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Relationship between Financial Structure and Financial Performance of Listed Firms in Nairobi Securities Exchange in Kenya

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Abstract: Firms have alternative ways of raising their funds. Corporate financing decisions made by the management leads to a financial structure and improper financing behaviour and decisions can lead to corporate failure. A quagmire exists in the mind of stakeholders and researchers as to whether there exists an optimal financial structure that maximizes shareholders' wealth. Thus when making financing choices there is need to consider evaluating the effect of the available financing alternatives on the firm's financial performance. The aim of the study was to examine the relationship between financial structure and financial performance of listed firms in Kenya, by determining the effect of internal financing, equity financing, short term debt and long term debt on financial performance. Descriptive and historical research design was adopted. The study was a census, featuring all the listed companies that were operational from the year 2009 to 2016. Primary data collected by questionnaires and secondary data obtained from NSE handbooks and published financial statements of the firms listed in the NSE were utilized. Descriptive statistics and multiple linear regressions were used to analyze the data which was presented in form of tables and charts. It was revealed that the mean internal financing of the companies listed at the NSE had consistently increased from 5.346 billion shillings in the year 2009 to 14.7 billion shillings in the year 2016. However, the study did not establish a significant relationship between internal financing and financial performance of listed firms in Kenya. A statistically significant relationship between equity financing and financial performance of listed firms in the NSE was established. The relationship between short term debt financing and financial performance of listed firms in Kenya was not significant. The mean long term debt financing for the firms listed at NSE had greatly increased from 3.367 billion shillings in 2009 to 15.587 billion shillings in 2016. The relationship between long term debt financing and financial performance of listed firms in the NSE was found to be statistically significant. It was concluded that two out of the four financial structure components included in the study were significantly associated with financial performance of listed firms in the Nairobi Securities Exchange in Kenya. A firm that utilizes equity finance is able to excel financially since the equity holders are the residual claimants and they have to ensure that resources are allocated efficiently to be able to maximize shareholders wealth. Affordable long term debt assists a firm to access productive technologies that it would not have otherwise achieved using internal financing. It was recommended that the board of directors of the listed firms should always give priority to funding options with no compulsory returns to avoid financial distress associated with difficulties in meeting financial obligations. Besides, the management of the listed firms should always perform accurate forecasting on projects they intend to venture into, against the cost of debt and taking into consideration the payback period, in the event they want to source for long term external funding. Since the study focused on firms listed in the NSE, it is suggested that the study be extended to other firms and institutions not listed to assess whether different findings may be reached regarding relationship between financial structure and financial performance.

Introduction

This chapter provides a detailed introduction of the research topic. It defines what capital structure and financial performance is, and delimits the contextual and conceptual scope within which the two variables are

assessed in the study. The study's objective and hypothesis are presented at this stage with the assumptions and limitations likely to be encountered in the research process also documented.

In general, the assets of a firm are financed by a combination of equity shares, preference shares, retained earnings, reserves, short-term debt, and long-term debt (Patra & Panda, 2006). The financing mix of a firm may take the form of unlevered firm where it will be financed wholly through equity. A firm can also be levered where it would be financed through debt capital only, which is impractical since rarely will any provider of funds invest in a firm without owners. In addition, a firm may derive a combination of both equity and debt in the financial structure taking in consideration to a certain proportion (Ishaya & Abduljeleel, 2014). The finance manager, thus, is positioned to select a better way of financing firm activities in the midst of the several alternative assets financing mix. A dispute arises when the strength of equity shareholders is reduced and the agency dispute arises between equity shareholders and debt providers. This makes financing decisions very essential in maximizing shareholders wealth and maintaining the firm's financial sustainability (Ishaya & Abduljeleel, 2014). The best financing mix lessens the cost of capital and returns are maximised. This further enhances organisation growth and attainment of the desired goal (Salazar, Soto, & Mosqueda, 2012).

The collapse of a firm might therefore be due to lack of an appropriate financial scheme that steers growth and attainment of its goals(Memba & Nyanumba, 2013). Suitable considerations, therefore, need to be carried out while making financial structure decisions to avoid firm financial distress (Memba & Nyanumba, 2013). There are various alternatives for choosing the appropriate financing mix, which requires deeper expertise and knowledge in financing policy to critically evaluate the impact of the financing alternatives on firm's performance.

However, authors have created a debate on the best way to finance firm operations. For instance, the earliest work by Modigliani and Miller (1958) in their argument found that in a perfect market structure there is no relationship between financing mix and the value of a firm. Therefore, the value of a firm is not affected by the way it is financed. Further contribution to the research by Muigai (2016) stated that firms need to utilize equity and less debt in their financing mix. Debt is seen as a major contributor to financial distress. After exhausting equity, long term debt should be adopted before the short term debt. Conversly, having long term debt in the financing mix leads to low performance in the firm (Uwalomwa & Uadiale, 2012).In disparity,Njagi (2013) stated that the use of debt improves the shareholders control by the creditor and payment of tax to the government for use of debt. On the other hand, the debt capital increases agency cost between shareholders and creditors.

Nevertheless, in developing countries like Kenya financial structure of firms may portray a different picture, which is unlike the developed countries. This is because disparity is portrayed in the level of economic and financial market development in terms of gross domestic product, capital market development, sophistication of financial intermediaries and corporate ability to raise external funds. On the other hand, firms' legal and corporate regulatory framework, pricing regulations and investor protection are not alike. Additionally, the developing countries have a different tax treatment towards debt and equity(Isola & Akanni, 2015).For instance, Kenya introduced tax to the capital gains, which reduces the profit margins of the paying firms (Kenya Institute of Public Policy Reseach and Analysis [KIPPRA], 2014).

1.1.1 Capital Structure

Financial structure refers to the total finances available to a firm. It is the combination of the capital structure and short-term debts of a firm (Patra & Panda, 2006). The decision on optimal financial structure is a complex corporate decision because it entails the scrutiny of several factors such as uncertainties and prosperity of the firm. The decisions become trickier in times when the external environment in which the firm operates portrays a high volatile situation. Thus, the choice of financing can affect the share market price and the value of the company (Vătavu, 2015). Memba and Job (2013) concluded that capital structure, which is a component of financial structure, has a relationship with financial performance. Thus, many firms face financial distress due to presence of improper financing decisions.

1.1.2 Financial Performance

The definition and determinants of financial performance differ from one industry to the next. Nonetheless, increased and sustained profitably is a crucial financial performance indicator across all business sectors. Consequently, financial performance is the most relied upon measure that is used to compare the financial wellbeing of firms operating in a given industry as well as to compare the overall performance of

different industries (Ongore&Kusa, 2013). Financial performance can be indicated using a number of tools, but which are employed depending on the target stakeholders. In tracking the financial performance of a firm, each stakeholder's interests tend to be different; for example, whereas creditors are interested in the firm's liquidity, investors are keen on profitability. Considering the variant stakeholder expectations, financial performance measurement tools are divergent and examine such key areas as profitability, liquidity, gearing (financial risk), and efficiency (asset utilization) of the firm (Ongore&Kusa, 2013).

1.1.3 Background to the Nairobi Stock Exchange

The Nairobi Securities Exchange (NSE), one of the leading Securities exchange markets in Africa, was established to spur Kenya's economic growth by providing local and international investors with an opportunity for investment and saving while, at the same time, acting as an avenue for accessing capital for both local and international firms. NSE was established in 1954 and it has since listed 67 firms (See Appendix III), including its self-listing in September 2014 that made it the second listed African Exchange to be listed after the Johannesburg Stock Exchange. As of August 2011, the listed firms were categorized under 10 major industrial sectors, which included an additional 3 categories for debt securities (Nairobi Securities Exchange (NSE), n.d.). Despite the glamor surrounding the NSE, the past few years have seen struggling financial performance of various listed firms, especially those classified under the NSE 20 share Index, which is a measure of the 20 best performing companies in the bourse. The financial problems in these firms, which are drawn from various industrial sectors led to the decline of market turnover, from Ksh.15.11 billion in 2015 to Ksh.7.11 billion in December 2016, and market capitalization, from Ksh. 2.05 trillion in 2015 to Ksh.1.96 trillion in 2016 (Anyanzwa, 2017). While the bear run experienced in 2016 has provided an opportunity for investors to venture into the Nairobi bourse, a need exists for the individual firms to assess their financial structures in order to assure entrant and existing shareholders of sustainable and economically viable financial returns.

1.2 Problem Statement

Capital structure has been put forth in finance literature as an important antecedent to improved financial performance (Memba& Job, 2013). For example, in the study by Margaritis and Psillaki (2010) it was established that concentrated ownership improves firm performance while capital ownership results in increased debt in an enterprise's capital structure. Berger and Di Patti, (2006) affirms this finding by observing that a lower equity ratio results in improved profitability for a firm. These studies act as enough evidence of the close inter-relationship between capital structure and financial performance.

In Kenya, the financial performance of listed firms has not been declining, especially in 2016. In fact, the market capitalization shrinkage observed in 2016, down to 513.1 billion from 658.8 billion in 2015, is forcing various listed firms to consider restructuring their financial structures in order to avoid delisting and potential collapse (NSE, 2016). However, Kenyan finance scholarly literature has made very little advances in documenting the importance of financial structure in improving performance. Extant studies have made profound efforts in documenting the importance of capital structure in fostering financial performance; however, they have focused either on specific industries (For example, Njagi 2013)or on a particular financing approach (for example, Mwangi, Makau and Kosimbei 2014). As a result, there is a lack of adequate empirical literature that can be relied upon by Kenyan firms in their restructuring efforts. This study, therefore, intends to bridge this gap by conducting a study that cuts across all the 10 industries of the NSE, examining the capital structure composition of each firm vis-à-vis how this composition affects their individual financial wellbeing

1.3 General Objective

To assess the relationship between financial structure and financial performance of listed firms in the Nairobi Securities Exchange in Kenya.

1.4 Specific Objectives

i. To determine the effect of internal financing on financial performance of listed firms in Kenya.
ii. To assess the effect of equity financing on financial performance of listed firms in Kenya.
iii. To establish the effect of short term debt on financial performance of listed firms in Kenya.
iv. To evaluate the effect of long-term debt on financial performance of listed firms in Kenya.

1.5 Research Hypotheses

H_1: There is a significant relationship between internal financing and financial performance of listed firms in Kenya.

H_2: There is a significant relationship between equity financing and financial performance of listed firms in Kenya.

H_3: There is a significant relationship between short term debt and financial performance of listed firms in Kenya.

H_4: There is a significant relationship between long-term debt and financial performance of listed firms in Kenya.

1.6 Significance of the Study

The study findings would be of great importance to the management of listed firms since it would address the most critical factors pertaining to financial structure and how it influences the financial performance of the listed firms. This would contribute to greater understanding on how a firm would raise funds so as to increase its financial performance and try to become market leader.

The findings of this study would also be of great importance to researchers as they will add more existing knowledge and literature. Financial consultants and financial analysts would find the study helpful in their social and advisory services on how to finance a firm especially those that are listed companies.

1.7 Scope of the Study

The study focussed on the relationship between financial structure and financial performance of listed firms in Kenya. The data involved was for eight years; 2009 to 2016. There were sixty seven listed firms in Kenya (NSE, 2017), classified into 10 sectors. These sectors were analysed separately to give a conclusion about the various companies trading in NSE. Data was collected from financial managers from each of the 51 listed companies that were in operation for the eight year period of concern to the study. The information collected from the respondents mainly entailed the capital structure composition of each individual firm.

1.8 Limitation of the Study

Most listed companies considered some information as confidential and hence would not be willing to reveal some of it. The study overcame the limitation by having a letter of introduction from the university to assure the respondents that the information provided would be used for academic purpose and would thereby be treated with confidentiality. Besides, secondary data was available from the websites of the respective companies.

1.9Assumption of the study

The study assumed that the information provided was true and valid since the data collection instrument developed was reliable and appropriate for the study. The study also assumed that the financial crisis did not spill over to the period under study.

Literature Review

2.1 Introduction

This chapter detailed relevant literature on the relationship between financial structure and financial performance of listed firms in Nairobi Securities Exchange. It focused on theoretical review, empirical review and the conceptual framework.

2.2 Theoretical Review

In this section, relevant theories were reviewed in order to establish the theoretical framework of this study.

2.2.1 Pecking Order Theory

Pecking order theory was developed by Myers and Majluf (1984). The theory proposes that a firm has a particular order in making financing decision. Information assymetry contributes to increased cost of financing. Firms rank their alternatives on finance sources. They rank internal financing first and use it till exhausted, then debt and equity is the last alternative. Internal financing is prefered due to its nature of no flotation cost and

expenses on disclosures (Kishore, 2009). Firms access external funds once the internal funding is not adequate to facilitate the financing of a project. Equity issues experience assymetric information problem compared to debt (Meier & Tarhan, 2007). However, the adverse selection is always available in external financing but in different measures; this leads managers in selecting debt first before equity.

Managers are assumed to practice insider trading since they possess more information about the future of the organisation; thus, the potential investors are disadvantaged. Additionally, the managers perform in the best interest of existing shareholders (Sheikh & Wang, 2011). The theory does not consider situations when firms have to keep some cash for cautioning in time of financial crisis (Kishore, 2009). On the other hand, not all firms make profit to be used as internal form of finance, hence, the theory's weakness (Upneja & Dalbor, 2001). The theory also does not work if all the shares are alloted to existing shareholders since they are in the strong form of efficient market hypothesis (Abosede, 2012). Previous studies carrried out like Nwude, Itiri, Agbadua, and Udeh (2016) have been in support of this theory. Fama and French (2002) found larger firms to demonstrate pecking order behaviour than the small ones. Thus, the pecking order theory forms bases for discusssing the internal financing, equity financing, short term debt, and long term debt variables.

2.2.2 Trade Off Theory

This theory was developed by Myers (1984), and it is derived from the models based on taxes and agency costs. Modigliani and Miller (1963), DeAngelo and Masulis (1980) and Jensen and Meckling (1976) suggest the firm has an optimal capital structure by offsetting the advantages of debt and the cost of debt. Therefore, trade off theory refers to the idea that a company chooses how much debt finance and how much equity finance to use by balancing the costs and benefits. It states that there is an advantage to financing with debt; the tax benefits of debt, and tax benefits to be had; but there is also a cost to financing with debt; the costs of financial distress including bankruptcy costs, and agency costs. This theory suggests that there is a positive relationship between debt level and firm performance. Moreover, the implication of this trade off theory is that firms have target leverage, and they adjust their leverage toward the target over time.

The trade-off theory has been tested by researchers in developed markets, most focusing on how the determinant factors affect capital structure choice. Graham and Harvey (2001) surveyed 392 chief financial officers (CFOs) about the cost of capital, capital budgeting, and capital structure. They found moderate support that firms follow the trade-off theory and pecking order theory; but mixed or little evidence that signalling, transaction costs, under investment costs, asset substitution, bargaining with employees, free cash flow considerations and product market concerns affect capital structure choice. In addition, Brounen, De Jong, and Koedijk (2006) also surveyed 313 CFOs on capital structure, focusing on the UK, the Netherlands, Germany and France. They also found that the trade-off theory is confirmed by the importance of target debt ratio in general in these four countries but also specifically by tax effects and bankruptcy costs; and they concluded strong similarities in capital structure among the four European countries, and also with the US when comparing capital structure policies. This theory however supports discussion on equity financing, short term debt and long term debt variables.

2.2.3 Agency Cost Theory

This theory by Jensen and Meckling, (1976) argue that an optimal capital structure is attainable by reducing the costs resulting from the conflicts between the managers, owners and debt holders. In other words, the optimal financial structure results from a compromise between various funding options (own funds or loans) that allow the reconciliation of conflicts of interests between the capital suppliers (shareholders and creditors) and managers(Grigore, 2013)

Indeed, Jensen and Meckling (1976) argued that debt can be used to control the managers' behaviour by reducing the free cash flows within the firm by ensuring prompt payment of interest payments. This minimizes the cash at the disposal of managers likely to be misappropriated through personal interests or still waste the cash in organizational inefficiencies at the expense of the firm's objectives. Key among the objectives is maximization of shareholders wealth by maximizing profitability, a measure of financial performance.

According to Grigore and Stefan-Duicu (2013), indebtedness attracts agency costs of three types, that is, control and justification costs, high risk investments remuneration costs demanded by the creditors and bankruptcy costs. Firms thus have interest to indebt until the point at which the increase of its value owed to the financed investments will be equal to the marginal costs generated by the indebtedness. Therefore, the optimal

level of indebtedness is the one that allows the minimization of overall agency costs, consistent with Jensen and Meckling (1976).

In addition, conflicts can be reduced by firms with high growth opportunities relying on lower leverage and using a greater amount of long-term debt than firms in more mature industries or issue convertible debt or debt with warrants than plain debt since convertible debt will have lower agency costs than plain debt (Jensen &Meckling, 1976). The high growth opportunities imply likelihood of high profitability and hence financial performance to hedge against high long term debt cost (Jensen &Meckling, 1976). Fast growing firms may also imply possibilities of high levels of fixed assets investment. Such firms obtain debt easily as they can pledge the fixed assets as collateraland thereby reduce agency costs which are usually associated with the use of debt(Karadeniz et al., 2009).

Indebtedness allows shareholders and managers to adhere to same objective ofmaximizing financial performance and hence shareholders wealth (Luigi &Sorin, 2009).For managers, the indebtedness has the power to incite them to perform since the morethe company is indebted, the higher its bankruptcy risk and the higher the risk of losing their jobs, remunerations and other advantages. This is considered to be a sufficient threat in coercing them to down their inefficient management styles and in return yield maximum cash-flow to reward the debt (Grigore& Stefan-Duicu, 2013). For theshareholders, debt has a leverage effect over the financial return due to interest tax shieldcoupled with the advantage of non-dilution of the share capital (Zhang & Li, 2008).

2.2.4 Theoretical Framework

This study was based on all the three reviewed theories: pecking order, trade-off and agency theory. The pecking order theory proposes that a firm has a particular order in making financing decision. Firms rank their alternatives on finance sources. The trade-off theory refers to the idea that a company chooses how much debt finance and how much equity finance to use by balancing the costs and benefits. It states that there is an advantage to financing with debt; the tax benefits of debt, and tax benefits to be had; but there is also a cost to financing with debt; the costs of financial distress including bankruptcy costs, and agency costs. This theory suggests that there is a positive relationship between debt level and firm performance (Jensen &Meckling 1976). Agency theory will also be used. This theory by Jensen and Meckling (1976) argue that an optimal capital structure is attainable by reducing the costs resulting from the conflicts between the managers, owners and debt holders. In other words, the optimal financial structure results from a compromise between various funding options (own funds or loans) that allow the reconciliation of conflicts of interests between the capital suppliers (shareholders and creditors) and managers (Grigore& Stefan-Duicu, 2013). The theories were selected because they portray how independent variables (internal financing, equity financing, short term debt and long term debt) relate with dependent variable (financial performance). Based on these theories the study proposes the following conceptual framework.

2.3 Empirical Review

Nwude, Itiri, Agbadua, and Udeh (2016) sought to find out the impact of debt structure on financial performance of listed firms in Nigeria. Financial statements reports were used and analysed using regression model. The results revealed that there exists a negative significant relationship between debt structure and firm performance measured using return on asset. In conclusion, the study supported the pecking order theory. Thus, an increase in the cost of financing a firm externally is attributed to moral hazard and adverse selection. Therefore, a firm needs to consider the payback derived from debt against financial distress.

Habib, Khan, and Wazir (2016) conducted a study on the impact of debt on profitability of non-financial sector in Pakistan. Regression model was used to analyse annual reports data. Firm size, growth oppostunities and sales growth were used as control variables. The results indicated that there exists a negative significant relationship between debt and return on asset. Increasing the proportion of debt in the financial structure would reduce the profitability of a firm. It is therefore importance for a firm to consider internal financing to debt financing. However, this study presented the situation during the global financial crises. Firms are also advocated to utilize both internal and external financing and make the most use of the merits of debt financing. There is also need for developing the capital market so as to improve access of long-term capital which is good for long-run profitability of the firm (Prempeh, Asare, & sekyere, 2016).

Chemutai, Ayuma, and Kibet(2016)intended to assess the effect of capital structure on share price performance of listed commercial banks in Kenya. Descriptive statistics, analysis of variance and correlation were used to analyse the data. The end results showed that there is a relationship between debt, equity, bond,

retained earnings and share price performance. Retained earnings improve firm liquidity and it is cheaper compared to other sources of finance. Bonds and debts are also important in signalling firm performance as payment of it would portray the ability to pay of the firm (Chemutai, Ayuma, & Kibet, 2016). The study recommended that the commercial debt should be cheaper so as to lower the cost of operation for a firm.

Kajirwa (2015) in the study on the effect of debt on firm performance used 11 commercial banks listed in NSE and longitudinal research design to collect data. Correlation and regression model were adopted in the analysis. Analysed data revealed that debt affects return on asset negatively but not statistically significant. The researcher recommended that firms should diversify their ways of sourcing for funds that is cheaper and central bank to lower the interest rates on loans offered to commercial banks.

Siro (2013) did a study on the effect of capital structure on financial performance of listed firms in Nairobi securities exchange. Debt ratio was used as a measure of capital structure while return on equity was used as measure of financial performance. The study was carried out during the electioneering period, which is characterised by political tension. Secondary data was used. Regression analysis results revealed that interest on long term debts were found to exceed the returns of the investment. It facilitated the increase in firms' risk and lowered its performance. The researcher recommended that listed firms need to finance their firms using equity rather than long term debt.

Samuel (2016) carried out a study on the effect of capital structure on financial performance of commercial banks in Kenya. Secondary data was used and multiple linear regression adopted. The results indicated that debt, retained earnings and preference shares are positively related with financial performance while ordinary shares are negatively related. The researcher therefore recommended that firms should maintain low number of ordinary shares to avoid financial distress. The study did not consider other factors like advertising, inflation or even government policies.

Muchiri, Muturi, and Ngumi (2016) conducted a review on the relationship between finacial structure and financial performance of listed firms at East Africa Securities Exchanges. Explanatory research design and secondary panel data were adopted in obtaining information from 61 listed firms in the period 2006-2014. The results from correlation and regression analysis indicated that current liabilities, non-current liabilities, internal equity and external equity had insignificant negative relationship with financial performance. Additionally, GDP growth rate was found to have moderate significant effect. The study therefore recommended that before making financing decisions managers need to study and understand the business cycles.

(Githaiga & Kabiru, 2015)did a review on debt financing and financial performance of SMEs in Kenya. Secondary data was obtained from the 50 SMEs in Eldoret town that were stratified selected. Regression results revealed that short term debt and long term debt affect financial performance negatively. The researcher noted that SMEs are disadvantaged over the large firms since they can't raise funds in the capital market. The researcher thus recommended the firms to diversify their ways of raising funds so as to improve their sustainability.

Soumadi and Hayajneh, (nd)studied the relationship The study used multiple regression models by least squares (OLS) to establish the link between capital structure and corporate performance of firms over a period of 5 years. The results showed that capital structure was associated negatively and statistically with the performance of the firms in the sample. Another finding from the study was that there was there was no significant difference to the impact of financial leverage between high financial leverage firms and low financial leverage firms in their performance. The study also concluded that the relationship between capital structure and firm performance was negative for both high growth firms and low growth firms.

Chughtai, Azeem, Amara, and Ali (2013)carried out a study in Pakistan on the impact of retained and distributed earnings and capital invested on stock prices. Data of 99 listed companies in Pakistan used as a sample for the period of 2006-2011. The study used both descriptive analysis and panel regression analysis to deeply analyse the relationship among variables. The study findings indicate a positive and significant relationship between dividends and earnings with share prices and study also found no relationship between capitals employed and retained earnings with stock prices.

Another study conducted by Mulama (2014) to determine the factors of retained earnings in companies listed on the Nairobi Stock Exchange. The factors tested by the study are dividend payout, profitability, and firm size, the tangibility of assets, growth opportunities and leverage. The study used cross-sectional as well as a longitudinal research design to deeply analyse the facts. The data were collected during the period of 2009-2012 of 41 non-financial companies listed at NSE. The study used multiple regression models. The findings of the

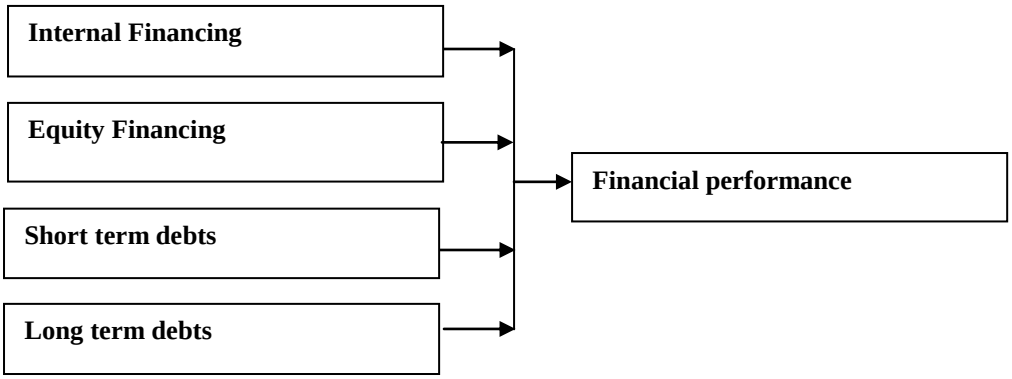
study suggest that profitability had a weak positive relationship with retained earnings, whereas a weak negative relationship exists between retained earnings with growth opportunities and firm size. The evidence from the study also showed that retained earnings had insignificant or no relationship with dividend payout and significant relationship with the tangibility of assets. The study also found a sturdy or a strong negative relationship between retained earnings and leverage. The study strongly recommended that managers should consider both tangibility of assets and leverage while decide the best level of retained earnings. The study also recommended that while identifying the factors of retained earnings should include both unquoted and quoted firms.

Akbarpour & Aghabeygzadeh (2011) reviewed literature on the relationship between financial structure and firm's performance on firms listed on Tehran Stock exchange. Data was collected from the 101 listed firms by use of library research and rahaverdnovin software. The results of the multiple regression analysis indicated that there is a significant relationship between financial structure and return on assets. However, no significant relationship between financial structure and return on equity was found. Additionally, Arulvel and Ajanthan (2013) in their study on capital structure and financial performance found that debt ratio and debt to equity ratio were negatively correlated with net profit, gross profit and return on equity. This was in agreement with study carried out on listed companies in Colombo stock exchange in Sri Lanka by Pratheepkanth(2011).

A study was conducted by Takeh and Navaprabha (2015) on the capital structure and its impact on financial performance for the period 2007 to 2012. The multiple regression analysis results indicated that there is a significant impact of capital structure on financial performance. While as there was a negative relatioship between capital structure and financial performance portrayed by the correlation analysis results. Thus, there is need for the firms to inject more funding from internal rather than borrowing, as the benefits of borrowing are less than the cost of internal financing.

2.5 Conceptual Framework

Figure 1.1: Conceptual Framework



The independent variables represent the capital structure compositions, whose choice affects a firm's financial performance (Mamba & Job, 2013).

2.5.1 Internal Financing

Internal financing is the net income added to depreciation and lessing the dividends. It comes from internally generated cash flow such as retained earnings and reserves. Pecking order theory, advocate that firms should use internal financing before moving to other options. Highly profitable firms borrow less since they have adequate capital to finance their projects. Firms need to source for other options when internal finance like retained earnings and reserves are inadequate (Myers & Majluf, 1984).

2.5.2 Equity Financing

Equity financing is that part of capital which is free of debt and represents ownership interest in a firm (Moyer et al., 1999). It is therefore that amount contributed by the owners and normally includes ordinary share capital and preferential capital. Like debt providers, equity providers also earn returns inform of dividends from the profits generated by the firm (Titman et al., 2011). Preference shareholders receive their dividends at an agreed rate before the ordinary shareholders and any unappropriated profit is retained for firm's expansion programs (Titman et al., 2011).

2.5.3 Short term debt

Short term debt, referred to as current liabilities in the financial position statement, are obligations payable within a year like overdraft facilities and are good indicators of liquidity and performance of a firm when compared with current assets. When the current liabilities outweigh current assets, the firm has a poor liquidity performance. Short term debt increment is considered to be a source of business capital (Ryan, 2004). Short-term debt in an environment of incomplete contracts grants the lender a control right as the firm's ability to roll over the debt may be conditioned on financial ratios and adequate performance. As this mechanism limits managerial discretion it may contribute to the relaxation of financial constraints (Rajan and Winton (1995). This increased availability of external finance should stimulate better performance.

2.5.4 Long term debt

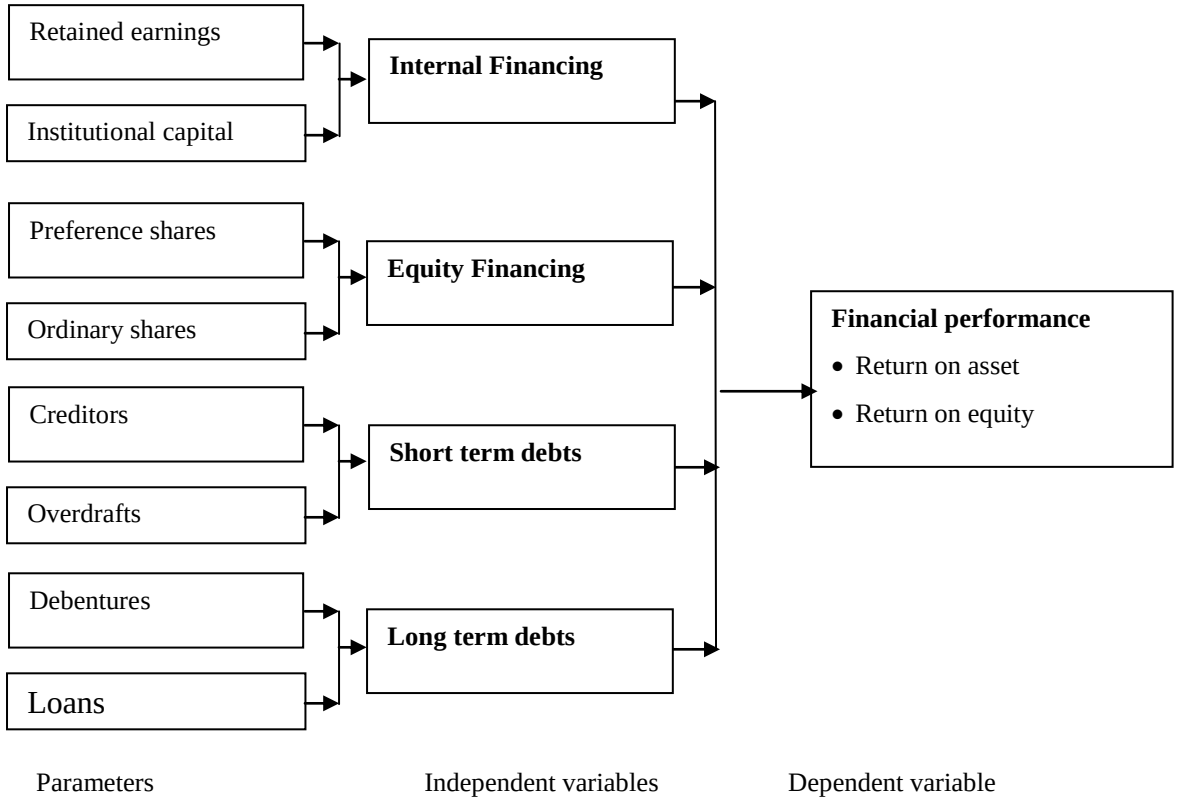
Long term debt refers to obligations which are payable beyond one year like bonds and mortgages. Such long term loans are used to measure the gearing extent of a firm.Investments that usually have a longer payback period are financed by the long term debts. They carry the benefit of having low short term shocks exposure and are usually secured by formal agreements thus more stable than short term debts.It is famous of financing capital expenditures (Lancett, 2008). However, it is usually necessary to carry out cost benefit analysis at all timesto determine the ratio of each component that forms part of the long term debt structure(Ikapel & Kajirwa, 2017). Affordability of long term debt assists a firm to access productive technologies which is not easy through short term debt due to liquidation worries and thus may interfere with firm's financial performance(Jaramillo & Schiantarelli, 2002).

2.5.5 Financial Performance

To provide a clear understanding of the effect of financial structure on financial performance, research has been carried out previously but it seems to be rambling. For example, Nwude, Itiri, Agbadua, and Udeh (2016) examined the impact of debt structure on financial performance of listed firms in Nigeria. They concluded that there is a negative significant relationship between debt structure and firm performance. Kajirwa (2015) conducted a analogous study but on listed firms in NSE and concluded that debt affects return on asset negatively but not statistically significant. Samuel (2016) carried out a study on the effect of capital structure on financial performance of commercial banks. The results indicated that debt, retained earnings and preference shares are positively related with financial performance while ordinary shares are negatively related. The study carried out by Muchiri, Muturi, and Ngumi (2016) was in disjoint as current liabilities, non-current liabilities, internal equity and external equity had insignificant negative relationship with financial performance.

2.6 Operational Framework

Figure 2.2: Operational Framework



Research Methodology

3.1 Introduction

This chapter presents the design that was used, target population, sampling procedure, data collection instruments and procedures and how data wasanalyzed.

3.2 Research Design

This study employed a descriptive survey. Descriptive survey design was used since it provides insights into the research problem by describing the variables of interest. Sekaran and Bougie (2011) states that descriptive design has several advantages such as; helps in understanding the characteristics of a group in a given situation, assists in systematic thinking about aspects in a given situation. Zikmund, Babin, Carr &Griffin (2010) say that descriptive research is to describe characteristics of objects, people, groups, organizations, or environments. In other words, descriptive research tries to "paint a picture" of a given situation by addressing who, what, when, where, and how questions.It also offers idea for further probe and research and helps in making certain simple decisions. It was used for defining, estimating, predicting and examining associative relationships.

Historical research was used to relate events that have occurred in the past to current events. It enabled the researcher to relate the research problem to the missing gaps of other research work which have been covered and also show what the other researchers overlooked possibly due to time differences or economics and social factors (Kombo& Tromp, 2006).

3.3 Target Population

Target population is the set of elements that the researcher wants to make conclusion using the sample statistics. The group possess information and view relevant to the survey content (Edwards, Thomas, Rosenfeld, & Booth-Kewley, 1997). Sekaran and Bougie (2011) defines population as the entire group of people, events or

things of interest that the researcher wishes to investigate. The study targeted all the listed companies that traded at the NSE, for the period2009-2016. There were 51 listed companies that were in operation over the eight years period of interest to this study. The selection of listed firms was due to their ability to raise large amount of capital and they are accountable to majority of stakeholders by providing mandatory and voluntary information.

3.4 Sampling Design

The studydid not rely on any sampling technique since respondents were drawn from the entire population. Consequently, a census was conducted across the 51listed firms, whereby the respondents were the 51 finance managers of the listed companies.

3.5 Data Collection Instruments

The study utilized both primary and secondary sources of data. Data was collected using questionnaires that were administered to the respondents by the researcher. Data was collected using closed ended questions, which gave the respondents limited, and pre-determined response option to choose from.A questionnaire was adequate for this study since questionnaires are commonly used to collect important information about a population (Orodho, 2004) and each parameter in the questionnaire was developed to address a specific objective(Mugenda&Mugenda, 2003).

The questionnaires were administered through email because it was not feasible to meet with all the financial managers from the 51 listed firms. The researcher retrieved the respondents' contacts through referrals as well as from company websites and professional profiles provided in such platforms as LinkedIn.

Secondary sources mainly entailed industry reports and the annual financial reports from the individual firms. The reports were obtained from the NSE portal as well as the individual firm's websites. Data from these sources was compared against that returned from questionnaires in order to derive the appropriate conclusions and recommendations regarding the relationship between capital structure and financial performance.

3.6 Reliability and Validity

Reliability test was carried out to test the consistency of the research tools with a view of correcting them. To test for reliability, the study utilized the internal consistency technique by employing the Cronbach Coefficient Alpha test for testing the research tools. In a scale of 0 to 1 0.7 and above was deemed appropriate. Internal consistency of data was determined by correlating the scores obtained from one time with scores obtained from other times in the research instrument.

Validity of instrument which is the accuracy and meaningfulness of inferences was measured using content validity test. Content validity measures the degree to which data collected using a particular instrument represent a specific domain of indicators or content of particular concept.

3.7 Data Analysis and Presentation

Descriptive and inferential statistics were used to analyze the data. Data was edited, coded, classified and summarized into categories. Multiple linear regression and correlation were used to correlate the independent variables (internal financing, equity financing, short term debts and long term debt) and the dependent variable (financial performance). This assisted in indicating strength and direction of the relationship between the variables. A mathematical model describing the relationship between independent variables and dependent variable was formulated based on the regression coefficient. i.e. $Y = a + bX + \varepsilon$

where a and b are constants and ε is a random variable with mean 0, called error, which represents the part of the variable of Y which is not explained by the relationship with X. ε is assumed to be independent of X.

The regression model for the studyis expressed as follows:

Where $Y = \beta_0 + \beta_1 if + \beta_2 ef + \beta_3 std + \beta_4 ltd$

Where:

Y is financial performance

$\beta_0$is the intercept

β_1, β_2, β_3, $\beta_4$are the regression coefficient the contribution of each independent variables (internal financing, equity financing, short term debt, long term debt) to financial performance.

if is internal financing

ef is equity financing

std is short term debt

ltd is long term debt
Analyzed data will be presented in the form of frequencies and percentages.

3.8 Ethical Considerations

Before data collection commenced, the researcher obtained authority from the School of Business of Kenya Methodist University. By use of this letter the researcher acquired a research permit from National Commission for Science Technology and Innovation (NACOSTI). The study ensured confidentiality and security of data gathered from the respondents. In this regard, all the data collected was kept in safe custody. The respondents were requested notto write their names on the questionnaire to avoid exposing the identity of who gave what information.

Results and Discussions

4.1 Introduction

This chapter presents results of data analysis. The chapter describes the data collection process and analysis, and profile of companies listed in the NSE. Descriptive statistics and multiple regression analyses were used to examinethe relationship between financial structure and financial performance of listed firms in the Nairobi Securities Exchange in Kenya.

4.2 Data Collection Process and Analysis

The study utilized both primary and secondary data. Primary data was collected by use of a questionnaire administered to the financial officers in the listed firms while secondary data obtained from NSE handbooks and published financial statements of the firms listed in the NSE. The study focused on the 51listed companies that were in operational for the eight year period (2009 to 2016) that was of concern to this study. The findings of the study from the data collected were analyzed using statistical package for social sciences (SPSS), organized and presented in tables.

4.2.1 Response Rate

A total of 51 questionnaires were distributed to the financial officers of the firms listed at the Nairobi Securities Exchange. All the questionnaires were successfully completed; hence a hundred percent response rate was realized. The impressive return rate could be attributed to the fact that the researcher had engaged three research assistants to collect the data. Besides, the respondents were assured that the study was purely for academic purpose and the researcher had sought approval from the relevant authorities and obtained a research permit from National Commission for Science Technology and Innovation.

4.2.2 Reliability Test Results

The Cronbach's Alpha coefficient for the eight questions on the independent variables was found to be 0.895; hence the internal consistence of the items under the study was good, since it was within the acceptable range of 0.7 to .09 as recommended by Siegle (2011).

4.3 Profile of the Respondents

The profile of the respondents details the education level, position held, working experience and the duration the firm has been in operation in Kenya.

4.3.1 Distribution of Respondents by Education Level

It was established that close to two thirds of the respondents (60.8%) had master's degree qualification, 35.3% had a first degree while 3.9% had a CPA (K) qualification. This result signifies that most of the respondents had at least a first degree qualification since only less than a twentieth indicated not having a first degree qualification. Hence, the financial officers working with the listed firms of the Nairobi Securities Exchange in Kenya were well educated.

Table 4.1: *Distribution of respondents by education level*

	Frequency	Percent
First Degree	18	35.3
Master's Degree	31	60.8

CPA (K)	2	3.9
Total	51	100.0

4.3.2 Distribution of Respondents by Position Held

It was revealed that 62.7% of the respondents were in top management while 37.3% were in middle level management. This was good for the study since the caliber of respondents interviewed were likely to give credible information on the relationship between financial structure and financial performance of listed firms in the Nairobi Securities Exchange in Kenya.

Table 4.2: *Position held by the respondent*

	Frequency	Percent
Middle level management	19	37.3
Top level management	32	62.7
Total	51	100.0

4.3.3 Distribution of Respondents by Working Experience

Slightly above half of the respondents (52.9%) specified that they had served in the same position for 1 to 3 years, 29.4% indicated above 5 years, and 9.8% stated 4 to 5 years while 7.8% indicated that they had served in the position for a period of less than 1 year. Hence, the respondents had adequate working experience to give valid information on the relationship between financial structure and financial performance of listed firms in the Nairobi Securities Exchange in Kenya.

Table 4.3: *Duration the respondent has been in the position*

	Frequency	Percent
Less than a year	4	7.8
1 to 3 years	27	52.9
4 to 5 years	5	9.8
Above 5 years	15	29.4
Total	51	100.0

A third of the firms included in the study had operated in Kenya for 41 to 60 years, 23.5% for more than 80 years, 15.7% for 61 to 80 years, same as 21 to 40 years while 11.8% had operated in Kenya for up to 20 years. This result means that most of the firms included in the study had operated in Kenya for more than 20 years since only around a tenth indicated a duration of up to 20 years.

Table 4.4: *Duration the company has operated in Kenya*

	Frequency	Percent
Up to 20 years	6	11.8
21 to 40 years	8	15.7
41 to 60 years	17	33.3
61 to 80 years	8	15.7
Above 80 years	12	23.5
Total	51	100.0

4.4 Descriptive Analysis of Study Variables

The study sought to determine the effect of internal financing, equity financing, short term debt and long term debt on financial performance. A descriptive analysis of the four independent variables and the dependent variable is presented.

4.4.1 Internal Financing of Companies Listed at the NSE

The study sought to establish the effect of internal financing on financial performance of listed firms in Kenya. A descriptive analysis of internal financing of firms listed at the Nairobi Securities Exchange is presented. The analysis comprise; distribution of firms by percentage of balance sheet financed internally, respondents opinion on influence of internal financing on financial performance, internal financing trend analysis for listed firms in Kenya (2009 to 2016), internal financing means for the companies listed at the NSE, distribution of NSE listed companies by internal financing category, and industry versus internal financing cross tabulation.

4.4.1.1 Distribution of Firms by Percentage of Balance Sheet Financed Internally

The study established that majority of the firms (43.1%) had up to 20% of their balance sheet financed internally, 27.5% had more than 50% of their balance sheet financed internally, 11.8% had 31 to 40% of their balance sheet financed internally same as those with 21 to 30% while 5.9% had 41 to 50% of their balance sheet financed internally. This result signifies that most of the firms listed in the Nairobi Securities Exchange in Kenya had less than half of their balance sheet financed internally since close to three quarters of the respondents indicated so.

Table 4.5: *Percentage of balance sheet financed internally*

	Frequency	Percent
Up to 20%	22	43.1
21 to 30%	6	11.8
31 to 40%	6	11.8
41 to 50%	3	5.9
Above 50%	14	27.5
Total	51	100.0

4.4.1.2 Respondents opinion on Influence of Internal Financing on Financial Performance

The study sought to establish the influence of internal financing on financial performance of listed firms in the Nairobi Securities Exchange in Kenya. Close to two thirds of the respondents (62.7%) opined that to a large extent, internal financing influenced financial performance, 21.6% indicated moderate extent influence while 15.7% specified that to a very large extent internal financing influenced financial performance of a firm. Hence, in the opinion of the respondents, internal financing significantly influenced financial performance of a firm since around four fifths of the respondents upheld this opinion.

Table 4.6: *Respondents opinion on influence of Internal financing on financial performance*

	Frequency	Percent
Moderate extent	11	21.6
Large extent	32	62.7
Very large extent	8	15.7
Total	51	100.0

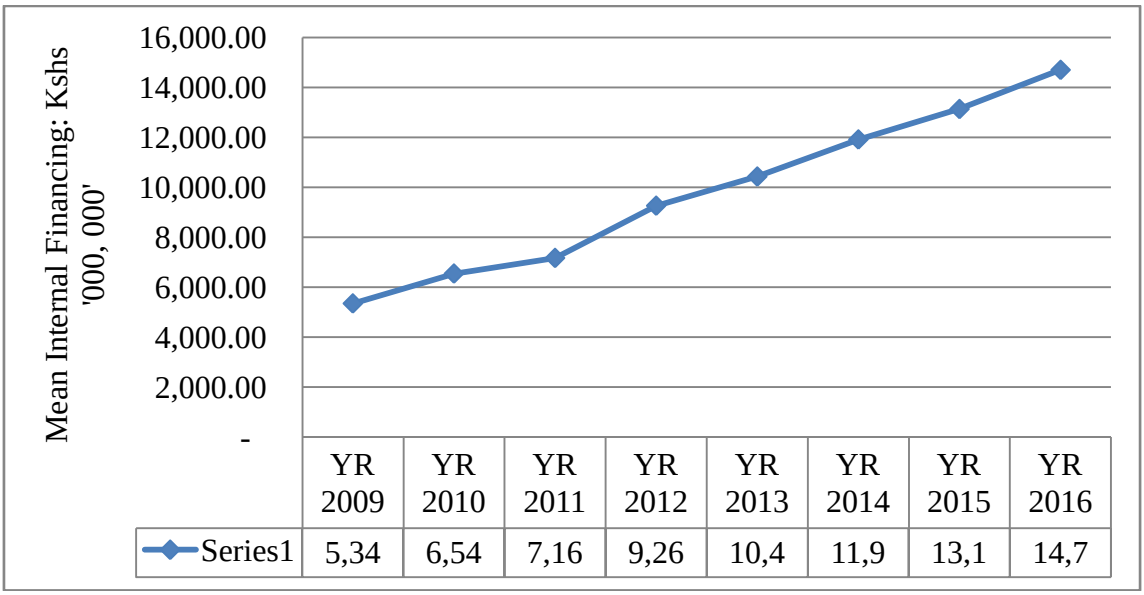


Figure 4.1: *Internal Financing Trend analysis for listed firms in Kenya (2009 to 2016)*

4.4.1.3 Internal Financing Trend analysis for listed firms in Kenya (2009 to 2016)

The study revealed that the mean internal financing of the companies listed at the NSE had consistently increased from 5.346 billion shillings in the year 2009 to 14.7 billion shillings in the year 2016. Hence, the mean retained earnings and reserves for the companies listed at the NSE had steadily increased between the year 2009 and 2016 as illustrated in figure 4.1.

4.4.1.4 Internal Financing Means for the Companies Listed at the NSE: 2016

It was further established that telecommunication and technology industry registered the highest internal financing amount for the year 2016 with a mean of 82.05 billion, closely followed by insurance industry which posted a mean of 70.369 billion shillings (SD = 110.367). Manufacturing and allied, automobile and accessories, and investment industries posted the least internal financing amounts with means of 1.386 (SD = 1.212), 1.226 (SD = 1.441) and 0.986 (SD =1.114) billion shillings respectively. This is illustrated in table 4.7.

Table 4.7: *Internal Financing Means for the Companies listed at the NSE: 2016*

Industry	N	Mean (Kshs '000,000')	Std. Deviation	Std. Error
Telecommunication and Technology	1	82,052.20	.	.
Insurance	4	70,369.46	110,367.64	55,183.82
Energy and Petroleum	4	25,980.93	23,355.41	11,677.71
Banking	11	18,253.02	22,075.84	6,656.12
Construction and Allied Sector	5	4,718.01	7,477.65	3,344.11
Agricultural Sector	6	4,452.45	5,068.14	2,069.06
Commercial and Services	8	1,980.52	3,108.38	1,098.98
Manufacturing and Allied	7	1,386.76	1,212.07	458.12
Automobiles and Accessories	3	1,226.23	1,441.97	832.52
Investment	2	986.81	1,114.17	787.84
Total	51	14,700.89	36,235.73	5,074.02

4.4.1.5Distribution of NSE Listed Companies by Internal Financing Category: 2016

Majority of the companies (31.4%) posted an internal financing of 3 to 20 billion shillings, 19.6% registered internal financing of 1 to 3 billion shillings category, and 17.6% recorded internal financing of below 100 million shillings while 15.7% indicated an internal financing of above 20 billion shillings same as 100 million to 1 billion shillings as illustrated in figure 4.2.

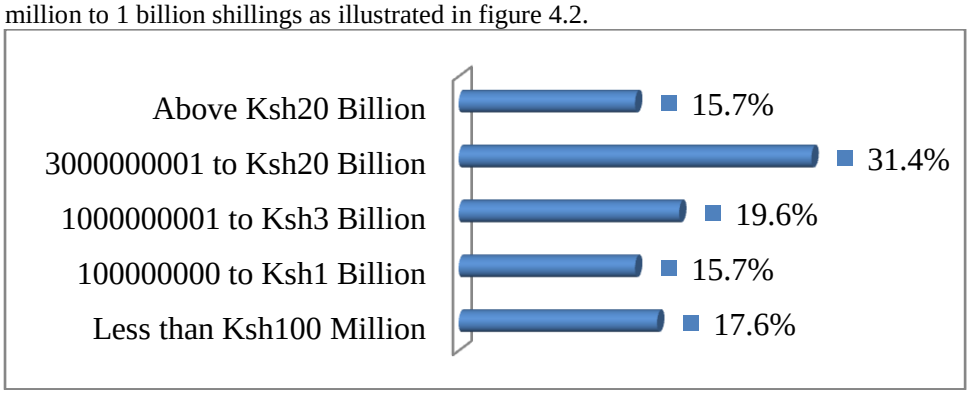


Figure 4.2: *Distribution of Listed firms in Kenya by Internal Financing Category: Year 2016*

4.4.1.6Industry and Internal Financing Cross tabulation

A cross tabulation was done to establish the relationship between industry and internal financing. The result indicates that the distribution of the firms by internal financing was different between the industries. For instance, energy and petroleum, insurance and telecommunication and technology sectors had all their companies registering internal financing amounts of more than 3 billion shillings while automobiles and accessories, and investment sectors had none of their companies registering internal financing of more than 3 billion shillings.

Table 4.8: *Industry and Internal Financing Cross tabulation*

		Internal Financing category: 2016					
		<100M	100M - 1B	1-3B	3-20B	>20B	Total
Agricultural Sector	F	0	2	1	3	0	6
	%	.0%	33.3%	16.7%	50.0%	.0%	100.0%
Automobiles and Accessories	F	0	2	1	0	0	3
	%	.0%	66.7%	33.3%	.0%	.0%	100.0%
Banking	F	3	0	0	5	3	11
	%	27.3%	.0%	.0%	45.5%	27.3%	100.0%
Commercial and Services	F	3	2	1	2	0	8
	%	37.5%	25.0%	12.5%	25.0%	.0%	100.0%
Construction and Allied Sector	F	1	0	3	1	0	5
	%	20.0%	.0%	60.0%	20.0%	.0%	100.0%
Energy and Petroleum	F	0	0	0	2	2	4
	%	.0%	.0%	.0%	50.0%	50.0%	100.0%
Insurance	F	0	0	0	2	2	4
	%	.0%	.0%	.0%	50.0%	50.0%	100.0%
Investment	F	0	1	1	0	0	2

	%	.0%	50.0%	50.0%	.0%	.0%	100.0%
Manufacturing and Allied	F	2	1	3	1	0	7
	%	28.6%	14.3%	42.9%	14.3%	.0%	100.0%
Telecommunication and Technology	F	0	0	0	0	1	1
	%	.0%	.0%	.0%	.0%	100.0%	100.0%
Total	F	9	8	10	16	8	51
	%	17.6%	15.7%	19.6%	31.4%	15.7%	100.0%

4.4.2 Equity Financing of Companies Listed at the NSE

The study sought to establish the effect of equity financing on financial performance of listed firms in Kenya. A descriptive analysis of equity financing of firms listed at the Nairobi Securities Exchange is presented. The analysis comprise; distribution of firms by percentage of balance sheet financed by equity, respondents opinion on influence of equity financing on financial performance, equity financing trend analysis for listed firms in Kenya (2009 to 2016), equity financing means for the companies listed at the NSE, distribution of NSE listed companies by equity financing category, and industry versus equity financing cross tabulation.

4.4.2.1 Distribution of Firms by Percentage of Balance Sheet Financed by Equity

In regard to percentage of the balance sheet financed by equity, nearly half of the respondents (45.1%) indicated up to 2%, 19.6% specified 2.1 to 5%, 15.7% indicated 5.1 to 10%, and 13.7% cited more than 20% while 5.9% stated that 10.1 to 20% of their balance sheet had been financed by equity. Hence, in the opinion of the respondents, most of the firms had up to 10% of their balance sheet financed by equity since more than four fifths of the respondents indicated up to 10% equity financing of the balance sheet.

Table 4.9: *Percentage of balance sheet financed by Equity*

	Frequency	Percent
Up to 2%	23	45.1
2.1 to 5%	10	19.6
5.1 to 10%	8	15.7
10.1 to 20%	3	5.9
Above 20%	7	13.7
Total	51	100.0

4.4.2.2 Respondents opinion on Influence of Equity Financing on Financial Performance

The study sought to establish the influence of equity financing on financial performance of listed firms in the Nairobi Securities Exchange in Kenya. Nearly half of the respondents (49%) indicated moderate extent influence, 41.2% specified large extent influence while 9.8% opined that to a very large extent, equity financing had a significant influence on financial performance of listed firms in the Nairobi Securities Exchange in Kenya. Hence, in the opinion of the respondents, equity financing had a significant influence on financial performance of listed firms in the Nairobi Securities Exchange in Kenya since more than half indicated either large extent or very large extent influence.

Table 4.10: *Respondents opinion on influence of equity financing on financial performance*

	Frequency	Percent
Moderate extent	25	49.0
Large extent	21	41.2
Very large extent	5	9.8

Total	51	100.0

4.4.2.3 Equity Financing Trend analysis for listed firms in Kenya (2009 to 2016)

In regard to equity financing trend analysis of companies listed at the NSE, three movements can be observed. For the year 2009 to 2011, the mean equity financing did not change significantly; from 1.195 billion shillings in 2009, to 1.254 in 2010, then to 1.237 billion shillings in 2011. From the year 2011 to 2013, a constant improvement was registered in the mean equity financing of the companies listed at the NSE; from 1.237 billion shillings in 2011 to 2.448 billion shillings in 2013. However, from the year 2013 to 2016, there was a remarkably decline in the mean equity financing from 2.448 billion shillings at 2013 to 1.537 billion shillings at 2016. This result indicates that the mean equity financing of the companies listed at the NSE was fluctuating within the eight years period of examination as illustrated in figure 4.3

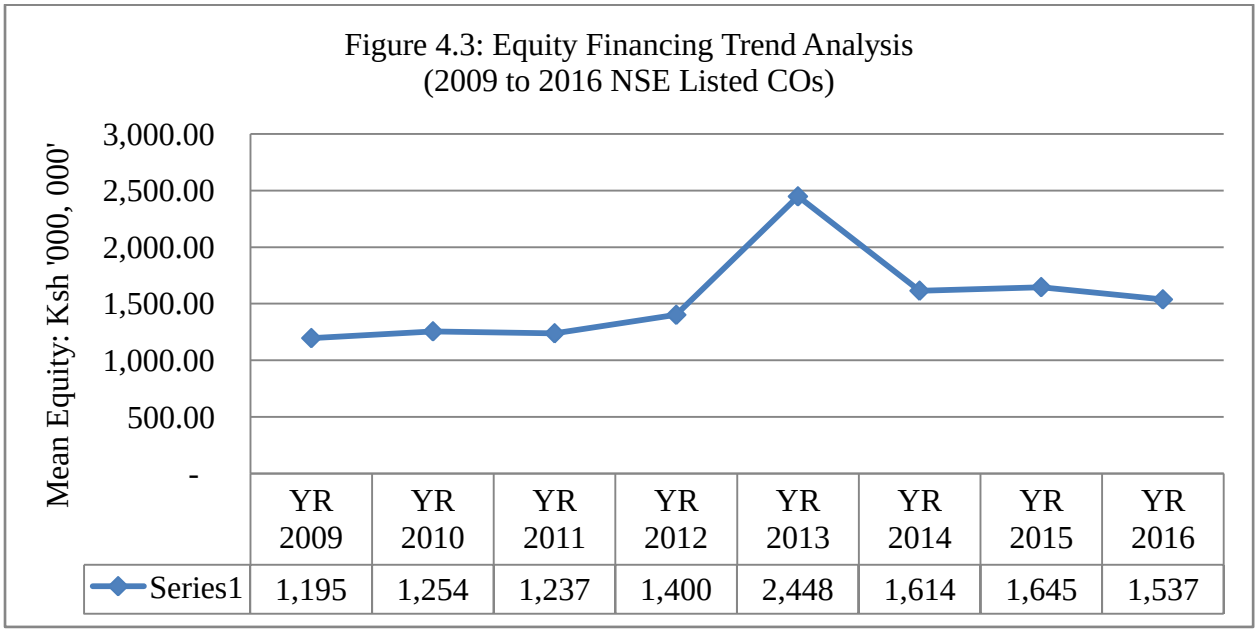


Figure 4.3: *Equity Financing Trend analysis for listed firms in Kenya (2009 to 2016)*

4.4.2.4 Equity Financing Means for the Companies listed at the NSE: 2016

It was revealed that Energy and petroleum sector posted the highest equity financing mean of 5.105 billion shillings (SD = 2.025), banking industry registered a mean of 2.445 billion shillings (SD = 2.104) while telecommunication and technology enumerated a mean of 2.003 billion shillings. Automobiles and accessories, investment and agricultural sector posted the least equity financing means of 554.73 (SD = 727.69), 170.07 (SD = 42.33) and 86.16 (SD = 30.80) million shillings respectively. This result is illustrated in table 4.11.

Table 4.11: *Equity Financing Means for the Companies listed at the NSE: 2016*

Industry	N	Mean (Kshs '000,000')	Std. Deviation	Std. Error
Energy and Petroleum	4	5,105.73	4,051.08	2,025.54
Banking	11	2,456.63	2,104.64	634.57
Telecommunication and Technology	1	2,003.27	.	.
Commercial and Services	8	1,399.67	2,515.92	889.51
Insurance	4	1,353.72	1,032.80	516.40
Manufacturing and Allied	7	940.37	1,075.23	406.40

Construction and Allied Sector	5	648.55	667.39	298.47
Automobiles and Accessories	3	554.73	727.69	420.13
Investment	2	170.07	42.33	29.93
Agricultural Sector	6	86.16	75.45	30.80
Total	51	1,537.41	2,178.51	305.05

4.4.2.5Distribution of NSE Listed Companies by Equity Financing Category: 2016

Close to a quarter of the firms (23.5%) posted a mean equity financing of 300 million to 1 billion shillings, 21.6% registered more than 3 billion shillings same as 1 to 3 billion shillings, 17.6% had a mean equity financing of less than 100 million while 15.7% indicated a mean equity financing of 100 million to 300 million shillings as illustrated in figure 4.4.

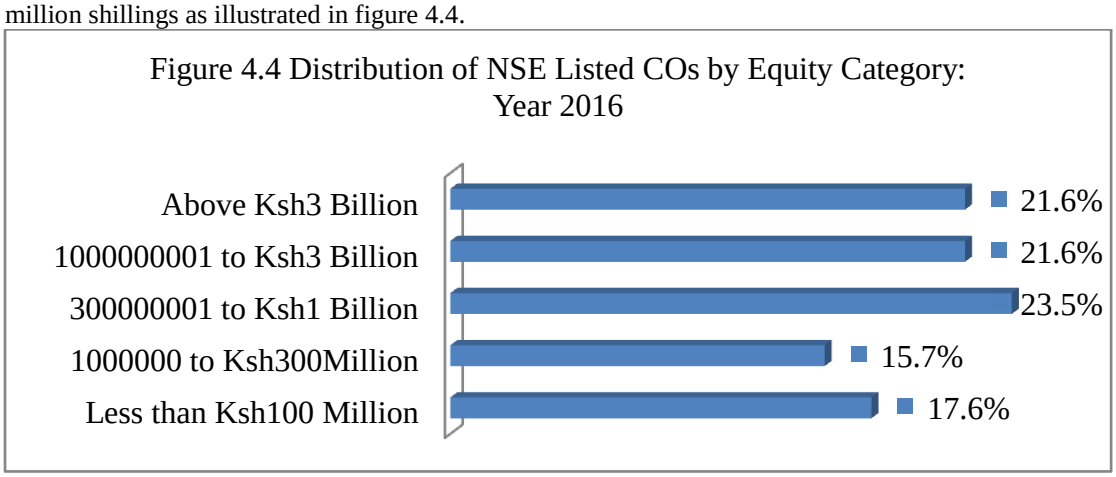


Figure 4.4 *Distribution of Listed firms in Kenya by Equity Financing Category: Year 2016*

4.4.2.6Industry and Equity Financing Cross tabulation

A cross tabulation was done to establish the relationship between industry and equity financing. The result indicates that the distribution of the firms by equity financing was different between the industries. For instance; insurance, and telecommunication and technology sectors had all their companies registering equity financing amounts of more than 300 million shillings while agriculture and investment sectors had none of their companies registering equity financing of more than 300 million shillings.

Table 4.12: *Industry and Equity Financing Cross tabulation*

		Equity Financing category: 2016					
Industry		<100M	100 - 300M	300M - 1B	1-3B	>3B	Total
Agricultural Sector	F	5	1	0	0	0	6
	%	83.3%	16.7%	.0%	.0%	.0%	100.0%
Automobiles and Accessories	F	1	1	0	1	0	3
	%	33.3%	33.3%	.0%	33.3%	.0%	100.0%
Banking	F	1	0	2	4	4	11
	%	9.1%	.0%	18.2%	36.4%	36.4%	100.0%
Commercial and Services	F	0	1	3	1	3	8
	%	.0%	12.5%	37.5%	12.5%	37.5%	100.0%
Construction and Allied Sector	F	0	1	3	1	0	5

	%	.0%	20.0%	60.0%	20.0%	.0%	100.0%
Energy and Petroleum	F	1	0	0	0	3	4
	%	25.0%	.0%	.0%	.0%	75.0%	100.0%
Insurance	F	0	0	2	2	0	4
	%	.0%	.0%	50.0%	50.0%	.0%	100.0%
Investment	F	0	2	0	0	0	2
	%	.0%	100.0%	.0%	.0%	.0%	100.0%
Manufacturing and Allied	F	1	2	2	1	1	7
	%	14.3%	28.6%	28.6%	14.3%	14.3%	100.0%
Telecommunication and Technology	F	0	0	0	1	0	1
	%	.0%	.0%	.0%	100.0%	.0%	100.0%
Total	F	9	8	12	11	11	51
	%	17.6%	15.7%	23.5%	21.6%	21.6%	100.0%

4.4.3 Short term debt Financing of Companies Listed at the NSE

The study sought to establish the effect of short term debt financing on financial performance of listed firms in Kenya. A descriptive analysis of short term debt financing of firms listed at the Nairobi Securities Exchange is presented. The analysis comprise; distribution of firms by percentage of balance sheet financed by short term debt, respondents opinion on influence of short term debt financing on financial performance, short term debt financing trend analysis for listed firms in Kenya (2009 to 2016), short term debt financing means for the companies listed at the NSE, distribution of NSE listed companies by short term debt financing category, and industry versus short term debt financing cross tabulation.

4.4.3.1 Distribution of Firms by Percentage of Balance Sheet Financed by Short Term Debt

Majority of the respondents (29.4%) indicated that more than 70% of their balance sheet were financed by short term debt, same as those who specified 30.1 to 50%, and 17.6% indicated 10.1 to 30% while 11.8% specified 50.1 to 70% same as 10.1 to 30%. This result signifies that most of the firms had more than 30% of their balance sheet financed by short term debt since more than two thirds of the respondents indicated short term debt financing of more than 30% of the balance sheet.

Table 4.13: *Percentage of balance sheet financed by Short Term Debt*

	Frequency	Percent
Up to 10%	6	11.8
10.1 to 30%	9	17.6
30.1 to 50%	15	29.4
50.1 to 70%	6	11.8
Above 70%	15	29.4
Total	51	100.0

4.4.3.2 Respondents opinion on Influence of Short Term Debt Financing on Financial Performance

The study sought to establish the influence of short term debt financing on financial performance of listed firms in the Nairobi Securities Exchange in Kenya. Majority of the respondents (43.1%) indicated that to a large extent the short term debt financing influenced financial performance of the firm, 27.5% specified little extent influence, and 17.6% indicated moderate extent while 11.8% stated that, to a very large extent, short term debt financing influenced financial performance listed firms in the Nairobi Securities Exchange in Kenya.

Hence, in the opinion of the respondents, short term debt financing had a significant influence on financial performance of listed firms in the Nairobi Securities Exchange in Kenya since more than half indicated either large extent or very large extent influence.

Table 4.14: *Respondents opinion on influence of short term debton financial performance*

	Frequency	Percent
Little extent	14	27.5
Moderate extent	9	17.6
Large extent	22	43.1
Very large extent	6	11.8
Total	51	100.0

4.4.3.3 Short Term Debt Financing Trend analysis for listed firms in Kenya (2009 to 2016)

The study established that there was a consistence increase in the mean short term debt for the NSE listed companies from the year 2009 to the year 2015; from 19.344 billion shillings in 2009 to 56.891 billion shillings in 2015. However, there was a slight decline in the mean short term debt; from 56.891 billion shillings at 2015 to 56.297 billion shillings at 2016. This result signifies that, other than for the last year under examination, the mean short term debt financing for companies listed at the NSE had a consistent upward trend as illustrated in figure 4.5.

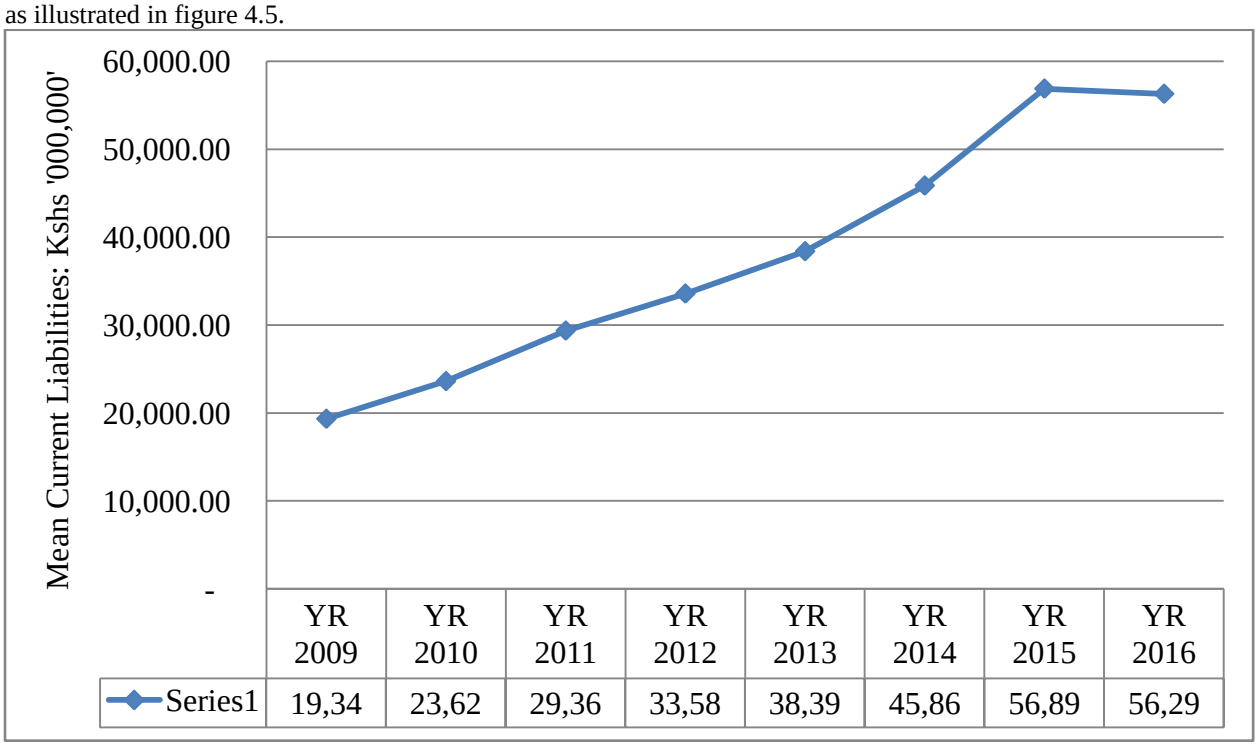


Figure 4.5: *Short Term Debt Financing Trend analysis for listed firms in Kenya (2009 to 2016)*

4.4.3.4Short term debt Financing Means for the Companies listed at the NSE: 2016

Banking industry registered the highest short term financing debt mean of 189.618 billion shillings (SD = 149.988) while energy and petroleum sector and telecommunication industry followed with 76.235 (SD = 100.119) and 42.443 billion shillings respectively. Construction and allied sector, automobile and accessories industry and agricultural sector registered the least short term debt financing means of 6.020 (SD = 4.607), 2.449 (SD = 2.882) and .399 (SD = .306) billion shillings respectively. This result is illustrated in table 4.15.

Table 4.15:*Short Term Debt Financing Means for the Companies listed at the NSE: 2016*

Industry	N	Mean (Kshs '000,000')	Std. Deviation	Std. Error
Banking	11	189,618.71	149,988.61	45,223.27
Energy and Petroleum	4	76,235.65	100,449.80	50,224.90
Telecommunication and Technology	1	42,443.54	.	.
Insurance	4	31,866.62	25,196.00	12,598.00
Commercial and Services	8	25,941.42	43,528.40	15,389.61
Investment	2	7,054.54	9,589.12	6,780.53
Manufacturing and Allied	7	7,002.53	10,030.21	3,791.06
Construction and Allied Sector	5	6,020.78	4,607.56	2,060.56
Automobiles and Accessories	3	2,449.87	2,822.34	1,629.48
Agricultural Sector	6	399.10	306.22	125.01
Total	51	56,297.35	103,942.98	14,554.93

4.4.2.5 Distribution of NSE Listed Companies by Short Term Debt Financing: 2016

Slightly above a quarter of the firms (25.5%) registered a mean short term debt financing of less than 1 billion shillings, 19.6% posted means of above 100 billion shillings, same as 5 to 20 billion and 1 to 5 billion shillings as well, while 15.7% indicated short term debt financing of 20 to 100 billion shillings as illustrated in figure 4.6.

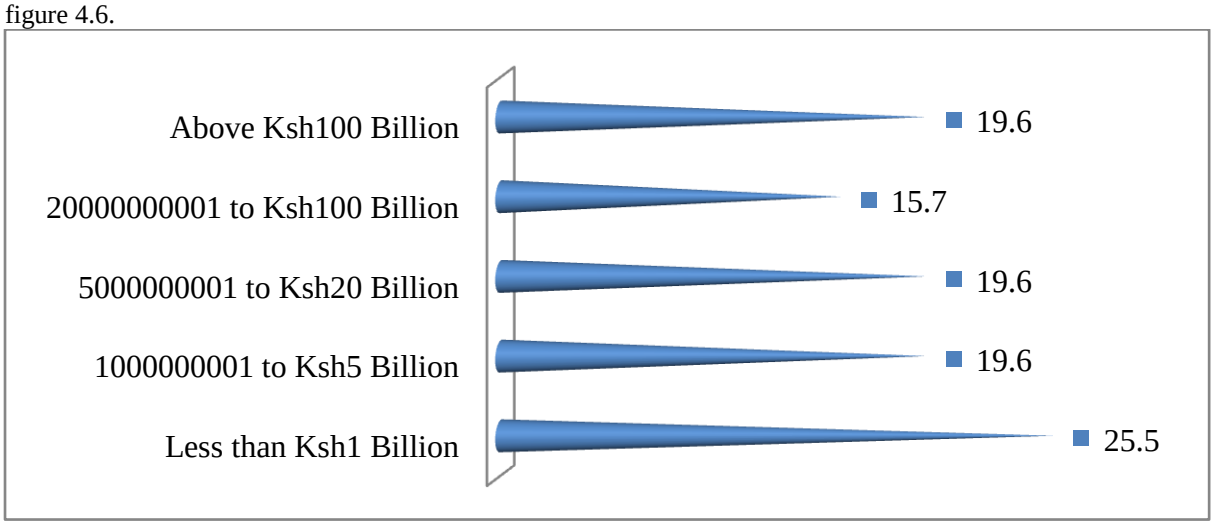


Figure 4.6 *Distribution of Listed firms in Kenya by Short Term Debt Financing: Year 2016*

4.4.3.6 Industry and Short term debt Financing Cross tabulation

A cross tabulation was done to establish the relationship between industry and short term debt financing. The result indicates that the distribution of the firms by short term debt financing was different between the industries. For instance; insurance, telecommunication and technology, and energy and petroleum sectors had all their companies registering short term debt financing amounts of more than 5 billion shillings while agriculture sector had all of its companies registering short term debt financing of less than 1 billion shillings as illustrated in table 4.16.

Table 4.16: *Industry and Short Term Debt Financing Cross tabulation*

		Short Term Debt Financing category: 2016					
		<1B	1-5B	5-20B	20-100B	>100B	Total
Agricultural Sector	F	6	0	0	0	0	6
	%	100.0%	.0%	.0%	.0%	.0%	100.0%
Automobiles and Accessories	F	1	1	1	0	0	3
	%	33.3%	33.3%	33.3%	.0%	.0%	100.0%
Banking	F	1	0	0	2	8	11
	%	9.1%	.0%	.0%	18.2%	72.7%	100.0%
Commercial and Services	F	1	4	1	1	1	8
	%	12.5%	50.0%	12.5%	12.5%	12.5%	100.0%
Construction and Allied Sector	F	0	4	1	0	0	5
	%	.0%	80.0%	20.0%	.0%	.0%	100.0%
Energy and Petroleum	F	0	0	2	1	1	4
	%	.0%	.0%	50.0%	25.0%	25.0%	100.0%
Insurance	F	0	0	2	2	0	4
	%	.0%	.0%	50.0%	50.0%	.0%	100.0%
Investment	F	1	0	1	0	0	2
	%	50.0%	.0%	50.0%	.0%	.0%	100.0%
Manufacturing and Allied	F	3	1	2	1	0	7
	%	42.9%	14.3%	28.6%	14.3%	.0%	100.0%
Telecommunication and Technology	F	0	0	0	1	0	1
	%	.0%	.0%	.0%	100.0%	.0%	100.0%
Total	F	13	10	10	8	10	51
	%	25.5%	19.6%	19.6%	15.7%	19.6%	100.0%

4.4.4Long term debt Financing of Companies Listed at the NSE

The study sought to establish the effect of long term debt financing on financial performance of listed firms in Kenya. A descriptive analysis of long term debt financing of firms listed at the Nairobi Securities Exchange is presented. The analysis comprise; distribution of firms by percentage of balance sheet financed by long term debt, respondents opinion on influence of long term debt financing on financial performance, long term debt financing trend analysis for listed firms in Kenya (2009 to 2016), long term debt financing means for the companies listed at the NSE, distribution of NSE listed companies by long term debt financing category, and industry versus long term debt financing cross tabulation.

4.4.4.1 Distribution of Firms by Percentage of Balance Sheet Financed by Long Term Debt

Close to two fifths of the respondents (39.2%) indicated that up to 1% of their balance sheet were financed by non-current liabilities, 23.5% specified 1.1 to 10%, 15.7% indicated 10.1 to 20%, and 11.8% specified 20.1 to 30% while 9.8% indicated that more than 30% of their balance sheet was financed by non-current liabilities. Hence, majority of the firms had up to 10% of their balance sheets financed by non-current liabilities since nearly two thirds of the respondents indicated up to 10% financing by non-current liabilities.

Table 4.17: *Percentage of balance sheet financed by Non-Current Liabilities*

	Frequency	Percent
Up to 1%	20	39.2
1.1 to 10%	12	23.5
10.1 to 20%	8	15.7
20.1 to 30%	6	11.8
Above 30%	5	9.8
Total	51	100.0

4.4.4.2 Respondents opinion on Influence of Long Term Debt Financing on Financial Performance

The study sought to establish the influence of non-current liabilities financing on financial performance of listed firms in the Nairobi Securities Exchange in Kenya. Slightly above two fifths of the respondents (41.2%) indicated that to a very large extent non-current liabilities financing influenced financial performance of listed firms in the Nairobi Securities Exchange in Kenya, same as those who specified large extent influence while 17.6% opined that non-current liabilities financing influenced the financial performance of the firms to a moderate extent. This result signifies that, in the opinion of the respondents, non-current liabilities financing had a significant influence of financial performance of listed firms in the Nairobi Securities Exchange in Kenya since more than four fifths of the respondents indicated very large extent or large extent influence.

Table 4.18: *Respondents opinion on influence of non-current liabilities financing on financial performance*

	Frequency	Percent
Moderate extent	9	17.6
Large extent	21	41.2
Very large extent	21	41.2
Total	51	100.0

4.4.4.3 Long Term Debt Financing Trend analysis for listed firms in Kenya (2009 to 2016)

In regard to long term debt financing trend of NSE listed companies, three movements can be observed. From 2009 to 2012, there is a gentle increase in non-current liabilities; from 3.367 billion shillings in 2009 to 4.753 billion shillings in 2012. From 2012 to 2014 the slope of the curve is steeper; from 4.753 billion shillings in 2012 to 7.554 billion shillings in 2014. Notably, from 2014 to 2016, the gradient of the curve increases signifying an increase from 7.554 billion shillings in 2014 to 15.587 billion shillings in 2016. This result is illustrated in figure 4.7.

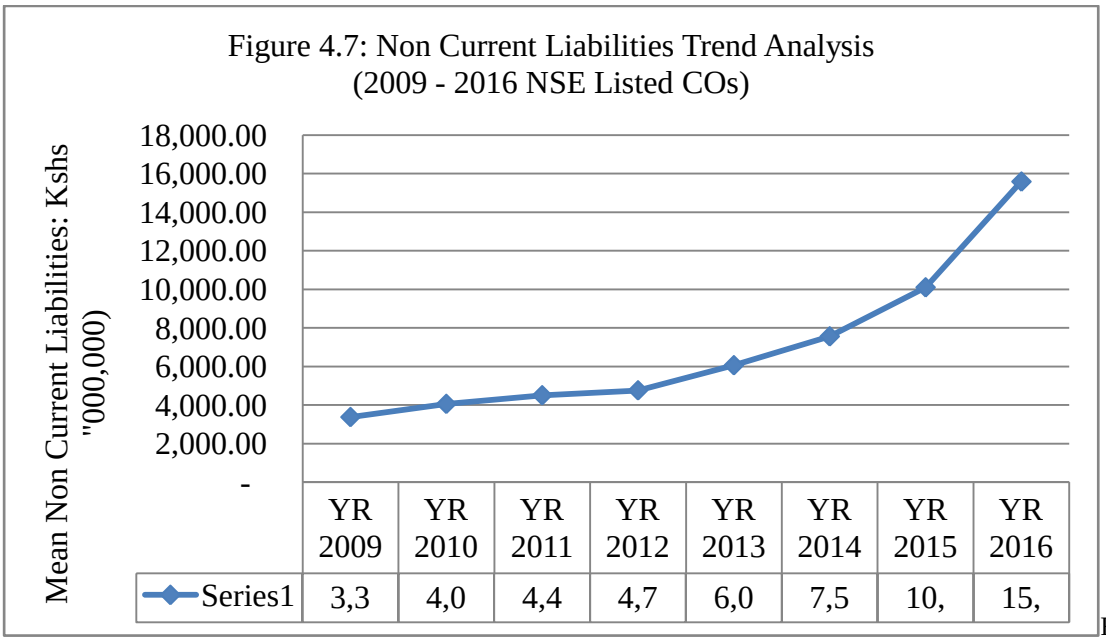


Figure 4.7: *Long Term Debt Financing Trend analysis for listed firms in Kenya (2009 to 2016)*

4.4.4.4 Long Term Debt Financing Means for the Companies Listed at the NSE: 2016

Energy and Petroleum sector posted the highest long term debt financing mean of 90.334 (SD = 103.312) billion shillings followed by commercial and services with a mean of 46.124 (SD = 31.609) billion shillings. Remarkably, banking sector, insurance industry, and telecommunication and technology did not have any of their companies posting a single shilling in long term debt financing for the year 2016. This result is illustrated in table 4.10.

Table 4.19:*Long Term Debt Financing Means for the Companies listed at the NSE: 2016*

Industry	N	MeanKshs '000,000'	Std. Deviation	Std. Error
Energy and Petroleum	4	90,334.38	103,312.23	51,656.12
Commercial and Services	8	46,124.49	89,406.46	31,609.96
Manufacturing and Allied	7	5,147.30	8,405.45	3,176.96
Construction and Allied Sector	5	3,580.81	3,527.15	1,577.39
Investment	2	2,262.99	3,074.71	2,174.15
Agricultural Sector	6	882.76	905.62	369.72
Automobiles and Accessories	3	282.35	474.66	274.05
Banking	11	-	-	-
Insurance	4	-	-	-
Telecommunication and Technology	1	-	.	.
Total	51	15,587.02	50,199.10	7,029.28

4.4.2.5 Distribution of NSE Listed Companies by Long Term Debt Financing: 2016

The study revealed that slightly more than a third of the firms (35.3%) had no long term financing obligation, 23.5% had long term debts of 1 to 100 billion shillings, 21.6% registered a debt of 500 million to 1 billion, and 11.8% indicated a debt of up to 50 million shillings while 7.8% recorded a long term debt of more than 100 billion shillings as illustrated in figure 4.8.

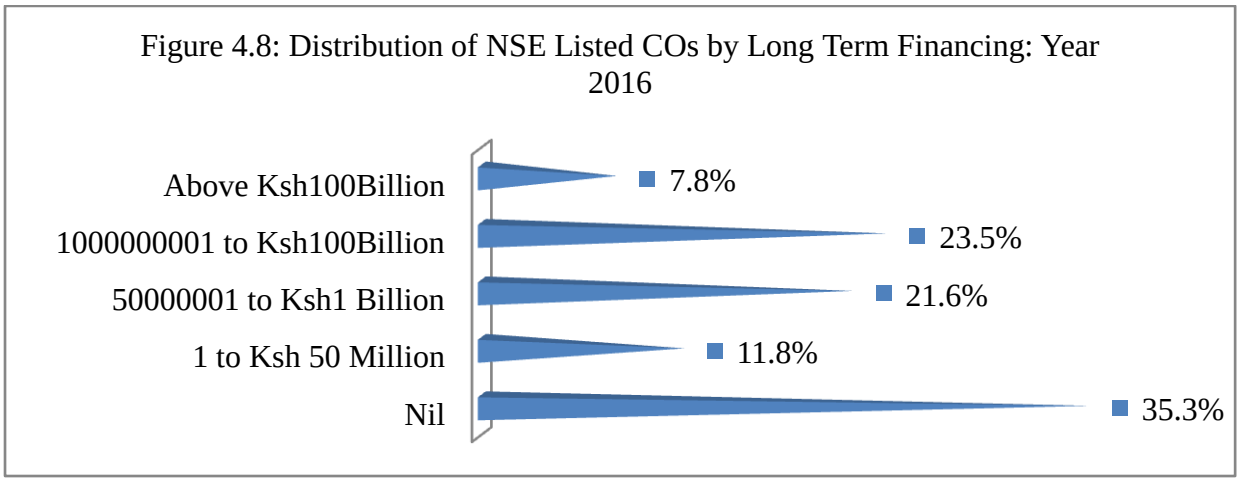


Figure 4.8 *Distribution of Listed firms in Kenya by Long Term Debt Financing: Year 2016*

4.4.4.6 Industry and Long term debt Financing Cross tabulation

A cross tabulation was done to establish the relationship between industry and long term debt financing. The result indicates that the distribution of the firms by long term debt financing was different between the industries. Construction and allied sector, energy and petroleum industry and investment sector had all their companies registering long term debt financing amounts of more than 50 million shillings while banking sector, insurance industry, and telecommunication and technology did not have any long term financing obligations.

Table 4.20: *Industry and Long Term Debt Financing Cross tabulation*

		Long Term Debt Financing category: 2016					
		Nil	Sh1-50M	50M-1B	1-100B	>100B	Total
Agricultural Sector	F	0	2	2	2	0	6
	%	.0%	33.3%	33.3%	33.3%	.0%	100.0%
Automobiles and Accessories	F	0	2	1	0	0	3
	%	.0%	66.7%	33.3%	.0%	.0%	100.0%
Banking	F	11	0	0	0	0	11
	%	100.0%	.0%	.0%	.0%	.0%	100.0%
Commercial and Services	F	1	2	2	1	2	8
	%	12.5%	25.0%	25.0%	12.5%	25.0%	100.0%
Construction and Allied Sector	F	0	0	1	4	0	5
	%	.0%	.0%	20.0%	80.0%	.0%	100.0%
Energy and Petroleum	F	0	0	1	1	2	4
	%	.0%	.0%	25.0%	25.0%	50.0%	100.0%
Insurance	F	4	0	0	0	0	4
	%	100.0%	.0%	.0%	.0%	.0%	100.0%
Investment	F	0	0	1	1	0	2
	%	.0%	.0%	50.0%	50.0%	.0%	100.0%
Manufacturing and Allied	F	1	0	3	3	0	7

	%	14.3%	.0%	42.9%	42.9%	.0%	100.0%
Telecommunication and Technology	F	1	0	0	0	0	1
	%	100.0%	.0%	.0%	.0%	.0%	100.0%
	F	18	6	11	12	4	51
Total	%	35.3%	11.8%	21.6%	23.5%	7.8%	100.0%

4.4.5 Financial Performance of Listed Firms in Kenya

Financial performance was the dependent variable of the study. Rate of return on assets was employed to examine the financial performance of the listed companies. A trend analysis on the components of rate of return, namely; assets and net profit is discussed, and later on, return on asset trend.

4.4.5.1 Asset Base Trend Analysis of Listed Firms in Kenya

The study established that the asset base of the listed firms had consistently increased from 14.115 billion shillings in 2009 to 30.175 billion shillings in 2016. This result signifies that over the eight year period under examination, the mean asset base of the listed firms in Kenya had doubled as illustrated in figure 4.9.

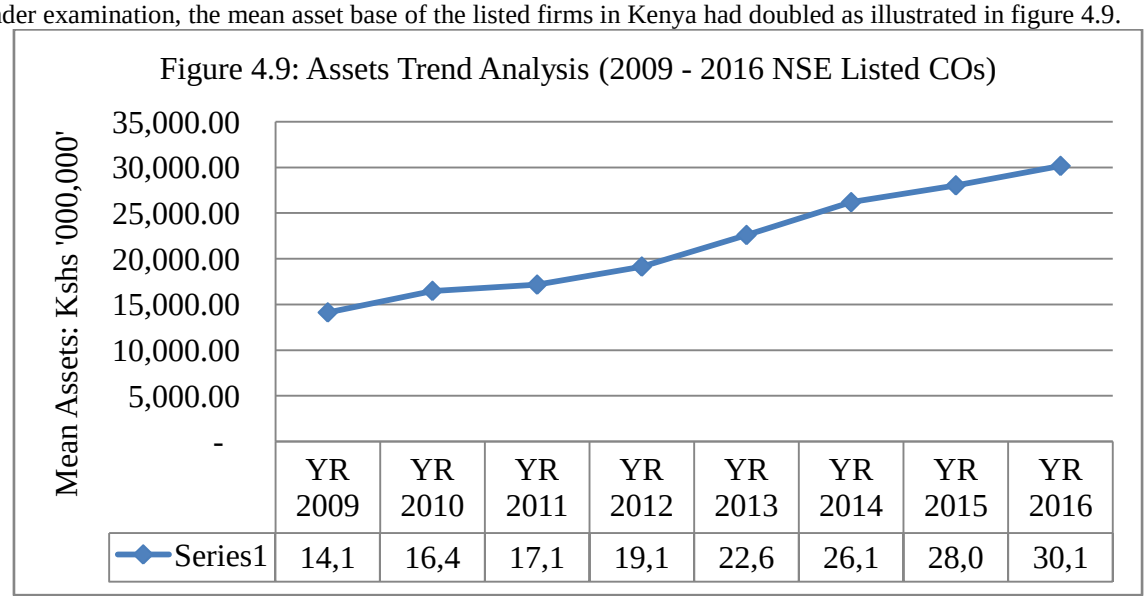


Figure 4.9: *Asset Base Trend analysis for listed firms in Kenya (2009 to 2016)*

4.4.5.1.1 Asset Base Means for Firms Listed at the NSE: 2016

It was further established that telecommunication and technology industry recorded the highest asset base mean of 116.738 billion shillings, followed by energy and petroleum sector and banking industry which registered asset base mean of 95.172 (SD = 105.574) and 55.788 (SD = 27.781) billion shillings respectively. On the other hand, manufacturing and allied industry, agricultural sector and investment industry posted the least asset base means with 10.607 (SD = 11.688), 5.429 (SD = 6.128), and 4.620 (SD = 4.775) billion shillings respectively as illustrated in table 4.21.

Table 4.21: *Asset Base Means for the Companies listed at the NSE: 2016*

Industry	N	Mean Ksh'000,000'	Std. Deviation	Std. Error
Telecommunication and Technology	1	116,738.95	.	.
Energy and Petroleum	4	95,172.71	105,574.12	52,787.06
Banking	11	55,788.75	27,781.40	8,376.41

Construction and Allied Sector	5	17,528.89	14,545.82	6,505.09
Commercial and Services	8	15,288.27	28,611.37	10,115.65
Automobiles and Accessories	3	14,951.37	20,290.43	11,714.68
Insurance	4	14,241.67	10,023.45	5,011.72
Manufacturing and Allied	7	10,607.91	11,688.01	4,417.65
Agricultural Sector	6	5,429.88	6,128.65	2,502.01
Investment	2	4,620.15	4,755.65	3,362.76
Total	51	30,175.54	43,229.50	6,053.34

4.4.5.1.2 Distribution of Listed Firms by Asset Base: 2016

Majority of the firms (29.4%) posted had an asset base of 2 to 10 billion shillings, 23.5% registered 20 to 45 billion shillings, 17.6% had over 45 billion shillings same as less than 2 billion shillings while 11.8% had an asset base of 10 to 20 billion shillings.

Figure 4.10: Distribution of NSE Listed COs by Value of Assets: Year 2016

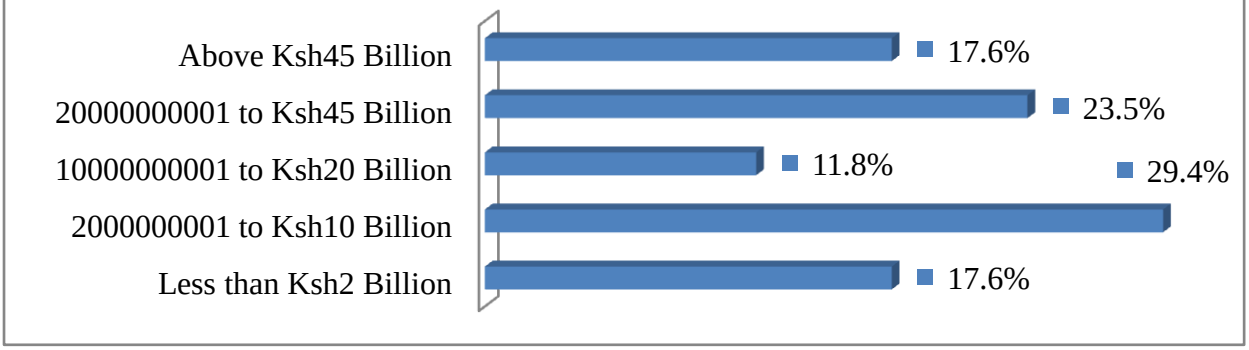


Figure 4.10 *Distribution of Listed firms in Kenya by Asset Base: Year 2016*

4.4.5.1.3 Industry and Asset BaseCross tabulation

A cross tabulation was done to establish the relationship between industry and asset base. The result indicates that the distribution of the firms by asset base was different between the industries. Banking industry and telecommunication and technology sector had all their firms posting an asset base of over 10 billion shillings while investment sector had none of its firms recording an asset base of more than 10 billion shillings as illustrated in table 4.22.

Table 4.22: *Industry and Asset Base Cross tabulation*

		Asset Base 2016					
Industry		<2B	2 - 10B	10 - 20B	20 - 45B	>45B	Total
Agricultural Sector	F	2	3	1	0	0	6
	%	33.3%	50.0%	16.7%	.0%	.0%	100.0%
Automobiles and Accessories	F	0	2	0	1	0	3
	%	.0%	66.7%	.0%	33.3%	.0%	100.0%
Banking	F	0	0	1	5	5	11
	%	.0%	.0%	9.1%	45.5%	45.5%	100.0%
Commercial and Services	F	3	3	1	0	1	8

	%	37.5%	37.5%	12.5%	.0%	12.5%	100.0%
Construction and Allied Sector	F	1	1	0	3	0	5
	%	20.0%	20.0%	.0%	60.0%	.0%	100.0%
Energy and Petroleum	F	0	1	1	0	2	4
	%	.0%	25.0%	25.0%	.0%	50.0%	100.0%
Insurance	F	0	2	0	2	0	4
	%	.0%	50.0%	.0%	50.0%	.0%	100.0%
Investment	F	1	1	0	0	0	2
	%	50.0%	50.0%	.0%	.0%	.0%	100.0%
Manufacturing and Allied	F	2	2	2	1	0	7
	%	28.6%	28.6%	28.6%	14.3%	.0%	100.0%
Telecommunication and Technology	F	0	0	0	0	1	1
	%	.0%	.0%	.0%	.0%	100.0%	100.0%
Total	F	9	15	6	12	9	51
	%	17.6%	29.4%	11.8%	23.5%	17.6%	100.0%

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4.4.5.2 Net Profit Trend Analysis of Listed Firms in Kenya

The net profit trend of listed firms from 2009 to 2016 can be split into three movements. A slight drop is observed from 2.120 billion shillings in 2009 to 1.998 billion shillings in 2010. There is a consistent moderate increase in net profit from 1.998 billion shillings in 2010 to 2.936 billion shillings in 2014. Lastly, a steep increase can be observed from 2.936 billion shillings in 2014 to 4.22 billion shillings in 2016. Hence, over the eight year period under examination, the mean net profit for the listed firms had doubled from 2.12 billion shillings in 2009 to 4.22 billion shillings in 2016 as illustrated in figure 4.11.

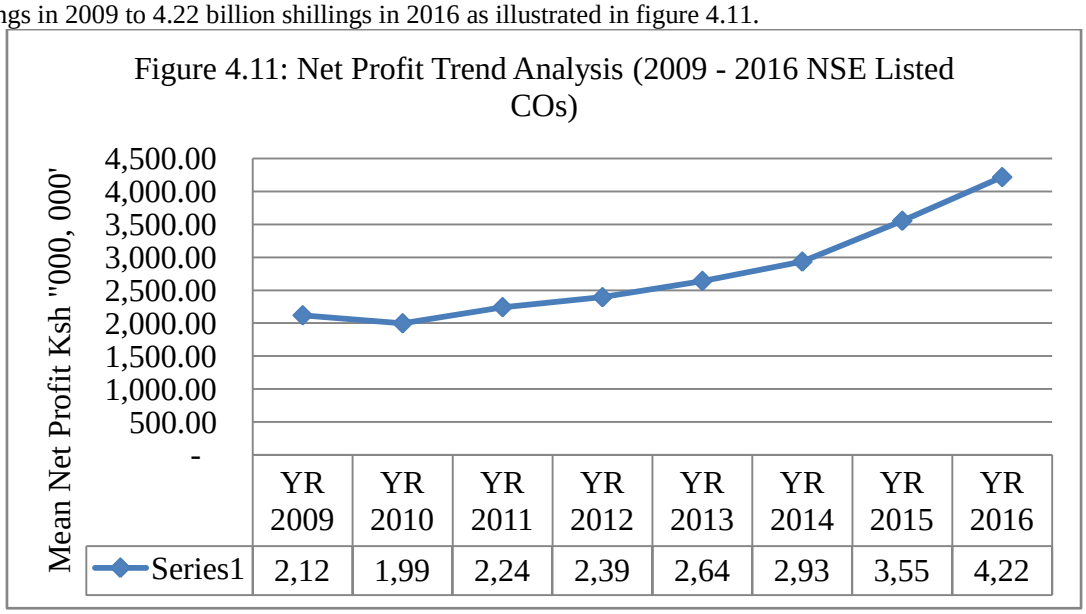

Figure 4.11: *Net Profit Trend analysis for listed firms in Kenya (2009 to 2016)*

4.4.5.2.1 Net Profit Means for Firms Listed at the NSE: 2016

It was established that telecommunication and technology had the highest net profit of 38.104 billion shillings followed by banking sector and energy and petroleum industry which posted mean net profit of 10.679 (SD = 8.866) and 5.760 (SD = 4.614) billion shillings respectively. On the other hand, commercial and services

sector, automobiles and accessories industry and investment sector registered the least mean net profit of 372 (SD = 775), 42.38 (SD = 73.41) and 7 (SD = 9.89) million shillings respectively as illustrated in table 4.23.

Table 4.23: *Net Profit Means for the Companies listed at the NSE: 2016*

Industry	N	Mean	Std. Deviation	Std. Error
Telecommunication and Technology	1	38,104.29	.	.
Banking	11	10,679.65	8,866.86	2,673.46
Energy and Petroleum	4	5,760.95	4,614.64	2,307.32
Insurance	4	2,248.89	2,602.13	1,301.07
Manufacturing and Allied	7	1,962.73	3,058.92	1,156.16
Construction and Allied Sector	5	1,693.51	2,276.09	1,017.90
Agricultural Sector	6	382.88	351.29	143.41
Commercial and Services	8	372.03	775.05	274.02
Automobiles and Accessories	3	42.38	73.41	42.38
Investment	2	7.00	9.89	7.00
Total	51	4,220.42	7,676.62	1,074.94

4.4.5.2.2 Distribution of Listed Firms by Net Profit: 2016

Nearly a quarter of the firms (23.5%) posted a net profit of less than 1 million shillings, 19.6% had a net profit of 1 to 5 billion shillings, 15.7% registered 1 to 200 million shillings same as 200 million to 1 billion shillings and 13.7% realized a net profit of more than 10 billion shillings while 11.8% had a net profit of 5 to 10 billion shillings as illustrated in figure 4.12.

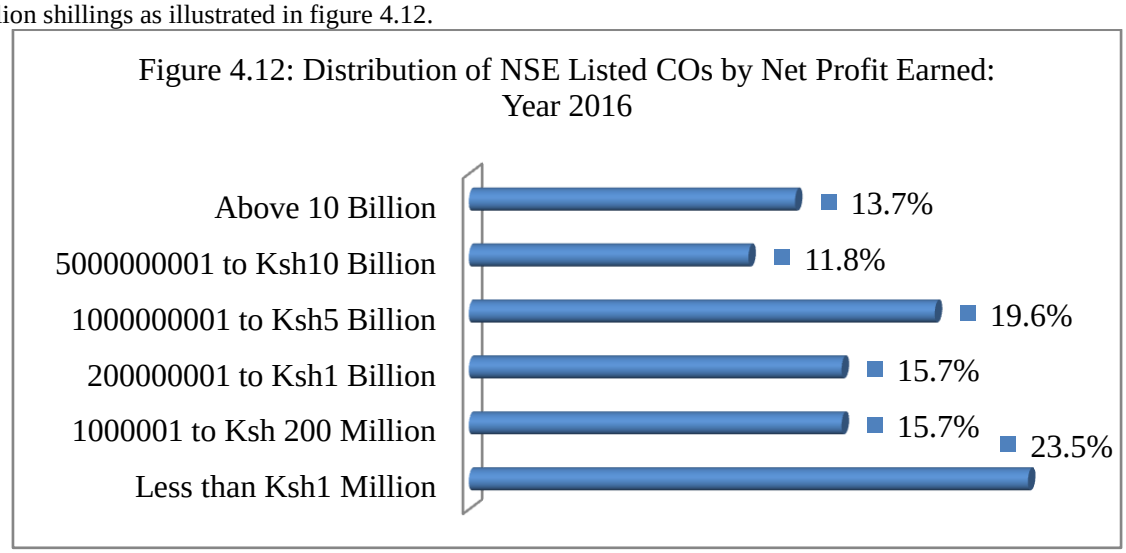

Figure 4.12 *Distribution of Listed firms in Kenya by Net Profit Earned: Year 2016*

4.4.5.2.3 Industry and Net ProfitCross tabulation

A cross tabulation was done to establish the relationship between industry and net profit. The result indicates that the distribution of the firms by net profit was different between the industries. Notably, energy and petroleum sector and telecommunication and technology had all their firms recording net profit of more than 1 billion shillings while agricultural sector and automobile and accessories industry had all their firms posting a net profit of less than 1 billion shillings as illustrated in table 4.24.

Table 4.24: *Industry and Net Profit Cross tabulation*

		Net Profit 2016						
		<1M	1-200M	200M-1B	1-5B	5-10B	>10B	Total
Agricultural Sector	F	2	0	4	0	0	0	6
	%	33.3%	.0%	66.7%	.0%	.0%	.0%	100.0%
Automobiles and Accessories	F	2	1	0	0	0	0	3
	%	66.7%	33.3%	.0%	.0%	.0%	.0%	100.0%
Banking	F	0	1	0	2	3	5	11
	%	.0%	9.1%	.0%	18.2%	27.3%	45.5%	100.0%
Commercial and Services	F	3	2	1	2	0	0	8
	%	37.5%	25.0%	12.5%	25.0%	.0%	.0%	100.0%
Construction and Allied Sector	F	2	1	0	2	0	0	5
	%	40.0%	20.0%	.0%	40.0%	.0%	.0%	100.0%
Energy and Petroleum	F	0	0	0	2	1	1	4
	%	.0%	.0%	.0%	50.0%	25.0%	25.0%	100.0%
Insurance	F	0	2	0	1	1	0	4
	%	.0%	50.0%	.0%	25.0%	25.0%	.0%	100.0%
Investment	F	1	1	0	0	0	0	2
	%	50.0%	50.0%	.0%	.0%	.0%	.0%	100.0%
Manufacturing and Allied	F	2	0	3	1	1	0	7
	%	28.6%	.0%	42.9%	14.3%	14.3%	.0%	100.0%
Telecommunication and Technology	F	0	0	0	0	0	1	1
	%	.0%	.0%	.0%	.0%	.0%	100.0%	100.0%
Total	F	12	8	8	10	6	7	51
	%	23.5%	15.7%	15.7%	19.6%	11.8%	13.7%	100.0%

4.4.5.3 Return on Assets Trend Analysis of Listed Firms in Kenya

From the research findings, it can be observed that the rate of return on assets for firms listed at the NSE had consistently declined from 18.9% in 2009 to 10.7% in 2015. The curve had its steepest gradient from the year 2010 to the year 2012. During this period, the rate of return on assets sharply declined from 18.5% in 2010 to 15.5% in 2011 and later to 13.2% in 2010. The curve moved down gently up to 2015 where it takes an upward turn signifying an increase in rate of return on assets from 10.7% in 2015 to 11.3% in 2016. Hence, for the larger part of the eight year period under examination, the rate of return had declined but the movement of the curve at the very last year takes a different direction as illustrated in figure 4.13.

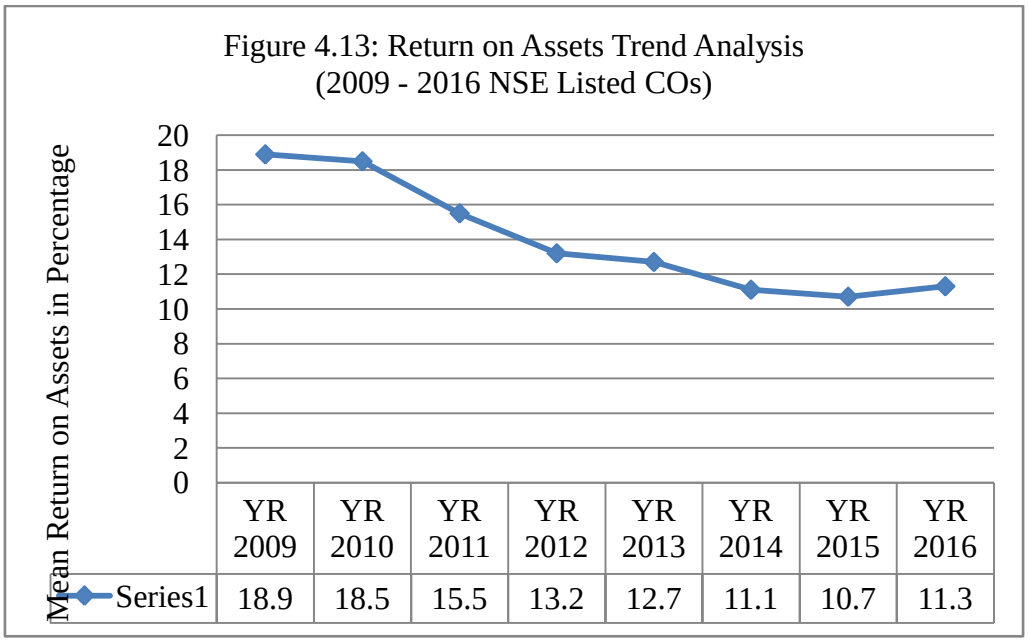

Figure 4.13: *Return on Assets analysis for listed firms in Kenya (2009 to 2016)*

4.4.5.3.1 Return on Assets Means for Firms Listed at the NSE: 2016

It was established that telecommunication and technology posted the highest return on assets of 32.6% followed by banking industry and manufacturing and allied sector which posted a rate of 19.3% (SD = .14) and 15.1% (SD = .13) respectively. In contrast, commercial and services sector, automobiles and accessories industry and investment sector enumerated the least return on asset of 5.9% (SD = .09), 1.1% (SD = .02), and .6% (SD = .01) as illustrated in table 4.25.

Table 4.25: *Return on Assets Means for the Companies listed at the NSE: 2016*

Industry	N	Mean (%)	Std. Deviation	Std. Error
Telecommunication and Technology	1	32.6	.	.
Banking	11	19.3	0.14	0.04
Manufacturing and Allied	7	15.1	0.13	0.05
Energy and Petroleum	4	12.4	0.11	0.05
Insurance	4	10.8	0.11	0.06
Construction and Allied Sector	5	8.9	0.09	0.04
Agricultural Sector	6	6.1	0.05	0.02
Commercial and Services	8	5.9	0.09	0.03
Automobiles and Accessories	3	1.1	0.02	0.01
Investment	2	0.6	0.01	0.01
Total	51	11.3	0.12	0.02

4.4.5.3.2 Distribution of Listed Firms by Return on Assets: 2016

Slightly more than a third of the firms (35.3%) realized a return on assets of 1 to 10%, 21.6% recorded a return of less than 1%, 17.6% enumerated a rate of 10.1 to 20%, and 15.7% registered a return of 20.1 to 30% while 9.8% enumerated a return on assets on more than 30% as illustrated in figure 4.14.

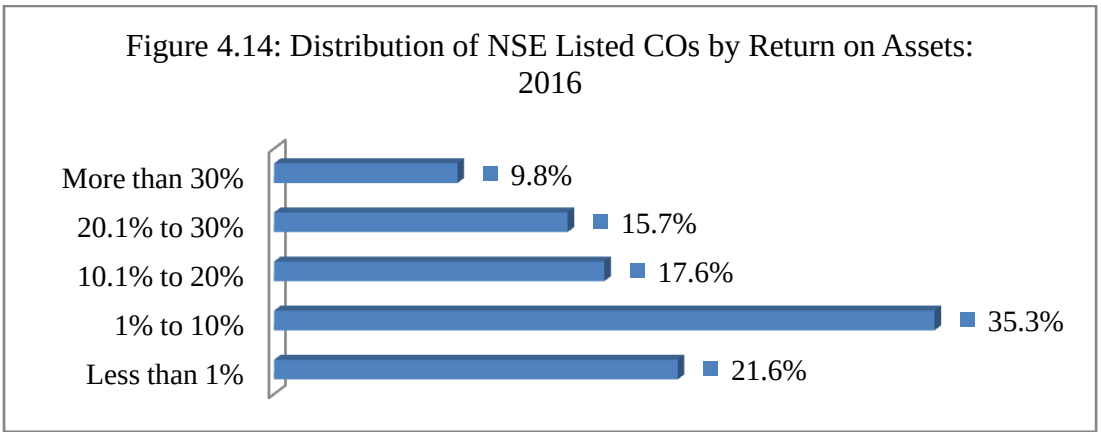

Figure 4.14 *Distribution of Listed firms in Kenya by Return on Assets: Year 2016*

4.4.5.3.3 Industry and Return on AssetsCross tabulation

A cross tabulation was done to establish the relationship between industry and return on assets. The result indicates that the distribution of the firms by return on assets was different between the industries. For instance, automobiles and accessories sector and investment industry had all their firms enumerating a return on asset of less than 10% while banking sector had more than two thirds of its firms posting a return on asset of more than 10%.

Table 4.26: *Industry and Return on Assets Cross tabulation*

		Return on Assets: 2016					
Industry		<1%	1 - 10%	10.1 - 20%	20.1 - 30%	>30%	Total
Agricultural Sector	F	1	3	2	0	0	6
	%	16.7%	50.0%	33.3%	.0%	.0%	100.0%
Automobiles and Accessories	F	2	1	0	0	0	3
	%	66.7%	33.3%	.0%	.0%	.0%	100.0%
Banking	F	0	3	3	2	3	11
	%	.0%	27.3%	27.3%	18.2%	27.3%	100.0%
Commercial and Services	F	3	3	1	1	0	8
	%	37.5%	37.5%	12.5%	12.5%	.0%	100.0%
Construction and Allied Sector	F	2	1	1	1	0	5
	%	40.0%	20.0%	20.0%	20.0%	.0%	100.0%
Energy and Petroleum	F	0	3	0	1	0	4
	%	.0%	75.0%	.0%	25.0%	.0%	100.0%
Insurance	F	0	2	1	1	0	4
	%	.0%	50.0%	25.0%	25.0%	.0%	100.0%
Investment	F	1	1	0	0	0	2
	%	50.0%	50.0%	.0%	.0%	.0%	100.0%
Manufacturing and Allied	F	2	1	1	2	1	7
	%	28.6%	14.3%	14.3%	28.6%	14.3%	100.0%
Telecommunication and	F	0	0	0	0	1	1

Technology	%	.0%	.0%	.0%	.0%	100.0%	100.0%
Total	F	11	18	9	8	5	51
	%	21.6%	35.3%	17.6%	15.7%	9.8%	100.0%

4.5 Relationship between Financial Structure and Financial Performance of Listed Firmsin the Nairobi Securities Exchange in Kenya

To determine the independent variable that is significantly associated with the financial performance of listed firms in the Nairobi Securities Exchange in Kenya, a multiple regression was utilized since the dependent and independent variables were continuous. The ANOVA statistics and model summary were used to measure the overall relationship between independent variables and dependent variables.

4.5.1 ANOVA

The probability of the F statistic (17.380) for the overall regression relationship is <.001, less than the level of significant of .05. The null hypothesis that there is no relationship between the independent variables and the dependent variable (R^2 = 0) was thus rejected. The research hypothesis that there is a statistically significant relationship between the set of independent variables and the dependent variable was subsequently supported.

Table 4.27:*ANOVA*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	123.852	4	30.963	17.380	.000
	Residual	81.949	46	1.782		
	Total	205.802	50			

4.5.2 Model Summary

The multiple R for the relationship between the set of independent variables and the dependent variable is .776 which means a strong correlation. R^2 tells us the proportion of the variation in the dependent variable that is explained by the four predictors. This means that 60.2% of the variation in financial performance of listed firms in Kenya can be explained by the financial structure elements namely; internal financing, equity financing, short term debt financing and long term debt financing. Adjusted R^2 corrects for multiple predictors, giving a slightly lower value.

Table 4.28: *Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.776	.602	.567	1.33473

4.5.3 Financial Structure Elements and Financial Performance of Listed Firms in theNairobi Securities Exchange in Kenya

The variables for the study were internal financing, equity financing, short term debt financing and long term debt financing. The output of the multiple regressions indicating the significance of each of the predictor variable is shown in table 4.29.

Table 4.29:*Financial Structure Elements and Financial Performance of Listed Firms*

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	T	P - Value

1	(Constant)	-.097	.226		-.430	.670
	Short Term Debt	.000	.000	.033	.343	.733
	Equity Financing	.000	.000	.491	4.682	.000
	Internal Financing	.000	.000	-.053	-.551	.584
	Long Term Debt	.000	.000	.411	3.871	.000

4.5.3.1 Internal Financing

This study did not establish a significant relationship between internal financing and financial performance of listed firms in Kenya. The p – value was greater than .05, hence the null hypothesis there is no significant relationship between internal financing and financial performance of listed firms in Kenya could not be rejected.

4.5.3.2 Equity Financing

For the predictor variable equity financing, the probability of the t statistic (4.682) for the b coefficient is < .001 which is less than the level of significance .05. The null hypothesis that the slope associated with equity financing is equal to zero (b = 0) was therefore rejected. Hence, it was concluded that there is a statistically significant relationship between equity financing and financial performance of listed firms in Kenya. The relationship between equity financing and financial performance of a firm was found to be positive from the regression coefficients. This finding corresponds well to the finding of Muigai (2016) who stated that firms need to utilize equity and less debt in their financing mix as debt may be a major contributor to financial distress. The finding is also in harmony with the finding of Margaritis and Psillaki (2010) who established that concentrated ownership improves firm's performance.

The finding also supports the argument of Berger and Di Patti (2006) who observed that equity financing is positively associated with profitability of a firm. It agrees well with the finding of Booth (2001) who argued that a firm that utilizes equity finance is able to perform better financially since the equity holders are the residual claimants and they have to ensure that resources are allocated efficiently to be able to maximize shareholders wealth. Firms that are low geared are much more independent than their counterparts that are high geared. Such firms do not have to worry much about the interest on debts. Most decisions made in such firms revolve around maximizing on shareholders wealth; as a result, this goal overshadows other goals leading to improved financial performance.

4.5.3.3 Short Term Debt Financing

This study did not establish a significant relationship between short term debt financing and financial performance of listed firms in Kenya. The p – value was greater than .05, hence the null hypothesis there is no significant relationship between short term debt financing and financial performance of listed firms in Kenya could not be rejected.

4.5.3.4 Long Term Debt Financing

For the predictor variable long term debt financing, the probability of the t statistic (3.871) for the b coefficient is < .001 which is less than the level of significance .05. The null hypothesis that the slope associated with long term debt financing is equal to zero (b = 0) was therefore rejected. Hence, it was concluded that there is a statistically significant relationship between long term debt financing and financial performance of listed firms in Kenya. The relationship between long term debt financing and financial performance of a firm was found to be positive from the regression coefficients. This finding is in harmony with the finding of Samuel (2016) who indicated that debt is positively related with financial performance of a firm. It also supports the argument by Hall and Hutchinson (2000) who stated that provided that earning power of firms exceed the cost of debt, financial leverage will have a positive effect in a firm's financial performance.

Affordable long term debt assists a firm to access productive technologies that it would not have otherwise achieved using internal financing. Debt creates for the managers an incentive to work harder and

encourage them to utilize the best investment opportunities. The management of a firm should not shy away from taking a viable opportunity that would require external financing. However, it is critical that before a firm commits itself to long term debt financing; it carefully examines the return of the venture to be financed by the debt and the payback period. This is because long term debt attracts annual interests that must be paid irrespective of the profitability or otherwise of the venture.

The question on whether or not to consider external long term financing should be based on intense forecasting that would accurately analyze the earning power of the venture to be financed against the cost of the debt and also taking consideration the payback period to avoid liquidity problems. In the event that a firm can finance such a venture using internal financing, there would be no need to go for external financing; though at the initial stages of a firm, it is unlikely that it can finance a heavy capital outlay with internal financing.

Summary, Conclusions, and Recommendations

5.1 Introduction

The main objective of the study was to examine the relationship between financial structure and financial performance of listed firms in the Nairobi Securities Exchange in Kenya. This chapter discusses: 5.2 summaries of the findings, 5.3 makes conclusions of the findings and 5.4 gives relevant recommendations.

5.2 Summary of the Findings

The study sought to examine the relationship between financial structure elements and financial performance of listed firms in the Nairobi Securities Exchange in Kenya. The financial structure elements considered were; internal financing, equity financing, short term debt financing and long term debt financing.

5.2.1 Internal Financing and Financial Performance of Listed Firms in the NSE

The study sought to examine the influence of internal financing on financial performance of listed firms in the NSE. The study revealed that the mean internal financing of the companies listed at the NSE had consistently increased from 5.346 billion shillings in the year 2009 to 14.7 billion shillings in the year 2016. Telecommunication and technology industry registered the highest internal financing amount for the year 2016 with a mean of 82.05 billion, closely followed by insurance industry which posted a mean of 70.369 billion shillings (SD = 110.367). The study did not establish a significant relationship between internal financing and financial performance of listed firms in Kenya. The p – value was greater than .05, hence the null hypothesis there is no significant relationship between internal financing and financial performance of listed firms in Kenya could not be rejected.

5.2.2 Equity Financing and Financial Performance of Listed Firms in the NSE

The study sought to examine the influence of equity financing on financial performance of listed firms in the NSE. It was established that the mean equity financing of the companies listed at the NSE was fluctuating within the eight years period of examination. Energy and petroleum sector posted the highest equity financing mean of 5.105 billion shillings (SD = 2.025), banking industry registered a mean of 2.445 billion shillings (SD = 2.104) while telecommunication and technology enumerated a mean of 2.003 billion shillings. Further analysis indicated a statistically significant relationship between equity financing and financial performance of listed firms in the NSE. The probability of the t statistic (4.682) for the b coefficient was < .001, less than the level of significance .05. The null hypothesis that the slope associated with equity financing is equal to zero (b = 0) was therefore rejected.

5.2.3 Short Term Debt Financing and Financial Performance of Listed Firms in the NSE

The study sought to examine the influence of short term debt financing on financial performance of listed firms in the NSE. There was a consistence increase in the mean short term debt for the NSE listed companies from the year 2009 to the year 2015; from 19.344 billion shillings in 2009 to 56.891 billion shillings in 2015, and a slight decline in the mean short term debt; from 56.891 billion shillings at 2015 to 56.297 billion shillings at 2016. Banking industry registered the highest short term financing debt mean of 189.618 billion shillings (SD = 149.988) while energy and petroleum sector and telecommunication industry followed with 76.235 (SD = 100.119) and 42.443 billion shillings respectively. The study did not establish a significant relationship between short term debt financing and financial performance of listed firms in Kenya. The p – value

was greater than .05, hence the null hypothesis there is no significant relationship between short term debt financing and financial performance of listed firms in Kenya could not be rejected.

5.2.4 Long Term Debt Financing and Financial Performance of Listed Firms in the NSE

The study sought to examine the influence of long term debt financing on financial performance of listed firms in the NSE. The mean long term debt financing for the firms listed at NSE had greatly increased from 3.367 billion shillings in 2009 to 15.587 billion shillings in 2016. Energy and Petroleum sector posted the highest long term debt financing mean of 90.334 (SD = 103.312) billion shillings followed by commercial and services with a mean of 46.124 (SD = 31.609) billion shillings. Further analysis indicated a statistically significant relationship between long term debt financing and financial performance of listed firms in the NSE. The probability of the t statistic (3.871) for the b coefficient was < .001, less than the level of significance .05. The null hypothesis that the slope associated with long term debt financing is equal to zero (b = 0) was therefore rejected.

5.3 Conclusions

The study concluded that two out of the four financial structure components included in the study were significantly associated with financial performance of listed firms in the Nairobi Securities Exchange in Kenya.

5.3.1 Equity Financing

The study concluded that there was a statistically significant between equity financing and financial performance of listed firms in the NSE. A firm that utilizes equity finance is able to excel financially since the equity holders are the residual claimants and they have to ensure that resources are allocated efficiently to be able to maximize shareholders wealth. Since the firm will enjoy financing that is not attached to high and compulsory interests rates, it will have a competitive edge over the other firms engaging in the same venture but with funding from external sources.

5.3.1 Long Term Debt Financing

It was concluded that there was a statistically significant between long term debt financing and financial performance of listed firms in the NSE. Affordable long term debt assists a firm to access productive technologies that it would not have otherwise achieved using internal financing. Debt creates for the managers an incentive to work harder and encourage them to utilize the best investment opportunities. In a situation where a firm has an elaborate growth strategy, and does not have adequate internal financing to fund the project; if it has done an accurate assessment of the returns of the project against the cost of debt and is fully satisfied that the venture is worthwhile, taking into consideration the payback period of the venture, then long term debt financing can propel such a firm to greater financial performance.

5.4 Recommendations

From the conclusion arrived at that two out of the four financial structure components included in the study were significantly associated with financial performance of listed firms in the Nairobi Securities Exchange in Kenya, the researcher wishes to make the following recommendations,

1. The board of directors of the listed firms should always give priority to funding options with no compulsory returns to avoid financial distress associated with difficulties in meeting financial obligations.
2. The management of the listed firms should always perform accurate forecasting on projects they intend to venture into, against the cost of debt and taking into consideration the payback period, in the event they want to source for long term external funding.

5.4.1 Recommendations for Further Research

Since the study focused on firms listed in the NSE, it is suggested that the study be extended to other firms and institutions not listed to assess whether different findings may be reached regarding relationship between financial structure and financial performance.

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