THE RELATIONSHIP BETWEEN LEVERAGE AND INVESTMENT DECISIONS FOR COMPANIES QUOTED AT THE NAIROBI STOCK EXCHANGE

BY

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DECLARATION

I, the undersigned, declare that this management research project proposal is my original work and has not been submitted for the award of any degree in any other university or institution of learning other than the University of Nairobi.

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D61/9054/2005

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

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DEDICATION

This project is dedicated to my family members, to my loving wife Sada Nyale for her patience and encouragement throughout and to my Uncle Lawrence Ngujo Muye for your insight, advice and continued words of encouragement, I greatly appreciate. I also dedicate this project to all the institutions who issue debt to companies.
ACKNOWLEDGEMENT

My sincere gratitude goes to the following people, who in their own way contributed to the successful completion of this project

I would like to acknowledge my supervisor Mr. J.L. Lishenga for the invaluable advice, support and rich contribution in this research project.

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Finally to the almighty God for taking me through the whole process to the completion of this project
ABSTRACT

The aim of this study was to establish the relationship between leverage and investment decisions for companies listed at the Nairobi Stock Exchange. Debt holders are worried when companies engage in investments decisions that are a departure from the normal operations of the business because they are not sure of the returns from these projects and in turn it may jeopardize the ability of the company to meet its debt obligations as and when they fall due. The study aimed at determining the relationship between the level of leverage and the amount of extra cash that can be committed on diversification investment decisions by companies that are listed at the Nairobi Stock Exchange. The diversification investment decisions that were considered in this study were those that involve investments in new products, investments in totally new service lines and venturing into new geographical areas with different political and economic environments.

Data was obtained from annual statements of listed companies. The study covered a five year period from 2005 to 2009. Linear regression method was used to identify the existence of the relationship. The findings of the study indicated that about 36% of the listed companies engage in diversification investment decisions. It further found out that there is a very weak relationship between the levels of leverage of a company and how much money the company can commit to a diversification investment decision. This insinuates that companies view each diversification investment decision on their own merit and how much money is committed to an investment decision is not entirely dependent on the level of leverage of that company.
# TABLE OF CONTENTS

Title .................................................................................................................. i
Declaration ....................................................................................................... ii
Dedication ....................................................................................................... iii
Acknowledgement ........................................................................................... iv
Abstract ........................................................................................................... v
Table of contents .............................................................................................. vi

1. CHAPTER ONE - INTRODUCTION ............................................................. 1
   1.1 Background ............................................................................................... 1
       1.1.1 Investment decisions ........................................................................ 3
       1.1.2 Diversification investment decisions .............................................. 4
   1.2 Statement of the Problem ......................................................................... 5
   1.3 Objective of the Study ............................................................................. 6
   1.4 Importance of the Study ......................................................................... 7

2. CHAPTER TWO – LITERATURE REVIEW .................................................... 8
   2.1 Introduction ............................................................................................. 8
   2.2 Definition of key terms .......................................................................... 9
   2.3 The Agency Cost Theory ....................................................................... 11
   2.4 The capital Structure Theory ................................................................ 12
   2.5 Review of some empirical studies .......................................................... 13
   2.6 Interactions between Capital Structure and Investment Decisions ....... 15
   2.7 Corporate Debt Policies ........................................................................ 16
   2.8 Interactions between Investment and Financing Decisions ................. 17
   2.9 Leverage and Investment ...................................................................... 18
   2.10 Conclusions from the literature review ................................................. 19

3. CHAPTER THREE – RESEARCH METHODOLOGY ................................... 21
   3.1 Introduction ............................................................................................ 21
   3.2 Research Design .................................................................................... 21
   3.3 Population and sample .......................................................................... 21
   3.4 Data Collection ...................................................................................... 22
3.5 Data Analysis.................................................................22

4.  CHAPTER FOUR - DATA ANALYSIS, FINDINGS & INTERPRETATION....24
    4.1 Introduction ..........................................................24
    4.2 Findings & Interpretation..........................................24

5.  CHAPTER FIVE – SUMMARY, CONCLUSIONS & RECOMMENDATIONS ............................................27
    5.1 Introduction ..........................................................27
    5.2 Discussions............................................................27
    5.3 Conclusions..............................................................26
    5.4 Recommendations ..................................................28
    5.5 Limitations of the Study..............................................28

REFERENCES .................................................................29

LIST OF TABLES .............................................................33
CHAPTER ONE

INTRODUCTION

1.1 Background

Leverage refers to the degree to which an investor or business is utilizing borrowed money. A firm is said to be levered if it uses debt in its capital structure (Musili 2005). Companies that are highly leveraged may be at risk of bankruptcy if they are unable to make payments on their debt; they may also be unable to find new lenders in the future. All investment decisions that the management of a company may want to undertake translates to commitment of the firms’ resources. Management should ensure that these new investment decisions they are undertaking do not jeopardize the ability of the company to meet its debt obligations as and when they fall due. A company’s level of leverage will therefore determine what investment decisions that company can undertake and which ones it cannot.

This study seek to determine the relationship between the level of leverage and the amount of extra cash that can be committed on diversification investment decisions by companies that are listed at the Nairobi Stock Exchange. The diversification investment decisions that were considered in this study were those that involved investments in new products, investments in totally new service lines and venturing into new geographical areas with different political and economic environments. These new investments pose a risk to the debt holders in the sense that the ability of the company to meet their debt obligations may be jeopardized if the company does not get enough returns from the investments. Debt holders will be comfortable with investments whose returns are certain and do not jeopardize the ability of the company to meet their debt obligations as and when they fall due.

Debt binds the firm to make repayments, reduce agency costs between management and shareholders by reducing the free cash flows available for managers. The use of debt makes managers more disciplined and avoid inefficient and wasteful actions as compared to the managers in companies which are funded by equity (Pandey 1999).
The source of capital also determines how much risk the management can take while investing that capital which influences the investment decisions that managers can undertake.

Ross (1990) notes that debt puts pressure on the firm because of interest and principal payments obligations. If the obligations are not met, the firm might risk some financial distress. Myers (2001) considers debt as a governance device that could reduce the conflict between managers and shareholders of a firm. A company that is debt financed will therefore be very careful in undertaking investment decisions that involves committing huge amounts of the company’s finances. Management will need to be careful to analyze investment projects and only undertake those that they think will generate good returns and will not affect the company’s ability to meet its debt obligations.

Corporate management seeks to maximize the value of the firm by investing in projects which yield a positive net present value when valued using an appropriate discount rate. Management must allocate limited resources between competing opportunities. For a company to grow, management is charged with the responsibility of making decisions including expansion of the firm, increasing its products lines or increasing its geographical network. The firm may also want to venture into new business in order to have a competitive edge in the market. Some companies acquire other companies which they believe would add value to their overall business. Such decisions need capital and the success of such ventures depends on how the firm is financed.

There are several considerations influencing the source of capital that management can pursue to finance the company’s investment decisions. Firms with suitable assets like property available to offer as security for a loan will tend to utilize debt finance than firms without such assets. Managers may choose debt or equity depending on how vulnerable they view their positions within the firm. Jensen (1986) indicates that over reliance of debt increases the firm’s financial risks and similarly the risk of managers losing their jobs if the firm fails.
Since debt or leverage forms part of the components of capital structure, it would be important to mention in a nutshell issues relating to capital structure in this study. Capital structure refers to the way a corporation finances its assets through some combination of equity, debt, or hybrid securities. Mc Menamin (1999) describes capital structure as a combination of debt and equity capital which a firm uses to finance its long term operations. Debt capital refers to a firm’s long term borrowings and equity capital is the long term funds provided by shareholders. Firms would prefer to finance new investments initially with retained earnings, then with debt and finally with equity. Myers and Majluf (1984), notes that, if a firm relies on external funds then it prefers debt to equity due to lesser impact of information asymmetry.

Determining an appropriate long-term source of finance is what the capital structure decision is all about. The task according to Brealey and Myers (1988) is difficult for management and in their words “we cannot say that debt is better...better than equity in some cases, worse in others.” The difficulty of the task lies in the fact that shareholders expect management to issue a financing combination that attempts to maximize a firm’s overall market value. This is usually done in an environment of many conditional ties, which exert influence on this important decision.

In their seminal article, Modigliani and Miller (1958) prove that under perfect capital markets assumptions, corporate financing and investment decisions are completely separable. Since then, a central question in financial economics has been whether market imperfections establish a linkage between these decisions. On the other hand, empirical studies show that characteristics such as profitability, volatility of firms value, collateral of assets, growth opportunities and technological uniqueness which are as a result of the firm’s investment decisions, affect the firm’s financing decisions, Bradley, Jarrell, and Kim (1984).

1.1.1 Investment Decisions

The investment decisions of a company are influenced by many factors. These include the prevailing economic conditions, political environment under which the company operates in, industry competition, the managers and shareholders perception to risk,
among many others. The management of a company is in charge of making decisions that will make the company achieve its objectives and increase shareholders value. The managers therefore act as agents of the capital providers be they equity or debt providers. (Myers 1977)

There are different types of investment decisions that firms undertake. These include business expansion decisions, where a company may add capacity to its existing product lines, business acquisitions, modernization and replacement of long term assets, sale of a division or business, change in the methods of sales distributions and undertaking advertisements campaigns.

There are investment decisions whereby the returns can easily be estimated by management because they are not a departure from the normal operations of the business. These investment decisions can largely be categorized as replacement and modernization decisions. The main objective of modernization and replacement is to improve operating efficiency and reduce costs. With technological changes assets become outdated and obsolete (Stewart 1974). The firm must decide to replace those assets with new assets that operate more economically. If a Garment company changes from semi automatic washing equipment to fully automatic washing equipment, it is an example of modernization and replacement. The debt holders of companies in these cases would not be worried since their money is invested in projects which they can estimate returns.

1.1.2 Diversification investment decisions

Diversification investment decisions include situations where the company ventures into new products, new service lines or venturing in new regions of business with completely different operating environments. Venturing into new areas of business poses a great risk to management. Financing a project through debt results in a liability that must be serviced and hence there are cash flow implications regardless of the project’s success (Apchep and Faebet 1966). The debt holders in these cases would be worried because the cash flows from the new projects may not be definite and might have an impact on the company’s ability to meet the debt holder’s obligations.
Investment decisions always result into management committing huge amounts of the company’s financial resources either from the company’s free cash flows or from raising additional debt. The investment decisions that are usually of concern to the debt holders are the ones which are likely to jeopardize the ability of the company to meet its debt obligations as and when they fall due. Some debt holders usually put in place some debt covenants to ensure that the management doesn’t invest in other areas of business or don’t incur more debt until their debts are fully repaid. The level of leverage of a firm will therefore have some relationship with the amount of money that management can commit to a diversification investment decision.

1.2 Statement of the problem

Several studies have been done on leverage, capital structure and their relationship with investment decisions. In the Kenyan context, studies have been done on capital structure and on the companies listed at the Nairobi Stock Exchange. Musili (2005) in his study on the determinants of capital structure found that the industrial firms were more likely to follow a financing hierarchy than to maintain a target debt to equity ratio. Onsomu (2003) in his study on the relationship between the debt financing and the value of the firms quoted at the Nairobi Stock Exchange, found out that there was no significant relationship between the debt level and the value of the firm. Other studies on capital structure include Huku (1997) who did a study on the factors that influence the capital structure of companies in Kenya. Omondi (1996) did a study of capital structure in Kenya.

There have been debates as to whether investments decisions are affected by how a firm is geared and whether this is true to all firms. Different debt financing attracts different types of debt covenants. These debt covenants can determine how the funds raised are invested. Management of companies is always in a dilemma on whether to use debt or equity capital to finance investment decisions. Debt may seem favorable because of tax deductibility of interest payments, which makes it a cheaper form of capital, but on the other hand, interest payment on debt are a fixed cost of the business, which makes debt more risky.
There has also been controversy as to whether a firm’s financial structure affects a firm’s investment decisions. Fazzari and Petersen (1988) noted that a firm’s financial structure is irrelevant to investment because external funds provide a perfect substitute for internal capital. They also note that in general, with perfect capital markets, a firm’s investment decisions are independent of its financial condition.

The source of capital determines how much risk the management can take while investing that capital which influences the investment decisions of the managers and also how much money can be committed into investment decisions that are a departure from the normal operations of the company. Some companies though highly geared would still raise more debt to finance its activities while some can only depend on equity financing. It is therefore not clear whether all firm’s investment decisions are determined by how levered they are and what other factors like availability of internal funds, risk and return of the investment project play in the choice of capital.

The studies which have been done have highlighted issues on capital structure, leverage and how they relate to a firm’s value. However, none of these have highlighted the link between leverage and the type of investment decisions undertaken by these companies. There has been no study in the Kenyan listed companies which has established how leverage influences managers when they are committing a company’s funds to diversify into new products, new service lines or into new geographical locations with totally different business environments. This study sought to establish whether leverage impacts or has a bearing on the amount of money that managers may want to commit on diversification investment projects. The focus of the study was companies that are listed at the Nairobi Stock Exchange.

1.3 Objective of the study

The objective of this study was to establish the relationship between leverage and investment decisions undertaken by companies that are quoted at the Nairobi Stock Exchange.
1.4 Importance of the Study

Researchers and academicians
The study will contribute to the knowledge on capital structure and how the leverage affects management when they wish to commit funds to diversify their investments.

Owners of the firms
The owners will be able to monitor the behavior of their management when debt is used and hence see how to reduce their agency costs.

Investing Public
The investing public will be able to understand how leverage influences the manager's investment decisions and hence make informed investment decisions.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of various studies that have been done in relation to leverage and investment decisions and the relationship between the two. The chapter looks at how other writers and scholars have looked at the issues surrounding leverage and its relationship with investment decisions. The chapter begins by defining leverage and investment decisions and then reviews theories that guide the thinking behind the use of debt capital. It looks at the agency costs theory and the capital structure theories. The debate on capital structure is also discussed in the chapter. The debate looks at what various researchers have written on debt and equity and what mix of the two and arguments on whether there exists an optimal capital structure that would maximize the value of the firm.

The chapter then reviews literature on the relationship between capital structure and investment decisions. It also reviews literature on corporate debt policies and looks at ideas by several writers on the factors that determine corporate debt polices in companies. The literature tries to explain why in some cases other firms borrow more than others and why others borrow with short term maturity instruments and others with long term maturity instruments. The chapter also covers literature on the relationship between investment and financing decisions.

Companies which are highly levered can be financially distressed. The managers of financially distressed companies are only able to undertake certain investment decisions and not others in order to take into account the interest of debt holders. In this respect the chapter has also covered some literature on financial distress and how it affects investment decisions. The chapter also includes a review of literature on the relationship between leverage and investment decisions. The chapter concludes by indicating the research gaps identified in the literature review and how the study differs from those reviewed in this chapter.
2.2 Definition of Key Terms

Leverage

Musili (2005) defined a levered firm as one which uses debt in its capital structure. Debt capital refers to the long term borrowings of a company. The safest type of debt are long-term bonds because the company has years, if not decades, to come up with the principal, while paying interest only in the meantime. Other types of debt capital can include short-term commercial papers. Long term loans that a company gets from banks and other financial institutions also form part of debt. The cost of debt capital depends on the health of the company’s balance sheet. A financially strong company can access debt at a lower cost than a financially weak company due to the levels of risks involved.

The way a corporation finances its assets through some combination of equity, debt, or hybrid securities is referred to as capital structure. Capital structure can also be explained as the combination of debt and equity in a company. 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 various organizational constituencies, but also because of the impact such a decision has on an organization’s ability to deal with its competitive environment.

Equity capital refers to money put up and owned by the shareholders (owners). Typically, equity capital consists of contributed capital, which is the money that was originally invested in the business in exchange for shares of stock or ownership and retained earnings, which represents profits from past years that have been kept by the company and used to strengthen the balance sheet or fund growth, acquisitions, or expansion. Equity capital is considered to be a more expensive type of capital that a company can utilize because its cost is the return the firm must earn to attract investment i.e. return on equity.

Capital structure forms part of the financial structure. Musili (2005) refers to financial structure as the manner in which the assets of a company are financed. It includes the entire capital and liability side of the balance sheet. The strategy of a firm and how it will
attain its profitability depends on the capital structure; how the firm will be funded to invest and get profit. Modigliani and Miller 1958, 1963 notes that capital structure choice is relevant in that it impacts on the firms’ stability to meet demands of various stakeholders. The debt equity decision that a firm takes may influence how it makes strategic choices (Jensen 1986). These definitely have a bearing on where the management will invest in order to increase shareholders value.

**Investment Decisions**

Investment decisions involve committing a company’s funds to the long term decision. Investment decisions are normally called capital budgeting or capital expenditure decisions. These decisions involve investing the current funds most efficiently in the long term assets in anticipation of an expected flow of benefits over a series of years. The management of a company is in charge of making decisions that will make the company achieve its objectives and increase shareholders value. The managers therefore act as agents of the capital providers be they equity or debt providers.

There are different types of investment decisions. They include business expansion decisions, where a company may add capacity to its existing product lines, business acquisitions, modernization and replacement of long term assets, sale of a division or business, change in the methods of sales distributions and undertaking marketing campaigns. The returns from replacement and modernization decisions can easily be estimated by management since they are not a departure from the normal operations of a company. These risk involved in these decisions is low and hence debt holders can easily fund them without much considerations.

However, there are those investment decisions which jeopardize the ability of the company to meet their debt obligations because they are a departure from the normal operations of the company and the expected returns from these projects cannot be estimated with certainty. Such decisions include venturing into totally new products, new service lines or venturing into new geographical regions which have totally different political, social and economic environments. Critical decisions have to be made as to whether these investments will be financed using equity or debt. The level of leverage of
a company will therefore have some bearing on how much the company can commit in these new projects.

2.3 The Agency Cost Theory

The agency cost theory was put forward by Jensen and Meckling, (1976). They proposed that when a firm issues outside equity, it creates agency costs that reduce the value of corporate assets. Jensen’s free cash flow theory alleges that if management is not closely monitored, they will invest in capital projects and acquisitions that do not provide the sufficient expected returns. Hence there is need to incent management to disgorge free cash flows to stockholders, only this way can agency problems be solved. Jensen and Meckling (1976) continue to argue that debt financing can help overcome the agency costs of external equity. The argument that debt promotes discipline was further explored by Jensen (1989) and Ofek (1993). This can further infer that this discipline brought about by the use of debt determines what type of investment decisions that the firm undertakes.

The control role of debt is that it can decrease the amount of free cash flow available to managers (Jensen 1986). Kochler (1996) notes that what is being governed in firms are the free cash flows which give rise to same challenges which could be overcome by choice of financing. The use of leverage was one way to improve the performance of an organization. While this can be true in some circumstances, it fails to consider either the complexities of the competitive environment, or the long-term survival needs of the organization.

The agency viewpoint of capital structure, also referred to as the free cash flow theory (Myers, 2001) considers debt as governance devise that could reduce the conflict between managers and shareholders of firms. Jensen (1986) notes that the use of debt binds the firm to make contractual repayments reduce agency costs between management and shareholders by reducing the free cash flows available for managers. Should the managers spend the free cash flows on wasteful expenditures, then this reduces the likely hood that the firm will honor its repayments obligations. This default may force the firm into bankruptcy and the managers could lose their jobs. Therefore
the use of debt may prevent managers from inefficient and wasteful actions and hence increase firm value to the benefit of equity holders. Most managers are not only interested in the expected outcome but also want to know what could happen if things go wrong. Before a firm uses a large amount of debt many finance managers conduct a break even analysis. They look at how far sales or profits could decline without impacting on the firm’s ability to service the loan. They may also look at how well the firm would fare under alternative plausible scenarios.

Ranjan D. & Mercedes M. (2010) investigated the role of long-term debt in influencing over investments by analyzing the pattern of abnormal investments around a new debt offering by unlevered firms. Before being levered when the disciplining role of debt is missing, firms retain excessive amounts of cash. The introduction of debt leads to a dramatic decline in cash ratios and the relation is stronger for firms classified as having poor investment opportunities. For the sub-sample of firms that over invest in real assets, issuing debt leads to a reduction in abnormal capital expenditures. The decline in over investments is explained by debt service obligations that reduce discretionary funds under managerial control. Further, the reduction in over investments has a positive impact on equity value. These conclusions hold in other settings where there is a dramatic change in firms’ capital structures providing strong support for the hypothesis that debt reduces over investments.

2.4 The Capital Structure Theory – The Trade Off Model

The trade off model was developed from the Modigliani and Miller (1958) theory of relevance on taxes to capital structure of a firm. Modigliani & Miller argued that in a world with corporate taxes, firms should use 100% debt financing. They argued that the difference between the value of the levered and unlevered firm is the tax saving. Onsumu (2003) notes that market imperfections in the Kenyan environment do not support the Modigliani and Miller argument of 1958.

Many theories of capital structure imply that other things held constant, the incentive to use debt financing increases with a firms’ marginal tax rate due to the tax deductibility of interest expense (Graham, Lemann & Schallheim, 1998). There is however a limit to the extent to which a firm can use debt financing. Turnbull (1979) noted that in a world with
corporate taxes, where interest payments are tax deductible, it has long been recognized that the issuance of debt can enhance the value of a firm and that there is a limit on the amount of debt the firm can possibly use.

The Modigliani-Miller theorem, proposed by Franco Modigliani and Merton Miller, form the basis for modern thinking on capital structure. Though it is generally viewed as a purely theoretical result since it assumes away many important factors in the capital structure decision, the theorem states that, in a perfect market, the value of a firm is unaffected by how that firm is financed. Determining an appropriate long-term source of finance is what the capital structure debate is all about. The task according to Brealey and Myers (1988) is difficult for management and in their words “we cannot say that debt is better...better than equity in some cases, worse in others.” The debate is on whether there exists an 'optimal' capital structure which maximizes the value of the firm.

Prior to the Modigliani and Miller (1958) paper, the thinking was that there existed a single optimum capital structure for any given firm that maximizes shareholders value. Modigliani and Miller (1958) wrote a paper showing that subject to some conditions the source of financing was irrelevant in determining the value of the firm.

2.5 Review of some Empirical Studies

Some empirical studies on debt and capital structure for firms listed at the Nairobi Stock Exchange have been done. Musili (2005) in his study on capital structure choice for industrial firm in Kenya sampled fifty industrial firms to assess the importance of various factors (projected cash flows from assets to be financed, avoiding dilution of common shareholders, risk of assets to be financed, restrictive covenants, personal tax rates on debt and equity holders and bankruptcy) to managers when they make decisions. His results showed that industrial firms were more likely to follow a financing hierarchy than to maintain a target debt to equity ratio. The study also found out that models based on corporate and /or personal taxes, bankruptcy and other leverage related costs are not as useful in determining the financial mix as the models that suggest that new financing reveals aspects of firm’s marginal asset performance.
Onsomu (2003) did a study on the relationship between the debt financing and the value of the firms quoted at the Nairobi Stock Exchange. The study did not find any significant relationship between the debt level and the value of the firms listed at the Nairobi Stock exchange. He notes that the value of a firm is to a larger extent influenced by other factors beside debt.

Kamere (1987) did a study on the factors that influence capital structure in Kenya. The study focused to establish the relative importance of these factors in the capital structure decisions. He used questions to collect information from finance managers of the target firms. Thirty questionnaires from finance managers and eleven from financial advisors were analyzed. Secondary data was analyzed from the financial reports of listed companies. Kamere (1987) found out that some factors had more influence to the capital structure than others. In conclusion his findings helped to establish that most important factors that influence the capital structure decisions were the stability of future cash flows, interest rate in the economy, assets structure and the attitude of management towards the firms’ risk.

In another study, Kiogora (2000) did an empirical study on the capital structure of companies quoted at the Nairobi Stock Exchange. Some of the objectives of his study were to establish whether capital structure of quoted firms in the Nairobi Stock Exchange were similar. Using regression analysis the researcher concluded that there is a positive relationship between the variations and the level of leverage for firms listed at the Nairobi Stock Exchange. The conclusion of this study points out that the use of debt financing is considered important by finance managers of these companies. By extension it is possible to infer that the interest tax shield could have a positive contribution to financing decision.

An alternative research agenda, however, has been based on the view that internal and external capital is not perfect substitutes. According to this view, investment may depend on financial factors, such as the availability of internal finance, access to new debt or equity finance, or the functioning of particular credit markets. Sometimes financial planning principles are more important in governing the financing decisions of the firm than are specific capital structure theories. Moreover it also requires that sound
financing decisions needs managers to grow and maintain financial flexibility hence multiple factors bear on the financing choice and several financing alternatives need to be considered simultaneously. This provides the base with which to examine real world reasons why capital structure is relevant, that is, a company's value is affected by the capital structure it employs. (Myers 1984)

2.6 Interactions Between Capital Structure And Investment Decisions

The use of retained earnings to finance an investment decision is cheaper but done at the expense of paying out dividend to shareholders. The shareholders would only forego present income if better investment opportunities exist (Pandey, 1999). Whether a company should use debt or equity depends on whether we are expecting incremental cash flows from the project and the payback period. The use of new equity has no financial distress and liquidation costs but floatation costs pose a danger. Apchep and Faeber (1966) holds the view that floatation costs, and a higher required rate of return both contribute in making the issuing of new equity a prohibition of smaller concerns. Debt may seem favorable because of tax deductibility of interest payments, which makes it a cheaper form of capital, but on the other hand, interest payment on debt are a fixed cost of the business, which makes debt more risky.

Achieving the goals of corporate finance requires that any corporate investment be financed appropriately. Management must therefore identify the "optimal mix" of financing—the capital structure which results in maximum value. Financing a project through debt results in a liability that must be serviced and hence there are cash flow implications regardless of the project’s success. Equity financing is less risky in the sense of cash flow commitments, but result in a dilution of ownership and earnings.

Work by Galai and Musulis (1976), Jensen and Meckling (1976) and Myers (1977) suggest that stockholders of leveraged firms have an incentive to invest sub optimally to appropriate wealth from a firm’s bondholders. This incentive may induce a positive relation between debt ratio and the capacity of firms to collateralize their debt. If the debt can be collateralized, the borrower is restricted to the use of the funds for the specified project. Since no such guarantee can be used for projects that cannot be
collateralized, creditors may require more favorable terms which in turn may lead such firms to use equity rather than debt financing. In Kenya the view that firms with tangible assets borrow more and is supported by both Kamere (1987) and Omondi (1996).

2.6 Corporate Debt Policies

Managers avoid high debt ratios in an attempt to protect their jobs and stabilize their personal wealth. The firms financing decisions can be signaling devices conveying information to investors about the firm’s business risk and profitability. Stewart C. Myers in his paper “Determinants of Corporate Borrowing” posed some questions in relation to the corporate debt policies. Why do some firms borrow more than others, why do others borrow with short and others with long maturity instruments and so on? The papers shows that a firm with risky debt outstanding, and which acts in its stock holders interest, will follow a different decision rule than one which can issue risk free debt or one which issues no debt at all. The firm financed with risky debt will, in some states of nature, pass up valuable investment opportunities which could make a positive net contribution to the market value of the firm.

A firm’s basic resource is the stream of cash flows produced by its assets. In a perfect market, Modigliani & Miller (1958) notes that, any combination of securities is as good as another, in getting the value of the firm. There can be a mix of debt securities issued by a firm. Long term versus short term, secured versus unsecured, senior versus subordinated and convertible versus non convertible debt. All these should not have an effect on the value of the firm.

A variety of ideas were advanced by Modigliani and Miller (1963), that firms maintain reserve borrowing capacity. Although the need for such flexibility is not clear in the frictionless capital markets, Modigliani and Miller relied on the fact that the incremental tax advantage of borrowings declines as more debt is issued and interest tax shield become less certain. They also noted that personal taxes specifically the difference between tax rates on capital gains and rates on regular income reduce the theoretical tax advantage of corporate borrowing.
Since the shareholders have limited liability, if a company borrows money, it does not guarantee repayment. It repays the debt in full only if its assets are worth more than debt obligations. Modigliani & Miller agrees that in a perfect market, borrowings not only increase the expected rate of return on shareholders’ investments but also increases the value of a firm’s shares. Modigliani & Miller shows that the risk increase exactly offsets the increase in expected return, leaving stockholders no better or worse off. Proposition 1 is an extremely general result. It applies not just to the debt equity trade off but to any choice of financing instruments. This then implies that the choice between long term and short term debt has no effect on firm value.

2.7 Interactions between investment and financing decisions

Under the Modigliani and Miller assumptions, decisions to spend money can be separated from the decisions to raise money. The investment decisions always have side effects on financing. Every shilling spent has to be raised somehow. Sometimes the side effects are irrelevant or at least unimportant. In an ideal world with no taxes, no transaction costs, or other market imperfections, only investment decisions would affect firm value. In such a world, firms would analyze all the investment opportunities as if they were all equity financed. Firms would decide which assets to buy and they would not worry about where the money might come from because debt policy, dividend policy and all other financing choices would have no impact on shareholders wealth. However, in practice, these side effects cannot be ignored.

Myers (1974) notes that everyone seems to agree that there are significant interactions between corporate financing and investment decisions. The most important argument to the contrary embodied in Modigliani and Miller’s famous preposition 1 specifically assumes the absence of corporate income taxes. Their argument implies an interaction when such taxes are recognized. These actions may also stem from transaction costs or other market imperfections. He also noted that the capital budgeting literature typically argues that because of the tax advantage of debt financing and the mix of financing a project may make the difference between project acceptance and rejection.
2.10 Leverage and Investment

A firm is said to be levered if it uses debt in its capital structure. Financing an expansion project whose expected returns is uncertain may make management to use equity capital as compared to an acquisition whose returns might be certain. Risky debt may induce conflict of interest between stockholders and bond holders and lead to corporate investment incentives. The resulting sub optimal investment decisions cause deadweight losses which are commonly referred to as Agency costs of debt. The two well known examples of such debts are Jensen and Meckling's (1976) asset distribution effect and Myers (1977) under investment problems.

Debt binds the firm to make repayments, reduce agency costs between management and shareholders by reducing the free cash flows available for managers. The use of debt makes managers more disciplined and avoid inefficient and wasteful actions as compared to the managers in companies which are funded by equity. The source of capital also determines how much risk the management can take while investing that capital which influences the investment decisions of the managers.

Shareholders under invest capital by refusing to participate in high-risk projects. This increases shareholder value at the expense of the debt holders. Since high-risk projects have large profits, the shareholders benefit from increased income, as the debt holders require only a fixed portion of cash flow. The problem occurs because the debt holders are not compensated for the additional risk. Management should therefore choose investment projects with the correct return on capital to avoid situations of over investments or under investments and avoid finding themselves in the debt overhang problem.

Financial distress occurs when promises to creditors are broken, or honored with difficulty. Emery (1988) defines financial distress as the disruption of the normal operating and financing conditions as a result of impending insolvency. Investors know that levered firms may fall into financial distress and they worry about it. Financial distress is costly and at times can lead to bankruptcy. When a company issues debt it needs to persuade the lenders that it will be able to repay the loan. This then implies
that management will have to choose which investment to undertake in order to persuade that the lenders obligations will be met.

**Under investment and over investment problems**

Under investing is an agency problem where a company refuses to invest in low-risk assets, in order to maximize their wealth at the cost of the debt holders. Low-risk projects provide more security for the firm's debt holders, since a steady stream of cash can be generated to pay off the lenders. The safe cash flow does not generate an excess return for the shareholders. As a result, the project is rejected, despite increasing the overall value of the company. Shareholders under invest capital by refusing to participate in high-risk projects. This is similar to the asset substitution problem, where shareholders exchange low-risk assets for high-risk ones. Both instances will increase shareholder value at the expense of the debt holders. Since high-risk projects have large profits, the shareholders benefit from increased income, as the debt holders require only a fixed portion of cash flow. The problem occurs because the debt holders are not compensated for the additional risk.

Over investment on the other hand relates to a situation in which the management of a publicly-traded company invests in too many projects, especially when the projects do not benefit shareholders. Over investment may be a violation of the management's fiduciary responsibility to shareholders especially when the managers, benefit from the arrangement and investors do not.

**2.11 Conclusions from the Literature Review**

The above literature looked at various issues relating to leverage, capital structure and how they are linked to investment decisions in some way. The theories reviewed indicate that debt disciplines managers and this in effect influences the kind of investments decisions that can be undertaken by a company. The debt equity decision that a firm takes may influence how it makes strategic choices (Jensen 1986). These definitely have a bearing on where the management will invest in order to increase shareholders value. It can also be established from the above literature that managers use debt or equity to fund investment decisions depending on how vulnerable they view their positions in those companies. It can also be concluded from the above literature
that there is a relationship between financing and investment decisions but has not defined this relationship. It is also evident from the above literature that the source of capital determines how much risk the management can take while investing the company’s resources and capital structure affects the investment decisions being undertaken by companies.

There is need to try and identify if there is any possible link between the level of leverage and the amount of money that management can commit on investment decisions that are a departure from the normal investment projects being undertaken by the company. The above literature is based on companies in other jurisdictions and the literature done for the companies quoted at the Nairobi Stock Exchange have not established any possible link between the level of leverage and the type of investment decisions that companies can undertake.

Investing the company’s resources into totally new product and services or moving into new geographical regions may jeopardize the ability of the company to meet its debt obligations. The level of leverage will therefore have a bearing on the amount of money that management can commit into diversification investment decisions. This study intends to highlight how leverage dictates how much money management can commit into diversification investment decisions. This paper aims at adding into the existing literature by highlighting the relationship between leverage and how it affects how much management can invest in diversification investment decisions among the company’s which are quoted at the Nairobi Stock Exchange.
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter looks at the research design that was adopted in conducting the study. It looks at the population of the study sample size, the sampling techniques used and their justification. The chapter also highlights how data was collected and the data analysis techniques that were used in the study and the justification of using such techniques.

3.2 Research design

According to Cooper, D.R, Emory C W, (1995) a research design is a framework of specifying the relationship among the study’s variables and it starts with a plan for selecting the sources and types of information used to answer the research question. An empirical research design was used. The independent variable was the level of leverage of companies and the dependent variable was the amount of money committed on diversification investment decisions. The level of leverage for the listed companies was collected from the financial statements of the companies. The amount of money committed on diversification investment decisions was obtained from the annual reports of the quoted companies.

The above research design is justified by the fact that all quoted companies are supposed to audit their annual accounts within four months after the end of the financial year. Data on the level of debts and the amount of money committed on diversification investment decisions is also included in the financial statements and annual reports.

3.3 Population and sample

The population of the study constitutes of all the fifty two companies that are listed at the Nairobi stock Exchange and whose shares are actively trading. The three suspended companies will be excluded from the study. A census survey was conducted and all the listed companies were considered in the study. This is because not all the
listed companies use debt to finance their operations. Such sources of debt include corporate bonds, commercial papers and long term bank loans. Furthermore not all the companies with debt financing may have undertaken diversification investment decisions during the period under consideration. Diversification investment decisions are one off decisions and a long period of time lapses before a company may undertake another diversification investment decision. A period of five years from 2005 to 2009 was considered in this study. The period of five years is enough to examine the strategic direction of a company and note any diversification investment decisions that it may have undertaken.

3.4 Data Collection

Secondary historical data was used in the study. Data on when and what amount of money the companies raised was obtained from the Capital Markets Authority library. This is because all companies listed at the Nairobi Stock Exchange have to submit their audited and half year financial statements to the Capital Markets Authority. The Capital Markets Authority continuous reporting obligations for listed companies also require the listed companies to publish these financial statements in the newspapers.

3.5 Data Analysis

Linear regression model was used in data analysis. This is because the regression model includes any techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables. More specifically, regression analysis helps us understand how the typical value of the dependent variable changes when any one of the independent variables is varied, while the other independent variables are held fixed. It estimates the conditional expectation of the dependent variable given the independent variable and can be used to infer causal relationships between the independent and dependent variables. In this study, the leverage ratios were the independent variables while the amount of money invested in diversification investment decisions formed the dependent variables.
At any point when a diversification investment decision was made by a company, the leverage ratio at that particular point was calculated. This was done for all the companies in the population for five years. Arithmetic average method will be used to get the average amount of money invested. The leverage ratios (x-axis) were plotted against the average amounts of money committed in undertaking the diversification investment decisions (y-axis). In determining these relationships and their strengths, Microsoft excel 2007 was used to plot graphs and identify any relationship that existed between leverage and resources committed in the diversification investment decisions.
CHAPTER FOUR
DATA ANALYSIS, FINDINGS AND INTERPRETATION

4.1 Introduction

This chapter presents the data analysis, findings and discussions on the findings. The study aimed at identifying the relationship between leverage and investment decisions for companies listed at the Nairobi Stock Exchange. The chapter compares the leverage ratios of companies that undertook diversification investment decisions and those which did for a period of five years from 2005 to 2009. The chapter then presents the findings of regressing the levels of leverage against the amount of money committed to the diversification investment projects.

4.2 Findings and Interpretation

Financial data was analyzed by taking the leverage ratios as independent variables and amount of money committed on diversification investment decisions as the dependent variables. During the five years from 2005 to 2009 a total of 19 listed companies undertook diversification investment decisions while 33 companies did not. Table 1 shows the average leverage ratios for the companies which did not undertake diversification investment decisions and Table 2 shows the average leverage ratios for the companies which undertook diversification investment decisions including the areas of diversification and amount of money committed in the diversification projects. A summary of table 1 and table 2 indicates the following:

<table>
<thead>
<tr>
<th>Sector</th>
<th>Total Debt (Kshs M)</th>
<th>Total Equity (Kshs M)</th>
<th>Leverage ratios</th>
<th>Total Debt (Kshs M)</th>
<th>Total Equity (Kshs M)</th>
<th>Leverage ratios</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Agricultural Sector</td>
<td>2.438.38</td>
<td>22,656.43</td>
<td>11%</td>
<td>488.52</td>
<td>1,892.56</td>
<td>26%</td>
</tr>
<tr>
<td>2. Commercial &amp; Services</td>
<td>167,240.98</td>
<td>258,734.40</td>
<td>65%</td>
<td>4,696.79</td>
<td>14,880.07</td>
<td>32%</td>
</tr>
<tr>
<td>3. Finance and investment</td>
<td>25,896.53</td>
<td>409,157.03</td>
<td>6%</td>
<td>14,881.75</td>
<td>100,707.60</td>
<td>15%</td>
</tr>
<tr>
<td>4. Industrial &amp; Allied</td>
<td>172,806.56</td>
<td>569,644.47</td>
<td>30%</td>
<td>20,979.03</td>
<td>35,465.29</td>
<td>59%</td>
</tr>
<tr>
<td>5. Totals</td>
<td>368,382.45</td>
<td>1,260,212.33</td>
<td>29%</td>
<td>41,046.09</td>
<td>152,945.52</td>
<td>26%</td>
</tr>
</tbody>
</table>
The companies which did not undertake diversification investment projects had an average leverage ratio of 29% compare 26% for companies which diversified their investments. This may insinuate mean that companies which had higher leverage ratios shied away from undertaking diversification investment decisions. However the difference is too small to draw any conclusion.

**Results of regression**

**SUMMARY OUTPUT**

<table>
<thead>
<tr>
<th>Regression Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
<td>0.190245421</td>
</tr>
<tr>
<td>R Square</td>
<td>0.03619332</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.000496777</td>
</tr>
<tr>
<td>Standard Error</td>
<td>846.8056711</td>
</tr>
<tr>
<td>Observations</td>
<td>29</td>
</tr>
</tbody>
</table>

R-Squared is a statistical term saying how good one term is at predicting another. The regression analysis indicated the R –Squared is 0.04. This means that given the level of leverage one cannot predict the amount of money that can be committed into any diversification investment decision. This indicates that the relationship between leverage and the amount of money committed on diversification investment decisions is very weak or non-existent.

The Adjusted R Square was insignificant. An adjusted R – Square mean how well a regression line approximate real data points. An R –Square of zero above indicates that the regression line does not approximate the data points. This implies that there is no relationship between the level of leverage and the amount of money that can be committed in a diversification investment decision. The Standard error was also found to be very high evidencing the high dispersion between the expected and the observed values.

The scatter graph (Table 3) did not evidence any certain relationship between the two variables. However the graph shows that most of the diversification investment decisions were done when the level of leverage was below 60%.
The above results indicate that there is a very weak relationship between the levels of leverage and the amount of money that can be committed into a diversification investment decision for companies that are listed at the Nairobi Stock Exchange.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the discussion of the findings, conclusions and recommendations derived from the findings of the study. The chapter also presents the limitations that were encountered in the study with suggestions for improvement.

5.2 Discussions

The aim of the study was to establish the relationship between leverage and investment decisions. Further the study concentrated with diversification investment decisions. In achieving this, the study applied historical data from annual reports of listed companies from 2005 to 2009 for each company listed at the Nairobi Stock Exchange. These annual reports were obtained from the Capital Markets Authority Library. The study was based on the hypothesis that there exists a relationship between leverage and diversification investment decisions.

It was found out that there was a very weak relationship between the levels of leverage and the amount of money that a company can commit into a diversification investment decision. This implies that management does not consider the level of leverage of their companies only when committing funds but also consider other factors as well. The decision to commit the organization’s resources is not determined by the level of leverage, there must be other factors that managers consider when undertaking diversification investment decisions.

5.3 Conclusions

In the case of companies listed at the Nairobi Stock Exchange, the findings have shown that about 36% of the companies undertook diversification investment decisions as described in this study. There is a very weak relationship between the level of leverage and the amount of money that a company can commit into a diversification investment
decision. From the above analysis, it can be concluded that debt does not influence the amount of money that managers can commit into diversification investment decisions. This implies that managers consider other factors when undertaking the diversification investment decisions other than debt only. High levels of leverage on their own do not restrict managers from undertaking further diversification investment decisions.

5.4 Recommendations

5.4.1 Debt holders.

The study suggests that debt does not limit a company to invest in diversification investment decisions. Debt holders should therefore employ other ways of ensuring that managers don’t invest money in projects that will end up jeopardizing the ability of the company to meet their debt obligations.

5.4.2 Suggestions for further research

Further research should be done to identify the other factors which influence managers when undertaking investment decisions other than the levels of debt.

5.5 Limitations of the Study

The study relied on information disclosed in the annual reports of listed companies. The data collected depended only of how good the annual reports had been compiled to be able to disclose as much information as possible. Important information that was not included in the annual reports was therefore not taken into consideration.
REFERENCES


pp 575-592

Turnbul M.S. (1979). Debt capacity: *Journal of finance* Vo. 14, No.4 pp 931-939
LIST OF TABLES AND SCATTER GRAPH (ATTACHED)

Table 1 – Companies which did not undertake diversification investment decisions
Table 2 – Companies which undertook diversification investment decisions
Scatter Graph