EFFECT OF CORPORATE GOVERNANCE ON CAPITAL STRUCTURE OF NON-FINANCIAL FIRMS LISTED IN NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

I declare that this is my work and has not been submitted to any institution or university other than the University of Nairobi for examination.

Signed: _____Date: _____

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

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I also recognize my supervisor Dr. Kennedy Okiro for his invaluable assistance, insightful criticism and guidance without which this study will not be a reality. My colleagues deserve my appreciation for their tolerance and understanding and the support from the office.

DEDICATION

I dedicate this research work to my dear family who provided the enabling environment & resources; and have greatly supported my education journey.

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ABBREVIATIONS

CDSC: Central Depository and Settlement Corporation

CG: Corporate Governance

CMA: Capital Markets Authority

CMC: Cooper Motor Corporation

EAC: East Africa Community

EACSE: East African Community Securities Exchange

ISS: Institutional Shareholder Services

KSE: Karachi Stock Exchange

NSE: Nairobi Securities Exchange

ROE: Return on equity

SME's: Small & Medium enterprises

ABSTRACT

Adoption of appropriate corporate governance by a firm will give guidance to the managers on the different levels of debt and equity financing that they will employ and what sequence to follow in raising the capital. The study sought to determine the effect of corporate governance practices on capital structure of listed non-financial firms in Kenya. The independent variables for the study were board size, board structure, board diversity, and firm liquidity Capital structure was measured using debt to equity ratio while corporate governance was measured using board size, board diversity, and board structure. Firm liquidity was measured liquidity ratio. The study adopted a descriptive research design. It adopted descriptive research design. The population consisted of all 40 non-financial firms registered at the NSE. Out of the total population only 37 firm's data was fully available. The study used quantifiable secondary data which was analysed using descriptive and inferential statistics to analyze on SPSS version 22. The data sources included all NSE hand books and company's annual reports for the study period was from year 2013 to year 2017. From correlation analysis the study established that there was a positive and statistically significant correlation between board diversity ($r = .146$, $p = .047$ and capital structure. Negative and insignificant correlation was noted between board size ($r = .-073$, $p = .325$), board structure ($r = .-046$, $p = .536$) and capital structure. Also there was a negative and significant relationship was noted between firm liquidity ($r = -0.277$, $p = .000$ and capital structure. The research study concludes that the corporate governance as measured by the selected practices has a significant influence on the capital structure measured by debt ratio of non-financial companies quoted at NSE. This is denoted by the negative correlation between the board size, board structure and the capital structure.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Financing decision is an important function in a company's decision making that helps finance managers to decide when to obtain finances and how to meet their investment needs (Zhao & Wijewardana, 2012). Debt financing has been noted to have a very high consequence for corporations as far as its operations therefore leading to a better performance of the company as well as their failure. The capital structure decisions are dependent on the firm's corporate governance, which is board of directors which has the mandate over the management. The capital structure choice of financial company and that of non-financial company is equal though there are substantial inter business variances in the capital structure of companies due to the distinct nature of each business's commercial and intra-firm disparities which is attributable to commercial and financial exposure of discrete companies (Brealey & Myers, 2003). However, the means of choosing appropriate and acceptable capital structure by firm's top management is still highly debated and a lot of inconclusiveness exists (Okiro, Aduda & Omoro, 2015).

This study is anchored on; Modigliani and Miller (MM), Pecking order theory, Trade-off Theory and Agency theory respectively. Modigliani and Miller theory stated that assuming perfect market structure, the value of the firm is totally independent of its capital structure (Modigliani & Miller, 1958). Pecking order theory was developed by Myers and Majluf (1984) argues that managers are in favor of internal financing as compared to external, and where internal funds are insufficient, debt financing is given first priority to equity financing. Trade-off-Theory was developed by Myers (1984) which argues that profitable companies are more indebted since these firms are

motivated to benefit from tax shield afforded by deductibility of debt interest payments, financial distress cost and bankruptcy. Jensen (1986) pointed out that the agency problem of free cash flow can be in one way or another be managed by increasing managerial stake in the company or by increasing debt use in the corporation capital structure, therefore limiting the sum of "free" cash that is at the disposal of managers.

Listed firms in Kenya raise financial capital by issuing debt securities or by vending common stock. The quantity of debt and equity that makes up a company's capital structure has numerous peril and yield inferences capital structure is largely employed in most non-financial firms, particularly in cases where funding via preferred stock instead of common stock is involved. In short, effects of a variation on the extent where most organization's resources are being funded through loanable funds on the return for each share of the organization are called financial debt (Olang, 2017).

1.1.1 Corporate Governance

Adam & Mehran (2003) described corporate governance as the mechanism where the stakeholders of an organization namely; creditors, employees, shareholders, society and the government oversight the insiders and management to ensure that their interests are safeguarded. According to Iqbal (2015), corporate governance is a means of ensuring business is conducted in affair, efficient and transparent manner in order to achieve organization goals through effective practices and structures. Therefore, the structure through which organizations are managed is corporate governance. Corporate governance also described as a collection of links between a corporation's management, the shareholders, and the board of the firm and other stakeholders. It is a

platform whereby the corporation's goals and objectives are formulated, implemented and their performance is measured and determined (Siromi & Chandrapala, 2017).

Good corporate governance practices are an assurance to the investors for favorable returns on investments. Investors may worry of lending to corporations or investing in the corporations securities where there are no adequate governance structures. This would harm the corporations' capital structure as there would be much reliance on internally generated cash flows which may not be adequate to finance positive NPV projects. Adoption of appropriate corporate governance by a firm will give guidance to the managers on the different levels of debt and equity financing that they will employ and what sequence to follow in raising the capital. Various measures of good corporate governance are: board size, independence of the board, transparency and disclosures and process and procedures guiding the board (Olick, 2015)

1.1.2 Capital Structure

Adeyemi & Oboh (2011) define capital structure as the way in which a commercial enterprise funds its operations either through debt or equity capital or a combination of both. According to Ross et al (2005) the term capital structure explains how a company finances itself from various sources of finance. Capital structure has been described as a mixture of equity finance and debt finance and is usually regarded as the one of the most significant financial variable because it is linked to the capacity of the company to meet the requirements of all its stakeholders such as employees, community, shareholders, among others (Jensen, 1986). The study on capital structure tries to clarify the mix of stocks and financing sources used by business enterprises to finance investment portfolios (Jibran, Wajid, Waheed & Massod, 2012).

Capital structure decisions are critical decisions in any business enterprise because they have an impact on a firm's value (Tongkong, 2012). Incompetent business decisions to finance a firm's operations may be avenues for a firm to face liquidation, fall into financial distress or eventually be declared bankrupt. Firms with high leverage have the advantage to decide on an optimal capital structure to avoid unnecessary costs (Ting & Lean, 2012). However, it is important to note that overreliance on equity financing may lead to liquidity issues within the company and possibility of failure to take advantage of possible growth opportunities that may be there (Amara & Aziz, 2014).

Managers in business organizations have discretion over capital structure decisions. The capital structure adopted by a firm may not necessarily be meant for value maximization but to protect the interests of a manager as may the case be in organizations where managers dictate most corporate decisions in the companies they manage (Margaritis & Psillaki, 2010). Where shares are not closely held, equity owners are usually many and one shareholder may just control a very small percentage of a firm's shares. Minority shareholders take less interest monitoring the activities of managers who are left to themselves to pursue their personal interests that may be totally different from the interests of equity owners. Capital structure is measured using debt ratios. The debt ratios make comparison of the total debt with the total assets owned by the company (Memon at al., 2012)

1.1.3 Corporate Governance and Capital Structure

Jensen (1986) explains the relevance of debt in minimizing the free cash flow cost in instances where the company. However, if a firm generates huge free cash flows there exist a conflict of interest between the managers and the shareholder of the firm. Use

of debt acts as a bond since it reduces the level of cash flow that is available to the managers of a firm. The level of debt increases the efficiency of managers since managers are required to perform to get enough funds to repay debts. It was also observed that the CEOs who are entrenched tend to avoid debt financing for long-term projects. Fama and French (1998) stated that application of debt financing in excess brings about agency challenges in monitoring the investing behaviors of management staff. The management may find them holding excess cash flows which may influence them to undertake some projects for their own mileage as opposed to the wealth creation for the shareholders.

Okiro et al (2015) found that capital structure has a positive significant on relationship between corporate governance and financial performance of a firm. Jibran at al (2012) found that debt also offers business enterprises a tax shield; hence firms are motivated to borrow more to reap maximum tax benefits which translate to higher profits. But, abnormal debt levels may force a firm into bankruptcy hence; managers should be keen to address risk factors, for instance, high debt-equity ratio which implies that a firm's bankruptcy risk is high. When bankruptcy is avoided, the firm will realize better financial performance in the long run. Berger & Lubrano (2006) argued that companies that have a large membership in the board have low debt ratio or leverage. The assumptions are that board sizes that are large in size instill more pressure for the managers to use less debt while financing the long-term investments of the firm. The findings of Berger & Lubrano (2006), indicated that are highly monitored use more debt to finance the business to raise the value of the business. According to Adam & Mehran (2003) the board of directors should adhere to best corporate governance practices that results to creation of shareholder's value by managing the corporate

affairs. The corporate affairs should be managed to ensure protection of the collective and individual interest of the company's stakeholders.

1.1.4 Non-Financial Firms Listed at the Nairobi Securities Exchange

The Nairobi Securities Exchange (N.S.E) was founded as a voluntary grouping of stock brokers in 1954 and has grown to become the most active security market in East African and among most active security markets in Africa. The NSE is charged with a major important role in economic development process (Iraya & Musyoki, 2013). The market is divided into four main segments which classify firms in similar industry together. Non-financial firms' stocks are firms not involved in provision of financial services. Non-financial firms' stocks are firms not involved in provision of financial services. There are 40 non-financial firms listed at the NSE under the following sectors: commercial and services, agriculture, industrial and telecommunication and technology, investment, automobiles and accessories, energy and petroleum (NSE, 2017).

Firms listed in the NSE would be keen to optimize expansion opportunities to benefit from the growth opportunities in the long-term. This could be achieved through adopting capital structures and financial leverage levels that support asset growth by finance managers of the listed firms. Firms may supplement the shareholders equity by employing debt. Additional financing requirements may therefore be achieved by increasing the owners' claim through issuing of ordinary shares or use of retained earnings or by increasing creditors claim through borrowing. Currently, many firms have been delisted due to financial distress problem with others being placed on receivership due to high debt to equity ratio and therefore the need to focus on non-financial firms in this study (Kioko, 2015).

The decision whether to take debt finance or equity financing has remained within the confines of boards of directors but financial analysts have argued in support and considers debt finance as appropriate for increasing firm value provided they are acquired at appropriate market rate and proceeds utilized in a good way (Afude, 2015). This study seeks to find out the whether such financial decisions made by the board of directors on financing has any effect on the capital structure of the companies listed at NSE. Banks and Insurance companies were excluded from the analysis because they are highly controlled on matters relating to liquidity and minimum capital base by the central bank of Kenya and the Insurance regulatory authority respectively.

1.2 Research Problem

Firms that need finances are faced with dilemma on whether to use debt or equity. Jensen & Meckling (1976) however, maintained that conflict between lenders and shareholders will always work in favour of shareholders. If a firm is reporting profits and is financially sound, it is better placed to settle its financial obligations including servicing debts. On the contrary, if the performance is poor, financiers will incur higher losses attributed to un-serviced loans. The discussion on the relevance or irrelevance of capital structure have been an interesting debate to many researches as the theories have led to contradicting decisions and outcomes. For instance, according to MM capital structure is largely irrelevant in that it cannot have a bearing on the prediction of a firm's market value (Modigliani & Miller, 1963).

Non-financial listed firms are increasingly using debt especially in pursuit of expansion policies by the government of Kenya. At the same time, corporate governance has also received increased attention from both policy makers and practitioners (Atosh, 2017). A number of non-listed firms at the NSE such as Kenya Airways, Uchumi Supermarkets Limited, Mumias Sugar Limited, and Express Kenya Limited etc. have gone through cycles of financial distress in the recent past arising from high financial leverage and other factors such as poor corporate governance (Juma, 2016). These developments coupled with the lack of universal theory triggered the need for further research to conduct further studies to investigate whether the trends in corporate governance influences the trends in capital structure, which motivated this research study.

Globally, Siromi & Chandrapala (2017) researched on the effect of corporate governance on capital structure of firms quoted in Sri Lanka and found that board composition had a significant positive relationship to capital structure. However, Saad (2010) researched on effect corporate governance compliance had on capital structure of listed firms in Malaysia and found a negative relationship between corporate governance and capital structure.

Locally, Hakima (2017) revealed that debt ratio have a negative effect to financial performance of insurance companies. Kizito (2017) found out that high debt ratio leads to a decrease in financial performance of the firm. Gichuhi (2016) concluded that there existed an insignificant link relating capital structure and profitability of listed firms. Ringui (2016) found that moderate negative correlation exists between financial leverage and financial performance, a strong positive relationship exists between solvency and financial performance and that a strong positive correlation exists between the size of the non-financial firm and financial performance. Previous

empirical studies on capital structure and corporate governance have presented somewhat conflicting results, others agreeing some disagreeing with important theories of capital structure. Therefore, this study seeks to add knowledge on the topic of the study and attempts to give an explanation to the question, what is the effect of corporate governance on capital structure of firms listed at the NSE.

1.3 Research Objective

The objective of the study is to determine the effect of corporate governance on capital structure among non-financial listed firms at Nairobi Securities Exchange.

1.4 Value of the study

Policy makers; like Capital Markets Authority (CMA) benefits from the research findings in setting policies that ensure that listed firms maintain and implement an optimal structure that is less susceptible to financial risks. This guides firms to exploit cheaper and reliable sources of finances to enhance profitability. This is achieved by identifying specific industry-based debt thresholds that would ensure that firms are not unnecessarily exposed to risk of financial failure that results to erosion of investors' wealth.

The findings of the study also sensitize industry practitioners involved in making financing decisions by affording them a vital reference point on the need by corporations to determine and maintain optimal financing framework necessary to cushion firms against instances of financial difficulties. This not only maximizes the shareholders‟ wealth but also boost investor confidence in the Nairobi Securities Exchange.

Scholars and academicians in the finance discipline refer to the study recommendations for further study to conduct future studies to broaden the

knowledge on corporate governance and capital structure. Furthermore, they can consider the methods and results of this research and possibly extend it in various directions. The study added to the present information on corporate governance and capital structure in the Kenyan.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter examines the relevant literature relating to effects of financial leverage and share return. It presents the theoretical literature review and the determinants of financial distress and firm performance. Empirical literature from international and local studies, conceptual framework and summary based on the review is also discussed.

2.2 Theoretical Review

This presents review of the relevant theories that explains the associations between capital structure and corporate governance. This study is anchored by the following theories; Modigliani and Miller Theory, Pecking Order Theory, Trade-off Theory and Agency Theory.

2.2.1 Modigliani and Miller (MM) Irrelevance Hypothesis

MM (1958) expressing their disagreement to the traditional view, argued that an ideal market void of transaction and taxes costs, a firm's cost of capital and its market capitalization is insensitive to the changes in the capital structure of the firm. MM proposes that the way the assets are financed is of no consequence to the firm's value which according to them is hinged on the risk and earnings of its assets. They expound that use of cheaper debt would increase investors risk exposure who would consequently require higher premium as compensation (Tale, 2014).

The hypothesis suffers major shortcoming by its assumption of an ideal stock market. Myers (2001) points to one of the MM theory major flaws. He argues, as regards debt tax benefits, there is a general agreement that a compelling incentive exists for

corporations to borrow debt. Under the MM environment, there should be evidence that corporations are borrowing aggressively to take advantage of the tax shield benefit. Ultimately no organization would be paying taxes. This is however not the case in real life. He attributes the deviation from the MM hypothesis to costs associated with aggressive borrowing and which leads to existence of a tradeoff model of capital structure (Pandey, 2010).

2.2.2 Pecking Order Theory

Pecking-order theory was developed by Myers & Majluf (1984) considers internal finance as the cheapest source of finance, then debt and finally external equity. They consider retained earnings as having no floatation costs and therefore, require no additional disclosure of financial information. Based on asymmetric information, the theory highlights issuing securities to raise external capital signals out a lower profitability to investors than what they had expected. Being rational in their decisions, investors adjust the discount rate for the firm upward since they now require a higher return on their investment. The theory assumes managers will be obliged to act in the best interest of the investors since they know more about the company future growth opportunities. Also, it is assumed information asymmetry exists between them. This case may not be realistic in practice as it also ignores the problems that may occur when a firm's managers get more comfortable with the companies financials and become indiscipline (Mutegi, 2016).

Managers hence choose to finance investments by deploying retained earnings or and with debt to avoid making this type of distorted resolutions. These choices are influenced by the fact that information asymmetry problem does not exists for retained earnings and is minimal for debt with insignificant risk (Fama & French,

2000). This theory indicates that the key considerations made by managers in making their financing choices are debt costs, flexibility, and ease of availability. Unlike in the tradeoff theory, for pecking order, managers do not have a target capital structure which they seek to attain over time as a way to maximize their returns. Following a systematic order, the theory postulates that managers will finance their investment using retained earnings, debt and lastly new equity. Within an industry, for a firm's debt and its share return, pecking order hypothesis is credited with explanation power for the negative relationship between them (Nazir at el, 2012).

2.2.3 Trade-off Theory

This theory was proposed by Myers (1984). The theory holds that, there exists an optimal capital structure for every firm, which can be determined by balancing the costs and benefits of equity. As a result, a firm decides on how much debt capital and how much equity capital to include in their capital structure by balancing on the costs and benefits of each source. Debt capital results to benefits such as tax shied though high debt levels in the capital structure can result to bankruptcy and agency expenses. Agency expenses results from divergence of interest among the different firm stakeholders and because information asymmetry (Jensen & Meckling, 1976).

Thus, including cost of agency into the trade-off theory signifies that a corporation ascertains its optimal financial structure by balancing the benefit of debt (the tax advantage of debt) against expenses of excessive debt (financial distress) and the resultant equity agency expenses against debt agency costs. The theory further assert that, as firm increases debt in their capital structure, the marginal cost associated with debt increases while the marginal benefits associated with debt decreases until an optimal point is reached. Beyond that point, the marginal costs of debt exceed the

marginal benefits resulting to reduced firm value. In this regard, the firm should set an optimal financial structure in order to enhance its performance.

According to Myers (1984), firms with more tangible assets should have high debt ratios while firms with more intangible assets should depend more on equity capital because they are subject to lose of value in case of liquidation. Under this theory, firms should evaluate the various costs and benefits of each debt level and determine an optimal debt structure that balances the incremental costs and incremental benefits (debt tax shields against costs of bankruptcy). This further explains why firms are partly financed by equity and also partly financed by debt in their capital structure.

2.2.4 Agency Theory

This theory relates to the relationship that exists among the shareholders as the principal and the company agent (company's managers). An agency association comes into existence when one or many persons, referred to as principals, employ one or many other persons, known as agents, to carry out some service and then give them authority to make decision on his behalf. Jensen & Meckling (1976) suggests that, the best capital structure can be attained by minimizing agency costs which emanates from the conflicting managerial interests with those of debt holders and company owners. They argue that managerial ownership in the company ought to be increased to align managerial interests with the interests of the shareholders or employ debt use to limit managers' opportunistic behavior by reducing free cash flows. Jensen (1986) demonstrated the agency problem, which is linked with free-cash flows. He pointed out that the problem of free cash flow can be in one way or another be managed by increasing managerial stake in the company or by increasing debt use in the corporation capital structure, therefore limiting the sum of "free" cash that is at the

disposal of managers. Thus, corporations which mostly seeks debt finances gives managers less discretionary power over how they can use free cash flows than those financed by equity, and as a results, debt finance acts as a control tool, in which the lenders and the company owners becomes the principals in the structure of corporate governance.

Debt finance forces corporate managers to be controlled by the public capital. If investors have negative opinion about the competence of management, they will require high payment of interests on the amount lend to the company or they will put on restrictive debt covenants to limit management degree of freedom. Debt finance outstanding restricts management's ability to lower the value of company through incompetence dealings. They argue further that corporations with high debt levels can provide benefits in the vibrant sense that companies with debt levels can respond very quickly to development of adverse performance than firms with minimal debt level. The choice to have high debt levels during regular business operations appears to stimulate the company to take action operationally and financially after an adversity within little period of time, helping to avoid extended periods of losses without a response.

2.3 Determinants of Capital Structure

Research studies by various scholars reveal the presence of relationships between firms' leverage level and its financial performance. In the Philippine, Aquino (2010) established that the ratio of debt to equity of a firm played an important role in its performance. The study notes that because of the agency and monitoring costs associated with each source of finance, there needs to be a clear criterion on how firm are to mix equity and debt in their capital mix.

2.3.1 Corporate Governance

Corporate governance practices includes: board size, board diversity, independence of the board, transparency and disclosures and process and procedures guiding the board. Board size focuses on the number of directors in the board, the size may be large or small but according to the Banking Act the minimum number is five directors. The diversity was measured as a ratio of women to the total number of board members. Board independence is achieved where the directors are free to make decisions without the prejudice of the shareholders. Board structure can help in achieving the board independence where independent directors should be more than a third of the total board membership. Board meeting is another corporate governance aspect and it outlines the number of meetings that the board should hold and it is stipulated in every company's' chatter. Lastly, board committees are very important for a board to be effective because majority of the board decisions are done in those committees (Olick, 2015).

According to Kigotho (2012) corporate governance is a very important aspect in firm's general performance. It is therefore, believed that good corporate governance practices affect firm's performance positively while poor practices have adverse effects. Bermpei and Mamatzakis (2015) found that corporate governances is significant in decisions related to capital structures and resources utilization, this influences the firm's financial outcome. Some corporate governance structures influences capital structure of the firm. For instance, Abor (2007) concluded that the size of the board had a significant positive relationship to capital structure. The relationship of size of the board and capital structure has found mixed results because other researchers have found a negative correlation. Board structure also has shown significant relationship to capital structure. In a study by Arko (2009) there was a

positive relationship between independence of directors and firm's leverage while Wen et al. (2002) found the relationship to be negative. According to Keys et al. (2003) board diversity and firm value had a positive relationship. Therefore, diversity in firm's management improves ideas and the overall decision making.

2.3.2 Asset Quality

According to Afude (2017) the quality of assets that an institution holds is important as they are dependent upon in times of non-performing loans and profitability generation. Institutions' assets can include current assets, credit portfolio, fixed assets and other investments. An institution needs to anticipate, prevent, contain risks and cover losses by putting into consideration the level of risks to the assets they hold. Asset quality can be measured by the ratio of non-performing loans to gross loans. Institutions that assume more risks are those that loan growth is high. Financial performance is low in institution where credit risk exposure is high and therefore, institution can improve their performance by monitoring their credit risk.

2.3.3 Firm Size

According to Amato & Burson (2007) financial sector firms reported report a mixture of relationships between return on assets, equity and the mixture of debt and equity applied. The amount of assets owned by an organization determines it size. It is argued that large firms have adequate resources to undertake a number of large projects with better returns than firms with small amounts of total assets. In addition, firms with large amounts of total assets have adequate collateral which they can pledge to access credit and other debt facilities compared to their smaller counterparts (Amato & Burson, 2007). Empirical studies have shown that large firms opting for

debt that take a longer time to be repaid than one which takes a shorter time this is because the costs incurred in issuing debt is lower in firms that have a large asset base compared to ones with smaller as the former have better assets base back up their debt using the assets as compared to the latter which has smaller asset base, thus may not be able to have enough security (Lee, 2009).

2.3.4 Liquidity

Liquidity in a firm is the capability of a firm to convert its assets into cash. Firms with high liquidity are able to take advantage of opportunities that will yield high returns and at the same time protect the firm from going bankrupt during financial distress times. With the pecking order theory, liquidity reserves are easily created from profits available as firms opt for funds generated internally than externally. Firms won't be required to seek external funds if its assets they have are liquid enough to finance the various projects in the firm. Liquidity of a firm is measured using the current ratio or quick ratio. It brings out the capacity of a firm to meet its obligations that are immediate using the current assets available. A good current ratio indicates that a firm is capable of paying up its obligations using current assets (Etyang, 2012).

2.4 Empirical Review

Kamran and Nawaz (2017) conducted a study to determine the effect of CG and capial structure on firm's performance on petroleum sector in Pakistan. Secondary data was used for analyses purpose which composed of five petroleum companies for a period of 6 years starting from 2011 to 2015. The study used regression model to interpret between the independent and dependent variables of the study. The data collected for this study was analysed using SPSS. The study found out that both short-term and long-term debts have significant negative correlation with financial

performance. The study also found that corporate governance practices number of shareholders and board size have a insignificant negative effect on financial performance.

Hakima (2017) conducted a study on the relationship between capital structure and financial performance of insurance companies in Kenya. Descriptive research design was used to show the relationship between dependent and independent variables. The analytical model used was financial performance as the dependent variable taking ROA as the measure while debt ratio, size of the firm and liquidity were the independent variables. Secondary data was used for analyses purpose which composed of six insurance companies listed at NSE for a period of 6 years starting from 2011 to 2016. Data analyses was done via multiple regression analysis by use of excel and SPSS software. The study found that there was insignificant relationship between size of the fir and financial performance of insurance firms. On the other hand the study revealed that capital structure has a positive effect on ROA of the insurance firms. The study further recommend that if the insurance companies are capable of funding their operations through retained earnings should do so and reduce on undertaking borrowings as this will boost their overall performance.

Kizito (2017) conducted a research study on influence of capital structure on financial performance of commercial and services firms listed at the NSE. The research employed descriptive research design where secondary data was used for a period of five years (2012-2016). Population of this study included all the 10 commercial banks listed at the NSE. The study used regression model to interpret between the independent and dependent variables of the study. The data collected for this study was analysed using SPSS. In conclusion the established that capital structure is made up of two major elements namely; debt and equity. The study found out that high

debt ratio leads to a decrease in financial performance of the firm. However the study also revealed that firms with high debt ratio enjoy a tax shield hence improved profitability of the firm. The study recommends that firms should adopt an optimal capital structure and effective management team capable of turning around the firms fortunes in terms of improved profitability and minimizing the risk of bankruptcy.

Ringui (2016) researched on the impact of capital structure on financial performance of non-financial listed firms. The study adopted descriptive research design. The target population for the study consisted of 47 non-financial firms listed at NSE. The collected data was analyzed using SPSS software. The study found out that 17.5% change in capital structure among non-financial firms listed on the NSE is explained by the four independent variables of the study (Financial Leverage, Solvency, Size, and GPD Growth Rate), moderate negative correlation exists between financial leverage of non-financial firms listed at NSE and financial performance, a strong positive relationship exists between solvency and financial performance and that a strong positive correlation exists between the size of the non-financial firm and financial performance. The study concludes that capital structure affects financial performance of the non-financial firms listed at NSE. The study recommends that the management of all non-financial firms listed at NSE should judiciously strike a balance between the debts and equity in their capital structure.

Gichuhi (2016) did a study to determine the outcome of capital structure on profitability of firms listed at the NSE. A descriptive research design was considered effective for this study because it was useful in collecting data that depict the relationship between variables. The study targeted 67 firms that had been actively trading for the last 5 years (2011-2015) nonetheless; data was collected from 36 firms that were considered satisfactory to make generalization. The study used secondary

data which was obtained from annual reports published by Capital Markets Authority. Analysis of data was done using descriptive and inferential statistics. The study found that listed firms were profitable in the study period. Firms utilized debt which minimized their cost of financing and operational costs. There lacked a relationship between capital structure, firm size, leverage and profitability of listed firms. The independent variables explained eighteen percent variance in profitability of listed firms. The regression model implemented was found to be significant. It was concluded that there existed an insignificant link relating capital structure and profitability of listed firms. It is recommended that a fair mix of debt and equity should be established to ensure that the firm maintains capital adequacy. Firms can thus be able to meet their financial compulsions and investments that can promise attractive returns.

Okiro et al (2015) did a study to determine the outcome of capital structure and corporate governance on performance of firms listed at the EACSE. A descriptive research design was considered effective for this study because it was useful in collecting data that depict the relationship between variables. The study targeted 98 firms that had been actively trading for the last 5 years (2009-2013) at EACSE nonetheless; was census survey was used to study only 56 firms constituting 57% that were considered satisfactory to make generalization. The study used secondary data which was from annual reports obtained from NSE, DSE, USE, RSE and CMA websites. Analysis of data was done using descriptive and inferential statistics. It was concluded that there existed a significant link relating corporate governance and financial performance of listed firms. The study also confirmed that there is a positive significant intervening effect of capital structure (leverage) on the relationship between corporate governance and firm performance.

2.5 Conceptual Framework

The Conceptual framework describes the relationship between independent and dependent variables of the study. This research seeks to establish effect of corporate governance, liquidity and (independent variables) on capital structure, (dependent variable).

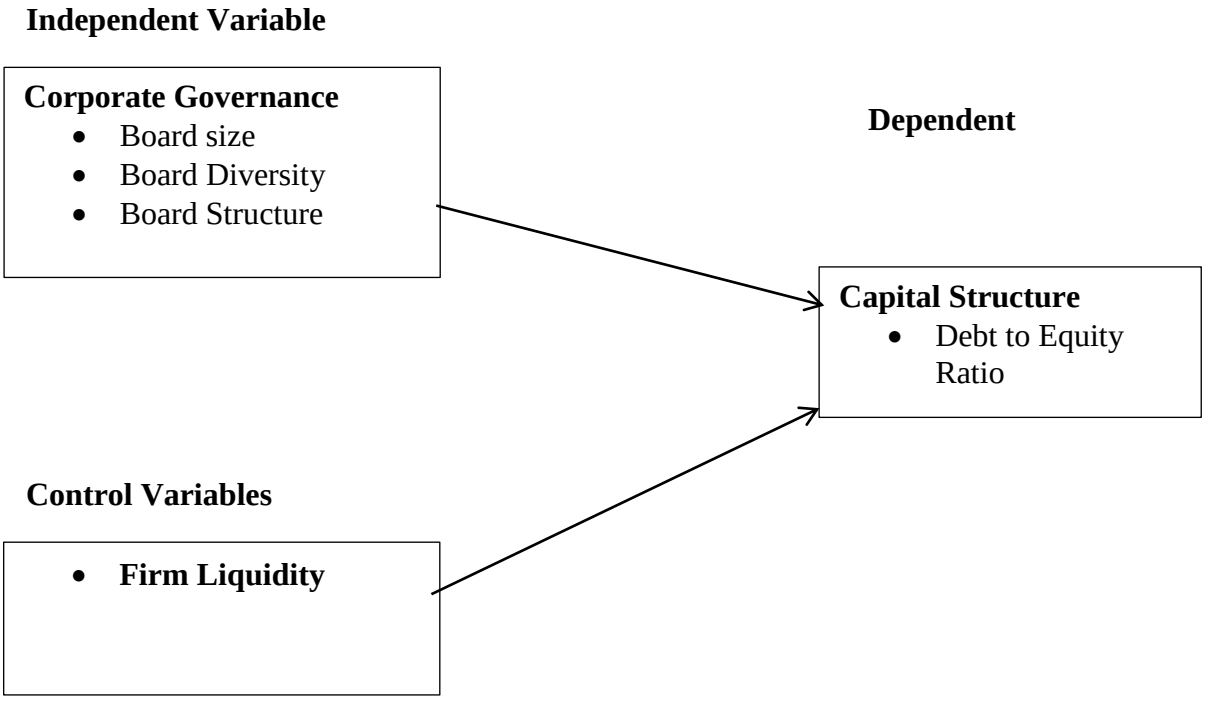

Figure 2. 1: Conceptual Framework
Sources: Researcher, 2018

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes methods of research to be applied to objectively determine the effect of corporate governance on capital structure of firms listed at NSE. It also shows the population of study, research design, data collection and analysis criteria.

3.2 Research Design

Kothari (2008) notes that a research design involves preparation of the circumstances for gathering and examination of statistics in a way that strives to achieve significance to the study drive. A plan involves a preparation of what is to be done from writing the hypothesis all through to analysis of data. Kothari (2008) noted that a research design is a blue print for gathering, measuring and analyzing data. The study adopted a descriptive research design. The choice of this design is appropriate because it is useful in depicting the relationships between variables. This form of design also allows describing the behavior of the variables without influencing them.

3.3 Population

Target population refers to the complete cluster of objects to which a researcher intends to generalize the findings or outcomes of the study (Mugenda & Mugenda, 2003). For purposes of this study, population of interest consists of 40 non-financial firms registered at the NSE. Census study was adopted to enable focus on all 40 non-financial firms under the following segments in the NSE sector categorization; Automobile, Commercial and Services, Energy and Petroleum and Manufacturing and Allied, construction and Allied, Agricultural sector and Telecommunication (Appendix I).

3.4 Data Collection

The study used secondary data which was gotten from yearly information published by Capital Markets Authority. The collected data was reviewed for completeness and consistency in order to carry out statistical analysis. The study covered a period of five years (2013-2017) which was considered adequate in establishing the association amid corporate governance and capital structure of registered companies. Firms that have been actively involved in trading for the last five years were considered for data collection.

3.5 Diagnostic Tests

The nature and strength of the relationship between the dependent and independent variables in linear regression model was be measured through various diagnostic tests such as tests for multicollinearity, normality, autocorrelation, Unit root test and homoscedasticity. Multicollinearity test is said to occur when there is nearly exact or exact linear relation among two or more of independent variables. This can be tested by determinants of the correlation matrices, which varies from zero to one. Orthogonal independent variable is an indication that the determinant is one while it is zero it there is a complete linear dependence between them and as it approaches to zero then multicollinearity becomes more intense. The variance of inflation was used to test multicollinearity (Ruland, 2011).

Normality is the test for assumption that the residual of the response variable are normally distributed around the mean and was determined by Shapiro-walk (Ghasemi & Zahediasl, 2012). Autocorrelation is the measure of the similarity between a certain time series and lagged value of the same time series over successive time intervals. It is tested using Durbin-Watson statistics. Unit root test is conducted to ensure that the

variables are stationary. The study employed Augmented Dickey Fuller (ADF) unit root test to evaluate the availability of unit roots in the data. If P-Value is greater than 5% level of significance, it implies the data is not stationary i.e. availability of unit roots

3.6 Data Analysis

Data Analysis is the task of methodical using arithmetical and rational methods to define, demonstrate, condense, review and assess data. This task is developed to deal with manipulation of the information that has been gathered so as to present the evidence (Singleton et al., 2003). The study used SPSS version 22 for data analysis. The study relied on various regression techniques in evaluating the correlation between the selected corporate governance practices and the capital structure of listed firms in Kenya given that the study model is multivariate. The analysis involved figuring out of the various coefficients of correlation in the model to determine the connection.

3.6.1 Analytical Model

The study used a multiple regression in carrying out analysis in finding out the outcome of corporate governance practices on capital structure of listed firms in Kenya. The responsive variable is capital structure while the Predictor variables are the corporate governance practices. The analytical model used in analyzing the interrelation of the predictor variables on the response variable is:

$$\mathbf{Y_i = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + €}$$

Where;

$\boldsymbol{\alpha}$ = constant

$\mathbf{Y_i}$ = Capital Structure

$\mathbf{X_1}$= Board size

X_2= Board Diversity

X_3=Board Structure

X_4= Firm Liquidity

β_1, β_2, β_3, β_4 =co-efficient of the model

ϵ = the stochastic error term

Table 3.1: Measurement of the Variables

	Variable	Measurement
Y	Capital Structure	$\frac{\text{Total Debt}}{\text{Shareholders' Equity}}$
X_1	Board size	Number of board members
X_2	Board Diversity	The ratio of female directors to total board members
X_3	Board Structure	The ratio of Non-Executive directors to total board members
X_4	Firm liquidity	$\frac{\text{Current Assets}}{\text{Current liabilities}}$

Source: Researchers (2018)

3.6.2 Test of Significance

The test for joint significance of all coefficients was done using the F-test while the test for individual coefficient was done using the T-test. The significance of the regression model was determined at 5% and 95% confidence interval.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter outlines the data analysis and the research findings. Data was obtained from the audited financial statements collected from company's website for a period of five years starting from 2013 to 2017. Out of the total population of 40 non-financial firms listed, only 37 firms' data was completely available was gotten representing 92.5% response rate which was viewed reasonable for the subsequent statistical analysis. The secondary data was subsequently analyzed by aid of regression analysis.

4.2 Diagnostic Tests

The study assessed normality through Kolmogorov-Smirnov and Shapiro-Wilk tests, multicollinearity through variance of inflation factors, autocorrelation through Durbin-Watson and Unit Root test through CC

4.2.1 Normality Test

Test for normality was done on the data collected to establish whether it was collected from a normally distributed population. When p-value greater than 0.05 would indicate that the data was collected from a normally distributed population. The researcher used both Kolmogorov-Smirnov and Shapiro-Wilk tests.

Table 4.1: Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Capital Structure	.087	185	. 200*	.954	185	.258
Board Size	.101	185	.300	.968	185	.348
Board Diversity	.032	185	. 200*	.928	185	.109
Board Structure	.071	185	. 200*	.962	185	.122
Firm Liquidity	.054	185	. 200*	.827	185	.146

Source: Research Findings (2018)

Both Shapiro-Wilk tests and Kolmogorov-Smirnova indicated that p-values greater than 0.05. This was an indication that the secondary data used in this study was collected from a normally distributed population. Consequently, the data can be used in carrying out advanced parametric analysis such as Pearson's correlation and regression analysis.

4.2.2 Multicollinearity Test

The variance inflation factors and tolerance levels were used to test for multicollinearity between the independent variables. Table 4.2 shows the results

Table 4.2: Test for Multicollinearity

Model		Collinearity Statistics	
		Tolerance	VIF
1	Board size	.872	1.147
	Board Diversity	.858	1.166
	Board structure	.920	1.087
	Firm liquidity	.860	1.163

a. Dependent Variable: Capital structure

Source: Research Findings (2018)

The collinearity statistics on table 4.2 indicates that there is no multicollinearity since the VIF values are less the recommended value of 10 while the tolerance values are more than the recommended value of 0.2

4.2.3 Autocorrelation

Autocorrelation test was done to check if there was similarity between the data and their lagged value in time series.

Table 4.3: Test for Autocorrelation

Model	Durbin-Watson
1	1.952

Source: Research Findings (2018).

The autocorrelation statistics on table 4.3 indicates that the variable residuals were not serially correlated since the value was within the acceptable range of between 1.5 and 2.5.

4.2.4 Panel Unit Root Tests

Unit root tests were thus conducted using the LLC test to establish whether the variables were stationary or non-stationary. The purpose of this is to avoid spurious regression results being obtained by using non-stationary series. Results in Table 4.3 indicated that all variables are stationary (i.e. absence of unit roots) at 5% level of significance

Table 4.4: Unit Root Test

Variable Name	Statistic(Adjusted)	P-Value	Comment
Capital Structure	-7.1936	0.000	Stationary
Board Size	-23.2806	0.000	Stationary
Board Diversity	-12.6408	0.000	Stationary
Board Structure	-16.2333	0.000	Stationary
Firm Liquidity	-30.3135	0.000	Stationary

4.3 Descriptive Analysis

Table 4.5: Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Capital structure	185	.00	.99	.4049	.26865
Board size	185	4.0000	17.0000	8.805405	3.0636319
Board Diversity	185	.0000	.6700	.179568	.1599383
Board structure	185	.2900	1.0000	.616757	.1572773
Firm liquidity	185	.0827	25.6569	2.610697	4.0630720

Source: Research Findings (2018)

The descriptive statistics in table 4.4 above give further details of the study. The minimum, maximum, mean and standard deviations are given. The average capital structure over the 5years was -0.4049. The maximum capital structure observed was 0.99 and the minimum -0.00. The average mean of board size over the 5 years was 8.805405; the maximum was 17 while the minimum was 4.0. The average mean of board diversity over the 5 years was 0.1795; the maximum was 0.67 while the minimum was 0.00. The average board structure over the 5 years was 0.6167; the maximum was 1.0000while the minimum was 0.2900. The average firm liquidity over the 5 years was 2.6107; the maximum was 25.6569while the minimum was 0.0827.

4.4 Correlation Analysis

Correlation analysis are used to test whether a relationship exists between two variables and often range between (-1) strong negative correlation and (+1) perfect positive correlation. The study employed the Pearson correlation to analyze the level of correlation. A p-value of 0.05 or less was used to indicate significant correlations.

Table 4.6: Correlation Analysis

Correlations

		Y	X1	X2	X3	X4
Capital structure	Pearson Correlation	1	-.073	.146*	-.046	-.277**
	Sig. (2-tailed)		.325	.047	.536	.000
	N	185	185	185	185	184
Board size	Pearson Correlation	-.073	1	.215**	.188*	-.296**
	Sig. (2-tailed)	.325		.003	.010	.000
	N	185	185	185	185	184
Board Diversity	Pearson Correlation	.146*	.215**	1	.253**	-.290**
	Sig. (2-tailed)	.047	.003		.001	.000
	N	185	185	185	185	184
Board structure	Pearson Correlation	-.046	.188*	.253**	1	-.112
	Sig. (2-tailed)	.536	.010	.001		.130
	N	185	185	185	185	184
Firm liquidity	Pearson Correlation	-.277**	-.296**	-.290**	-.112	1
	Sig. (2-tailed)	.000	.000	.000	.130	
	N	185	185	185	185	185

Source: Research Findings (2018)

Correlation analysis was used to show the associations between variables. The study established that there was a positive and statistically significant correlation between board diversity (r = .146, p = .047 and capital structure. Negative and insignificant correlation was noted between board size (r =. -073, p = .325), board structure (r =. -046, p = .536) and capital structure. Also there was a negative and significant

relationship was noted between firm liquidity (r = -0.277, p = .000 and capital structure.

4.5 Multiple Regression Analysis

Capital structure of non-financial firms listed at the NSE was regressed against four predictor variables; board size, board diversity, board structure and firm liquidity. The regression analysis was executed at 5% significance level. The study obtained the model summary statistics as illustrated in table 4.6 below.

4.5.1 Model Analysis

Table 4.7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.775[a]	.601	.584	.0432268

a. Predictors: (Constant), Firm liquidity, Board structure, Board size, Board Diversity

b. Dependent Variable: Capital structure

Source: Research Findings, (2018)

Regression analysis results presented in table 4.6 above indicate R which is simple correlation coefficient was 0.775 which points to a strong relationship between the studies variables. Coefficient of determination ($R2$) of 0.601 indicates that 60.1% of the variation in capital structure is expounded by the specific factors in the analytical model (Firm liquidity, Board structure, Board size, Board Diversity). Other specific factors not included in the model justify for 39.9% percent of the variations in capital structure of non-financial firms listed at NSE.

4.5.2 Analysis of Variance

Table 4.8: Analysis of Variance (ANOVA)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.491	6	.373	5.735	.000[b]
	Residual	11.636	178	.065		
	Total	13.127	184			

a. Dependent Variable: Capital structure

b. Predictors: (Constant), Firm liquidity, Board structure, Board size, Board Diversity

The significance value is 0.01 which is less than p=0.05. This implies that the model was statistically significant in predicting how Firm liquidity, Board structure, Board size, Board diversity affect capital structure of non-financial firms listed at NSE.

4.5.3 Coefficients of Determination

The researchers further computed co-efficient of determination to establish the direction of the relationship between the variables. The co-efficient of determination are shown below.

Table 4.9: Coefficients of Determination

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.639	.093		6.896	.000
	Board size	-.014	.007	-.163	-2.165	.032
	Board Diversity	.171	.128	.101	1.334	.184
	Board structure	-.143	.125	-.084	-1.144	.254
	Firm liquidity	-.020	.005	-.305	-4.024	.000

a. Dependent Variable: Capital structure

Source: Research Findings (2018)

The results indicated that Board diversity (t= 1.334, p= 0.184) produced a positive effect on the capital structure of listed non-financial firms in Kenya. However, the effect of board diversity was found to be statistically insignificant. Board size (t= -2.165, p= 0.032), Board Structure (t= -1.144, p= 0.254) and firm liquidity (t= -4.024, p= 0.000) had a negative effect on the capital structure of listed non-financial firms in Kenya. However, the effect of board size and firm liquidity was found to be statistically significant.

The equation for the regression model is estimated as follows:

$$Y = 0.639 - 0.014X_1 + 0.171X_2 - 0.143X_3 – 0.020X_4$$

Where;

Y = Capital Structure

X_1= Board size

X_2= Board Diversity

X_3=Board Structure

X_4 = Firm Liquidity

The Constant value of 0.639 in the estimated analytical model above indicates that if selected dependent variables (board size, board structure, board diversity, and firm liquidity) were rated zero, the capital structure of listed non-financial firms in Kenya would be 0.639. A unit increase in board diversity would lead to an improvement in capital structure by 17.1%. Increase in board size, board structure, firm liquidity would reduce capital structure by 1.4%, 14.3% and 2% respectively.

4.6 Discussion of Research Findings

The objective of the research was to determine the effect of corporate governance on capital structure of listed non-financial firms in Kenya. Capital structure was measured using debt to equity ratio while corporate governance was measured using board size, board diversity, and board structure. Firm liquidity was measured liquidity ratio.

The Pearson correlation coefficients between the variables revealed established that there was a positive and statistically significant correlation between board diversity and capital structure. Negative and insignificant correlation was noted between board size, board structure and capital structure. Also there was a negative and significant relationship was noted between firm liquidity and capital structure. The model summary revealed that the independent variables: board size, board diversity, and board structure and firm liquidity explains 60.1% of variation in the dependent variable as depicted by an R^2 value implying that other factors were not included in the model that account for 39.9% of changes capital structure of non-financial firms listed at the NSE. The model is fit at 95% confidence level as the F-value was 5.735 and p value =0.001. Therefore, the overall regression model is statistically significant

and suitable in predicting how the independent variables selected affects capital structure of non-financial firms listed quoted at the NSE.

The research findings support existing literature. For instance, Agency theory by Jensen & Meckling (1976) suggests that, the best capital structure can be attained by minimizing agency costs which emanates from the conflicting managerial interests with those of debt holders and company owners. They argue that managerial ownership in the company ought to be increased to align managerial interests with the interests of the shareholders or employ debt use to limit managers' opportunistic behavior by reducing free cash flows.

The findings of this study are in line with Kamran & Nawaz (2017) investigated the effect of CG and capital structure on firm's performance on petroleum sector in Pakistan. Secondary data was used for analyses purpose which composed of five petroleum companies for a period of 6 years starting from 2011 to 2015. The study used regression model to interpret between the independent and dependent variables of the study. The data collected for this study was analyzed using SPSS. The study found that corporate governance practices number of non-executive directors in the board and board size have an insignificant negative effect on financial performance of petroleum sector.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter shows the summary of the results of the prior chapters, the conclusions drawn from the study findings and the encountered shortcomings during the course of the study. The chapter makes also policy recommendations, which can be executed to attain optimal capital structure level. Finally, the chapter shows suggestions for future research studies, which can be helpful to future scholars.

5.2 Summary of Findings

The study sought to investigate the effect of corporate governance practices on capital structure of listed non-financial firms in Kenya. The independent variables for the study were board size, board structure, board diversity, and firm liquidity Capital structure was measured using debt to equity ratio while corporate governance was measured using board size, board diversity, and board structure. Firm liquidity was measured liquidity ratio. The study adopted a descriptive research design. It adopted descriptive research design. The population consisted of all 40 non-financial firms registered at the NSE. Out of the total population only 37 firm's data were fully available. The study used quantifiable secondary data which was analyzed using descriptive and inferential statistics to analyze on SPSS version 22. The data sources included all NSE hand books and company's annual reports for the study period was from year 2013 to year 2017.

From correlation analysis the study established that there was a positive and statistically significant correlation between board diversity ($r = .146$, $p = .047$ and

capital structure. Negative and insignificant correlation was noted between board size (r =. -073, p = .325), board structure (r =. -046, p = .536) and capital structure. Also there was a negative and significant relationship was noted between firm liquidity (r = -0.277, p = .000 and capital structure.

The model summary indicated that R which is simple correlation coefficient was 0.775 which points to a strong relationship between the studies variables. The model summary also indicated that ($R2$) was 0.601 implying that the predictor variables selected for this study explains 60.1% of changes in the dependent variable while other specific factors not included in the model justify for 39.9% percent of the variations in capital structure of non-financial firms listed at NSE. The ANOVA analysis indicated that significance value is 0.01 which is less than p=0.05. This implies that the model was statistically significant in predicting how selected variables (Firm liquidity, Board structure, Board size, Board diversity) affect capital structure of non-financial firms listed at NSE.

The regression analysis results show a constant value of 0.639 in the estimated analytical model above indicates that if selected dependent variables (board size, board structure, board diversity, and firm liquidity) were rated zero, the capital structure of listed non-financial firms in Kenya would be 0.639. A unit increase in board diversity would lead to an improvement in capital structure by 17.1%. Increase in board size, board structure, firm liquidity would reduce capital structure by 1.4%, 14.3% and 2% respectively.

5.3 Conclusion

This study concludes that independent variables chosen for this study board size, board diversity, board structure and firm liquidity affect to a large extent capital structure of non-financial firms quoted at the NSE. It could be therefore concluded that these variables significantly affect financial performance as depicted by the p value of ANOVA summary.

The research study concludes that the corporate governance as measured by the selected practices has a significant influence on the debt ratio of non-financial companies quoted at NSE. This is denoted by the negative correlation between the board size, board structure and the capital structure. The study also concludes that board diversity is positively insignificantly correlated with the capital structure of firms quoted at NSE.

The research study also concludes that firm's liquidity level has a negative influence on the capital structure, which indicates that, the more liquid a firm in meeting its short term obligations the more profitable it becomes. Finally, the study concludes that the effect of board size and firm liquidity was found to be statistically significant.

5.4 Recommendations

The study found out that a negative relationship exists between capital structure and board size. This study therefore suggests that non-financial firms' should maintain average board size with average experience to avoid agency conflict in making financial decisions that manages optimal capital structure.

Board diversity was found to have a positive statistically significant effect on capital structure of listed non-financial firms in Kenya. The research therefore recommends that firms should increase the number of women representatives in their boards.

The study found out that a negative relationship exists between board structure and capital structure of the listed non-financial firms in Kenya. This study recommends that the ratio of independent directors to non-independent directors should be high to ensure that firms do not use excessive debt that may affect capital structure and diminish shareholder wealth.

The study found out that a positive relationship exists between capital structure and liquidity position. This study recommends that a comprehensive assessment of non-financial firm's immediate liquidity position should be undertaken to ensure the company is operating at sufficient levels of liquidity that will lead to optimal capital structure hence improved financial performance of firms. This is because a firm's liquidity position is of high importance since it influences the firm's current operations.

5.5 Limitations of the Study

One of the limitations of was the quality and type of the data. It is illusion to derive conclusions from the study since the legitimacy of the situation cannot be ascertained. The data that has been used is only assumed to be accurate. The measures used may keep on deviating from one year to another subject to prevailing condition. Secondary data that had already been retrieved was utilized for the study, unlike the primary data which is first-hand information.

For data analysis purposes, the researcher applied a multiple linear regression model. Due to the shortcomings involved when using regression models such as erroneous and misleading results when the variable values change, the researcher cannot be able to generalize the findings with certainty. If more and more data is added to the functional regression model, the hypothesized relationship between two or more variables may not hold.

Another challenge that was encountered by the researcher especially during data collection is that some of the variables were quite difficult to get as the industry operates in a different way. Getting total debt for some company is tricky as items under equity and liabilities were not well defined and varied from firm to firm.

Another challenge was that the study was limited to non-financial firms only hence this study finding cannot be generalized to financial institutions listed insurance firms. The study also considered selected determinants and not all the factors affecting capital structure of non-financial firms quoted at the NSE mainly due to limitation of data availability.

The scope of this study was for five years 2013-2017. It has not been determined if the results would hold for a longer study period. Furthermore, it is uncertain whether similar findings would result beyond 2017. A longer study period is more reliable as it will take into account major happenings not accounted for in this study.

5.6 Suggestions for Further Research

This study focused on corporate governance and capital structure of non-financial firms quoted at the NSE and relied on secondary data. A research study where data collection relies on primary data i.e. in depth questionnaires and interviews covering all the non-financial firms listed at the NSE is recommended so as to compliment this

research. Due to the shortcomings of regression models, other models such as the Vector Error Correction Model (VECM) can be used to explain the various relationships between the variables.

The study was not exhaustive of the independent variables affecting capital structure of non-financial firms quoted at the NSE and this study recommends that further studies be conducted to incorporate other variables like management efficiency, growth opportunities, industry practices, age of the firm, political stability and other macro-economic variables. The effect of each variable on capital structure of listed non-financial firms at the NSE should be established. This would make it possible for policy makers know what tool to use when maximizing shareholder's wealth.

The study concentrated on the last five years since it was the most recent data available. Future studies may use a range of many years e.g. from 2000 to date and this can be helpful to confirm or disapprove the findings of this study. The study limited itself by focusing on listed non-financial firms at the NSE. The recommendations of this study are that further studies be conducted on all listed firms operating in Kenya.

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APPENDICES

Appendix I: Non-Financial Firms Listed at Nairobi Security Exchange

A. COMMERCIAL AND SERVICES

1. Atlas African Industries Ltd
2. Express Kenya Ltd
3. Hutchings Biemer Ltd
4. Kenya Airways Ltd
5. Longhorn Publishers Ltd
6. Nairobi Business Ventures Ltd
7. Nation Media Group Ltd
8. Standard Group Ltd
9. TPS Eastern Africa Ltd
10. Uchumi Supermarket Ltd
11. WPP Scangroup Ltd
12. Deacons (East Africa) PLC

B. CONSTRUCTION & ALLIED

13. ARM Cement Ltd
14. Bamburi Cement Ltd
15. Crown Paints Kenya Ltd
16. E.A.Cables Ltd
17. E.A.Portland Cement Co. Ltd

C. AUTOMOBILES & ACCESSORIES

18. Car & General (K) Ltd

D. ENERGY & PETROLEUM

19. KenGen Co. Ltd

20. KenolKobil Ltd

21. Kenya Power & Lighting Co Ltd

22. Total Kenya Ltd

23. Umeme Ltd

E. MANUFACTURING & ALLIED

24. Unga Group Ltd

25. B.O.C Kenya Ltd

26. British American Tobacco Kenya Ltd

27. Carbacid Investments Ltd

28. East African Breweries Ltd

29. Eveready East Africa Ltd

30. Mumias Sugar Ltd.

31. Flame Tree Group Holdings Ltd

32. Kenya Orchards Ltd

F. TELECOMMUNICATION AND TECHNOLOGY

33. Safaricom PLC

G. AGRICULTURAL

34. Eaagads Ltd

35. Kapchorua Tea Co. Ltd

36. Kakuzi Ord

37. Limuru Tea Co. Ltd

38. Rea Vipingo Plantations Ltd Ord

39. Sasini Ltd Ord 1.00

40. Williamson Tea Kenya Ltd Ord

Appendix II: Data Collection Sheet One

VARIABLE	DESCRIPTION	YEARS				
		2013	2014	2015	2016	2017
Capital Structure	Total Debt					
	Total Equity					
Firm Liquidity	Current Assets					
	Current Liability					

Appendix III: Data Collection Sheet Two

Firm	**Year**	**Board Size**	**Board Diversity**		**Board Structure**	
		Total Directors	Female Directors	Total No. of Directors	Non-Executive Director	Total Directors
	2013					
	2014					
	2015					
	2016					

Appendix IV: Raw Data

Years	Y	X1	X2	X3	X4
1. 2013	0.145886688	4	0.00	0.75	0.6296
2. 2014	0.523475303	5	0.00	0.60	0.5808
3. 2015	0.690669779	5	0.00	0.60	1.0973
4. 2016	0.256520055	5	0.00	0.60	0.8335
5. 2017	0.598824813	5	0.00	0.60	0.5880
6. 2013	0.033043951	14	0.14	0.64	0.5627
7. 2014	0.098422043	16	0.13	0.56	0.4648
8. 2015	0.014844849	11	0.27	0.82	0.4565
9. 2016	0.37954407	13	0.23	0.69	0.4073
10. 2017	0.257779454	16	0.19	0.56	0.3751
11. 2013	0.558108238	7	0.29	0.57	1.5339
12. 2014	0.786000213	8	0.25	0.50	1.4815
13. 2015	0.242356197	9	0.33	0.67	1.5000
14. 2016	0.386085177	9	0.33	0.67	1.6456
15. 2017	0.296477791	9	0.33	0.67	1.3700
16. 2013	0.320974121	10	0.00	0.50	1.4812
17. 2014	0.29955793	11	0.00	0.55	1.9766
18. 2015	0.107370485	11	0.00	0.55	1.9838
19. 2016	0.287767514	9	0.00	0.56	2.7345
20. 2017	0.341062656	10	0.00	0.60	2.9902
21. 2013	0.485273067	16	0.25	0.63	2.7694
22. 2014	0.78124109	16	0.25	0.69	2.4868
23. 2015	0.42552241	17	0.18	0.59	2.3600
24. 2016	0.654195728	15	0.13	0.67	2.1717
25. 2017	0.556837246	16	0.13	0.63	2.0023
26. 2013	0.447674639	7	0.14	0.57	2.9098

27. 2014	0.395229622	8	0.13	0.50	1.1957
28. 2015	0.773603476	8	0.13	0.50	0.9554
29. 2016	0.56738664	8	0.13	0.50	1.1366
30. 2017	0.63306002	9	0.22	0.44	0.7217
31. 2013	0.272982184	10	0.10	0.70	0.8674
32. 2014	0.307794233	11	0.09	0.64	0.8038
33. 2015	0.359245423	11	0.09	0.55	1.0404
34. 2016	0.381826511	11	0.09	0.64	1.6347
35. 2017	0.37405316	10	0.10	0.60	1.0788
36. 2013	0.558988703	10	0.20	0.50	0.7048
37. 2014	0.473931757	12	0.25	0.50	1.0837
38. 2015	0.471299194	11	0.09	0.55	0.3289
39. 2016	0.636243353	10	0.20	0.50	0.2587
40. 2017	0.855760333	12	0.08	0.33	0.0827
41. 2013	0	7	0.14	0.71	2.4636
42. 2014	0	6	0.00	0.83	2.4602
43. 2015	0	10	0.00	0.50	2.7557
44. 2016	0	8	0.13	0.63	2.3779
45. 2017	0	10	0.10	0.80	2.2816
46. 2013	0.794969121	6	0.50	0.83	2.4652
47. 2014	0.723579519	6	0.50	0.83	2.9483
48. 2015	0.435064522	6	0.50	0.83	3.1020
49. 2016	0.517242669	6	0.50	0.83	1.6800
50. 2017	0.685280673	6	0.50	0.50	0.9216
51. 2013	0.019612821	12	0.00	0.58	2.5488
52. 2014	0.00824156	12	0.00	0.58	1.5564
53. 2015	0.016426984	12	0.00	0.58	1.3951
54. 2016	0.012698514	10	0.00	0.60	0.5852

55. 2017	0.0093712	12	0.25	0.67	0.2166
56. 2013	0.307404797	13	0.23	0.69	3.9224
57. 2014	0.844245162	11	0.27	0.64	2.7550
58. 2015	0.58600521	10	0.30	0.60	2.3571
59. 2016	0.484432522	9	0.11	0.67	2.6966
60. 2017	0.599532364	12	0.33	0.58	2.1499
61. 2013	0.622023924	6	0.00	0.50	1.4803
62. 2014	0.751375297	7	0.14	0.43	1.2983
63. 2015	0.859114974	6	0.17	0.50	1.3137
64. 2016	0.748706486	5	0.00	0.40	1.1834
65. 2017	0.706678511	5	0.00	0.40	1.2621
66. 2013	0.72212601	8	0.00	0.63	1.3085
67. 2014	0.752876911	8	0.13	0.63	1.1197
68. 2015	0.272315991	8	0.13	0.63	1.0323
69. 2016	0.241506322	8	0.13	0.63	0.7068
70. 2017	0.285760693	6	0.17	0.83	0.6645
71. 2013	0.699766949	7	0.14	0.57	1.0982
72. 2014	0.827960972	7	0.14	0.57	0.9674
73. 2015	0.87092737	8	0.13	0.50	0.8893
74. 2016	0.238780512	8	0.13	0.50	0.4740
75. 2017	0.978060085	8	0.13	0.50	0.3571
76. 2013	0.699766949	7	0.00	0.71	1.0187
77. 2014	0.827960972	7	0.00	0.71	1.0285
78. 2015	0.87092737	7	0.00	0.71	1.0222
79. 2016	0.238780512	7	0.00	0.71	1.3661
80. 2017	0.978060085	7	0.00	0.71	1.2746
81. 2013	0.403791072	17	0.29	0.71	1.4218
82. 2014	0.288693698	17	0.29	0.71	1.0966

83. 2015	0.455878982	15	0.27	0.67	0.9506
84. 2016	0.352779902	14	0.29	0.71	1.2049
85. 2017	0.430561216	16	0.25	0.63	1.4751
86. 2013	0.24335694	6	0.17	0.50	0.8427
87. 2014	0.159966507	6	0.17	0.50	0.8441
88. 2015	0.438148952	6	0.17	0.50	0.8385
89. 2016	0.69264185	5	0.40	0.80	0.9041
90. 2017	0.760492944	5	0.40	0.80	0.9917
91. 2013	0.16157522	11	0.18	0.73	0.9705
92. 2014	0.416516092	11	0.18	0.73	1.0320
93. 2015	0.825835782	11	0.27	0.73	1.6434
94. 2016	0.144101411	5	0.60	0.73	0.9822
95. 2017	0.10971191	11	0.27	0.73	0.8675
96. 2013	0.317736602	10	0.10	0.70	1.2788
97. 2014	0.17563369	10	0.10	0.70	1.4882
98. 2015	0.186823794	9	0.11	0.67	1.5236
99. 2016	0.498368387	10	0.10	0.60	1.6454
100. 2017	0.678858741	8	0.13	0.88	1.7341
101. 2013	0.298100641	9	0.33	0.78	1.9344
102. 2014	0.951493392	9	0.33	0.78	2.1134
103. 2015	0.120127025	6	0.00	0.67	1.9449
104. 2016	0.9928331	5	0.00	0.60	1.7133
105. 2017	0.804243282	7	0.00	0.71	1.5918
106. 2013	0.27	9	0.22	0.67	2.1301
107. 2014	0.32	10	0.30	0.70	2.0204
108. 2015	0.35	9	0.44	0.67	2.0238
109. 2016	0.24	9	0.44	0.67	2.2753
110. 2017	0.38	8	0.38	0.75	2.0008

111.	2013	0.175538538	12	0.25	0.58	1.1283
112.	2014	0.223879963	13	0.31	0.69	1.0140
113.	2015	0.320720989	13	0.31	0.69	1.1192
114.	2016	0.331525287	11	0.27	0.64	1.0424
115.	2017	0.369858024	13	0.31	0.92	0.8985
116.	2013	0	4	0.00	0.50	24.6392
117.	2014	0	5	0.00	0.60	25.1732
118.	2015	0	5	0.00	0.60	22.5171
119.	2016	0	5	0.00	0.60	6.0214
120.	2017	0	6	0.00	0.67	25.6569
121.	2013	0.368573497	12	0.33	0.67	0.6988
122.	2014	0.421387677	12	0.33	0.75	0.7213
123.	2015	0.528602356	11	0.27	0.64	1.0225
124.	2016	0.339846176	11	0.27	0.64	0.7707
125.	2017	0.161681891	12	0.25	0.67	1.0069
126.	2013	0.55686953	8	0.50	0.38	1.5582
127.	2014	0.729521891	8	0.50	0.38	1.3470
128.	2015	0.397415068	7	0.57	0.43	0.9246
129.	2016	0.903308411	8	0.50	0.38	0.4499
130.	2017	0.439279538	6	0.67	0.50	2.6876
131.	2013	0.423458938	14	0.29	1.00	0.8382
132.	2014	0.506691957	11	0.45	1.00	0.4093
133.	2015	0.986162747	12	0.25	1.00	0.1865
134.	2016	0.21117508	11	0.27	1.00	0.1807
135.	2017	0.534303577	11	0.36	1.00	0.1093
136.	2013	0.90400535	5	0.20	0.40	0.2460
137.	2014	0.355969346	5	0.20	0.40	0.6332
138.	2015	0.221948122	5	0.20	0.40	0.6418

139.	2016	0.211459723	5	0.20	0.40	0.8308
140.	2017	0.251625679	5	0.20	0.40	0.3226
141.	2013	0.183699771	8	0.25	0.50	1.3859
142.	2014	0.124438425	8	0.25	0.50	2.4652
143.	2015	0.250534897	7	0.43	0.43	2.0757
144.	2016	0.551570712	8	0.38	0.50	2.0214
145.	2017	0.40868108	7	0.29	0.43	1.7132
146.	2013	0.651719636	11	0.45	0.73	0.6962
147.	2014	0.138271986	11	0.45	0.73	0.7427
148.	2015	0.102036191	11	0.45	0.82	0.6234
149.	2016	0.22622252	12	0.42	0.75	0.6394
150.	2017	0.985088154	12	0.33	0.67	0.4527
151.	2013	0.220631521	8	0.25	0.50	0.8609
152.	2014	0.263270035	8	0.25	0.50	0.8699
153.	2015	0.181248126	7	0.43	0.43	0.8862
154.	2016	0.195112898	8	0.38	0.50	5.7284
155.	2017	0.165535684	7	0.29	0.43	12.8295
156.	2013	0.165423885	6	0.00	0.67	5.9569
157.	2014	0.157606404	5	0.00	0.60	5.1013
158.	2015	0.17386135	7	0.00	0.71	5.6295
159.	2016	0.167018997	8	0.00	0.50	4.2586
160.	2017	0.83985254	7	0.00	0.71	3.4628
161.	2013	0.215665965	8	0.00	0.38	7.5227
162.	2014	0.209834866	8	0.00	0.38	6.3548
163.	2015	0.181859362	7	0.00	0.43	4.0516
164.	2016	0.16283359	8	0.00	0.38	4.8205
165.	2017	0.144908557	8	0.00	0.38	3.8495
166.	2013	0.315772088	5	0.00	0.40	16.8692

167.	2014	0.648620414	5	0.20	0.60	8.0832
168.	2015	0.851227661	6	0.17	0.33	1.2089
169.	2016	0.13572373	4	0.00	0.75	5.1654
170.	2017	0.210029929	7	0.14	0.29	3.5568
171.	2013	0.840619886	5	0.00	0.60	0.9424
172.	2014	0.782717848	5	0.00	0.60	1.0137
173.	2015	0.437690764	5	0.00	0.60	2.6471
174.	2016	0.502317692	5	0.00	0.60	13.1105
175.	2017	0.550623523	5	0.00	0.60	12.2441
176.	2013	0.307806266	10	0.10	0.50	1.1393
177.	2014	0.381324936	9	0.11	0.56	1.2306
178.	2015	0.548204381	10	0.20	0.50	4.7608
179.	2016	0.429141833	11	0.09	0.55	7.6615
180.	2017	0.5730338	10	0.10	0.60	5.1887
181.	2013	0.10298285	6	0.00	0.67	3.6343
182.	2014	0.273976537	5	0.00	0.60	8.2079
183.	2015	0.035130447	7	0.00	0.71	8.6683
184.	2016	0.159166285	8	0.00	0.50	4.9563
185.	2017	0.134084798	7	0.00	0.71	3.4721