

**THE RELATIONSHIP BETWEEN COST OF CAPITAL AND
INVESTMENT DECISIONS OF COMPANIES LISTED IN THE
NAIROBI SECURITIES EXCHANGE**

MULUNGYE SALOME KANINI

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT
OF THE REQUIREMENTS FOR THE AWARD OF A DEGREE OF
MASTER OF BUSINESS ADMINISTRATION,
UNIVERSITY OF NAIROBI**

2014

DECLARATION

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

.....

Signature

Salome Kanini Mulungye

Reg. No. D61/64221/2011

.....

Date

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

.....

Signature

Mrs. Winnie Nyamute

Lecturer, School of Business

University of Nairobi

.....

Date

DEDICATION

This piece of academic work is dedicated to my family who have stood by me during my academic pursuits and the research work.

ACKNOWLEDGEMENT

First, all glory and honour goes to Almighty God for giving me the requisite resources, good health and strength to carry on this research at the University of Nairobi.

I would also like to express my deep appreciation to my supervisor Mrs. Winnie Nyamute for the insightful guidance and assistance at every stage of writing this research.

Finally, I am sincerely grateful to my husband Wambua Mualuko my children Kevin Mualuko, Kathleen Mueni, Kacey Mumbua and Kylie Mwendu, my sister Terry Mbula Adagi and her husband Evans Adagi and friends especially Miriam Gichovi and Pauline Lema Mutua for their encouragement, support and constant prayers during the various stages of the project.

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES	ix
ABBREVIATIONS AND ACCRONYMS	xi
ABSTRACT.....	xii
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background.....	1
1.1.1 Cost of Capital	2
1.1.2 Investment Decisions	3
1.1.3 Cost of Capital and Investment Decision.....	5
1.1.4 Nairobi Securities Exchange.....	8
1.2 Research problem.....	9

1.3 Research Objective	12
1.4 Value of the study	12
CHAPTER TWO	13
LITERATURE REVIEW	13
2.1 Introduction.....	13
2.2.1 Theoretical Review	13
2.2.2 Trade-Off Theory.....	14
2.2.3 Signaling effects.....	17
2.2.4 Pecking order theory	18
2.3 Determinants of Investment Decisions	18
2.3.1 Cost of capital (Rate of Return).....	18
2.3.2 Investment Opportunities.....	19
2.3.3 Retention Ratio	19
2.3.4 Rate of expected output	20
2.3.4 Balance sheet restructuring	20
2.4 Empirical Studies	20

2.5 Summary of the Literature Review	22
CHAPTER THREE	25
RESEARCH METHODOLOGY	25
3.1 Introduction.....	25
3.2 Research Design.....	25
3.3 Population	26
3.4 Sample.....	26
3.5 Data Collection	26
3.6 Data Analysis	28
3.6.1 Analytical Model	29
CHAPTER FOUR.....	31
DATA ANALYSIS, FINDINGS AND RESULTS INTERPRETATION	31
4.0 Introduction.....	31
4.2 Descriptive analysis	31
Table 4.1-Descriptive Analysis.....	31
4.3 Correlation Analysis	32

Table 4.2 – Correlation Analysis	33
4.4 Regression Analysis	33
Table 4.3 ANOVA	34
Table 4.4 Coefficients	35
Table 4.5 Model Summary	36
4.5 Summary and interpretation of findings	36
CHAPTER FIVE	38
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	38
5.1 Introduction.....	38
5.2 Discussion of the Findings.....	38
5.3 Conclusions.....	40
5.4 Limitations of the study	41
5.5 Recommendations.....	42
5.5.1 Policy Recommendations.....	42
5.5.2 Suggestions for Further Studies	43
REFERENCES	45

APPENDIX I : INTRODUCTION LETTER	50
APPENDIX II : COMPANIES LISTED IN THE NAIROBI SECURITIES EXCHANGE AS AT 31 DECEMBER 2012	51
APPENDIX III : TIME PLAN	55
APPENDIX IV : BUDGET	56

LIST OF TABLES

Table 4.1-Descriptive Analysis.....	31
Table 4.2 – Correlation Analysis	33
Table 4.3 ANOVA	34
Table 4.4 Coefficients.....	35
Table 4.5 Model Summary	36

ABBREVIATIONS AND ACCRONYMS

ATS	Automated Trading System
DFL	Degree of financial leverage
EPS	Earnings per share
EBIT	Earnings before interest and tax
MM	Modigliani and Miller
NPV	Net present Value
NSE	Nairobi Securities Exchange
WACC	Weighted average cost of capital

ABSTRACT

This study sought to investigate the impact of cost of capital on the investment decision of non-financial firms listed at the Nairobi Securities Exchange. It explores the interdependence of cost of capital and investment decisions by documenting the relationship between corporate leverage and investment choices. By using the data of non-financial companies listed in Nairobi Securities Exchange for five years (2008-2012) as the sample, the obtained data was filtered to obtain the relevant statistics that could be analyzed through SPSS. The analysis was done by applying multivariate regression analysis and t-test.

The study found that there was a significant likelihood of a firm elevating-leverage to increase the company value. The result revealed that investment decision had influenced positively on the company value, which meant the investors assumed the management had performed well in searching and investing the obtained capital from debt. The research findings indicated that there was a weak positive relationship ($R= 0.332$) between the variables. The study also revealed that 10.40% of cost of capital of the firms listed at the Nairobi securities exchange can be explained by the independent variables. The results are in line Ojah (2009) who by using a panel of listed firms in Ghana, Kenya, Nigeria, South Africa and Zimbabwe found that the firms' profitability, size, asset tangibility and age, related significantly to leverage.

CHAPTER ONE

INTRODUCTION

1.1 Background

The capital structure of a firm identifies the mixture of different form of capitals it uses to raise money for its projects. In other words, what percentages of the funds come from debt, preferred stocks, and common equity? Why does a firm need to know its optimal capital structure? That is because the goal of a financial manager is to maximize the value of the firm (on behalf of the shareholders). Capital structuring and in particular locating the optimal capital structure has for a long time been the focus of attention as many academic and financial institutions probe into this area. Academically the problem is appealing because it is fairly open-ended and subject to controversies and criticisms. Practically there is a lot of interest in firms knowing how to improve their capital structure.

The pioneers in the capital structure theory are Modigliani and Miller. Their theories embodied some very simplify assumptions that might not represent the real world, but they are very important in helping us understand how a firm determines the correct mixture of debt and equity financing. On the other hand, the traditionalists believe that the cost of capital can be reduced by judicious mix of debt and equity. Capital structure remains a puzzle. No one knows for sure how firms choose their capital structure.

1.1.1 Cost of Capital

The average cost which is used as an acceptable criterion to be applied to investment projects. For an investment project to be accepted it must earn a minimum rate of return equal to the cost of capital. Therefore, the cost of capital represents a standard for allocating the firm's funds in the most optimum manner. Capital structure of a firm determines the weighted average cost of capital (WACC). WACC is the minimum rate of return required on a firm's investments and used as the discount rate in determining the value of a firm. A firm can create value for its shareholders as long as earnings exceed the costs of investments (Damodaran, 2000).

A substantial literature on accounting and finance has undertaken to identify what drives one of the key corporate financial policies, the capital-structure decision. The study by Modigliani and Miller (1958) sought to examine this issue. They offered evidence that capital-structure is unrelated to the value of a firm. Five years later, the same authors relaxed the perfect market assumptions and added corporate taxes in their models (Modigliani and Miller, 1963). Consequently, they found that the value of a firm will be enhanced if the level of debt increases. They elucidated their findings by the fact that interest paid is tax-deductible and hence, firms would enjoy a debt tax shield when funding their activities by long-term debt. However, Modigliani and Miller (1963) did not take into account bankruptcy-related costs. The findings in Modigliani and Miller (1958, 1963) encouraged many researchers to explore further the drivers of corporate capital-

structure decisions. Until now, there has been no general agreement about the capital-structure debate. As a result, it is still unclear what drives capital-structure decisions.

Early literature on the capital-structure puzzle by Myers (1984) examined different capital-structure theories. He found that drivers of firms' decisions to choose debt, equity or hybrid securities are still unknown. The findings in Myers's article challenged researchers to explore this puzzle further. Berens and Cuny (1995) revisited this puzzle and find that "debt ratios provide an inappropriate framework for empirically examining the trade-off theory of capital-structure". In particular, they explained that debt (or debt-to-equity) ratios are misguided and lead to poor and inconsistent results when examining the determinants of corporate capital-structure. Barclay and Smith (2005) revisited the capital-structure puzzle and concluded that different capital-structure theories lead to different and diametrically opposed decisions and outcomes.

1.1.2 Investment Decisions

Investment decision is defined as the firm resolution to invest its current funds most efficiently in the long-term assets in anticipation of an expected flow of benefits over a series of years it includes expansion, acquisition, modernization and replacement of the long-term assets, sale of a division or business(divestment), change in the methods of sales distribution, an advertisement campaign, research and development programme and employee training, shares (tangible and intangible assets that create value) (Pandey 2005). Capital budgeting has been described as the formulation and financing of long-term plans for investment (Olawale, 2010). It is a process that involves the evaluation of

the investments of a firm to determine whether they are viable or not. An investment is an asset that is expected to generate cash flows for periods longer than one year. A viable investment may be accepted while an unviable investment should be rejected if no other factors are considered.

According to Bierman, & Smidt, (1980), capital investments typically involves large amount of the funds and hence it normally has a fundamental effect on the future cash flows of the firm. They also note that investments affect the profitability and long-term strategy of the firm. These reasons call for management to use proper techniques to evaluate their projects since failure to make sound decisions can adversely affect the firm's financial position in the long run. The term 'Capital Budgeting' is used interchangeably with capital expenditure management, capital expenditure decision, long term investment decision, management of fixed assets. It may be defined as "planning, evaluation and selection of capital expenditure proposals." Capital budgeting involves a current outlay or serves as outlays of cash resources in return for an anticipated flow of future benefits.

According to Philippalys (2002), capital budgeting is concerned with the allocation of firm's scarce financial resources among the available market opportunities. The consideration of investment opportunities involves comparison of expected future streams of earnings from a project with immediate and subsequent streams of expenditure for it. In other words, the system of capital budgeting is employed to evaluate expenditure

decisions which involve current outlays, but likely to produce benefits over a period of time longer than one year. These benefits may be either in the form of increased revenue or reduction in costs. Capital expenditure management therefore includes addition, disposition, modification and replacement of fixed assets. The basic features of capital budgeting are potentially large anticipated benefits, a relatively high degree of risk and relatively long time period between initial outlay and anticipated returns. Fixed assets are frequently termed as earning assets of the firm in the sense that they usually generate large return. Future sales growth is correlated with expansion of capital expenditure. It is a specialized process requiring highly sophisticated techniques and intricate forecasting for future years (Philippalys, 2002).

1.1.3 Cost of Capital and Investment Decision

Simon Gilchrist and Egon Zakrajsek (2007) on Investment and the Cost of Capital: New Evidence from the Corporate Bond Market noted that, the notion that business spending on fixed capital falls when interest rates rise is a theoretically unambiguous relationship that lies at the heart of the monetary transmission mechanism. Nevertheless, the presence of a robust negative relationship between investment expenditures and real interest rates—or the user cost of capital more generally—has been surprisingly difficult to document in actual data (e.g., Abel and Blanchard [1986] and Schaller [2006]). Similarly, the magnitude of the response of investment to changes in corporate tax policies is a key parameter that fiscal policy makers rely on when weighing the costs and benefits of altering the tax code. With the exception of Cummins, Hassett, and Hubbard [1994], whose methodology utilizes firm-level variation in investment expenditures within a

context of a “natural” experiment, researchers have had a difficult time identifying the relationship between capital formation and changes in corporate tax policy (e.g., Schaller [2006] and Chirinko, Fazzari, and Meyer [1999, 2004]).

The empirical difficulties associated with estimating the effects of changes in interest rates and corporate tax policies on business fixed investment are often blamed on a lack of identification. At the macroeconomic level in particular, long-term interest rates (through monetary policy actions) and corporate tax obligations (through investment tax credits or partial expensing allowances) are often lowered when investment spending is weak. In the extreme, the endogeneity between both monetary and fiscal policy actions and the macro economy may result in a positive relationship between investment expenditures and the user cost of capital. Simon Gilchrist and Egon Zakrajsek (2007)

According to Chapman & Hopwood (2007), in 1930, Fisher advanced the Theory of Interest in which he postulated that Net present value (NPV) is the key part in theory of optimal resource allocation and introduced concept of the preference for a dollar of present income over a dollar of future income. The interest rate concept was later to be known today as the cost of capital. Fisher defined capital as any asset that produces a flow of income over time. The value of capital is the present value of the flow of (net) income that the asset generates.

The empirical regression of interest is formulated as some variant of equation (e.g., Bernanke, Bohn, and Reiss [1988] and Oliner, Rudebusch, and Sichel [1995]). Other

formulations such as Caballero [1994], Tevlin and Whelan [2003], and Schaller [2006] exploit co integrating relationships to identify the long-run effect of the cost of capital on investment, an approach that relies heavily on the fact that the relative price of capital goods is non-stationary. In general, changes in other components of the user cost—namely, interest rates and tax terms—play a modest, if any, role as determinants of investment spending in time-series models.

Chirinko, Fazzari, and Meyer [2004] combines long-run analysis with firm-level panel data estimation techniques to estimate the elasticity of capital to the user cost. Reported estimates of the long-run elasticity in this literature are frequently lower than unity and, moreover, tend to be estimated with considerable imprecision. Importantly, these panel-data studies rely on aggregate interest rates when constructing the user cost. Thus, cross-sectional variation in the cost of capital is obtained primarily from capital goods prices that are industry specific and, to some extent, from tax effects that vary by industry owing to cross-sectional variation in depreciation rates.

The natural experiments approach adopted by Cummins, Hassett, and Hubbard [1994] focuses on episodes where tax changes are comparatively large and account for nearly all of the variation in the cost of capital. During such episodes, the elasticity of investment demand with respect to the user cost is estimated to be quite high. More recently, House and Shapiro [2006] analyze the impact of recent corporate tax changes—as measured by bonus depreciation allowances—and document a significant user-cost effect at the

industry level. By relying on specific tax episodes, however, this strand of research has been unable to provide an explicit link between interest rates and investment spending.

1.1.4 Nairobi Securities Exchange

The Nairobi Securities Exchange (NSE) is a public market for the trading of securities issued by publicly quoted companies and the Government of Kenya at an agreed price. It is an organized market where shares are issued, bought and sold through the services of stockbrokers or dealers.

It is center point of Kenya Capital Market, the apex regulatory body is the capital market Authority. It consists of the primary and secondary segments where investors participate. The NSE has been the subject of significant changes towards the development of Kenya capital market in the recent years. Development of capital market is crucial for capital accumulation, efficient allocation of resources and promotion of economic growth of a country. Since its incorporation NSE has seen an increase in the number of stock brokers, introduction of investment banks, establishment of custodial institutions and credit rating agencies and the number of listed companies have increased over time. Securities traded include: equities, bonds and preference shares. The NSE has been one of the most popular investments in Kenya in the recent past due to its high return. It has become an integral part of the Kenya economy and any fluctuation in this market influences financial lives of individuals as well as corporate entities.

The NSE as at December 2013 had 59 companies with equity listings in the Main Investment Market Segment, Alternative Investment Market Segment, Fixed Income Market segment and Growth Enterprise Market Segment (NSE, 2014). The NSE currently uses an Automated Trading System (ATS) which is a fully automated screen-based system. The ATS adopts the principles of order-driven market in which the best-buy order is matched with the best-sell order. In July, 2011, the NSE adopted a T+3 settlement system with the expectation that efficiency gains from the shorter settlement cycle will improve liquidity in the market(NSE, 2011). NSE provides avenues for investment opportunities that encourage thrift culture, critical in increasing domestic savings and investment ratios that are essential for rapid industrialization.

The Nairobi Securities Exchange gives investors the opportunity to access current information and provides a reliable indication of the Kenyan equity market's performance. It has encouraged higher standards of accounting, resource management and public disclosure which in turn affords greater efficiency in the process of capital growth.

1.2 Research problem

According to Abey Francis (2012) the cost of capital is very important concept in the financial decision making. Cost of capital is the measurement of the sacrifice made by investors in order to invest with a view to get a fair return in future on his investments as a reward for the postponement of his present needs. On the other hand from the point of

view of the firm using the capital, cost of capital is the price paid to the investor for the use of capital provided by him. Thus, cost of capital is reward for the use of capital. The progressive management always likes to consider the importance cost of capital while taking financial decisions as it's very relevant in the following spheres: Designing the capital structure, Capital budgeting decisions, Comparative study of sources of financing, Evaluations of financial performance, Knowledge of firms expected income and inherent risks, Financing and Dividend Decisions. Investment decision is defined as the firm resolution to invest its current funds most efficiently in the long-term assets in anticipation of an expected flow of benefits over a series of years. It includes expansion, acquisition, modernization and replacement of the long-term assets, sale of a division or business, change in the methods of sales distribution, an advertisement campaign, research and development programme and employee training and shares options (Pandey 2005). According to Pandey, (2005) investment decisions are decisions that influence a firm's growth in the long-term. They affect the risk of the firm, involve commitment of large amount of funds, are irreversible or reversible at substantial loss, and among the most difficult decisions to make.

The analysis was done for companies listed in The Nairobi Securities Exchange because the NSE gives investors the opportunity to access current information and provides a reliable indication of the Kenyan equity market's performance. It has encouraged higher standards of accounting, resource management and public disclosure which in turn affords greater efficiency in the process of capital growth. All the information required for this research (audited financial statements) was therefore available at the NSE which

has availed it for public use for all the listed companies. Numerous studies have investigated the capital structure of firms in various sectors of the economy; such as manufacturing firms (Long and Matlitz, 1985; Titman and Wessels, 1988), electric-utility companies (Miller and Modigliani, 1966), non-profit hospitals (Wedig , 1988) and agricultural firms (Jensen and Langemeier, 1996).

Studies in Kenya include Chonde (2003) who studied determinants of capital structure of public sector enterprises, Odinga (2003) who studied the determinants of capital structure of listed companies, Wanjohi (2009) who studied dynamic determinants of capital structure of listed companies, and Kuria (2010) who also studied determinants of capital structure of listed companies. These studies found that capital structure of non-financial institutions were influenced by factors such as size, profitability, growth, tax, asset structure, risk, non-debt tax shields, free cash flows, commercial trade position, age, and corporate governance.

Sagala George (2003) did a research on the relationship between cost of capital and leverage. In his research he analysed all the companies quoted in the Nairobi Securities exchange to establish whether there was a relationship between the two. He concluded that, the relationship between them varies from company to company. Chepkemboi (2011) studied the determinants of pecking order behaviour for listed companies in Kenya and found that the cost of capital declined with leverage. A pooled regression model was used to carry out an empirical analysis of the variables. In the model, financing decisions was represented by incremental debt and equity with debt taking

precedence over equity. Further, financing deficit was represented by the sum of incremental capital expenditures; cash dividends paid; working capital less retained earnings. The result was inconsistent with the pecking order hypothesis. There is therefore a research gap on the relationship between capital structure and Investment decision. This study therefore sought to answer the following question: How does cost of capital affect investment decision?

1.3 Research Objective

To determine the effect of cost of capital on Investment decision of companies listed in the Nairobi Securities Exchange.

1.4 Value of the study

The findings of this study will be of benefit to many including academicians as it can be used as a basis for further research on cost of capital. To Financial Managers , it will in understanding how to achieve optimal capital structure which will lead in increase in the value of the company.Shareholders - It will enhance the financial management of firms therefore increasing shareholders wealth.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a literature review. The theories related to cost of capital , mainly the trade-off theory, signaling effect and the pecking-order theory, are discussed. Then an empirical review on the determinants of investment decision is presented. A summary of the chapter and subsequent research gap is then outlined.

2.2.1 Theoretical Review

Modigliani and Miller (1958) seminar paper on cost of capital corporate valuation and capital structure, they concluded that capital structure is invariant to the cost of capital hence there is no optimal capital structure and that use of debt in the capital structure only changes the way the net income is shared between providers of capital.

Modigliani and Miller (1963) published an article that refined their original model by incorporating corporate taxes (but still ignoring any personal taxes). This is commonly known as MM model 2 or MM model with corporate taxes. In Proposition 2, capital structure does have an impact on the value of the firm. In fact, it has a positive impact on the firm's value: as the level of debt employed by the firm increases, so does its value. In other words, there is tax advantage in debt financing basically, the Modigliani and Miller model claims that in an environment with corporate taxes, a firm does enjoy a benefit in using debt in the form of an interest tax shield. Therefore, the value of the firm increases

as the level of debt usage increases. Hence, the capital structure of a firm has an impact on its value and WACC in an environment with corporate taxes.

Miller (1976) presented a model that incorporates personal taxes. In this particular model, an investor faces two possible types of taxes: personal taxes on equity or dividend income and personal taxes on debt or interest income. Because taxes on equity income are usually lower than taxes on interest income, the Miller Model produces a lower gain from leverage than Modigliani and Miller with corporate taxes Model.

2.2.2 Trade-Off Theory

The trade-off theory of capital structure refers to the idea that a company chooses how much debt finance and how much equity finance to use by balancing the costs and benefits. The classical version of the hypothesis goes back to Kraus and Litzenberger who considered a balance between the dead-weight costs of bankruptcy and the tax saving benefits of debt. Often agency costs are also included in the balance. The static trade-off theory explains that a firm's decision for getting to their optimal capital structure is related to the trade-off between the tax advantage of debt and several leverage-related costs (Bradley, Jarrell, & Kim, 1984) The static trade-off choice encompasses several aspects, including the exposure of the firm to bankruptcy and agency cost against tax benefits associated with debt use. Bankruptcy cost is a cost directly incurred when the perceived probability that the firm will default on financing is greater than zero. One of the bankruptcy costs is liquidation costs, which represents the loss of value as a result of liquidating the net assets of the firm. This liquidation cost

reduces the proceeds to the lender, should the firm default on finance payments and become insolvent. Given the reduced proceeds, financiers will adjust their cost of finance to firms in order to incorporate this potential loss of value. Firms will, therefore, incur higher finance costs due to the potential liquidation costs (Cassar and Holmes, 2003).

Another cost that is associated with the bankruptcy cost is distress cost. This is the cost a firm incurs if non-lending stakeholders believe that the firm will discontinue. If a business is perceived to be close to bankruptcy, customers may be less willing to buy goods and services due to the risk of a firm not being able to meet its warranty obligations. In addition, employees might be less inclined to work for the business and suppliers less likely to extend trade credit. These stakeholders' behaviour effectively reduces the value of the firm. Therefore, firms which have high distress cost would have incentives to decrease debt financing so as to lower these costs. Given these bankruptcy costs, the operating risk of the firm would also influence the capital structure choice of the firm because firms which have higher operating risk would be exposed to higher bankruptcy costs, making cost of debt financing greater for higher risk firms. Research has found that high growth firms often display similar financial and operating profiles (Hutchinson and Mengersen, 1989).

Debt financing may also lead to agency costs. Agency costs are the costs that arise as a result of a principal-stakeholder relationship, such as the relationship between equity-holders or managers of the firm and debt holders. Myers and Majluf (1984) showed that,

given the incentive for the firm to benefit equity-holders at the expense of debt holders, debt-holders need to restrict and monitor the firm's behaviour. These contracting behaviours increase the cost of capital offered to the firm. Thus, firms with relatively higher agency costs due to the inherent conflict between the firm and the debt-holders should have lower levels of outside debt financing and leverage. Firms also consider within the static trade-off framework, the tax benefits associated with the use of debt. This benefit is created as the interest payments associated with debt are tax deductible while payments associated with equity such as dividends are appropriated from profit. This tax effect encourages the use of debt by firms as more debt increases the after-tax proceeds to the owner. The theory among other things predicts a positive relationship between tax and leverage.

The trade-off theory has contributed a lot in finance. It yields an intuitively pleasing interior optimum for firms and gives a rationale for cross-sectional variation in corporate debt ratios i.e. firms with different types of assets will have different bankruptcy and agency costs and different optimal debt ratios. However, the theory has limitations i.e. debt ratios as produced by this theory are significantly higher than observed. Secondly, in many industries, the most profitable firms often have the lowest debt ratios, which is the opposite of what the trade-off theory predicts (Sunder & Myers, 1999). According to Myers (1984) the trade-off theory also fails to predict the wide degree of cross-sectional and time variation of observed debt ratios.

2.2.3 Signaling effects

In his seminal 1973 article, Michael Spence proposed that two parties could get around the problem of asymmetric information by having one party send a signal that would reveal some piece of relevant information to the other party. This theory is based on the premise that the managers and shareholders of a firm do not have the same access to information of the firm. There is certain information (i.e. inside information) that is available only to the insiders (i.e. the managers) that is not available to the shareholders. Hence, there is asymmetric information between the managers and the shareholders. As a result, when the capital structure of a firm changes (through issuance of more debt and/or repurchase of outstanding stocks), it can convey information about the firm to the shareholders that can cause the value of the firm to change. In other words, signalling has occurred. For example, Ross (1977) claims that when a firm issues new debt, it sends a signal to the shareholders and potential investors that the firm's future prospective is improving. The reason for this is because increased debt usage means higher cash flow constraint and financial distress cost, and the managers will only issue more debt if they are sure that the firm will do well enough to make those payments. Other studies have shown that issuance of new stocks will lead to a negative stock price response and repurchase of outstanding stocks will lead to a positive stock price response. The reason for that is because current shareholders and potential investors view the issuance of new common stocks as a way for the managers to lower their shares of the firm's "bad fortune". And they view the repurchase of outstanding common stocks as a way for the managers to enjoy a bigger share of the firm's "good fortune."

2.2.4 Pecking order theory

Myers (1984) claims that there is a pecking order to a firm's use of capital. The theory implies that firms prefer internal equity financing (i.e. using retained earnings) compared to external equity financing (i.e. issuing new common stocks). The reason for this is because it is a lot cheaper using retained earnings and it does not have to disclose a lot of information about the firm (which it must provide in the prospectus of new bonds and common stocks). And if a firm does need to use external financing, it will issue debt first before it issues new common stock. This is because the firm is sending a signal to current shareholders and prospective investors that its current and future prospects are not that great when it issues new common stocks.

2.3 Determinants of Investment Decisions

2.3.1 Cost of capital (Rate of Return)

The most important thing that a business owner absolutely must do is compare the rate of return that the project will earn to the weighted average cost of capital or what the company pays to obtain financing. The decision rule is that if the rate of return is greater than the weighted average cost of capital, then you should accept and invest in the project. If the rate of return of the project is less than the weighted average cost of capital, then reject and do not invest in the project. (Horne, 2000).

2.3.2 Investment Opportunities

Investment opportunities could be summarized by the market valuation of the firm's capital stock, and, under certain assumptions, the ratio of the market value of the capital stock to its replacement cost is the basic variable explaining investment demand (Hayashi,1982).

2.3.3 Retention Ratio

Fazzari, (1988) argue that the availability of internal finance may constrain investment spending by firms with higher retention ratios. One reason for this is that firms may pay low dividends if their demand for investment finance exceeds the amount of internal funds available. In the financing hierarchy described by Fazzari, the "lemons premium" will increase the cost of external funds and, for particular levels of investment demand, internal finance will constrain firms' investment. Where debt is used as the marginal source of finance, the slope of the debt supply schedule determines the extent to which firms will offset reductions in internal finance with higher debt and the extent to which internal funds will constrain investment. Oliner and Rudebusch (1989) argue a more general point that a high retention ratio is more a signal that, for whatever reasons, a firm may face liquidity constraints. Investment by firms with high retention ratios would be expected to be more sensitive to cash flows under this hypothesis. Higher cash flows would facilitate increased investment without recourse to expensive external funds; lower cash flows would constrain investment.

2.3.4 Rate of expected output

Eisner (1978) argued that the rate of expected output should be the primary determinant of investment. In practice, this translates to formulating investment as a distributed lag function of current and past changes in sales. Other forces influencing the expected profitability of investment is captured in current and past profits, which may also capture some capital supply effects. i.e., To the extent that capital markets are imperfect, firms tend to invest more when profits are high and less when profits are low.

2.3.4 Balance sheet restructuring

In an attempt to reduce leverage and meet debt repayments the corporate sector has reduced investment and generally attempted to reduce costs. (Mills, Morling and Tease (1993).

2.4 Empirical Studies

Sagala George (2003) did a research on the relationship between cost of capital and leverage. In his research he analysed companies quoted in the Nairobi Securities exchange to establish whether there was a relationship between the two. He concluded that, the relationship between them varies from company to company. for some, the cost of capital declined with leverage for others there was a positive relationship hence use of debt led to increase in the cost of capital. The reason being that the cost of debt is higher than cost of equity for those companies. Some companies are able to procure debt at a lower cost hence reducing their overall cost of capital others are not.

Ojah (2009) using a panel of listed firms in Ghana, Kenya, Nigeria, South Africa and Zimbabwe investigated corporate capital structure in Africa, with emphasis on the extent to which firm characteristics and cross-country institutional differences determine the way firms raise capital. Results supported the pecking-order postulate. Firms' profitability, size, asset tangibility and age, related significantly to leverage; thus suggesting that remedies for inadequate institutional infrastructures were important determinants of corporate capital structure in Africa.

Chepkemboi (2011) studied the determinants of pecking order behaviour for listed companies in Kenya. A pooled regression model was used to carry out an empirical analysis of the variables. In the model, financing decisions was represented by incremental debt and equity with debt taking precedence over equity. Further, financing deficit was represented by the sum of incremental capital expenditures; cash dividends paid; working capital less internally generated funds (Retained Earnings). The findings indicated a constant of (-4.83) and a deficit coefficient (1.1415) was statistically significant and poles apart from one. Further, the variable for the cumulative deficit had a negative sign which suggested that the greater the deficit the less leverage a firm uses. This result was inconsistent with the pecking order hypothesis. However, inclusion of the agency costs, information asymmetry and cumulative deficit caused the R^2 of the equation to change much (from 0.6504 to 0.9926). The R^2 increased since according to the pecking order hypothesis they are the main determinants.

2.5 Summary of the Literature Review

This chapter presents the reviewed literature relevant to cost of capital, mainly the trade-off theory, signalling effect and the pecking-order theory, are discussed. Then an empirical review on the determinants of investment decision is presented. It draws literature from empirical studies that have been done globally. The chapter starts with introduction, theoretical issues in the research, determinants of investment decisions then empirical studies.

From the trade-off theory, use of debt exposes the firm to bankruptcy and agency cost against tax benefits. Thus, firms with relatively higher agency costs due to the inherent conflict between the firm and the debt-holders should have lower levels of outside debt financing and leverage. According to Myers (1984) the trade-off theory also fails to predict the wide degree of cross-sectional and time variation of observed debt ratios.

From the Signalling effects, when the capital structure of a firm changes (through issuance of more debt and/or repurchase of outstanding stocks), it can convey information about the firm to the shareholders that can cause the value of the firm to change. Ross (1977) claims that when a firm issues new debt, it sends a signal to the shareholders and potential investors that the firm's future prospective is improving. Other studies have shown that issuance of new stocks will lead to a negative stock price response and repurchase of outstanding stocks will lead to a positive stock price response.

Myers (1984) claims that there is a pecking order to a firm's use of capital. The theory implies that firms prefer internal equity financing (i.e. using retained earnings) compared

to external equity financing (i.e. issuing new common stocks). And if a firm does need to use external financing, it will issue debt first before it issues new common stock. This is because the firm is sending a signal to current shareholders and prospective investors that its current and future prospects are not that great when it issues new common stocks.

Cost of capital (Rate of return), investment opportunities, retention ratio, rate of expected output and Balance sheet restructuring are the major determinants of Investment decisions.

From the empirical studies, Sagala George (2003) who did a research on the relationship between cost of capital and leverage for companies quoted in the Nairobi Securities exchange concluded that, the relationship between them varies from company to company. For some, the cost of capital declined with leverage for others there was a positive relationship hence use of debt led to increase in the cost of capital. Ojah (2009) using a panel of listed firms in Ghana, Kenya, Nigeria, South Africa and Zimbabwe investigated corporate capital structure in Africa, with emphasis on the extent to which firm characteristics and cross-country institutional differences determine the way firms raise capital. Results supported the pecking-order postulate. Firms' profitability, size, asset tangibility and age, related significantly to leverage; thus suggesting that remedies for inadequate institutional infrastructures were important determinants of corporate capital structure in Africa. Chepkemboi (2011) studied the determinants of pecking order behaviour for listed companies in Kenya. The findings indicated a constant of (-4.83) and a deficit coefficient (1.1415) was statistically significant and poles apart from one.

Further, the variable for the cumulative deficit had a negative sign which suggested that the greater the deficit the less leverage a firm uses. This result was inconsistent with the pecking order hypothesis. However, inclusion of the agency costs, information asymmetry and cumulative deficit caused the R^2 of the equation to change much (from 0.6504 to 0.9926). The R^2 increased since according to the pecking order hypothesis they are the main determinants.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter details the proposed research methodology for this study. It describes the population of interest, data collection methods as well as the data analysis and presentation methods that were applied in arriving at the conclusions. The purpose of the study was to determine whether cost of capital declines with leverage and how the decrease affects the investment decisions of the firm. The methods detailed in this chapter have been borrowed from past studies and are supported by the existing literature.

3.2 Research Design

Research design refers to the structure of an enquiry. It is a logical matter rather than a logistical one (Yin, 1989). The function of a research design is to ensure that the evidence obtained enables us to answer the initial question as unambiguously as possible. The research design applied in this study is descriptive design of the correlation nature and seeks to establish or reinforce a certain phenomenon, and in this case the correlation between two variables. Under this design, the appropriate techniques involve hypothesis testing, sampling, and data collection, statistical treatment of data and validation or rejection of results. This is the exact methodology that is proposed for this research.

3.3 Population

The population consisted of all the 61 companies quoted on the NSE as at 31.12.2012. These companies are chosen because they are considered as adequate representatives of the Kenyan economy. They are also publicly quoted and it's therefore easier to get information from them. In addition, data for listed companies is considered relatively free of errors and misrepresentations, as standard reporting methods are usually applied (see appendix 1 of the listed companies in the NSE). All the 61 companies listed in the NSE for the five year period between 1/1/2008 to 31/12/2012 were studied. The period of study has been chosen because it is considered fairly recent and hence relevant. The five year period is also sufficient in establishing a correlation between two variables.

3.4 Sample

The sample consisted of the firms listed on the securities exchange excluding firms in the financial service industry because of the nature of operations that include taking deposits from customers that complicates the leverage variable. Only companies with positive cash flows after adjusting for non-cash items are included in the sample. This is because it is impossible to calculate cost of equity for companies that made losses.

3.5 Data Collection

The study focused on secondary data that was collected from the NSE databases and additional information was also collected from past financial statements of listed companies. The weekly data focused on the Wednesday figures as it has a smaller degree of inaccuracies like the Monday effect (Fama, 1965) and weekend effect (French, 1980). Fama (1965) found a higher variation in returns on Mondays while French (1980) found

some significantly different variation in return on Friday. Wednesday therefore represents normal behavior of stocks.

Tier 1: Data required for the determination of cost of capital

- Stock prices covering a total of five years
- Annual growth of earnings
- Annual dividend for each stock
- Cost of equity
- Annual treasury bill rate

2&3: Data required for the determination of leverage in each individual company.

- Debt represented by Total Liabilities
- Equity
- Taxes

All the 61 companies listed as at 31.12.2012 were surveyed. The data was collected and organized in Microsoft Excel 2007 for purposes of analysis as described in section 3.6

3.6 Data Analysis

Tier 1 Data:

The analysis was based on the price earnings model. This was achieved as follows;

- Estimate the dividend payout ratio, b
- Estimate the growth of future earnings, g
- Calculate the cost of equity r_e , L

$$r_e, L = \frac{b(1+g)}{P/E} + g$$

$$P/E$$

- Calculate WACC

$$WACC = r_e(L) \frac{E}{E+D} + r_{D(1-t_c)} \frac{D}{E+D}$$

This was done for the five years. The cost of capital was found by calculating the weighted cost of capital for all the sample firms on every one of the five years. The result of the cost of capital enabled the calculation of annual beta B . The data resulting was arranged by company, sector and year. The beta acted as the independent variable, x

Tier 2 Data

The degree of financial leverage was computed for each company as follows:

$$DFL = \frac{\text{Debt}}{\text{Equity} + \text{Debt}}$$

Where:

- DFL is the degree of financial leverage for company i in the year n ,
- Debt is all liabilities

- Equity includes share capital, retained earnings and other reserves.

The leverages was summarized by company, sector and year and matched with the tier 1 data above.

Tier 3: Data required for Annual Investment

The growth in annual investment was computed for each company as follows:

$$G_{i,n} = \frac{(V1 - V0)}{V0}$$

Where:

- G_i is the rate of growth of noncurrent assets for company i in the near n ,
- $V1$ is the volume of assets for the same company at the end of the year
- $V0$ is the volume at the beginning of the year.

The growth rates were summarized by company and year, then matched with the tier 1 & 2 data above.

3.6.1 Analytical Model

The researcher conducted a regression analysis in order to establish the relationship between cost of capital and leverage. This analysis was used to predict the value of the dependent variable on the basis of the independent variable. Regression analysis is concerned with the study of the dependence of the dependent variable (investment), on the independent variable (Cost of capital).

The regression equation was;

$$(Y = \beta_0 + \beta_1 X + \varepsilon)$$

Where;

Y= the dependent variable (investment)

B_0 = Constant

β_1 , = Coefficient of determination

X = Cost of capital

ε – (Extraneous) Error term

This relationship was established and tested for the sampled companies and conclusions drawn. The same was repeated for the overall market and the results compared, analyzed and final conclusions drawn. This brought out the levels of correlations between segments and forms the basis of future studies. For significance testing, the coefficient of determination (R^2) was used to measure the degree of fit between the two variables. The F-test and ANOVA was then applied to decompose the variance and further determine the strength of the regression analysis.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND RESULTS INTERPRETATION

4.0 Introduction

This chapter presents the findings of the study tabulated and presented in narratives and tables for ease of explanation and understanding for the reader. The main objective of the study was to determine the relationship between cost of capital and corporate investment for non-financial firms listed in the NSE. This is well elaborated in this chapter which gives an overall analysis for the whole stock exchange.

4.1 Descriptive analysis

The study looked at the relationship between cost of capital and investment decision among non-financial firms at the NSE. Table 4.1 shows the outputs for the cost of capital represented by BiN, the investments represented by GiN and the degree of debt represented by DERATIO.

Table 4.1-Descriptive Analysis

VARIABLE	Mean	Std. Deviation	N
GIN	.1088	.13020	41
BIN	.0899	.40242	41
DERATIO	.4446	.21364	41

Source: Author's computation, 2014

4.2 Correlation Analysis

To quantify the strength of the relationship between the variables, the study used Karl Pearson's coefficient of correlation. The Pearson product-moment correlation coefficient (or Pearson correlation coefficient for short) is a measure of the strength of a linear association between two variables and is denoted by r . The Pearson correlation coefficient, r , can take a range of values from +1 to -1.

A value of 0 indicates that there is no association between the two variables. A value greater than 0 indicates a positive association, that is, as the value of one variable increases so does the value of the other variable. A value less than 0 indicates a negative association, that is, as the value of one variable increases the value of the other variable decreases. Pearson's Correlation Coefficient was carried out and the results obtained are presented in table 4.2.

Table 4.2 – Correlation Analysis

		GIN	BIN	DERATIO
Pearson	GIN	1.000	.288	.143
Correlation	BIN	.288	1.000	-.011
	DERATIO	.143	-.011	1.000
Sig. (1-tailed)	GIN	.	.034	.186
	BIN	.034	.	.472
	DERATIO	.186	.472	.
N	GIN	41	41	41
	BIN	41	41	41
	DERATIO	41	41	41

Source: Author's computation, 2014

4.3 Regression Analysis

The research study wanted to establish the impact of cost of capital of capital on performance of the firms listed at the Nairobi securities exchange. To establish the growth in investments of the firms listed in the Nairobi Securities Exchange, cost of capital was calculated for the 100 percent of the non-financial firms whose financial statements were accessed by the researcher. On the other hand, capital structure of the firms listed in the Nairobi Securities Exchange was obtained by calculating the debt ratio of the firms.

The research findings indicated that there was a weak positive relationship ($R= 0.323$) between the variables. The study also revealed that 10.40% of capital structure of the firms listed at the Nairobi securities exchange can be explained by the independent variables. From this study it is evident that at 95% confidence level, the variables produce statistically significant values (high t-values, $p < 0.05$.) hence when the variables are combined hence, they can be relied on to explain capital structure of the firms listed at the Nairobi securities exchange. The below model was used to establish the relationship between cost of capital and investment decision represented by financial performance.

$$(Y = \beta_0 + \beta_1X + \varepsilon)$$

The findings of the study are tabulated and discussed as below. They are as shown in the tables 4.1, 4.2 and 4.3.

Table 4.3 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.071	2	.035	2.217	.123(a)
	Residual	.607	38	.016		
	Total	.678	40			

a Predictors: (Constant), DERATIO, BIN

b Dependent Variable: GIN

Source: Author's computation, 2014

Positive effect was reported for debt ratio ($\beta = .089$). Further, a positive effect was reported for cost of capital ($\beta = .094$). The results of the regression equation below shows that for a 1- point increase in the independent variables, cost of capital was predicted to increase by 6.1, given that all the other factors were held constant. Sig value in the ANOVA table help us to determine if the condition means under study were relatively the same or if they were significantly different from one another. The study found out sig value was 0.123. This value was more than 0.05 hence it can be concluded that there was no statistically significant difference between the condition means.

Table 4.4 Coefficients

Model		Unstandardized		Standardized	T	Sig.
		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	(Constant)	.061	.046		1.310	.198
	BIN	.094	.050	.290	1.888	.067
	DEBT RATIO	.089	.094	.147	.954	.346

Dependent Variable: GIN

Source: Author's computation, 2014

Table 4.5 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.323(a)	.104	.057	.12641

a Predictors: (Constant), DERATIO, BIN

b Dependent Variable: GIN

Source: Author's computation, 2014

4.5 Summary and interpretation of findings

The capital structure of the companies was measured by debt. Debt ratio was considered to be the long term debt divided by shareholders equity and long term debt. The findings from the study revealed that debt ratio had a direct relationship on cost of capital. Cost of capital ($\beta=0.094$) indicates that with a 1 percent increase in debt led to a 9.4 percent increase in cost of capital as indicated in the table of co-efficients. This result is inconsistent with findings by Zeitun and Tian (2007) who had concluded that capital structure has a significant and negative impact on firm's performance.

From the study it was evident that at 95% confidence level, the cost of capital variable produced statistically in-significant values (high t-values, $p > 0.05$). From statistical theory, if $p < 0.1$ then the model is said to be significant. This is concluded that a relationship was found among the model variables. From the co-efficients table, findings indicate that the p value for cost of capital debt ratio was 0.346. The result is found to be

more than 0.05. The model was therefore significant at 95 % thus the findings can be accepted.

The result was also found to be in agreement with Mwangi (2010) study on capital structure on firms listed at the Nairobi Stock Exchange on the relationship between cost of capital and financial performance, here represented by investment decision. Strong relationship was found to be between leverage and level of investment. However, others find mixed results regarding the impact of capital structure on firm's performance. This can best be supported by the argument that borrowing introduces varying levels of risk to the company and on the return to shareholders, some that could be beneficial.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter aims at linking and applying the results obtained from the study to solve real life cost of capital and investment decision misalignments as described in the problem statement. This chapter will also elucidate the policy recommendations that policy makers can implement in order to better align institutions capital raising initiatives with the firms performance. Indeed, policy and firm decision makers can play a bigger role in ensuring that leverage risk considerations forms part of the criteria that firms use when making financing decisions as they know that it will ultimately impact on the firm's performance.

5.2 Discussion of the Findings

The main objective of this study was to establish the impact of Cost of capital on investment decision represented by Performance of the firms listed at the Nairobi securities exchange. To achieve the objective, the researcher sampled non-financial firms listed under the Nairobi securities exchange. Secondary data was used in this study. Data was collected by the review of documents, annual reports of the sampled companies published books of accounts.

The research findings indicated that there was a weak positive relationship ($R= 0.332$) between the variables. The study also revealed that 10.40% of cost of capital of the firms listed at the Nairobi securities exchange can be explained by the independent variables.

From this study it is evident that at 95% confidence level, the variables produce statistically in-significant values (high t-values, $p > 0.05$.) hence when the variables are combined, they can be relied on to explain capital structure of the firms listed at the Nairobi securities exchange. From the study findings it would be safe to conclude that cost of capital had a direct relationship with investment decisions. This is in conflict with capital structure theory as attributed to Modigliani and Miller who had concluded that it doesn't matter how a firm finances its' operations and that the value of a firm is independent of its' capital structure making capital structure irrelevant.

This study's conclusion is supported by the results of the regression analysis that capital structure has an impact on investment decision. However, Jensen and Meckling (1976) had found that the higher the debt ratio, the less the return on equity thereby affirming the need to increase more capital injection through other means rather than borrowing. They postulated that the benefits of debt financing are less than its negative aspects, so firms will more likely prefer to fund investments by internal sources. The results for the non-financial sector at the NSE have proved the inverse scenario.

5.3 Conclusions

It's this researchers considered opinion that when finance directors and managing directors try to fund the firm's assets, they need to understand the impact of capital structure on their financial performance as well the cost of funds required for their various projects. This was evident from the study and analysis arising thereof. This study established that capital analysis and asset structure analysis was a very important analysis used to boost firm's competitive advantage and consequently profitability. In addition the capital market analyst as well investment analyst should advise the investors as well as other firms on the optimal capital structure based on capital structure analysis. Borrowing may introduce a risk to the company and on the return to shareholders in terms of reducing the amount of profit available to them. It may even expose their assets to dissolution in the event of failing to repay the debt in the stipulated time. However, the results indicate that capital structure with more debt could still be beneficial.

When a firm has exhausted its shareholders' funding and chooses to finance its expansion of operations by borrowing, special consideration must be taken to ensure that the assets financed by the borrowed funds bring in a higher return than the interest the firm is required to pay on the debt. If this is not done, the firm will erode the reserves in order to pay the debt as the assets financed will not be making enough returns to cover the debt. The firm must select source of funding carefully to avoid falling into the leverage risk trap.

The increase in debt has been found to improve performance over time and increase the returns to the business owners. The Capital Market Authorities and the Exchanges should increase education of the business community in the advantages of borrowing over and above their equity funds. In Kenya a large proportion of businesses are small and medium enterprises but very few of these are listed on the NSE leaving them with few options of sourcing for funds.

The researchers findings were are in line with those by Mwangi (2010). His study on capital structure on firms listed at the Nairobi Stock Exchange established a strong relationship between cost of capital and financial performance, hereby represented by investment decision. There was a strong positive relationship between leverage and level of investment. However, other researcher has over time found mixed results regarding the impact of capital structure on firm's performance. This can best be supported by the argument that borrowing introduces varying levels of risk to the company and on the return to shareholders, some that could be beneficial while others could not.

5.4 Limitations of the study

The researcher encountered quite a number of challenges related to the research and most particularly during the process of data collection. Due to inadequate resources, the researcher conducted this research under constraints of finances having to narrow the study period from ten years to five years. Time allocated for the study was insufficient while holding a full time job and studying part time. This was encountered during the

collection of material as well as the data to see the study success. However the researcher tried to conduct the study within the time frame as specified.

5.5 Recommendations

5.5.1 Policy Recommendations

In view of the findings, the following recommendations were made:

Investment decisions are some of the very important activities of the management of any company. This is because they make a positive contribution to companies' performance as reflected by the results of this study. This study thus recommends need for more emphasis on cost of capital as a major input in investment decisions so as to maximize on shareholders' value. Focused investment decisions will in the long run ensure creation of new jobs, raise the consumption levels, and creating new investment opportunities. Corporate investment decisions involve evaluating the risk and the likely rewards of various options. The study therefore recommends that the decision makers in the non-financial companies listed in the NSE have to weigh up cost of capital so as to provide the most suitable rewards for stakeholders including shareholders and customers.

The starting point should always be the company's overall aim which then filters down into a strategy, creating a balanced portfolio made up of numerous investments. There is need for the companies to evaluate the various investments options available so as to ensure that the project chosen will give maximum value given its cost outlay. The companies can achieve this through project ranking which would help them establish how much would a particular project return as well as which project has the ability to provide

the business, a maximum value. There is therefore need for the non-financial companies listed in the NSE to employ highly skilled and qualified staff; this would help the companies effectively analyze and understand the features and nature of available investment instruments as well as how the investment markets operate.

5.5.2 Suggestions for Further Studies

Arising from the study limitations, the following directions for future research in Finance were recommended:

First, this nature of study focusing on all the non-financial services companies listed in the Nairobi Securities Exchange require ample time in order to be able to secure all the data required.

There should be established an academic database for all NSE data in a way that researchers can access and process for various study needs.

The NSE data should be stored in a way that is useful to Finance students and other research disciplines. This way, it will be easier for the data vendors to provide the required data efficiently and without delays.

The NSE should educate its staff on the value of their data to researchers and explain that as per various legislations, stock exchange data should be in the public domain.

Future studies should be allocated more time especially for part time students who are holding fulltime jobs. The collection of information as well as data will be done conclusively and exhaustively.

Based on this fact among others, it is therefore, recommended that a narrow based study covering a specific segment or company be done to find out the Impact of Capital Structure on investment decision. Similar studies to this can also be replicated for a longer period to assess if the Impact of cost of Capital on investment decision of the firms listed at the Nairobi Securities Exchange has changed as it continues to change.

Also the effect of capital structure on corporate governance could be another area of interest which can be under the area of further research and a more intense study along that area can come in handy.

REFERENCES

- Aggarwal, R. (1993). *A brief overview of capital budgeting under uncertainty. Inc. Aggarwal (Ed.), Capital budgeting under uncertainty. Englewood Cliffs, NJ: Prentice-Hall.*
- Allen, D. (1991). *The Determinants of Capital structure of listed Australian companies. The Financial Managers Perspective, the University of New South Wales, Australian journal of management.*
- Barges, A. (1963). *The Effect of Capital Structure on the Cost of Capital, Prentice – Hall, Englewood Cliff NJ.*
- Bierman, H. & Smidt, S. (1980). *The capital budgeting decision. 5th edition. New York, NY: Macmillan.*
- Brealey, R. A. & Myers, S. C. (1991). *Principles of corporate finance. 4th edition. New York: McGraw-Hill.*
- Broyles, J. (2003). *Financial management and real options. Chichester: John Wiley & Sons.*
- Buckley, A. (1996). *International capital budgeting. Cornwall: T.J. Press (Padstow).*

Curcio, R.J & Wolf, F.M (1996): Corporate Environmental Strategy; Impact upon Firm Value. *Journal of Financial and Strategic Decisions*.

Dayananda, D. (et al) (2002). *Capital budgeting: Financial appraisal of investment projects Cambridge University Press*.

Dean, J. (1951). *Capital Budgeting and Other Investment Decisions*.

EZRA, S. (1955), "Measuring a Company's Cost of Capital, "*Journal of Business*, 28 (4),240-252.

Gordon, D. (1961), *Corporate Debt Capacity (Boston Division of Research, Graduate School of Business Administration, Harvard University)*, 156-222.

Graham, J. R. & Harvey, C. R. (2001). *The theory and practice of corporate finance: Evidence*.

Grix, J. (2004). *The foundations of research. New York, NY: Palgrave Macmillan*.

Haka, S. (2007). *Managerial Judgement and Strategic Investment Decisions*.

Hayes, R.H & Garvin, D. (1982). *Managing as if tomorrow mattered Harvard Business Review*.

Hermes. Et Al. (2007). *Capital Budgeting Practices: A Survey of Central and Eastern European Firms*.

Hertz, D. (1964). *Risk Analysis in Capital Budgeting*.

Horne, V. (2000). *Risk and Managerial Options in Capital Budgeting*.

Johnson, G. & Scholes, K. (2002). *Exploring Corporate Strategy: Text and Cases. 6th edition. Prentice Hall*.

Johnson, H. J. (1994). *Strategic capital budgeting. Chicago, Illinois: Probus Publishing*.

Kadondi, E. A. (2002). *A Survey of Capital Budgeting Techniques Used by Companies Listed at The Nairobi Stock Exchange. MBA, Project Paper, University of Nairobi*

Krejewski, L & Ritzman, L. P (1999). *Operations Management Strategy and Analysis. 5th ed. Addison Wesley Publishing Company Inc*.

Levy, H. & Sarnat, M. (1982). *Capital investment and financial decisions. 2nd edition. Englewood Cliffs, NJ: Prentice Hall International*.

Lumby, L. (1991). *Investment appraisal and financing decisions*. 4th edition. London: Chapman & Hall.

Massuns, R. W. (1983). The Impact of Capital Structure Change on Firm Value, *Journal of Financial Economics*, 38, 107 – 126.

Masuns, R. W. (1980). *The Effects of Capital Structure Change on Security Prizes: A Study of Exchange Offers*, *Journal of Financial Economics*, 8, 139 – 122.

Megginson, W. L. (1996). *Corporate Finance Theory Addison-Wesley*.

Miller, M. (1977). Debt and Taxes, *Journal of Finance*.

Modighani, F. and Miller M. (1958). The Cost of Capital Corporation Finance and The Theory of Investment, *American Economic Review*, 53, 261 – 297.

Myers, S. (1984). The Search for Optimal Capital Structure, *Midland Corporate Finance Journal* 1, 6-16.

Paddley, M. (1981) *Capital Structure and Cost of Capital*, S. C. Sharma. India Printers, India.

Ross, S. A. (1978). The Determination of Financial Structure: The incentive Signalling Approach, *Bell Journal of Economics*, 8, 23 – 40.

Sagala George (2003). *Relationship between cost of capital and leverage: The case of companies listed in the Nairobi Stock Exchange.*

APPENDIX I : INTRODUCTION LETTER

UNIVERSITY OF NAIROBI,

P.O. BOX 30197,

NAIROBI.

Dear Sir/Madam,

RE: Data on Non-Financial Companies Listed at the NSE

I am a post graduate student at the University of Nairobi currently carrying out a study on the effect of cost of capital on investment decision of companies listed in the Nairobi Securities Exchange

This letter therefore humbly requests for your assistance in providing pertinent data and information that will be help in achieving my objective. The information is strictly meant for the study and your identity will be treated with confidentiality. Your support will be highly appreciated

Yours sincerely,

Salome K. Mulungye.

**APPENDIX II :COMPANIES LISTED IN THE NAIROBI
SECURITIES EXCHANGE AS AT 31 DECEMBER 2012**

Agricultural

Eaagads Ltd

Kapchorua Tea Co. Ltd

Kakuzi

Limuru Tea Co. Ltd

Rea Vipingo Plantations Ltd

Sasini Ltd

Williamson Tea Kenya Ltd

Commercial and Services

Express Ltd Ord

Kenya Airways Ltd

Nation Media Group

Standard Group Ltd

TPS Eastern Africa (Serena) Ltd

Scangroup Ltd

Uchumi Supermarket Ltd

Hutchings Biemer Ltd

Longhorn Kenya Ltd

Telecommunication and Technology

Safaricom Ltd

Automobiles and Accessories

Car and General (K) Ltd

CMC Holdings Ltd

Sameer Africa Ltd

Marshalls (E.A.) Ltd

Banking

Barclays Bank Ltd

CFC Stanbic Holdings Ltd

I&M Holdings Ltd

Diamond Trust Bank Kenya Ltd

Housing Finance Co Ltd

Kenya Commercial Bank Ltd

National Bank of Kenya Ltd

NIC Bank Ltd

Standard Chartered Bank Ltd

Equity Bank Ltd

The Co-operative Bank of Kenya Ltd

Insurance

Jubilee Holdings Ltd

Pan Africa Insurance Holdings Ltd

Kenya Re-Insurance Corporation Ltd

Liberty Kenya Holdings Ltd

British-American Investments Company (Kenya) Ltd

CIC Insurance Group Ltd

Investment

Olympia Capital Holdings Ltd

Centum Investment Co Ltd

Trans-Century Ltd

Manufacturing and Allied

B.O.C Kenya Ltd

British American Tobacco Kenya Ltd

Carbacid Investments Ltd

East African Breweries Ltd

Mumias Sugar Co. Ltd

Unga Group Ltd

Eveready East Africa Ltd

Kenya Orchards Ltd

A.Baumann CO Ltd

Construction and Allied

Athi River Mining

Bamburi Cement Ltd

Crown Berger Ltd

E.A.Cables Ltd

E.A.Portland Cement Ltd

Energy and Petroleum

KenolKobil Ltd

Total Kenya Ltd

KenGen Ltd

Kenya Power & Lighting Co Ltd

Umeme Ltd

Growth Enterprise Market Segment

Home Afrika Ltd

APPENDIX III : TIME PLAN

Activities	June 2014	July 2014	August 2014	September 2014	October 2014
Proposal writing and presentation					
Defence and corrections					
Data collection					
Data Analysis and Report Writing					
Submission of Report					

APPENDIX IV : BUDGET

Activity	Quantity	Total Cost
Proposal writing	1 copy of 30 pages	800
Stationery	Writing materials	1000
Photocopies of draft copies	8 copies of 30 pages	600
Transport	To & From library & supervisors	2000
Data collection instruments	Lot	10000
Data entry / Analysis	Lot	5000
Meals/ Transport	20 days	2000
2 Research Assistants	20 days	3000
Project typing	1 copy of 60 pages	1200
Printed copy of the final project Report	8 copies	2400
Binding of final project	8 copies	2000
Total		30,000