence of the pecking order theory. Rather, they provide an implication that pecking order may exist. Specifically, this inverse relationship shows that internal funds are preferred to debt. However, this does not mean that debt is preferred from new equity.

The empirical accuracy of the pecking order model has been the focus of several researchers in recent years. Ever since Shyam-Sunder and Myers (1999) found support for the theory, there have been numerous studies that question the existence of the pecking order financing pattern. Chirinko and Singha (2000) show that the empirical evidence of Shyam-Sunder and Myers (1999) may generate misleading inferences when evaluating plausible patterns of external financing. Frank and Goyal (2003) test the pecking order theory of corporate leverage and provide evidence that contrary to the pecking order theory, net equity issues track the financing deficit more closely than do net debt issues. Bancel and Mittoo (2004) find only weak support for the pecking order theory, while Fama and French (2005) show that financing decisions seem to violate the central predictions of the pecking order model about how often and under what circumstances firms issue equity.

Galpin (2004) claims that the pecking order does not describe the way that managers access external capital. On the other hand, there are a number of recent studies that are supportive of the pecking order theory. Lemmon and Zender (2002) denote that the theory appears to be a good description of the financing policies of a large sample of firms, while DeMiguel and Pindado (2000) and Graham and Harvey (2001) also provide some support. Leary and Roberts (2008) show that approximately 36 per cent of their sample firms adhere to the pecking order's prediction of issuing debt before equity.

Testing the pecking order model's predictions robustly is not an easy empirical task. The difficulty lies in the fact that the model suggests a hierarchy of financing sources. Thus, it is this hierarchy that needs to be checked to prove that the pecking order exists. As

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already mentioned, a simple negative inverse relationship between leverage and profitability provides an implication rather than a proof that the pecking order exists

Gachoki (2005) show that firms violate the pecking order's financing hierarchy more often than not. Of the observations where firms use external finance, less than 40% are consistent with the pecking order's prediction. That is, firms appear to have sufficient internal reserves to fund both current and anticipated investment yet still turn to external capital markets for funds. Of the observations where firms use equity financing, less than 20% are consistent with the theory's prediction. That is, despite the ability to fund investment with internal funds or debt, firms turn to equity markets for financing. Interestingly, large firms are more likely to violate the financing hierarchy than are small firms, consistent with Fama and French (2003) but opposite the findings of Frank and Goyal (2003) and Lemmon and Zender (2003). The cause of these seemingly conflicting results is due simply to different empirical approaches. While it is true that firms with greater investment and fewer internal resources are more likely to turn to external finance, the majority of external financings occur despite firms having sufficient funds to cover their current and anticipated investment needs. Similarly, firms are more likely to use equity financing as investment increases and/or cash low decreases (as found by Lemmon and Zender and Frank and Goyal) but the majority of equity financings occur when firms still have sufficient debt capacity to their investment needs (as suggested by Fama and French). Our results are robust to possibly time-varying information asymmetry costs (Korajczyk et al. (1990, 1991), Choe et al. (1993), and Bayless and Chaplinsky (1996)).

Even during periods of high information asymmetry, the pecking order does poorly in predicting both external and equity financings. Additionally, liquidity and debt capacity concerns do not appear to be the cause of the model's poor performance. When compared to a sample of private borrowers, equity issuers are surprisingly similar along many dimensions but, in particular, along current and anticipated financing deficits. Further analysis reveals that the large majority of equity issuers would face borrowing rates similar to those faced by private borrowers, and those rates are only slightly higher than

that found on investment grade public debt. These results are consistent with the survey evidence of Graham and Harvey (2001), who note that the desire for financial flexibility [i.e. the ability to fund investments with internal funds] is not driven by the factors behind the pecking-order theory.

Kiogora (2000) concludes that the pecking order does not accurately describe financing behavior is also consistent with that of Frank and Goyal (2003), Helwege and Liang (1996) and Fama and French (2003), though our empirical approach and evidence differ in several important respects. First, by using our empirical model, we avoid the power problem faced by Frank and Goyal, who rely on the Shyam-Sunder and Myers framework. Chirinko and Singha's critique suggests that Frank and Goyal's rejection of the theory may be due to a relatively larger proportion of equity issuance, as opposed to deviations from the financing hierarchy.

2.5 Debt Financing

Debt holders have a prior claim on the company's cash flows relative to shareholders, who are entitled only to any residual cash flow after debt holders have been paid. This therefore means that the fixed claim of debt holders causes the residual claim of the stockholders to become less certain, and this increase the cost of stock (Brigham & Houston, 2004). Debt financing has two important advantages; first, interest paid is tax deductible, which lowers debt's effective cost. Second, debt holders get a fixed return, so stockholders do not have to share their profits if the business is extremely successful. It also reduces the likelihood of poor managerial decision making and serves as a monitoring device.

However, debt also has disadvantages, first, the higher the debt-equity ratio, the riskier the company, and the higher the cost of both debt and equity. Second, if a company falls on hard times and operating income is not sufficient to cover interest charges, its stockholders will have to make up the shortfall, and if they cannot, bankruptcy will result. Good times may be just around the corner, but too much debt can keep the company from getting there and thus can wipe out the stockholders (Pandey, 2005) and thirdly, Financial

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distress: As the firm increases its leverage, the probability of financial distress increases therefore the present value of financial distress cost increases.

2.5.1 Advantages of Debt Financing

Debt financing allows you to have control of your own destiny regarding your business. You do not have investors or partners to answer to and you can make all the decisions. You own all the profit you make. If you finance your business using debt, the interest you repay on your loan is tax-deductible. This means that it shields part of your business income from taxes and lowers your tax liability every year. Your interest is usually based on the prime interest rate. The lender(s) from whom you borrow money do not share in your profits. All you have to do is make your loan payments in a timely manner. You can apply for a Small Business Administration loan that has more favorable terms for small businesses than traditional commercial bank loans.

2.6 Requirement for Debt Financing

Two variables are used as proxies for the firm's requirement for debt financing. These are return on assets (profitability) and the ratio of dividends to capital (dividends). Profitability is included because several studies (Ugĭurlu, 2000), have found an inverse relationship between profitability and leverage. In the context of the pecking order theory, profitable firms are able to generate enough internal finance and therefore will depend less on external sources of finance. Also, within the agency theory framework, if the market for corporate control is inefficient, managers of profitable firms will use more retained earnings in order to avoid the disciplinary role of external finance. These explanations point to a negative relationship between profitability and leverage.

However, it is also possible that as a firm's profitability increases, the firm becomes the target of lenders, who tend to prefer borrowers with high current cash flows. Furthermore, in agency theory framework, if the market for corporate control is efficient, managers of profitable firms will seek debt because they regard it as a commitment to pay out cash in the future as in the context of Jensen (1986). These explanations also support a positive relationship between profitability and leverage (Yartey, 2006). The

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ratio of dividends to total capital is included because cash constrained firms are unlikely to pay out large dividends. According to Korajczyk and Levy (2003), a firm is financially constrained if it is unable to pay dividends.

2.6.1 Asset Tangibility

Asset tangibility is defined as the proportion of fixed assets in total assets. The corporate finance theory prescribes that a firm's optimal financing mix will depend on the owner's ability to engage in opportunistic behaviour at the expense of creditors and other parties. This, in turn, will depend partly on the composition of the firm's assets. Firms with high ratios of fixed assets to total assets are predicted to have high long-term debt. The trade-off theory predicts a positive relationship between tangibility and debt levels. In particular, tangible assets often reduce the costs of financial distress because they tend to have higher liquidation value. For this reason tangible assets normally provide high collateral value relative to intangible assets, which implies that these assets can support more debt. It is usually more difficult to alter the variance of the cash flows generated from tangible rather than intangible assets. Thus, asset tangibility reduces the scope for risk shifting and consistent with agency theory, firms with tangible assets will support more debt (Yartey, 2006; Abor and Biekpe, 2009). However, Titman and Wessels (1988) provide an agency theory based argument for a negative relationship between the tangibility of the firm's assets and leverage. They argue that it is easier to monitor the use of tangible rather than intangible assets, which means that firms with intangible assets will tend to use more debt for monitoring purposes (Yartey, 2006).

2.6.2 Firm Growth

Growth is defined in terms of market-to-book value ratio. In line with pecking order theory, growing firms that need funds prefer debt to external equity. Firms with high growth opportunities will require more external debt finance in order to finance the growth, thus, the relationship between growth opportunities and leverage is predicted to be positive. However, the agency cost theory postulates that rapidly growing firms are not able to use their growth potential as collateral asset with which loans can be secured.

In line with agency theory of debt, conflicts between owners and lenders should lead to a negative relationship between growth and debt levels. These conflicts include two of the agency costs of debt, namely under investment and risk shifting. Considerations based on the trade-off theory also point to a negative correlation between growth and leverage (Yartey, 2006). For example, although growth opportunities add value, the firm cannot use growth opportunities as security for lenders (Titman and Wessels, 1988). Myers (1977) supports the position that firms with growth opportunities will employ less debt because the conflicts of interest between debt and equity holders are especially serious for assets that give the firm the option to undertake such growth opportunities in the future.

2.7 Equity Financing

Managers are in a better position to forecast a company's free cash flow than are investors, and academics calling this Information Asymmetry. Suppose a company's stock price is sh. 50 per share. If the managers are willing to issue new stock at sh. 50 per share, the investors reason that no one would sell anything for less than its true value. Therefore, the true value as seen by the managers with their superior information must be less than sh. 50. Thus, investors perceive an equity issue as a negative signal and this usually causes the stock price to fall (Brigham and Ehrhardt, 2007).

The apparent existence of an efficient capital market, coupled with the evidence on the relationship between risk and expected return, suggest that businesses are unlikely to be advantaged significantly by selecting one type of finance rather than another. An increase in equity financing, which does not expose shareholders to increased risk, tends to be expensive. Secured loan finance, which does expose them to increased risk, tends to be cheap. This suggest that there is no advantage or disadvantage to existing shareholders in raising further finance in one way or another. One method may increase expected returns of existing ordinary shareholders but it is also likely to increase their risk commensurately (McLaney, 2006).

Lambert and Larcker (1986) argued that managers of firms financed mostly with equity (where there are a large number of shareholders with very small shareholding power) tend to have this behaviour. In this case, since it will be difficult to regroup all the shareholders to pressure and control the management and as a result, the shareholders prefer to sell their stocks instead of incurring agency costs to solve this problem. On the other hand, companies with a small number of shareholders with large shareholding can more easily regroup themselves to pressure and control the management on how to run the firm. The study of Dolmat-Connel (2002) showed that the profitability of firms increase considerably when managers are given shares of the company. This is because the managers will work in the interest of the shareholders since the managers themselves own shares of the firm. Therefore, linking the ownership structure to management can solve the principal agent problem.

2.7.1 Advantages of Equity Financing

You can use your cash and that of your investors when you start up your business for all the start-up costs, instead of making large loan payments to banks or other organizations or individuals. You can get underway without the burden of debt on your back. If you have prepared a prospectus for your investors and explained to them that their money is at risk in your brand new start-up business, they will understand that if your business fails, they will not get their money back(McLaney, 2006)..

Depending on who your investors are, they may offer valuable business assistance that you may not have. This can be important, especially in the early days of a new firm. You may want to consider angel investors or venture capital funding. Debt holders have a prior claim on the company's cash flows relative to shareholders, who are entitled only to any residual cash flow after debt holders have been paid. This therefore means that the fixed claim of debt holders causes the residual claim of the stockholders to become less certain, and this increase the cost of stock(Rajan and Zingale, 1995).

Lambert and Larcker (1986) argued that managers of firms financed mostly with equity (where there are a large number of shareholders with very small shareholding power)

tend to have this behaviour. In this case, since it will be difficult to regroup all the shareholders to pressure and control the management and as a result, the shareholders prefer to sell their stocks instead of incurring agency costs to solve this problem.

The pecking order theory can be explained from the perspective of asymmetric information and the existence of transaction costs. Asymmetric information costs arise when a firm chooses not to use external financing and therefore pass up a positive NPV investment. Equity is a less preferred means to raise capital because when managers as firm's insiders (who are assumed to know better about true condition of the firm than investors) issue new equity, investors believe that managers think that the firm is overvalued and managers are taking advantage of this over-valuation (Saeed, 2007).

2.8 Leverage Level within the Concept of Pecking Order Theory

According to pecking order theory profitable firms have financial surplus. In order to melt financial surplus, the firms supply their fund needs from internal finance when necessary (Lu, 2007). Since firms with financial surplus will not need to use external resources, their use of external resource also remains in low level. Thus according as pecking order theory, there is a negative correlation between profitability and leverage (Saeed, 2007). In studies conducted by Fama and French (2002) the negative correlation between profitability and leverage which supports the pecking order theory is indicated. A different view which does not support the theory is put forward by Jensen (1986).

Accordingly since profitable firms are considered as more trustable by debt givers thus they can more easily obtain loans which mean that there is a positive correlation between profitability and leverage (Jensen, 1986). There are numerous studies that reached different results concerning the relation between the size of firm and leverage level. In Rajan and Zingale (1995)' study, it is stated that there is a negative relation between leverage and size of the firm (Rajan and Zingale, 1995). That is because bigger firms have more complex structures. This in turn causes more frequent asymmetrical knowledge problems in bigger firms.

Therefore for big firms, choosing internal resources for finance gains priority since these firms have more asymmetric information (Tong and Gren, 2005). On the other hand if it is taken into account that big firms are financially more powerful, it is possible to assert that their probability of bankruptcy is relatively lower. This makes it possible for the big firms to find debt more easily. Therefore big firms experience lesser amounts of change and have higher amounts of leverage level (Fama and French 2002). In the study conducted by Berger and Udell (1995) it is advocated that compared to big firms, asymmetric information problem is more apparent in small firms and pecking order theory is more applicable to small firms (Berger and Udell, 1995).

As a consequence of asymmetric information problem, the values of stocks decrease when it is heard that firms will issue stocks. Therefore Myers (1984) asserts that positive net present value projects cannot be financed via new stock issue and he adds that first of all internal resources should be used and then financing via debt should be preferred. Thus there is positive relation between leverage and growth opportunities. The other financial variables of which relation with leverage is studied are tangible assets. Within the scope of pecking order theory, there is a positive relation between leverage and tangible assets. Firms with tangible assets are firms that have collateral assets to provide for creditors. So since it is easier to borrow money for such trustable firms, their use of external resources will be relatively greater (Frank and Goyal, 2002; Rajan and Zingale, 1995). Another variable used in explaining pecking order theory is financial deficit. According to this theory there is a positive relation between financial deficit and leverage.

Firms with huge financial deficit, since they cannot make use of their internal resources, have to orient towards external financing. Financial surplus, which causes an opposite condition of financial deficit, enables the firms to use internal finance since they have surplus resources. Thus according to this theory there is a negative relation between financial surplus and leverage (Frank and Goyal, 2002; Megginson, 1997). On the other hand depending on dividend level, financial surplus level of the firm will differentiate. In firms which pay high dividends, financial surplus will be relatively low while in firms

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which pay low dividends financial surplus will be relatively high. Therefore there is a positive relation between previous dividend payments and leverage level (Baskin, 1989).

2.10 Conclusion

Debt holders have a prior claim on the company's cash flows relative to shareholders, who are entitled only to any residual cash flow after debt holders have been paid. This therefore means that the fixed claim of debt holders causes the residual claim of the stockholders to become less certain, and this increase the cost of stock.

Lambert and Larcker (1986) argued that managers of firms financed mostly with equity (where there are a large number of shareholders with very small shareholding power) tend to have this behaviour. In this case, since it will be difficult to regroup all the shareholders to pressure and control the management and as a result, the shareholders prefer to sell their stocks instead of incurring agency costs to solve this problem.

The pecking order theory can be explained from the perspective of asymmetric information and the existence of transaction costs. Asymmetric information costs arise when a firm chooses not to use external financing and therefore pass up a positive NPV investment. Equity is a less preferred means to raise capital because when managers as firm's insiders (who are assumed to know better about true condition of the firm than investors) issue new equity, investors believe that managers think that the firm is overvalued and managers are taking advantage of this over-valuation. According to Kiogora (2000) there are variations in capital structures among industry groups on investigating whether the capital structures of companies could provide evidence on existence of optimal capital structure in Kenya and to find the relationship between capital structures and value of the companies. Gachoki (2005) capital structure choice. An empirical testing of the pecking order theory among firms quoted on the NSE.The study seeked to find whether firms do apply pecking order theory when making long term financing decisions influenced by its determinants such as assets structure, profitability, growth opportunities, liquidity, firm size, product uniqueness, earnings volatility, non-debt tax shields, dividend policy, and the effective tax rate.This study seek to investigate

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the application of pecking order theory in financing decisions by firms listed in the Nairobi Stock exchanges.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter presented the research design and methodology that was used to carry out the research. It presents the research design, the population, sample size and sampling procedure, data collection and analysis.

3.2 Research Design

Research design refers to the way the study was designed, that is, the method used to carry out a research (Mugenda, 2003). An exploratory design was used for the purpose of this study. The design describes the relationships that exist between the independent and dependent variables, (Kothari, 2003). Donald (2006) notes that a research design is the structure of the research, it is the ''glue '' that holds all the elements in a research project together. Kothari (2003) defines a research design as the scheme, outline or plan that is used to generate answers to research problems. Exploratory research design was chosen because it enabled the researcher to generalise the findings to a larger population. This study was therefore be able to generalize the findings to all companies listed at NSE.

3.3 Target Population

Target population can be defined as a complete set of individuals, cases/objects with some common observable characteristics of a particular nature distinct from other population (Mugenda, 2003). Target population is defined as the population to which a researcher will generalize the result of a study. The population of this study was all the companies listed at NSE, there are 55 companies that are currently listed in the NSE this study was restricted to those that have no regulated capital and those that have not been suspended from the NSE.

3.3.1 Sampling Techniques

The total number of companies listed at NSE is fifty five (55), thirteen are financial institutions which have regulated capital, while three (3) have been suspended from trading, and the study had a target population of thirty nine (39) companies, through purposive sampling. The study adopted purposive sampling technique for generating secondary data and also referred to as judgment sampling. Jankowicz (2005) suggested that this involves selecting data from source relevant to the study, and particularly worth obtaining for the research. The study selected a sample of 39 firms which are listed at NSE, which do not have regulated capital structure and have not been suspended from trading at NSE.

3.4 Data Collection Procedures

The study collected secondary data .Secondary data refers to the information obtained from articles, books, newspapers, internet and magazines (Mugenda, 2003). Thus secondary data was collected from the financial statements of the company and books (NSE, 12.9.2010. www.nse.co.ke.). The researcher took the letter of introduction to the management of the NSE to be allowed to collect data for the study of which one of the personnel in the management sought to help by offering assistance in collecting the information for the study. The researcher was given a hard copy and a computerized data ready for use to answer the research objectives.

3.5 Data Analysis

Data was analyzed using inferential statistics that was regression analysis to establish the applicability of the pecking order theory by firm listed at NSE. In this study that was related to testing the relevance of Pecking Order theory in capital structure formation for companies listed at NSE, data was obtained from 39 firms that are listed at NSE. Processed in NSE was used. Data was obtained from the recent financial statement of year 2009. A multiple regression model relation to application of the pecking order theory in capital formation for the company listed in at the NSE. This study sought to establishes relevance of Pecking Order theory in capital structure formation for firms

listed at NSE, data was obtained from financial statement of the firms. The leverage ratio was calculated by dividing total debt by Total Asset. The total asset profitability of the firm was computed by diving net profit by total assets for the firms. The current ratio was computed by dividing current asset by short term external resources, asset structure of the firm was computed by fixed asset by total asset of the firm

While the firm size was determine by finding ther ratio of natural logarithm of net sales and finally a total asset growth was computed by determining the ratio of total asset in year (t) by the total asset in subsequent year (t -1) .

3.7 Data Validity and Reliability

Validity was the accuracy or meaningfulness and technical soundness of the research. It is the degree to which a test measure what it purport to measure. (Mugenda and Mugenda, 1999), (Borg and Gall, 1989) stated that, to enhance validity of a questionnaire, a Pilot population similar to the target population was conducted. The cronbach's alpha reliability coefficient of three independent variables was obtained. The closer the reliability coefficient gets to 1.0 the better. Reliability estimated the consistency of measurement, or more simply the degree to which an instrument measured the same way each time it is used in under the same conditions with the same subjects.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introductions

This chapter presents data analysis, interpretation and presentation of the research. Secondary data on company financial statement was obtained from NSE in order to investigate the application of pecking order concept by companies listed at Nairobi Stock Exchange Data analysis was done through Statistical Package for Social Scientists (SPSS). P value, T – value, chi-square and regression was used to analyze the data obtained.

4.2 Data Analysis and Interpretation

This study sought to establishes relevance of Pecking Order theory in capital structure formation for firms listed at NSE, data was obtained from financial statement of the firms. The variables obtained from annual financial tables of the studied firms where the leverage ratio was computed by dividing total debt by total asset of the firms, Total Asset profitability was computed by finding the ration of Net Profit and Total Asset, the current ratio of the firm was computed by finding the ratio of Current Asset of the firms and Short Term External Resources. The asset Structure of the firms was computed by dividing Fixed Asset by Total Asset, sale size was determined by dividing the Natural Logarithm of Net Sales while Total Asset Growth of the firm was determined by determining the ratio of Total Asset in year(t) by Total Asset in year .accumulated for that period(t -1)

In determining the relation between variables and leverage ratio that the study employed on pecking order theory basis, the study used a Panel Data Analysis method. With Panel data analysis method it was possible to express the model that was used in studying the relation between leverage ratio and variables;

$Y = \beta + \beta X + \ldots + \beta X + \varepsilon$

In this study N was used to represents cross section data or units, T represents time. Y variable was used as dependent variable that takes different values from unit to unit and from one time period to the next period it is expressed with two subscripts; i for cross section, and t for time period. In panel data analysis which emerged as an outcome of examining all together the cross section data in a specific time scale the steadiness of time serials, the fact that they display no diverse trends is significant.

Table 4. 1: Unit Root Test Results

	With Trend and Fixed Term		With Fixed Term	
	t value	p value	t value	p value
Y	-4.35771	0	-3.03528	0.0012
X1	-5.64747	0	-6.60127	0
X2	-6.9301	0	-8.16605	0
X3	-4.45411	0	-3.61437	0.0002
X4	9.83599	0	-20.6075	0
X5	-18.2071	0	-9.34348	0

Source: Author (2010)

The study sought to test steadiness, panel unit root tests were applied which combined individual unit root tests. From the finding in the table 4.1 of unit test the study found that the P-value for the study were less than 0.05 which shows that all the variable were statistical significant, this information depicts that that variables are steady in 5% significance level.

From the Panel data model analyzed, one amongst fixed effect, random effect or common effect models. F test determined which of these models was to be used if the presence of

fixed or random individual effects is understood in F test. This study used fixed effects analysis; random effects analysis and common effects analysis were separately applied in order to test the application of pecking order concept by companies listed at Nairobi Stock Exchange.

Table 4.2: F Test Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	8.527079	(74,1031)	0.0000
Cross-section Chi-square	537.181652	25	0.0000
Period F	7.201505	(14,1031)	0.0000
Period Chi-square	104.961035	14	0.0000
Cross-Section/Period F	7.922952	(88,1031)	0.0000
Cross-Section/Period Chi-square	581.132961	88	0.0000

Source: Author (2010)

The study obtained Durbin Watson values from fixed effects and common effects model, these value were found to be very low which indicated the presence of an autocorrelation in analysis. Through F test, the presence of fixed effect was tested in both cross section and time section. The "F value" and "Prob (F)" statistics test the overall significance of the regression model. This tests the full model against a model with no variables and with the estimate of the dependent variable being the mean of the values of the dependent variable. The F value is the ratio of the mean regression sum of squares divided by the mean error sum of squares. Its value will range from zero to an arbitrarily large number.

The value of Prob (F) is the probability that the null hypothesis for the full model is true that is that all of the regression coefficients are zero. For example, if Prob (F) has a value of 0.00000 then there are 0 chances in that all of the regression parameters are nonzero. This low a value would imply that at least some of the regression parameters are nonzero and that the regression equation does have some validity in fitting the data that is the independent variables are not purely random with respect to the dependent variable.

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Table 4. 3 : Regression results coefficients

	Coefficient	t-value	p-value
Constant - Fixed	0.868253	12.30067	0
x1 (Total Asset profitability)	-0.33601*	-2.8954	0.0039
x2 (Current Ratio)	-0.03993*	-5.82828	0
x3 (Asset Structure)	0.34173*	-5.66534	0
x4 (Sales Size)	-0.00843*	-2.45024	0.0145
x5 (Total Asset growth)	0.003283	0.96315	0.3357
Model summary's			
R-squared	0.785002		
Adjusted R-squared	0.767252		
F-statistic	44.22527*		

Source: Author (2010)

Adjusted R^2 is called the coefficient of determination and tells us how the applicable of the pecking order theory varies with the variation of Total Asset profitability, Current Ratio, Asset Structure, Sales Size and Total Asset growth varies with variation

The study found that the adjusted R^2 is 0.767252 which shows that there was 76.72% variation in leverage ratio due to changes in total assets profitability, current ratio, asset structure, sale size and total asset growth constant zero.

The "t" statistic is computed by dividing the estimated value of the parameter by its standard error. This statistic is a measure of the likelihood that the actual value of the parameter is not zero. The larger the absolute value of t, the less likely that the actual value of the parameter could be zero

From the finding in table above the study found that the established regression equation for the study was;

$Y = 0.868 - 0.336X_1 - 0.0399 X_2 + 0.3417X_3 - 0.0084X_4 + 0.00328X_5$

From the regression results the study found that holding total assets profitability, current ratio, asset structure, sale size and total asset growth constant zero, leverage ratio (Total debt/Total Asset) would be 0.868. Unit increase in total asset profitability of firms would lead to decrease in leverage ratio by factors of 0.336, unit increase in current ratio would result to decrease in leverage ratio by factor of 0.0399, a unit increase in assets structure would result to increase in leverage ratio by factor of 0.3417, unit increase in sales size was found to result to decrease in leverage ratio by factors of 0.0084, further unit increase in total assets growth was found to result to increase in leverage ratio by factors of 0.003283.The results given in Table indicate the presence of a 5% significance level negative relation between total asset profitability, current ratio, the ratio of fixed assets to total assets and leverage ratio. It is observed that there is not a significant relation between growth and leverage ratio. According to the results obtained, the firms listed at NSE give priority to internal resources for finance as their total asset profitability, liquidity levels and sales amounts increase and prefer a lower level of external resource use. This condition supports the explanations made on the basis of pecking order theory. The negative relation between the ratio of fixed assets and leverage ratio in total assets- although they have asset structure which the analyzed firms can give as assurance- indicates their reluctance to use external resources.

The coefficient of regression was found to be 0.785002 which shows that there is a strong relationship between the dependent variable and independent variable. The adjusted R^2 is known as coefficient of determination which shows the variation in the dependent variable due to changes in independent variable. The study found that the adjusted R^2 is 0.767252 which shows that there was 76.72% variation in leverage ratio due to changes in total assets profitability, current ratio, asset structure, sale size and total asset growth constant zero.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

From the analysis and data collected, the following discussions, conclusions and recommendations were made. The responses were based on the objectives of the study. The researcher had intended to investigate the application of pecking order concept by companies listed at Nairobi Stock Exchange.

5.2 Summary

From the finding of study, the established regression equation for the study was;

$$Y = 0.868 - 0.336X_1 - 0.0399 X_2 + 0.3417X_3 - 0.0084X_4 + 0.00328X_5$$

From the regression results the study found that holding total assets profitability, current ratio, asset structure, sale size and total asset growth constant zero, leverage ratio (Total debt/Total Asset) would be 0.868. Unit increase in total asset profitability of firms would lead to decrease in leverage ratio by factors of 0.336, unit increase in current ratio would result to decrease in leverage ratio by factor of 0.0399, a unit increase in assets structure would result to increase in leverage ratio by factor of 0.3417, unit increase in sales size was found to result to decrease in leverage ratio by factors of 0.0084, further unit increase in total assets growth was found to result to increase in leverage ratio by factors of 0.003283.The results given in Table indicate the presence of a 5% significance level negative relation between total asset profitability, current ratio, the ratio of fixed assets to total assets and leverage ratio. It is observed that there is not a significant relation between growth and leverage ratio.

According to the results obtained, the firms listed at NSE give priority to internal resources for finance as their total asset profitability, liquidity levels and sales amounts increase and prefer a lower level of external resource use. This condition supports the explanations made on the basis of pecking order theoryThe negative relation between the

ratio of fixed assets and leverage ratio in total assets- although they have asset structure which the analyzed firms can give as assurance- indicates their reluctance to use external resources.

The coefficient of regression was found to be 0.785002 which shows that there is a strong relationship between the dependent variable and independent variable. The adjusted R^2 is known as coefficient of determination which shows the variation in the dependent variable due to changes in independent variable. The study found that the adjusted R^2 is 0.767252 which shows that there was 76.72% variation in leverage ratio due to changes in total assets profitability, current ratio, asset structure, sale size and total asset growth constant zero.

These finding are in line with financial surplus will not need to use external resources, their use of external resource also remains in low level. Thus according as pecking order theory, there is a negative correlation between profitability and leverage (Saeed, 2007). In studies conducted by Fama and French (2002), Myers (1984), Baskin (1989), Friend and Lang (1988) and Rajan and Zingales (1995) the negative correlation between profitability and leverage which supports the pecking order theory is indicated. A different view which does not support the theory is put forward by Jensen (1986).

Accordingly since profitable firms are considered as more trustable by debt givers thus they can more easily obtain loans which mean that there is a positive correlation between profitability and leverage (Jensen, 1986). In Rajan and Zingales (1995)' study, it is stated that there is a negative relation between leverage and size of the firm (Rajan and Zingales, 1995). That is because bigger firms have more complex structures. This in turn causes more frequent asymmetrical knowledge problems in bigger firms. Therefore for big firms, choosing internal resources for finance gains priority since these firms have more asymmetric information (Tong and Gren, 2005). On the other hand if it is taken into account that big firms are financially more powerful, it is possible to assert that their probability of bankruptcy is relatively lower. This makes it possible for the big firms to find debt more easily. Therefore big firms experience lesser amounts of change and have higher amounts of leverage level (Fama and French 2002). In the study conducted by

Berger and Udell (1995) it is advocated that compared to big firms, asymmetric information problem is more apparent in small firms and pecking order theory is more applicable to small firms (Berger and Udell, 1995).

5.3 Conclusions

From the above discussion, the study concludes that limited internal fund influences the application of pecking order concepts to companies listed at NSE; availability of internal funds influences the applicability of pecking order theory. The study further revealed that those companies with more internal funds utilize these internal funds to fund their new projects rather than using debt or even equity ,while those companies with limited internal funds opt to get debt to fund their projects and if debt is not readily available the opt for equity thus following the pecking order theory

The study established that capital structure decision of the company influenced their asset structure and size of their company since large firms are highly leveraged, large firms uses more of debts, small firms are more leveraged than large firms hence preferring to borrow short-term rather than long-term debt because of fixed costs associated with this alternative. Capital structure decision influence retained earnings, size, growth, company turnover, assets structure and reserves of the company to a great extent.

This study concludes that internal funds, financing decision, asymmetric information and transaction cost have a positive relationship with applicability of pecking order theory at NSE. According to pecking order theory, developed by Myers and Majluf (1984), in decisions concerning capital structure, a hierarchical order that considers financial benefits of the resources which will be used should be followed (Myers and Majluf, 1984). From the findings of the study concluded that the firms listed at NSE give priority to internal resources for finance as their total asset profitability, liquidity levels and sales amounts increase and prefer a lower level of external resource use. This condition supports the explanations made on the basis of pecking order theory. The negative relation between the ratio of fixed assets and leverage ratio in total assets- although they

have asset structure which the analyzed firms can give as assurance- indicates their reluctance to use external resources.

5.4 Recommendations

The study recommends that managers of firms listed at NSE should make wise financing decision that will prevent their companies from going into financial distress. This follows the agency theory that related to agency problems caused by the organizational cash flows between managers and shareholders or benefit conflicts. Accordingly in the firms there are agent costs which are categorized under observation costs followed to diminish agency problems, agreement costs ensuring guaranty and unpreventable losses' cost.

The study also recommends that Capital structure decisions should be taken to diminish agent costs, to decrease agent costs of equity capital with high leverage level thus increase market value of the firm.

5.4 Limitations of the Study

The study faces limitations. Obtaining of data from the Nairobi stock Exchange was a great challenge and the management in the NSE was uncooperative, however the researcher explain the data that was to be obtained was for academic purpose only. In attaining its objective the study was limited to thirty nine firms of the listed firms in the NSE from whose data was sourced. The study will also be limited to the degree of precision of the data obtained from the respective firms.

5.5 Recommendation for further study

This study being on investigation into application of pecking order concept by companies listed at Nairobi stock exchange, A further research should be carried to determine impact of applicability of pecking order theory on profitability of firms listed in NSE.

The study also recommends that a further study should be carried out to determine the impact of application of pecking order theory on public firms listed at NSE. A further

study should be carried out on testing static tradeoff against pecking order models of capital structure.

The study further recommends that a further study should be carried out to determine the effects of mortgage financing on firm performance of the mortgage firms

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Appendix I: Letter of Introduction

The Records Manager,	Esther W Mbugua,
Nairobi Stock Exchange,	University Of Nairobi,
P O Box 43633-00100,	P O Box 30197-00100
NAIROBI	NAIROBI

8th October, 2010

Dear Sir /Madam,

REF: REQUEST TO COLLECT DATA FOR MBA RESEARCH PROJECT

I am a student at the University of Nairobi conducting a research to investigate the application of the pecking order concept by companies listed at the Nairobi Stock Exchange.

I kindly request you to assist in conducting studies by providing me with financial information of all the firms that were listed in the year 2009 excluding the ones with regulated capital and the suspended ones.

Please note that the study will be conducted as an academic research and any information you provide will be treated in strict confidence. Strict ethical principles will be observed to ensure confidentiality of the study outcomes.

You can also contact the researcher on mbugua.esther@gmail.com or 073 195 6383.

Yours Faithfully,

_____	_____
Esther W Mbugua	Mr. XN Iraki
Student UoN	MBA Co-ordinator

Appendix II: Raw Data from NSE

COMPANIES	leverage	Sales size	Total Asset profitability	Assets growth	Current Ratio	Asset structure
Unilever	3.342246	0.872119	0.027113	0.900353	0.095705	1.372929
Kakuzi Limited	5.386959	0.637035	0.113886	0.958714	0.056571	0.7845
Rea Vipingo	1.773464	1.056914	0.143826	0.670409	0.005692	1.5894
Sasini Limited	2.139984	0.346494	0.018489	0.940378	0.012979	2.025583
Car and General	9.670245	0.904092	0.12605	0.945457	0.034694	1.316808
CMC	21.61965	0.962648	0.094291	0.973962	0.006193	1.523166
Kenya Airways	7.309792	0.760697	0.077309	0.970137	0.07172	1.39415
Marshalls	9.349846	1.028494	0.033694	0.942705	0.144916	1.227096
N M G	6.31669	1.302953	0.271522	0.939562	0.033398	1.906933
Standard Group	2.896913	1.183375	0.187437	0.832017	0.348788	1.325486
TPS	1.517879	0.540872	0.091045	0.621852	0.03485	1.051769
Athi-River Mining	2.337446	0.861712	0.137777	0.823006	0.027567	1.109376
Bamburi	2.775758	1.067133	0.262693	0.912403	0.035618	2.199193
B A T Kenya	4.544364	1.701233	0.221103	0.892121	0.115034	1.126623
BOC Kenya	4.959553	0.809439	0.215006	0.94612	0.017637	2.587846
Crown-Berger	6.136452	1.369667	0.091941	0.922253	0.035034	1.594905
East African Cables	5.17711	1.078649	0.18615	0.968455	0.099519	1.552388
East A Portland	2.307154	0.716304	0.124475	0.877162	0.022119	2.208928
E A B L	5.172941	1.203919	0.341918	0.936799	0.067326	2.206685
Sameer	1.753104	1.097221	0.052665	0.559847	0.015602	2.123386
A.Baumann & Co	2.209439	0.331281	0.09124	0.950386	0.068865	1.966367
Carbacid Investments	2.270086	0.869632	0.123564	0.922151	0.0826	1.359151
City Trust Ltd	1.59363	0.942316	0.071546	0.968927	0.01333	1.568318
Eaagads Ltd	2.54636	0.762028	0.10087	0.966551	0.263493	1.12858
Express Ltd	1.43979	1.203341	0.049319	0.93364	0.019164	1.228723
Hutchings Biemer	2.035905	1.197884	0.21746	0.932634	0.006841	2.231133
Kapchorua Tea	1.9541	0.746972	0.235803	0.713293	0.06406	1.432085
Kenol Kobil	1.078856	0.531724	0.081225	0.58709	0.168662	1.507651
Kenya Orchards	1.076334	0.612325	0.09117	0.833939	0.238789	0.976995
Kenya Power	2.631956	0.903311	0.202	0.904474	0.071684	2.286005
Limuru Tea Co	3.581474	1.629298	0.224603	0.871397	0.065802	1.264188
Olympia Capital	1.327228	0.650648	0.195681	0.941255	0.031944	2.485039
Total Kenya	2.438134	1.100922	0.052354	0.9227	0.069872	1.597635
Unga Group	1.83203	1.069654	0.221639	0.946639	0.186203	1.619229

Limuru Tea Co	3.581474	1.629298	0.224603	0.871397	0.065802	1.264188
Olympia Capital	1.327228	0.650648	0.195681	0.941255	0.031944	2.485039
Total Kenya	2.438134	1.100922	0.052354	0.9227	0.069872	1.597635
Unga Group	1.83203	1.069654	0.221639	0.946639	0.186203	1.619229
Williamson Tea	5.441962	0.682785	0.102115	0.878704	0.088646	2.490605
Eveready	1.89076	1.511169	0.343082	0.868918	0.034767	1.848779
Safaricom	1.048407	0.958002	0.004491	0.579552	0.004356	1.848779
Access Kenya	3.44926	0.270589	0.152464	0.944798	0.134831	7.007279
Ken gen	1.006454	0.914575	0.243782	0.904043	0.237552	3.805666

Source:NSE