EFFECT OF FINANCIAL LEVERAGE ON CORPORATE INVESTMENT OF NON FINANCIAL FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

BY

NJIRE SAMUEL KARANJA

D61/75238/2009

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMNISTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

DECEMBER, 2014

DECLARATION

I, the undersigned, declare that this research project is my original work and that it has not been presented in any other University or Institution for academic purposes.

Signature ……………………………………   Date …………

NJIRE SAMUEL KARANJA

D61/75238/2009

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

Signature……………………………………………………………….Date ……………

DR. JOSIAH O. ADUDA

SENIOR LECTURER AND DEAN

ACKNOWLEDGEMENT

DEDICATION

I dedicate this project to my wife Susan, my daughters Miriam, Tracy, Sharon and to my late

parents who raised me up and sacrificed many things in life for my education.

TABLE OF CONTENTS

Page

LIST OF TABLES

LIST OF ABBREVIATIONS

AMFIs   Association of Micro-Finance Institutions

DPS   Dividend per share

EBIT   Earnings before Interest and Taxes

EPS   Earning per Share

GDP   Gross Domestic Product

GSE   Ghana Stock Exchange

JSE   Johannesburg Stock Exchange

MFIs   Micro-Finance Institutions

MM   Modiglian and Miller

NPV   Net Present Value

NSE   Nairobi Securities Exchange

POT   Pecking Order Theory

Q   Tobin'q (ratio of market value of a company stock to the replacement book value)

ROA   Return on Assets (Investment)

SASRA   Sacco Society Regulatory Authority

SPSS   Statistical Packages for Social Sciences

ABSTRACT

The relationship between financing and investment is the central issue in the study of corporate finance. Capital structure choices are tough choices because higher leverage may lead to risk of bankruptcy. Financial leverage may also increase shareholder's return on investment and often there is tax advantages associated with borrowing. The objective of the study was to establish the effect of financial leverage on corporate investment of non-financial firms listed at the Nairobi Securities Exchange during the period 2009 to 2013. A causal research design was adopted for the study. Population consisted of sixty two companies out of which 37 companies were sampled. The sample excluded 17 companies listed under banks and insurance because these companies are regulated and has to meet certain liquidity ratios. Eight companies did not have complete financials for the period under consideration and therefore were also excluded. This study made use of secondary data which was obtained from the NSE library, CMA and in some instances from firm's annual reports, most of which are publicly available. The research used quantitative techniques in analysing the data using Statistical Package for Social Science (SPSS) version 21.0. The study found out that financial leverage has a significant negative effect on corporate performance, and has a significant positive effect on firm value. The study further concluded that net sales, return on investment, liquidity of firm affect the firm's investment decision. The study recommends that efforts should be made by management to improve the performance of the company such as to carry out a policy to maximize the use of debt in capital spending activity, and the efforts to be made by management to increase the value of the company through the funding policy, the provision of incentives to managers in the form of bonus shares, and improve company performance.

CHAPTER ONE

INTRODUCTION

1.1.1   Background to the Study

The relationship between financing and investment is the central issue in the study of corporate finance. Capital structure choices are the tough choices because higher leverage can lead to risk of bankruptcy. However, this does not mean that financial leverage is always bad. Financial leverage can increase shareholders' return on investment and often there is tax advantages associated with borrowing. Therefore, financial leverage decision is important and a firm can use a specific mix of debt and equity to finance its operations (Abor, 2005).

Firms can choose among many alternative capital structures. Firms can issue a large amount of debt or very little debt. Firms have options of arranging lease financing, use warrants, issue convertible bonds, sign forward contracts or trade bond swaps. They can also issue dozens of distinct securities in countless combinations (Abor, 2006; Afza and Hussain, 2011).

Ahn (2006) held that a negative relationship between investment and financial leverage is significant in diversified firms. Within the same firm, the departments with high Q-value have more inverse impacts of leverage than low Q departments. The same situation happened more likely in non-core departments than core departments. Sapienza (2004) found that state owned banks prefer big companies and activities of lending money are affected by government behaviour. Bertrand, Schoar and Thesmar (2007) noticed that

banks are reluctant to offer a loan to those firms which have low growth opportunities. At the same time, other firms which can get external capital from banks are more willing to invest.

Recent studies have investigated the relationship between leverage and investment, and the presence of agency problems: Lang et al. (2006) in the US, Goergen and Renneboog (2001), and Richardson (2006) in the UK, De Gryse and De Jong (2006), and De Jong and Van Dijk (2007) in The Netherlands, Aivazian, Ge and Qui, (2005) in Canada, Chittoo and Odit (2008) in Mauritius, Pindado and De la Torre (2009) in Spain, and Bao (2010) in China. These studies have led to different result and conclusions regarding the existence and magnitude of agency problems. This might indicate that the presence and extent of overinvestment and underinvestment differs per country. No such study has been performed for companies in Kenya because most studies are performed in market-oriented settings characterized by an active external market for corporate control (US, UK, and Canada) and aforementioned studies have found that investment is influenced by corporate governance, results found in prior research might not be generalizable to companies in Kenya.

1.1.2 Financial Leverage

Leverage is a construct that has been widely studied. Financial leverage is the extent to which a firm relies on debt (Hillier, Jaffe, Jordan, Ross and Westerfield, 2010). Many authors have studied leverage and its determinants and conducted their study in different countries using different techniques. This has led to different outcomes and results. More

recent research has focused on empirical evidence of determinants of leverage and investigates different settings and conditions in which leverage decisions occur.

Bancel and Mittoo (2004) and Brounen, de Jong and Koedijk (2006) using different sample sizes, different European countries and different type of companies, used identical questionnaires to investigate the determinants of leverage in Europe. While they both found empirical evidence that the timing of issuing debt or equity based on interest rates and market value is the most important determinant of leverage, they used different theoretical explanations for their findings. Leary and Roberts (2005) on the other hand argue that the leverage decisions mainly depend on adjustment costs of leverage instead of the aforementioned determinants. These adjustment costs, both fixed and variable, withhold managers from actively rebalancing their capital structure to an optimal point.

De Jong et al. (2008) took the influence of firm-specific factors in leverage decisions into account and conducted a world-wide survey to investigate the leverage determinants. The authors found that a country specific factors as creditor right protection, tax rate, bond market development and GDP growth rate have a significant influence on corporate capital structure. Furthermore, there is a difference in the magnitude of firm-specific factors affecting leverage decision in different countries, such as firm growth and profitability. Finally, the authors state that in countries with a better legal environment and relatively more stable and healthier conditions to conduct business, firms relatively take on more debt.

1.1.3 Corporate Investment

There are many different ways in which firms have options that afford them leverage. In particular, firms have various real options, such as the option to defer, abandon or expand investments that provide them with optimality on the real side of their business (Chevalier Roignant et al., 2011) firms have a number of financial options that afford them financial flexibility, such as excess cash, excess debt capacity, or lines of credit, allowing them to respond in a timely and value-maximizing manner to unexpected changes in their cash flows or investment opportunity (Denis, 2011).

Financial leverage is important for real investment of non-financial firms around the world. In particular, using a novel proxy for financial leverage, it shows that financial leverage is positively related to investment, which generates growth options, and negatively related to capital expenditures, which exercises growth options. The results are robust to controlling for other dimensions of financial policy, such as debt maturity, dividends, preferred stock and convertible debt, flexibility that also affect real investment (Bates et al., 2009).

1.1.4 Leverage and Investment

Both Aivazian et al. (2005) for Canada and Odit&Chittoo (2008) for Mauritius conducted the same research as Lang et al. (1996) and found that leverage is negatively related to investment. The effect is significantly stronger for firms with low growth opportunities (value of Tobin's Q<1) than for firms with high growth opportunities (value of Tobin's Q>1) expressed in correlation coefficients. Both authors did mention that agency problems are present and that debt serves as a protection mechanism against agency problems, but

the authors did mention that a negative leverage-investment relationship does not necessarily mean that overinvestment or underinvestment is present.

Bao (2010) also found a negative relationship between leverage and investment in Chinese listed companies and again, the relationship is stronger for firms characterized by low growth opportunities, or low Q firms.

Another possible agency problem discussed in literature is the ''overinvestment'' problem where the conflict is between management and shareholders; the argument is that managers have a propensity to expand the scale of the firm even if that means undertaking poor projects and reducing shareholder welfare. Management's ability to carry out such policy is constrained by the availability of free cash flow, and this constraint can be further tightened via debt financing. The issuance of debt pre-commits the firm to pay cash as interest and principal, forcing managers to service such commitments with funds that may have otherwise been allocated to poor project or projects with negative NPV. Thus leverage is one of mechanism for overcoming the overinvestment problem suggesting a negative relationship between debt and investment for firms with weak growth opportunities. On the other hand managers might underinvest when they fear that investments might not generate enough cash to pay the interest and principle of the debt that is required to fund investment. Managers might also assess the risk of the project too high and the investment return too low, leading to underinvestment to decrease the project risk.

1.2 Research Problem

When a firm makes an investment decision it also has to make a financing decision. Financing decision of a firm can be in form of debt or equity. A firm should apply the best mix of equity and debt in order to obtain optimum result. Firms in riskier industries adjust their basic capital structure faster than those in less risky ones implying that probability of bankruptcy has important place in determining adjustment costs and/or benefits of firms. Economic and financial crises clearly represent an exogenous shock to firms' cash flows and profitability and in turn corporate investment. While generally reducing the expected return on investment opportunities, crises in general also create opportunities for firms with the ability to invest (Mitton, 2002). These shocks impact the financial decisions made by corporations in order to avoid situations that may lead to sub-optimal investments or poor performances. Recently, companies have been characterized by low financial leverage. Companies with low financial leverage are criticized for conducting their business on an under-leveraged balance sheet.

Wippern (1966) investigated the relationship between leverage and firm value on some industries by using debt to equity ratio as financial leverage indicator and earning to market value of common stock as performance indicator. Result revealed that leverage affect positively on firm value. Similarly, Holz (2002) found that capital structure (debt ratio) was related positively with the firm performance. The result ascribes to the willing of firms managers to finance their projects by using borrowing and then use these money optimally to maximise the performance. Dessi and Robertson (2003) found that financial leverage affect positively on the expected performance, where low growth firms attempt to depend

on the borrowing for utilizing the expected growth opportunities and investing borrowing money at the profitability projects hence increasing the firm performance. Margrates and Psillaki (2007) proved also that financial leverage (debt ratio) is correlated positively and significantly with firm performance. In contrast to the above, most studies had proved that financial leverage is negatively related to investment. Both Aivazian et al. (2005) for Canada and Odit & Chittoo (2008) for Mauritius conducted the same research as Lang et al. (1996) and found that leverage is negatively related to investment. Weill (2007) investigated the effect of financial leverage on the firms in seven European countries which revealed mixed results. The study summarized that financial leverage related positively and significantly on firms performance in Spain and Italy, whereas negatively and significantly in Germany, France, Belgium and Norway, but insignificantly in Portugal.

Several companies are experiencing declining performance and some have even been delisted from the NSE in the last decade. Momentous efforts to revive the ailing and liquidating companies have focused on financial restructuring. However managers and practitioners still lack adequate guidance for attaining optimal financing decisions (Kibet, Kibet, Tenei & Mutwol, (2011) yet many of the problems experienced by the companies put under statutory management were largely attributed to financing (Chebii, Kipchumba and Wasike, 2011). This situation has led to loss of investors' wealth and confidence in the stock market. Oruko (2011) found that there is no relationship between financial leverage and shareholder return. In almost similar research carried out Barasa (2012) found that financial leverage has a negative and significant effect on stocks return. Siro (2013)

observed that borrowing does not always improve a firm's performance and hence should use more of equity so that they minimize the risk related to borrowing.

Literature on financial leverage shows that most research has been done in the developed economies. Locally, only a closely related study on the prevailing phenomenon was done on establishing the impact of financial leverage on investment decision of selected companies listed on the Uganda Securities Exchange in Kampala and the Nairobi Stock Exchange in Nairobi. It is against this backdrop that this study sought to fill the existing research gap by determining the effect of financial leverage on corporate investment and to the extent this impact is explained by the existing theories, by answering the question to what extent leverage, profitability, firm size, growth opportunities and liquidity affect corporate investment in non-financial firms listed at the NSE?

1.3 Research Objective

The objective of this study was to determine the effect of financial leverage on corporate investment on non-financial firms listed at the NSE.

1.4 Value of the study

This study contributes to the literature on the factors that influence financial leverage of the firm in at least two ways. First, it focuses on non-financial firms listed at the NSE, while only limited research has been conducted on such firms recently. Second, this study validates some of the findings of previous authors by testing the relations of financial leverage with profitability, firm size, growth opportunities and liquidity of the sample firms.

The finding of this study will provide necessary information to the investors in understanding how financial leverage will affect the level of investment and hence returns of their stock; the management of non-financial firms will understand how leverage can be applied on investment hence return to shareholders; Capital Market Authority which is charged with the role of regulating the stock market will be in a position to understand the differing levels of financial leverage of listed firms which will assist them in formulating policies relating to the management of these firms; and, scholars will utilize the body of knowledge and give insight on grey areas in this discipline.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses the literature related to the effect of financial leverage on corporate investment on non-financial firms listed at the NSE. It is focusing on past studies related to the prevailing phenomenon and related studies. The source of the literature is mostly from related journals, articles, textbooks and the Internet.

2.2 Theoretical Review

2.2.1 Trade off Theory

Trade-off theory, deals with financial distress and tax advantages of debt financing. Financial distress indicates a condition where promises to creditors are broken or honoured with difficulty and it can lead to bankruptcy. Cost of financial distress depends on the likelihood of distress and cost of bankruptcy. The theory predicts that larger firms tend to be more diversified and hence likely to be less susceptible to financial distress. Further, if maintaining control is important, then it is likely that firms achieve larger size through debt rather than equity financing. Thus control considerations also support positive correlation between size and debt. Examining the effect of size in the determination of capital structure, Ferriand Jones (2009) found that larger firms are likely to use more debt. Therefore, a positive association is expected between firm's size and leverage. Direct financial distress cost is inversely related to firm size (Cassar & Holmes, 2003). The ratio of direct bankruptcy costs to the value of the firm decreases as the value of firm increases. The impact of direct costs of bankruptcy on borrowing decisions of large firms is negligible.

Larger firms are more diversified Ang et al. (2012), and they have easier access to capital markets, and borrow at more favourable interest rates. Chittenden et al. (2006) argued that the large firms have lower agency costs associated with the asset substitution and under investment problems, which mostly arise from the conflicting interests of shareholders and bondholders. Further, the smaller firms are more likely to be liquidated when they are in financial distress (Ozkan, 1996). Size is closely related to risk and bankruptcy costs. All such considerations suggest a positive relationship between the firm size, which is measured as the volume of total assets of firms, and the leverage ratio.

2.2.2 Agency Theory

Agency theory is concerned with the diverging interest when the firm ownership and management are separated. The theory argues that there is a relationship between the agent (e.g. the manager), and the principal (e.g. the shareholders). The major assumption of this theory is that the separation of ownership and management creates conflicts among principals and agents. Emergence of the conflicts in the firm creates tension and result in high agency cost. It is assumed that the final objective of all stakeholders is to maximize their wealth. On the other side, agents may have other objective rather than maximizing principals' wealth. If the agents do not meet the principals' interests and objectives, then the conflict arise among them (Jensen, 1986).

The main argument behind the agency theory is that the corporate managers act in their own interest. They are looking for job security, prerequisites, and in the worst cases getting hand on assets and cash flows. The ethics of the free cash flow theory has been built due to the agency cost approach. Managers have incentives to decrease the firm value unless the free cash flow distributes between stakeholders. Jensen (1986) argues that the problem

is how to motivate managers to disgorge the cash rather than investing it below the cost of capital and/or wasting it on organization inefficiencies. One solution to this problem is to apply more debt in capital structure to confine the managers. This strategy would force the firm to limit its spending or perks in order to avoid the default risk.

2.2.3 Static Trade-off Theory

Modigliani and Miller corrected their initial work in 1963 after the realization of the large tax merit of debt. The tax adjusted MM theory results to an incredible conclusion that firms should use only debt to maximize their value. The purpose of the trade-off theory is to explain why firms are financed partly by debt and partly by equity. The optimal capital structure of a firm is often explained as a trade-off between the cost and the merits of debt. The optimal capital structure occurs when the merit and cost of debt is equal. According to Jensen and Meckling (1976) cost in this theory is represented by the agency cost arising among creditors and owners and the cost of financial distress. Merit is measurable by the tax shield of debt (Myers, 1984). However, the optimal point differs from one firm to another due to the characteristics of each firm.

The optimized capital structure exists when the marginal cost of debt is equal to the marginal benefit of debt. If an unleavened firm starts to adjust its capital structure to small level of leverage, this act will create a high benefit from interest tax shield without any huge increase in the distress cost. If the company increases its leverage more, the benefit would still be considerable but not as high as before. The cost of financial distress would also be high. If the rise in leverage increases, the cost of financial distress would exceed

the tax shield benefit. As a result, the firm value line with regard to debt holds a hump shape curve (Hillier et al. 2010).

2.2.4 Pecking Order Theory

Myers and Majluf (1984) gave this theory a rigorous theoretical foundation. According to Myers and Majluf, the theory advocates for an order in the choice of finance due to different degrees of asymmetry and agency costs present in various sources of finance. Accordingly, retained earnings are considered first in the financing pecking order because they are cheaper and are rarely affected by asymmetry of information. Second, debt is considered next since it carries low asymmetry which serves as a monitoring device against wasteful spending by the management. Finally, external equity is used as a last option because of its adverse selection effect. The model also asserts that outside investors can rationally discount the firm's stock price when managers issue equity instead of risk less debt. This is because of the perception that a firm only issues equity when in financial trouble. In order to avoid this discount, managers avoid issuance of equity as much as possible. The implication of the pecking order approach is that firms do not have a target level of leverage and their actual level of debt essentially responds to the difference between investment and retained earnings (Benito, 2003).

2.2.5 Signalling Theory

This model asserts that financial decisions made by the firm are signals to potential investors meant to compensate for information asymmetry. These signals are therefore intended to enable investors to make informed decisions concerning company investment. Ross (1977) linked the notion of signalling to capital structure theory and argue that since

the management have information on the correct distribution of the firm's returns while outsiders don't, the firm is likely to benefit if the firms securities are overvalued and the converse is true. They also argue that managers can use higher financial leverage to signal optimistic future for the company since debt capital involves a contractual commitment to pay back both principal and interests and failure to do so could result into bankruptcy which may further result into job losses. Hence, additional debt in the firm's capital structure may be interpreted as a positive signal about a firm's future.

2.3 Determinants of Financial Leverage

2.3.1 Profitability

The relationship between firm profitability and capital structure can be explained by the pecking order theory (POT) discussed above, which holds that firms prefer internal sources of finance to external sources. The order of the preference is from the one that is least sensitive (and least risky) to the one that is most sensitive (and most risky) that arise because of asymmetric information between corporate insiders and less well informed market participants (Abor, 2004). Profitable firms with access to retained profits can rely on them as opposed to depending on outside sources (debt).

As Titman and Wessels (2008) explained, firms with the ability to generate acceptable amount of profit and earnings tend to use their own internal source of funds to finance their project. Therefore, it can be concluded that there is a negative relationship between the firm profitability and the level of leverage. This conclusion is compatible with pecking order theory and other relevant studies like Cassar and Holmes (2003).

Prasad et al. (2001) argued that the market is not willing to finance companies with low level of profit. Tong and Green (2005) pointed out that there is a considerable negative relationship between profitability and gearing. They understand that there is a positive relationship between past dividend and current debt level. Their findings are hugely consistent with pecking order theory. Finally, due to their findings, there is a weak negative correlation between past dividends and growth of investment.

2.3.2 Firm size

The size of a firm has been viewed as one of its specific characteristics that determine its capital structure. Theoretically viewed, the effect of size on the leverage is ambiguous (Bauer, 2004). Rajan and Zingales (1995) also hold that there is a positive relationship between firm size and leverage. Larger firms tend to be more diversified and are less susceptible to bankruptcy than smaller firms. If so, size should have a positive impact on the supply of debt. However, size may also be a proxy for the information outside investors have, which should increase their preference for equity relative to debt.

Larger firms tend to use debt while smaller ones are more likely to use equity, in their respective finances. Aryeetey, Baah-Nuakoh, Duggleby, Hettige and Steel (2004) on their study on the Ghanaian firms found that smaller firms have greater problems with credit than larger ones. It was shown 'that the success of larger firms applying for bank loans are higher than the smaller enterprises, The relationship between firm size and long term debt ratio is found to be positive.

2.3.3 Growth Opportunities

An increase in growth rate is regarded as an indication of a firm's financial strength. Growing firms place higher demand on internal reserves, and as Marsh (1982) posits, firms with high growth will have relatively high debt ratios. Titman and Wessels (2008) argues that growth opportunities are capital assets that add value to a firm, however since these assets do not generate current income they cannot be collateralised. Therefore, they argue, there is a negative relationship between debt and a firm's growth opportunities. A study by Pawlina (2010) on underinvestment, capital structure and strategic debt restructuring found that overinvestment is expected to occur when growth opportunities are low. In the presence of low growth opportunities there might be a lack of positive NPV projects. Management might want to increase the size of the firm and increase (free) cash flows to conduct activities that are in their best interest while the interest of the firm is ignored. Pawlina (2010) observed that they therefore keep investing, even in negative NPV projects which results in a positive relationship between leverage and investment as management uses debt to keep up the level of investment.

The study revealed that managers cannot keep increasing the level of debt and that debt can also serve as a protection mechanism not to overinvest as cash should be paid to bondholders limiting the possibility of conducting wasteful activities and bondholders have a possibility to evaluate management (Pawlina, 2010). This results in a negative relationship between leverage and investment, because management is reluctant to pay the required interest and principal which increased default. Underinvestment is expected to occur in the presence of high growth opportunities as managers can only underinvest when there are growth opportunities. Furthermore management might be reluctant to pay the cost

of external capital (whether or not affected by information asymmetry) as risk of default rises. This results in a negative relationship between leverage and investment because debt limits investment spending due to the obligatory cost of capital and increasing risk of default.

2.3.4 Non-debt tax shield

Bauer (2004) conducted a study in the Czech Republic and found that other items apart from interest expenses which contribute to a decrease in tax payments are labelled as non-debt tax shields such as the tax deduction for depreciation. "Ceteris paribus" decreases in allowable investment-related tax shields (e.g., depreciation deductions or investment tax credits) due to changes in the corporate tax code or due to changes in inflation which reduce the real value of tax shields will increase the amount of debt that firms employ. Some studies like Kim and Sorenson (1986) found a negative relationship between depreciation and capital structure which is consistent with the notion that depreciation is an effective tax shield, and thus offsets the tax shield benefits of leverage. Bauer (2004) observes a positive relationship between non-debt tax shields and leverage.

2.3.5 Liquidity

A study by Zingales and Rajan(1995) found a statistical relationship between liquidity and leverage. Liquidity is computed by dividing current assets by current liabilities. Liquidity represents the capital amount that is available for use as expenditure or in investment. It also indicates the ability of a firm to meet current liabilities as and when they fall due Ross (1977). Excessive amount of current assets owned by a firm would perhaps increase the chances of internal funding resulting in the relationship between leverage and equity Myers (1984).

2.4 Review of Empirical Studies

Aivazian et al, (2005) investigated the impact of leverage on the firm's investment decisions using information on Canadian publicly traded companies. The study revealed a negative relationship between leverage and investment. The negative effect was significantly stronger for firms with low growth opportunities than those with high growth opportunities. The results provided a support to agency theories of corporate leverage, and especially the theory that has a disciplining role for firms with low growth opportunities. In the study two alternative measures of leverage were used. The first proxy of financial leverage was calculated by dividing book value of total liabilities by book value of total assets, while the second proxy book value of long term debt was divided by total assets. A sample of 1035 major Canadian industrial companies existing at the end of 1999 covering the period 1982-1999 was selected.

Abor (2005) conducted a research to investigate the effect of capital structure on profitability of 22 firms listed on the Ghana Stock Exchange (GSE). The study used regression analysis in the estimation of the functions relating the Return on Equity with measures of capital structure. The results revealed a significant positive relationship between the ratio of short-term debt to total assets and ROE. However, a negative relationship between the ratio of long-term debt to total assets and ROE was found. In terms of the relationship between total debt and return rate, the result shows a significant positive relationship between the ratio of total debt to total assets and ROE.

Rayan (2008) conducted a study to establish whether or not a relationship exists between financial leverage and firm value for firms listed in the Johannesburg Stock Exchange (JSE) for the period 1998-2007. Given the high volatility of local interest rate market, the study also considered how the volatility of local interest rate impact on capital structure. Regression analysis was carried out for both tests. The findings of the study revealed that an increase in financial leverage was negatively correlated with the value of the firm while interest rates on capital structure results proved to be inconclusive. The research was conducted using secondary data from JSE with a sample of 113 listed firms.

Bao (2010) conducted a study on the relationship between financial leverage and investment in Chinese listed firms. The research covered all sectors in the Chinese stock market. Secondary data was collected from 1,686 chinese listed companies for the period 1992-2009 (both in Shanghai Stock Exchange and Shenzhen Stock Exchange). The finding was that there was a negative linear relationship between financial leverage and investment, especially strong on non-state owned firms. Since government protect state owned firms to some degree, it was not difficult for the state owned firms to finance projects through debt finance. State owned firms were also found to have good reputation and credit due to the fact that they are backed by state organs. In this study q-value was utilized to measure performance of firms.

Alhatib (2012), in his study on the determinant of leverage of listed companies on the Jordan Stock Exchange revealed that liquidity and tangibility had a significant positive relationship with leverage for the industrial sector whereas the result for the service sector revealed that growth rate, liquidity and tangibility have significant positive relationship with leverage. His study sampled 121 companies listed on the Jordanian Stock Exchanges

covering the period 2007-2010. For data analysis, regression model was employed with explanatory variables being firm liquidity, firm size, growth rate, profit and tangibility, whereas the independent variable was the leverage ratio.

Nguni (2007) conducted a research on the relationship between gearing and profitability of firms listed on the Nairobi Stock Exchange over six year period 2000-2006. The study revealed a negative relationship between gearing and profitability ratios. The target population was all the 54 companies listed at the NSE out of which a sample of 36 companies was selected. Secondary data was collected from annual financial statement of the target firms. Simple regression was done at the market level with the nature and strength of the relationship determined by correlation of coefficient and the coefficient of determinant.

Orua (2009) conducted a research on the relationship between capital structure and financial performance on microfinance institutions (MFIs) in Kenya. The study established a positive relationship between leverage and financial performance. High leverage MFIs were able to reach out to more clients and enjoyed economies of scales and therefore were better placed to deal with moral hazards and adverse selections thus enhancing their ability to manage risk. The population of this study comprised 36 MFIs based in Nairobi and registered by AMFI as at December 2008. Secondary data for five years covering the period 2004-2008 was analysed using ratios, descriptive statistics and multiple regression analyses. Performance was used as the dependent variable and was measured in terms of outreach and default rate. The independent variables were short term debts, long term debts, firm size, risk level and firm age were used as control variables to make up for other omitted variables.

Opanga (2011) conducted a research to establish the relationship between capital structure and value of the firm for firms listed at the NSE for the period 2005-2010. The study revealed that the value of the firm is highly correlated with Dividend per share (DPS) while the value of the firm as measured by share price was inversely related to sales growth. The study used debt/equity ratio as proxy for capital structure and selected financial ratios to represent the attributes of the firm's value in establishing the relationship. Variable used were profit ratio, dividend pay-out ratio, growth rate, liquidity, assets operating efficiency and business risk. Secondary data collected from published financial statements from NSE were utilized. Correlation analysis to describe the degree to which variables were related was used.

Gweyi, Minoo and Luyali (2013) conducted an investigation on the determinant of leverage of Savings and Credit Co-Operatives in Kenya (Saccos). The study sample included 40 Saccos registered by Sacco Society Regulatory Authority (SASRA) covering the period 2010-2012. The results revealed a significant positive relationship between the firm size and leverage at 99% confidence level, whereas profitability and tangibility have also a positive relationship with leverage at 95% confidence level. For the data analysis, regression model was employed with independent variable being firm size, growth rate, profitability and tangibility.

Maina and Ishmail (2014) conducted a search to establish the effect of capital structure on financial performance of firms listed at the NSE. The result revealed that debt and equity are major determinants of financial performance. There was evidence of a negative and significant relationship between capital structure and all measures of performance. This implies that the more debt the firms used as source of finance they experienced low

performance. The study also concluded that firms listed at the NSE used more short-term debts than long-term. The population pf interest of this study was firms quoted at the NSE from the 2002-2011.

2.5 Summary of Literature Review

From the forging discussions, research in the area of financial leverage and corporate investment has been done mainly in developed countries but little has been done in developing economies and specifically in Kenyan market. The use of debt capital increases agency cost between shareholders and debt holders.

The various researches as portrayed above noted varying results on the relationship between financial leverage and corporate investment. Some authors indicate a positive relationship while others indicate a negative relationship.

As such it is important that this relationship be explored further to determine if there exists a relationship between the two variables in Kenyan non-financial firms listed at the Nairobi Securities Exchange. Financial firms will be excluded in the analysis because they are considered highly regulated and their leverage level is heavily influenced by the regulation.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research design, the target population, the basis of sample selection, data collection, the techniques of data analysis used and data analysis procedure.

3.2 Research Design

This study adopted a causal design. According to Cooper and Schindler (2004) causal design shows relationship between variables. The independent variables are the presumed causes while the dependent variable is the potential effect.

3.3 Target Population

The target population of this study consisted of all the non-financial firms listed in the Nairobi Securities Exchange. According to the Nairobi Securities Exchange, as at 2014, there are 62 listed firms at the NSE under different categories. The target population excluded the financial institutions as they are regulated by Central Bank of Kenya which included eleven banking (11) and six (6) Insurance companies. The data analysis excluded eight firms whose performance data for the period under study were incomplete. Therefore a total of thirty seven (37) companies formed sample of the study. The study used data for 5 years from 2009 to 2013 from these companies. However for purposes of data analysis, the study included year 2008 as well.

3.4 Data Collection

This study made use of secondary data which was obtained from the NSE library, CMA and in some instances from firm's annual reports most of which are publicly available. This was for a five year period, from the year 2009 to 2013. Main data was extracted from the financial statements and annual reports. In the study, book values were used for the computation of various variables.

3.5 Data Analysis

Data analysis tools of SPSS version 21.0 was used to analyse the data.

The regression equation used was:

$I_{i\,t}/K_{i,t-1} = \beta_0 + \beta_1 (CF_{it}/K_{i,t-1}) + \beta_2 LEV_{i,t-1} + \beta_3 ROA_{i,t-1} + \beta_4 LIQ_{i,t-1} + \beta_5 SALES_{i,t-1} + \beta_6 RETES_{i,t-1} + \alpha_{i,t}$

Where $L_{i\,t}$ represents the net investment of firm i during the period t, $K_{i,t-1}$ is the net fixed asset, β_0 is the regression coefficient, β_1, β_2, β_3, β_4, β_5 and β_6 are the slopes of the regression equation, CF_{it} is the cash flow of firm i time t, $LEV_{i,t-1}$ represents the leverage, $ROA_{i,t-1}$ is the profitability of the firm i, LIQ_{t-1} represents liquidity of firm i, $SALES_{i,t-1}$ represents net sales of firm i, $RETES_{i,t-1}$ stand for the retained earnings of firm i, while α_i is an error term normally distributed about a mean of 0 and for purposes of computation, the α_i is assumed to be 0.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the findings of the study. The findings were presented to determine the effect of financial leverage on corporate investment of non-financial firms listed at the NSE. The research used quantitative techniques in analysing the data. Secondary data after collection was edited, classified, coded and tabulated. Descriptive statistics, correlation and regression analysis were used to assess the effect of strength and nature of the relationship between variables used in the study. Quantitative data analysis was carried out using Statistical Package for Social Science (SPSS) version 21.0.

4.2 Response Rate

Out of the initial forty five (45) firms targeted for the research, data was collected from thirty seven firms hence a response rate of 82%

4.3 Data Validity

Validity indicates the degree to which the instrument measures the constructs under investigation (Mugenda and Mugenda, 1999). It indicates the extent to which a set of test items can be treated as measuring a single latent variable (Cronbach, 1951). Cronbach alpha was used to test the reliability of the instruments. This study considered a Cronbach

alpha of 0.7 as the threshold for reliability. The Cronbach alpha ranges from $0 - 1$ and the closer to 1, the greater the consistency.

Table 4.1: Reliability and Validity

Independent variables	Reliability Cronbach's Alpha
Cash flow/Net investment	0.83
Return on investment	0.87
Liquidity of the firm	0.79
Retained earnings	0.75
Net Sales	0.77
Leverage	0.72

4.4 Descriptive Statistics

Secondary data collection method was used for the study. Data collected were used to calculate the variables used in the analysis. Table 4.2 gives the summary descriptive statistics of the dependent and independent variables of the sample.

From the table below, return on assets for 37 observations had a mean of 0.113 and standard deviation of 0.2787 with a minimum and maximum value of -0.00202 and 0.2192 respectively. The positive return on assets indicates that the companies were on average profitable although some companies were operating on loses as indicated by the negative Values. Liquidity of the firm had a mean of 2.61439 and standard deviation of 3.764 and a

minimum and maximum value of 0.31 and 12.0277 respectively. Cash flow/Net investment had a mean value 0.0527 and standard deviation of 0.1207 and a minimum and maximum value of -0.45 and 0.24. Retained earnings had mean value 488,314.26 and standard deviation of 500,767.23 and a minimum and maximum value of 8,172 and 5,277,000. Net Sales had a mean value 2.53 and standard deviation of 3.41 and a minimum and maximum value of 0.10 and 15.55. Leverage had a mean value 0.2128 and standard deviation of 0.2327 and a minimum and maximum value of .00 and 0.91 respectively.

Table 4.2: Descriptive Statistics

Variable	Observations	Mean	Std .Dev	Min	Max
Cash flow/Net investment	37	0.0527	0.1207	-0.45	0.24
Return on Assets	37	0.113	0.2787	-0.00202	0.2192
Liquidity of the firm	37	2.61439	3.764	0.31	12.0277
Retained earnings	37	488,314.26	500,767.23	8,172	5,277,000
Net Sales	37	2.53	3.41	.10	15.55
Leverage	37	0.2128	0.2327	.00	.91

4.5 Regression Analysis and Hypothesis Testing

H_o: *Leverage do not affect corporate investment of non-financial firms listed at the NSE*

H_1: *Leverage affects corporate investment of non-financial firms listed at the NSE*

This section presents a discussion of the results of inferential statistics. The research conducted a multiple regression analysis so as to determine the relative importance of each

of the variables in order to determine the effect of financial leverage on corporate investment of non-financial firms listed at the NSE. The research used the statistical package SPSS and advance excel, to enter and compute the measurements of the multiple regressions for the study. Findings are presented in the following tables;

Table 4.3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.974[a]	.948	.947	.51866

a. Predictors: (Constant), Cash flow/Net investment, Return on Assets, Liquidity of the firm, Retained earnings, Net Sales and leverage

b. Dependent Variable: corporate investment on non-financial firms listed at the NSE

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (corporate investment on non-financial firms listed at the NSE) that is explained by all 6 independent variables (Cash flow/Net investment, Return on assets, Liquidity of the firm, Retained earnings, Net Sales and leverage)

The six independent variables that were studied, explain 94.8% of variance in corporate investment of non-financial firms listed at the NSE as represented by the R^2. This therefore means that other factors not studied in this research contribute 5.2% of variance in the dependent variable. Therefore, further research should be conducted to determine the effect of financial leverage on corporate investment of non-financial firms listed at the NSE.

Table 4.4: ANOVA (Analysis of Variance)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	99.733	4	24.933	175.58	.000[b]
	Residual	4.537	32	.142		
	Total	104.27	36			

a. Predictors: (Constant), Cash flow/Net investment, Return on investment   , Liquidity
of the firm, Retained earnings, Net Sales and leverage

b. Dependent Variable: corporate investment on non-financial firms listed at the NSE

Source: Research, 2014

The F critical at 5% level of significance was 5.21. Since F calculated is greater than the F
critical (value =175.58), this shows that the overall model was significant. The significance
is less than 0.05, thus indicating that the predictor variables), explain the variation in the
dependent variable which is corporate investment of non-financial firms listed at the NSE.
If the significance value of F was larger than 0.05 then the independent variables would
not explain the variation in the dependent variable.

The study therefore rejects the null hypothesis and concludes that Leverage affects
corporate investment of non-financial firms listed at the NSE.

The study findings are in line with literature review by Campello, Giambona,
Graham, and Harvey (2011) who did a study on the role cash and credit lines play

in minimizing the impact of the crisis on corporate investment. They found out that firms with more cash had their investment plans boosted by greater access to credit lines. That relation was reversed for firms with little or no access to credit lines. The authors report that lack of access to credit lines force firms to choose between saving and investing when outside liquidity is scarce.

The overall implication is that access to credit lines was crucial in allowing firms to invest.

4.5 Correlation Analysis

From the covariance matrix shown in Table 4.5 retained earnings and net sales has a strong positive correlation 0.876 followed by retained earnings and Liquidity of the firm 0.864. Leverage and Return on assets has a negative correlation -0.675.The positive correlation of the variables indicates how they are influential in determining corporate investment of the firms listed at NSE.

Table 4. 5: Correlation Analysis

	Cash flow/Net investment	Return on Assets	Liquidity of the firm	Retained earnings	Net Sales	Leverage
Cash flow/Net investment	1					
Return on Assets	0.432	1				
Liquidity of the firm	0.331	0.745	1			
Retained earnings	0.864	0.643	0.761	1		
Net Sales	0.342	0.453	0.777	0.876	1	
Leverage	0.562	-0.675	0.765	0.064	0.023	1

The study conquers with those of Magpayo, CL (2011), who conducted a study of 1,000 companies in the Philippine in the period in 2009; found that financial leverage has a negative and significant impact on ROA. Further Anuchitworawong (2000) conducted a study after the crisis in Thailand, and found that leverage has a negative and significant effect on ROA. Rayan, K (2008) also found out that financial leverage has a negative and significant effect on firm value. Salehi, M (2009) who conducted research in Iran, also found that financial leverage has a negative impact on corporate performance, ROA (firm performance).

4.6 Regression Analysis and Hypotheses Testing

Multiple regressions: YEAR 2009-2013
Table 4.6: Multiple regressions: YEAR 2011

Model		Coefficients[a]			t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	2.706	.457		5.928	.000
	Cash flow/Net investment	.045	.086	.044	.520	.004
	Return on assets	.164	.086	.065	1.339	.000
	Liquidity of the firm	.095	.097	.112	.979	.001
	Retained earnings	.058	.099	.061	.587	.003
	Net Sales	.127	.095	.152	.741	.001
	Leverage	.003	.087	.187	.203	.000
a. Dependent Variable: corporate investment on non-financial firms listed at the NSE						

Source: Research, 2014

The study used the model:

$$I_{it}/K_{i,t-1} = \beta_0 + \beta_1 (CF_{it}/K_{i,t-1}) + \beta_2 LEV_{i,t-1} + \beta_3 ROA_{i,t-1} + \beta_4 LIQ_{i,t-1} + \beta_5 SALES_{i,t-1} + \beta_6 RETES_{i,t-1} + \alpha_{i,t}$$

Which when substituted gives?

$$Y = 2.706 + .045X_1 + .164X_2 + .095X_3 + .058X_4 + .127X_5 + 0.003X_6$$

Where Y is the dependent variable (corporate investment of non-financial firms listed at the NSE) X1 is Cash flow/Net investment, X_2 is Return on assets, X_3 is Liquidity of the firm, X_4 is Retained earnings, X_5 is the net Sales and X6 is leverage.

According to the equation, taking all factors (Cash flow/Net investment, Return on assets, Liquidity of the firm, Retained earnings and Net Sales) constant at zero, corporate investment of non-financial firms listed at the NSE will be 2.706. The data findings also show that a unit increase in Cash flow/Net investment variable will lead to a 0.045 increase in corporate investment on non-financial firms listed at the NSE; a unit increase in Return on assets will lead to .164 increase in corporate investment of non-financial firms listed at the NSE ; a unit increase in liquidity of the firm will lead to a .095 increase in corporate investment of non-financial firms listed at the NSE; a unit increase in retained earnings will lead to a .058 increase in corporate investment of non-financial firms listed at the NSE ; a unit increase in Net Sales will lead to 0.127 increase in corporate investment of non-financial firms listed at the NSE; a unit increase in leverage will lead to 0.003 increase in corporate investment of non-financial firms listed at the NSE.

The study shows that return on assets contributes most to corporate investment of non-financial firms listed at the NSE while leverage of the firm contributed least to the corporate investment of non-financial firms listed at the NSE in the year 2011.

The study findings are in line with literature review by Ferri and Jones (2009) who found out that investment of firms that appear less financially constrained is more sensitive to Cash flow/Net investment than investment of other firms and concluded that higher sensitivities of investment to cash flow cannot be interpreted as evidence that firms are more financially constrained.

It can therefore be statistically induced that Cash flow/Net investment positively affect corporate investment of non-financial firms listed at the NSE.

The study findings are in line with literature review by Campello, Giambona, Graham, and Harvey (2011) who did a study on the role cash and credit lines play in minimizing the impact of the crisis on corporate investment. They found out that firms with more cash had their investment plans boosted by greater access to credit lines. That relation was reversed for firms with little or no access to credit lines. The authors report that lack of access to credit lines force firms to choose between saving and investing when outside liquidity is scarce.

The overall implication is that access to credit lines was crucial in allowing firms to invest.

Barasa (2012) consider this issue by examining the way in which firms' cash holdings affect the impact of the Crisis on firms' investment. The authors report that corporate investment declines significantly at the onset of the Crisis, even controlling for time-varying measures of investment opportunities.

The study therefore concludes statistically that liquidity of firm leads to corporate investment on non-financial firms listed at the NSE.

Opanga (2011) conducted a research to establish the relationship between firm's investment and retained earnings for firms listed at the NSE for the period 2005-2010. The study revealed that retained earnings is highly correlated with investment .Thus it can be concluded that retained earnings is significant in the investment decisions of a firm.

The findings are in line with Jong, (2007) in his study on determinants of leverage and agency problems who found out that a strong relationship exist between firm turnover and

its investment. Thus the study concludes that nets sales affect the firm's investment decision.

4.7 Discussion of Research Findings

From Table 4.2 return on assets for 37 observations had a mean of 0.113 and standard deviation of 0.2787 and a minimum and maximum value of -0.00202 and 0.21924 respectively. The positive return on assets indicates that the companies were on average profitable although some companies were operating on losses as indicated by the negative Values. Liquidity of the firm had a mean of 2.61439 and standard deviation of 3.764 and a minimum and maximum value of 0.31 and 12.0277 respectively. Cash flow/Net investment had a mean value 0.0527 and standard deviation of 0.1207 and a minimum and maximum value of -0.45 and 0.24. Retained earnings had a mean value 488,314.26 and standard deviation of 500,767.23 and a minimum and maximum value of 8,172 and 5,277,000. Net Sales had a mean value 2.53 and standard deviation of 3.41 and a minimum and maximum value of.10 and 15.55. Leverage had a mean value 0.2128 and standard deviation of 0.2327 and a minimum and maximum value of .00 and 0.91.

The six independent variables that were studied, explain 94.8% of variance in corporate investment of non-financial firms listed at the NSE as represented by the R^2. This therefore means that other factors not studied in this research contribute 5.2% of variance in the dependent variable. Therefore, further research should be conducted to determine the effect of financial leverage on corporate investment of non-financial firms listed at the NSE

The F critical at 5% level of significance was 5.21. Since F calculated was greater than the F critical (value =175.58), implying that the overall model was significant. The

significance is less than 0.05, thus indicating that the predictor variables), explain the variation in the dependent variable which is corporate investment on non-financial firms listed at the NSE. If the significance value of F was larger than 0.05 then the independent variables would not explain the variation in the dependent variable.

From the covariance matrix shown in Table 4.5 retained earnings and net sales had a strong positive correlation 0.876 followed by retained earnings and Liquidity of the firm at 0.864. Leverage and Return on assets has a negative correlation -0.675. The positive correlation of the variables indicates how they are influential in determining corporate investment of the firms listed at NSE.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMEDATIONS

5.1 Introduction

The chapter presents the summary findings of the study, conclusion and recommendations. The study aimed to determine the effect of financial leverage on corporate investment of non-financial firms listed at the NSE.

5.2 Summary of Findings

The study found out that coefficient of determination (R^2) and correlation coefficient (R) showed the degree of association between Cash flow/Net investment and corporate investment of non-financial firms listed at the NSE. The findings conquer with Ferri and Jones (2009) who concluded that cash flow is a key factor in corporate investment.

The study further found out that the significance value .000 which was less than 0.05 implying, the model was statistically significant in predicting ROA. The results of statistical tests shows that financial leverage has a negative and significant effect on corporate performance (ROA).

Liquidity of the firm was found to be positively and significantly related to corporate investment .The study findings are in line with literature review by Campello, Giambona, Graham, and Harvey (2011) who did a study on the role cash and credit lines play in minimizing the impact of the crisis on corporate investment. They found out that firms with more cash had their investment plans boosted by greater access to credit lines. That relation was reversed for firms with little or no access to credit lines. The authors report that lack

of access to credit lines force firms to choose between saving and investing when outside liquidity is scarce. The overall implication is that access to credit lines was crucial in allowing firms to invest.

Retained earnings had a mean value 488,314.26 and standard deviation of 500,767.23 and a minimum and maximum value of 8,172 and 5,277,000.The calculated significant level was less than 0.05. Based on the findings the study rejects the null hypothesis and concludes that retained earnings affects corporate investment on non-financial firms listed at the NSE. Opanga (2011) conducted a research to establish the relationship between firm's investment and retained earnings for firms listed at the NSE for the period 2005-2010. The study revealed that retained earnings is highly correlated with investment. Thus it can be concluded that retained earnings is significant in the investment decisions of a firm.

Leverage and Return on investment has a negative correlation -0.675.The negative correlation of the variables indicates how they are influential in determining corporate investment of the firms listed at NSE. The study findings are in line with Bao (2010) who found a negative relationship between leverage and investment in Chinese listed companies and again, the relationship is stronger for firms characterized by low growth opportunities, or low Q firms.

Thus the study concludes that leverage has a negative relationship with corporate investment on non-financial firms listed at the NSE.

5.3 Conclusion

According to the results of testing that has been done in chapter four it can be concluded that financial leverage has a significant negative effect on corporate performance, and has a significant positive effect on firm value. The study further concludes that nets sales, return on investment, liquidity of firm affect the firm's investment decision.

The study also concludes that overinvestment is expected to occur when growth opportunities are low. In the presence of low growth opportunities there might be a lack of positive NPV projects. Management might want to increase the size of the firm and increase (free) cash flows to conduct activities that are in their best interest while the interest of the firm is ignored .They therefore keep investing, even in negative NPV projects which results in a positive relationship between leverage and investment as management uses debt to keep up the level of investment.

5.4 Recommendation

The study recommends that efforts should be made by management to improve the performance of the company such as to carry out a policy to maximize the use of debt in capital spending activity, and the efforts to be made by management to increase the value of the company through the funding policy, the provision of incentives to managers in the form of bonus shares, and improve company performance.

Further the study recommends that financial managers must decide both how much liquidity to hold and the way in which they hold this liquidity. New developments in financial markets such as more liquid derivatives markets complicate these decisions, and

the financial crisis high lights their importance. Not surprisingly therefore, liquidity management has become an important research topic in corporate finance.

 The study finally recommends that firm's capital structure should be streamlined since it is an important determinant of firm's financial performance and the direction of the relationship is reverse. The capital structure is the one that determine the proportion of finance that leads to corporate investment.

5.5 Limitation of the study

The research focused on companies which were continuously listed at the Nairobi Securities Exchange for the year 2009 to 2013 a period of five year. However the target population size of the study is small considering the total number of registered limited liability companies in Kenya and hence the finding can't be generalized as true of all companies in Kenya. The period covered was also shorter and a longer period of more than five year is necessary.

The study relied on secondary data which were collected from audited financial statements of the sampled companies which are prepared in accordance with the Generally Accepted Accounting Principles and International Financial Reporting Standard however there is a possibility of use of different accounting policies such as depreciation rate resulting into different outcome.

The research population included companies from all sectors of the economies and hence different operating environment. The study could be undertaken among companies operating in the same sector of the economy.

5.6 Suggestions for Further Research

The study was carried out to determine the effect of financial leverage on corporate investment of non-financial firms listed at the NSE .Future research should strive to improve the identification of the linkages between liquidity management and real variables such as investment, employment, innovation, corporate governance, legal, contractual framework and macroeconomic conditions.

Empirical work on liquidity should exploit naturally occurring heterogeneity across these dimensions as a way to identify causes and consequences of firms' liquidity policies. Addition variables may be incorporated in the study in order to have wider outcome.

The research should be extended to none listed companies and also for longer period of time. Inclusion of none listed companies may help in elimination of any biasness that may be associated with listed companies as listed companies are also regulated by Capital Market Authority.

REFERENCES

Abor, J. (2005). The effect of capital structure on profitability: Empirical analysis of listed firms in Ghana, *Journal of Risk Finance*, 6(5), 438-445.

Abor, J. (2006). Debt policy and performance of SMEs: Evidence from Ghanaian and South African firms, *Journal of Risk Finance*, 8(4), 364-380.

Afza, T., &Hussain, A. (2011). Determinants of capital structure: A case study of automobile sector of Pakistan, *Interdisciplinary Journal of Contemporary Research in Business*, 2(10), 219-230.

Ahn, S., Denis, D.J., & Denis, D.K. (2006). Leverage and investment in diversified firms, *Journal of Financial Economics*, 79(2), 317-337

Aivazian, V.A., Ge, Y., & Qui, J. (2005). The impact of leverage on firm investment: Canadian evidence, *Journal of Corporate Finance*, 11, 277-291

Alkhatib, K. (2012). The determinant of leverage of listed companies: Jordanian evidence, *International Journal of Business and Social Science, 3(10)*

Ang, J. S., Chua, J. H., & McConnell, J. J. (2012), "The Administrative Costs of Corporate Bankruptcy, *The Journal of Finance,* 37(2), 219-226.

Anuchitworawong, C. (2004). Ownership-based Incentives, Internal Corporate Risk and Firm Performance. Institute of Economic Research Hitotsubhasi University 2-1 Naka, Kunitachi, 186-8603, Tokyo, E-mail: cei*info@ier.hit*u.ac.jp.

Aryeetey, E A., Baah-Nuakoh, T., Duggleby, H., Hettige&Steel,W.F. (2004). Supply and demand for finance of small-scale enterprises in Ghana. World Bank Discussion Paper No. 251. The World Bank, Washington, DC.

Baber, W, R., Daniel, P.L., Roberts, A, A. (2002). Compensation to Managers of Charitable Organizations: An Empirical Study of the Role of Accounting Measures of Program Activities. *The Accounting Review*, 77(3), 679-693.

Bancel, F., &Mittoo, U.R. (2004). The determinants of capital structure choice: A survey

of European firms, *Financial Management*, 33(4), 103-132

Bao, H. (2010). A study on leverage and firm investment: Chinese evidence. *Master of*

Science Thesis, Royal Institute of Technology

Barasa, J. W. (2012). Effect of financial leverage on stock returns: Evidence from

Nairobi Securities Exchange. *Unpublished MBA Research project, University of*

Nairobi

Bauer, P. (2004). Determinants of capital structure: Empirical evidence from the Czech

Republic. *Czech Journal of Economics and Finance*.

Bertrand, M., Schoar, A., &Thermar, D. (2007). Banking deregulation and industry

structure: Evidence from the French Banking Reforms of 1985, *Journal of*

Finance, 62, 597-628

Brounen, D., Jong, de A., &Koedijk, K. (2006). Capital structure policies in Europe:

Survey evidence, *Journal of Banking and Finance*, 30(5), 1409-1442

Campello, Murillo, John R. Graham, and Campbell R. Harvey, 2010, the real effects of
financial constraints: Evidence from a financial crisis, Journal of Financial
Economics 97, 470 487

Cassar, G., & Holmes, S. (2003). Capital structure and financing of SMEs: Australian

evidence, *Journal of Accounting and Finance*, 43(2), 123–47

Chebii, E.K., Kipchumba, S. K., &Wasike, E. (2011). Relationship between Firms

Capital Structure and Dividend Payout Ratio: Companies listed at Nairobi Stock

Exchange, *Kabarak University first international conference 2011*

Chittoo, H.B., &Odit, M.P. (2008). Does financial leverage influence investment

decisions? The case of Mauritian firms, *Journal of Business Case Studies*, 4(9),

49-60.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of

    tests.Psychometrika, 16, 297–334.

Fazzari,S;Hubbard,R.G and Peterson,B.(1988) " Financing constraints and corporates

    investment",*Brookings papers on economic activity ,pp.141-195.*

Ferri, M. G., & Jones, W. H. (2009). Determinants of financial structure: A new

    methodological approach, *Journal of Finance*, 34(3), 631–644

Goergen, M., &Renneboog, L. (2001). Investment policy, internal financing and

    ownership concentration in the UK, *Journal of Corporate Finance*, 7(3), 257-284

Gryse, de H., & Jong, de A. (2006). Investment and internal finance: Asymmetric

    information or managerial discretion? *International Journal of Industrial*

    Organization, 24(1), 125-147

Gweyi, M.O., Minoo, E.M., &Luyali, N.C. (2013). Determinant of leverage of Savings

    and Credit Co-Operatives in Kenya: An empirical approach. *International Journal*

    of Business and Commerce, 2(10), 58-65

Hillier, D., Jaffe, J., Jordan, B., Ross, S., &Westerfield, R. (2010).*Corporate Finance*,

    First European Edition, McGraw-Hill Education

Holz, C.A. (2002). Leverage, Managerial Monitoring and firm valuation: A simulation

    equation approach, *Research in Economics, 61, 84-98*

Jensen, M. (1986). Agency cost of free cash flow, corporate finance, and takeovers.

    American Economic Review, 76, 323-329.

Jensen, M., &Meckling, W. (1976), "Theory of the Firm: Managerial Behaviour, Agency

    Costs and Ownership Structure", *Journal of Financial Economics*, 3(4), 305-360

Jong, A. De., Kabir, R., & Nguyen, T.T. (2008). Capital structure around the world: The roles of firm and country specific determinants, *Journal of Banking and Finance*, 32, 1954-1969

Jong, de A., &Dijk, van R. (2007). Determinants of leverage and agency problems: A regression approach with survey data, *The European Journal of Finance*, 13(6), 565-593

Kibet, B., Kibet, L., Tenai, J., &Mutwol, M. (2011).The Determinants of leverage at the Nairobi Stock Exchange. The Asian Business and Management Conference 2011 Osaka, Japan

Lang, L.E., Ofek, E., &Stulz, R., (2006). Leverage, investment and firm growth, *Journal of Financial Economics,* 40, 3-29

Leary, M.T., & Roberts, M.R. (2005). Do firms rebalance their capital structures?,*The Journal of Finance*, 60(6), 2575-2619

Magpayo, C, L. (2011). Effect of Working Capital Management and Financial Leverage on Financial Performance of Philippine Firms. College of Business, De La Salle University, 2401 Taft Avenue 1004 Manila.

Maina, M., &Ishmail, M. (2014). Capital structure and financial performance in Kenya: Evidence from firms listed at the Nairobi Stock Exchange. *International Journal of Science and Entrepreneurship, 1(11)*

Margaritis, D., &Psillaki, M. (2007).Caiptal structure and firm efficiency, *Journal of Business and Accounting, 34(9), 1447-1469*

Marsh, P. (1982). The choice between equity and debt, *Journal of Finance*, 37, 121-144.

Mugenda, O. M. &Mugenda, A. G. (2008).*Research Methods: Quantitative and Qualitative Approaches*, Acts Press, Nairobi Kenya.

Myers, S. C. (1984), 'The Capital Structure Puzzle", *Journal of Finance*, 34, 575-592

Myers, S.C., &Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics, 13, 187-221*

Nguni, J.N. (2007). An empirical investigation into the relationship between gearing and profitability of firms listed at the Nairobi Stock Exchange. *Unpublished MBA Research project, University of Nairobi*

Opanga, W.O. (2011). The relationship between capital structure and value of firms listed at the NSE. *Unpublished MBA Research project, University of Nairobi*

Orua, E.A. (2009). The relationship between capital structure and financial performance of Microfinance Institutions in Kenya. *Unpublished MBA Research project, University of Nairobi*

Oruko, K.A. (2011). The relationship between financial leverage and stock returns of companies listed at the Nairobi Securities Exchange. *Unpublished MBA Research project, University of Nairobi*

Pawlina, G. (2010). Underinvestment, capital structure and strategic debt restructuring, *Journal of Corporate Finance*, 16(5), 679-702

Pindado, J., & Torre, de la C. (2009). Effect of ownership structure on underinvestment and overinvestment: Empirical evidence from Spain, *Journal of Accounting and Finance*, 49(2), 363-383

Prasad, S., Green,C., &Murunde, V. (2001). "Corporate financial structures in developing economies: Evidence from a comparative analysis of Thai and Malay

corporations". *Working Paper Series*, Paper No 35. Finance and Development

Research Programme, University of Manchester, Manchester

Rajan, G., R. and Zingales, L. (1995). What do we know about capital structure: some

evidence from international data, *Journal of Finance, 32, 1421-1430*

Rayan, K. (2008). Financial leverage and firm value.*Unpublished MBA Research project,*

University of Pretoria

Rayan, Kuben. (2008). Financial Leverage and Firm Value.Gordon Institute of Business
Science, University of Pretoria.

Richardson, S. (2006). Over-investment of free cash flow, *Review of Accounting Studies*,

11(20, 159-189

Ross, S. (1977). The determinant of financial structure: The incentive signalling

approach, *Bell journal of economics, 8, 23-40*

Salehi, Mahdi. (2009). Study of the Relationship between Capital Structure Measures and
Firm Performance: Evidence from Iran. International Journal of Business and
Management, Vol 4, No 1, January.

Sapienza, P. (2004). The effect of investor sentiment, *NBER WORKING PAPER No.*

W10563.

Siro, R.O. (2013). Effect of capital structure on financial performance of firms listed at

the Nairobi Securities Exchange. *Unpublished MBA Research project, University*

of Nairobi

Titman, S., &Wessels, R. (2008). The determinants of capital structure choice, *The*

Journal of Finance 43, 1-19.

Weill, L. (2008). Leverage and corporate performance: Does institutional environment

matter?,*Small Business Economics,* 30, 251-265

Wippern, R. (1966). Financial structure and the value of the firm, *Journal of Finance,*

21(4), 615-633

APPENDICES

APPENDIX 1

Listed None Financial Companies on the Nairobi Stock Exchange

AGRICULTURAL

1. Eaagads Ltd

2. Kapchorua Tea Co. Ltd

3. Kakuzi

4. Limuru Tea Co. Ltd

5. Rea Vipingo Plantations Ltd

6. Sasini Ltd

7. Williamson Tea Kenya Ltd

COMMERCIAL AND SERVICES

8. Express Ltd

9. Kenya Airways Ltd

10. Nation Media Group

11. Standard Group Ltd

12. TPS Eastern Africa (Serena)

13. Scangroup Ltd

14. Uchumi Supermarket Ltd

15. Hutchings Biemer Ltd

16. Longhorn Kenya Ltd

TELECOMMUNICATION AND TECHNOLOGY

17. Access Kenya Group Ltd

18. Safaricom Ltd

AUTOMOBILES AND ACCESSORIES

19. Car and General (K) Ltd

20. CMC Holdings Ltd

21. Sameer Africa Ltd

22. Marshalls (E.A.) Ltd

INVESTMENT

23. Olympia Capital Holdings ltd

24. Centum Investment Co Ltd

25. Trans-Century Ltd

MANUFACTURING AND ALLIED

26. B.O.C Kenya Ltd

27. British American Tobacco Kenya Ltd

28. Carbacid Investments Ltd

29. East African Breweries Ltd

30. Mumias Sugar Co. Ltd

31. Unga Group Ltd

32. Eveready East Africa Ltd

33. Kenya Orchards Ltd

34. A. Baumann Co Ltd

CONSTRUCTION AND ALLIED

35. Athi River Mining

36. Bamburi Cement Ltd

37. Crown Berger Ltd

38. E.A.Cables Ltd

39. E.A.Portland Cement Ltd

40. Home Afrika

ENERGY AND PETROLEUM

41. KenolKobil Ltd

42. Total Kenya Ltd

43. KenGen Ltd

44. Kenya Power & Lighting Co Ltd

45. Umeme Limited

(Source: NSE, 2014)

APPENDIX 2
Independent Variables

	LIQUIDITY	LEVERAGE	ROA	NET SALES	RETAINED EARNINGS	CASHFLOW
Eaagads Ltd	6.13746	0.181262	0.06725	0.363606	16,509.20	0.06725
Kapchorua Tea	1.838	0.790539	0.079609	1.155568	98,807.40	0.079609
Kakuzi	4.6688	0.163519	0.117135	0,816266	283,347.60	0.117135
Limuru Tea	7.216	0.20242	0.100061	0.443805	(331.60)	0.100061
Rea Vipingo Plantations	2.76	0.165462	0.133432	1.497747	256,879.80	0.133432
Sasini Ltd	2.146	0.223928	0.044028	0.330044	(862,480.20)	0.044028
Williamson Tea	2.838	0.186198	0.119955	0.810969	517,082.40	0.119955
Express Limited	0.402	0.276835	-0.05627	0.757666	55,537.80	-0.05627
Kenya Airways	0.864	0.000517	-0.00474	1.420597	(712,400.00)	-0.00474

Nation Media Group	2.241014	0.007743	0.209453	3.470891	5,094.14	0.209453
Standard Group Ltd	1.19	0.205858	0.062483	1.601796	62,697.40	0.062483
TPS East Africa (Serena) Ltd	1.304	0.243038	0.045113	0.536779	390,459.60	0.045113
Longhorn Kenya Ltd	1.687819	0.01147	0.073289	4.662379	19,306.00	0.073289
Scangroup Ltd	2.116948	0.025991	0.08924	11.34573	456,489.40	0.08924
Safaricom Ltd	0.609855	0.086015	0.12314	1.05441	5,444,507.00	0.12314
Car and General	1.202368	0.252259	0.135843	3.256267	186,804.40	0.135843
CMC Holding Ltd	1.438311	0.037231	0.017744	4.707783	131,239.80	0.017744
Marshall EA	0.690652	0.307492	-0.2173	0.65029	33,465.00	-0.2173
Olympia Capital Holding	1.771614	0.166962	0.039891	0.848125	66,067.80	0.039891

Centum Investment	1.720269	0.130491	0.131445	0.167701	2,148,318.80	0.131445
Trans-Century	2.383634	0.364986	0.031236	0.915289	383,527.60	0.031236
B.O.C Kenya Ltd	2.61736	0.023694	0.075148	1.200579	625.00	0.075148
British American Tobacco Kenya Ltd	1.178062	0.150266	0.191804	3.6723	55,473.60	0.191804
Carbacid Investment Ltd	7.922	0.105069	0.194471	0.640934	(12,037.80)	0.194471
East African Breweries	1.146155	0.22499	0.195232	1.610917	1,281,915.00	0.195232
Mumias Sugar Co. Ltd	1.53	0.234327	0.059598	0.925506	580,276.80	0.059598
Unga Group Ltd	2.221923	0.096763	0.077463	7.454927	403,3967	0.077463
Eveready EA Ltd	1.366005	0.120431	0.004439	6.005857	5,669.00	0.004439
Kenya Orchids Ltd	1.527476	0.77668	0.003781	0.613331	266,198.60	0.003781

Athi River Mining	1.066	0.454238	0.05316	0.555413	1,012,986.00	0.05316
Bamburi Cement	3.293474	0.129151	0.14339	1.474753	3,288,342.09	0.14339
Crown Paint Kenya Limited	1.461902	0.031878	0.056552	6.046669	107,952.40	0.056552
EA Cables Ltd	1.261663	0.154936	0.065859	1.500782	83,796.60	0.065859
EA Portland Cement Ltd	1.456	0.404239	0.033889	0.87921	364,976.60	0.033889
Kenokobil	1.161451	0.021315	0.001163	24.01542	(661,600.80)	0.001163
Total Kenya	5.088259	0.077563	0.014026	10.05157	252,358.20	0.014026
Ken Gen Ltd	2.309958	0.466101	0.019642	0.106797	2,925,257.00	0.019642