

**THE EFFECT OF OWNERSHIP STRUCTURE ON
FINANCIAL LEVERAGE OF NON-FINANCIAL FIRMS
LISTED AT NAIROBI SECURITIES EXCHANGE**

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

2018

DECLARATION

I, Oscar Ngotho declare that this research work is my original work and has not been submitted for either presentation or examination for an award of degree in this or any other university.

Signature Date.....

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This research project has been submitted for examination with my approval as University of Nairobi supervisor

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ACKNOWLEDGEMENTS

The research project could not have been a reality without the invaluable input of few individuals whom I sincerely wish to recognize. Special appreciation goes to my supervisor, Mr. Joseph Barasa, for his guidance and profession advice throughout the research project.

I also commend the management and staff of the University of Nairobi Library and the department of Finance and Accounting for their contributions in one way or the other.

To my loving parents: Ngotho Ndelu and Belita Ngotho. Thank you for instilling values of hard work and perseverance in me.

DEDICATION

This project is dedicated to my lovely wife, Lynn Mwikali, Children: Ethan Munene Manzi and Eden Mumo Manzi

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ABBREVIATIONS AND ACRONYMS

ASEA	African Securities Exchange Association
AT	Agency Theory
CMA	Capital Markets Authority
EBIT	Earnings before Interest and Tax
ETFs	Exchange Traded Funds
MM	Modigliani and Miller Theory
NSE	Nairobi Securities Exchange
OLS	Ordinary Least Square
ROA	Return on Assets
TOT	Trade-Off Theory

ABSTRACT

Ownership structure leads to agency problems since majority shareholders have incentives and thus monitor actions of the management and influence on decisions. There has been a growing debate on whether ownership structure impacts on management decisions. This study was set out to determine the effect of ownership structure on financial leverage of listed non-financial firms at NSE. The study used correlation and regression analysis to establish existing relationship between ownership structures and financial leverage. The study was guided by agency theory and descriptive research design. The study population involved 50 listed non-financial firms as at 31st December, 2017 that were operational in the study period. Secondary sources of data spanning for a period between 2012 and 2016 were used. Analysis of data was executed using descriptive and inferential statistics: correlation and regression analysis. It was found that ROA and firm size recorded a gradual increase while ownership structures (institutional, managerial, state and foreign) recorded a slow increase over the study period. The study found no correlation among ownership structures (managerial, state, foreign and institutional), size of firm, ROA and long-term debt. Further, there was no correlation between ROA, firm size and financial leverage. Results from regression analysis established that the coefficient of determination was 3.6%, implying that the regression model used was a poor predictor. However, analysis of variance was 0.048; implying that it was statistically significant. Ownership structures (managerial, state, foreign and institutional) were negatively linked to long-term debt. Likewise, ROA was negatively linked while size of the firm was positively linked to long-term debt. Managerial, state and foreign ownerships and profitability were insignificant while institutional ownerships and logarithm of assets were significant.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Ownership structure and leverage are identified as key factors that impact on the firm's finance decisions. Ownership structure is described as equity ratio held by several stakeholders. Stakeholder firms enjoy a legal separation between management and ownership. Owners might have funds and lack management skills to effectively manage firms. Similarly, the management could have ideas to do business and lack finances to actualize those ideas and thus seek internal and external borrowing. Stakeholders incur monitoring costs to ensure that the actions taken by the management represent the best interest of the stakeholders. According to Slama and Taktak, (2014) stakeholders can improve firm performance by lowering monitoring costs and establishing effective management control. Moreover, the structure of ownership might inhibit managers from pursuing sub-optimal investment and enhancing their earnings resulting to a decline in the wealth of shareholders.

Modigliani and Miller Theory (MM), Agency Theory (AT) and Trade-off Theory (TOT) are the theories that supported this study. MM holds this assumption that firm value does not depend on its debt policy and corporate income taxes are not in existence (Pandey, 2010). AT postulated that because of separation of management and ownership, a firm could hire managers to be their agents in running business on their behalf and represent their interests (Jensen, 1996). TOT insists on the need for the firm to have an optimal ratio of debt through careful consideration of costs and the benefits realized from borrowing. Large and stable firms easily access debt since they have the capacity to repay the borrowed amount (Powell & Baker, 2009).

In Kenya, listed firms operate in an increasingly uncertain environment; in order to survive firms need to finance their capital expenditures and working capital. Specifically, listed firms can use either debt or equity financing but this largely depends on the structure of a firm, policies and the size of the firm to make a decision on whether to use equity or debt or both in the firm's financial structure (Mukonyi Basweti & Kamau, 2016).

1.1.1 Ownership Structure

Ownership structure entails distribution with regard to votes, capital and owners' equity identity (Rubach, 1999). Ownership structure influences board activities and board of directors' organisation (Lee, 2008). Ang Cole and Lin (2009) posit that structure of ownership is grouped into ownership concentration and identity. Ownership concentration is described as the allocation of shares that are owned by majority shareholders. Ownership identity is the level at which members of a company identify themselves as original owners.

Holderness (2009) indicates that ownership structure can be in the form of state where in such a case, the state is entrusted with resources. For instance, when a firm has a direct state ownership, it works towards achieving political objectives of that firm with a limited focus on minority shareholders. Ownership structure is of different types, these include management, family, government, foreign and institutions but institutional and managerial stakeholders hold a higher level of control over the firm's policies compared to other types. Yang, Chen, Kweh and Chen (2013) indicate that while some company owners are not involved directly in the managing firms, they play a crucial role in appointing managers and board of directors.

Ownership structure is described as the nature of majority stakeholders and their influence on management decisions. Berzins et al. (2009) opine that ownership structure is a key factor in determining market efficiency by providing information about two important things. First, it depicts the level of shareholders' risk diversification. Secondly, it will provide information on the possible agency problems facing managers of most firms. Naceur et al. (2006) indicated that the firm's structure of control influences policies and decisions, and majority shareholders accrue personal benefits which they might not be willing to share with minority stakeholders. Consequently, this study will classify ownership into different forms that include state ownership, foreign ownership, managerial ownership and institutional ownership.

1.1.2 Financial Leverage

Periasamy (2009) cites that financial leverage refers to the extent to which companies increase their rates of profitability using borrowed capital. A company's sources of finance is an indicator of its leverage, where a leveraged company is said to be one whose equity capital is lower than its risky assets. Increased financial leverage implies high market and liquidity risks as the companies may be forced to sell most of their assets to minimize risk exposure. According to Jensen (1996), the management of firms that uses debt are more efficient in managing costs so as to finance debt payment.

Avulamusi (2013) classifies leverage into three forms; combined leverage, operating leverage and financial leverage. The latter relates to the various financial activities of the firm. Fixed financial charges such as dividend and preferred shares and interest expense on debt are among the major aspects that determine the extent of financial leverage.

Favorable financial leverage occurs when a company's earnings on assets exceeds the cost of debt; it is unfavorable when the earnings on assets are below the fixed costs. Operating leverage affects a company's operating risks. It is indicated by the change in percentage of earnings before interest and tax (EBIT) that results from variation in percentage of sales. Combined leverage results from the integration of financial and operating leverage. The debt to cumulative assets ratio or equity will be used in measuring financial leverage.

1.1.3 The Relationship between Ownership Structure and Leverage

Ganguli (2013) argues that financial leverage impacts on firm value by influencing the costs of agency. Yarram (2013) opines that debt financing limits the amount of free cash that is available to the top management and thus controlling agency conflicts. In accordance to Ganguli (2013) stakeholders might opt for debt financing to uphold their rights to vote in order to control and closely monitor their firms. Yarram (2013) contends that debt is regarded as a discipline mechanism applied by lenders to closely monitor the management actions.

Din, Javid and Imran, (2013) noted that debt use allows shareholders to easily transfer the duty of monitoring the management actions to the lenders. Managers that work for debt financed firms are limited to wasteful expenditure and improve the firm's operating efficiency to cater for the debt. This view gets support from MM theory that suggests that use of debt prompt managers to relinquish investments whose net present values are positive. Leverage is linked to bankruptcy risk. Ochieng (2013) found that that lender put many restrictions on firms that that utilize leverage. This aids in minimizing the likelihood of default or bankruptcy and minimizing the agency problems.

In line with this, Huang, Lin and Huang, (2013) found that firms which possessed high ratios of debt levels gave lenders and investors detailed information unlike those firms with low risks. A study by Naser, Al-Hussaini and Nuseibeh, (2006) reveal that as debt increases, some firms prefer to conceal financial information since stakeholders might be in need of that information unlike debt holders. He further argues that disclosing such information might affect the confidence of debt holders. Naser et al., (2006) found that firms that had the best ownership structure recorded efficient and effective operations which was an indication that the firms funded their investments using debt. This view is consistent to Hubert and Imen, (2012) who found a significant link between ownership and debt.

1.1.4 Firms Listed at the Nairobi Securities Exchange

NSE is a modern facility where local and international investors can get investment access to Kenyan companies and contribute to the Country's economic growth. NSE makes a huge contribution towards Kenya's economic growth by encouraging savings and investments and assisting domestic and international firms to participate in cost-efficient capital. NSE conducts its operations as a securities exchange in Kenya. It gives platform that is automated for purposes of trading and listing shares. Examples of these securities include debt securities, equity securities and derivative securities. NSE initiated an automated trading system that matches orders automatically. Currently, this system is integrated CBK and CDS thus enabling automated government bonds trading. NSE executes its functions through Capital Markets Authority (CMA) jurisdiction.

CMA is the government's regulator that is charged with the responsibility of licensing and regulating capital markets in Kenya. It makes approvals for initial public offerings and listing securities traded at NSE (CMA, 2017). Currently, there are 50

non-financial firms listed at NSE and licensed to work and operate within the Kenyan boundaries (CMA, 2017). To achieve an optimal capital structure with a proper balance of management, listed firm needs a clearly defined ownership structure. This view is also echoed by Mukonyi et al., (2016) who insist that listed firms in Kenya should consider maintaining balance and control of the shareholders because the structure of ownership held by the firm highly impact on the agency relationship. Ownership structure may also affect agency costs since stakeholders are eligible to access information about the firm and to monitor management actions that impact on the firm's finance decisions.

1.2 Research Problem

Ownership structure impacts on agency problems (Lee & Lee, 2014). This is because major shareholders possess a higher incentive in monitoring the actions of the management thereby influencing financial decisions made by the firm. Din, Javid and Imran (2013) posit that ownership structure might impact greatly on management decisions and opportunism that might consequently impact on firm value. However, debt usage can help to mitigate agency costs. Ganguli (2013) notes that leverage is employed by shareholders as a disciplinary tool for monitoring management actions, consequently, owners might increase leverage aiming at reducing agency costs.

In Kenya, listed firms are expected to gravitate structures that can yield better results. These firms need an optimal capital structure since their ownership structure might not be adequate to assist them to deal with agency conflicts. Mukonyi et al., (2016) explain that ownership structure impact greatly on management decisions and opportunism and this might affect finance decisions as well as the value of the firm. Worth to note is that use of debt that might aid a firm in minimizing agency cost. This

view is supported by Mutisya (2015) who argues debt financing limits cash flow accessible to managers and these acts as a means of controlling agency problem.

Ang, Cole and Lin (2009) did a study on the link between agency costs and ownership structure in Federal Reserve Board's National Survey of Small businesses. An inverse relation was found between agency costs and ownership structure. Liu, Tian and Wang (2011) assessed effect that ownership structure had on leverage decision of Chinese listed firms and it was unravelled that a positive link amongst majority shareholding and leverage of state and non-state owned firms. Kararti (2014) found presence of a positive nexus amid ownership concentration and debt-equity ratio, and significant impact amongst managerial type of ownership and external block holders on leverage.

Avulamusi (2013) did an examination on the link between ROA and commercial banks' structure of ownership and established a positive nexus between foreign ownership and ROA. Onsumo (2014) assessed the connection amid capital financing and agency costs of listed firms at the NSE and found that agency costs were positively correlated to capital structure. Mutisya (2015) did an exploration on the effect that ownership structure had on ROA of listed firms and an insignificant relationship was found to exist amid ownership structure and financial performance.

While studies (Ang et al., 2009; Liu et al., 2011, Avulamusi, 2013, Kararti, 2014, Onsumo, 2014; Mutisya, 2015) have been done on the structure of ownership and ROA, a limited focus has been given to the link between ownership and financial leverage of firms listed at the NSE.

This research therefore sought to address this gap by attempting to answer the question: What is the effect of ownership structure on financial leverage of non-financial firms listed at the Nairobi Securities Exchange?

1.3 Research Objective

The objective of this study is to determine the effect of ownership structure on financial leverage of non-financial firms listed at NSE.

1.4 Value of the Study

The empirical results will be of great value to the policy makers such as CMA, they might utilize the finding in setting policies that enable listed firms to have a balance between control and ownership to improve firm performance by reducing monitoring costs. Listed firms will be informed about the risk taking incentives by the management and how this can be mitigated by the nature of a firm's ownership.

Other firms will get to know the value of financing using debt as a way of dealing with the agency problem. Worth to note is that most shareholders opt to finance using debt to retain their rights to vote in order to monitor and control their firms. Practitioners in the field of finance will learn appropriate measures to use in evaluating ownership structure and financial leverage of quoted firms.

This study is hoped to contribute significantly towards extant literature. Scholars will get a deeper understanding of the theories guiding this study and how these theories relate to the study variables. Moreover, they will conceptualize the existing relationship between ownership structure and financial leverage. Researchers who have an interest in this area might find the findings of this a useful basis for future research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter gives a detailed coverage of theories supporting this research as per the set out objectives, the determinants of financial leverage have also been discussed, international and local studies, a conceptual framework including a summary of this chapter.

2.2 Theoretical Framework

The theories from which this study is founded are the Modigliani and Miller theory, Agency theory and the Trade-off theory. Below the study gives a detailed discussion of these theories and how they relate to the current study.

2.2.1 The Modigliani and Miller Theory

Modigliani and Miller hypothesis, the value of the firm do not depend on the policy of its debt. The assumption held by this theory is that we do not have corporate income taxes. The firm's total market value belonging to a similar class of risk is autonomous of debt mix and is achieved by capitalizing the anticipated net operating income using capitalization rate that is appropriate to the respective class of risk. The arbitrage argument posit that firms that have similar class of risk possess the same type of assets and thus have similar value that is not affected by their financing decision (Pandey, 2010).

As a fact, tax on corporate income is in existence and interest that is paid to holders of debt is accounted for as an expense which is deductible. Value of a levered firm

comprises of the cumulative value of equity and debt. A levered firm consists of a high value which is compared to that of an unlevered firm as a consequence of deductibility of interest cost from the computation of tax. Nikbakht (2006) opines that the firm's capital structure is a consequence of the firm's trade-off, the merits that arise from an increase in leverage in inform of lower cost of debt and debt tax shield against the risk of financial distress which might arise as a consequence of an increase in debt.

2.2.2 Agency Theory

Agency theory postulates that institutions in which corporate shareholding ownership is widely practiced management action tend to separate with those of maximizing shareholder returns (Pandey, 2009). Jensen (1996) explains that agency theory tries to explain the relationship whereby, in a contract an individual (s) who in this case the principal involves another person who is this case is the agent (s) to execute certain roles on his behalf that entails delegating the authority to make decisions to the agent. This takes place as a consequence of separation of management and ownership, in a case when company shareholders hire managers as their representatives in running the state of affairs of the business with the goal of monitoring their performances so as to ensure they act in the interest of the owner. In business, the most common agency relationships are amid shareholders and top management and amid debt holders and shareholders. This relationships lead to agency conflicts. Spitzer (2007) contends that monitoring performance is costly to the firm and it brings about inefficiencies in the firm which are formed when information flow on individual performance declines. This takes place in cases where large teams, unmonitored executives who act independently. Jensen (1996) argues that the critical concern of agency theory is how to engage in agreements in cases where the performance of an agent can be evaluated

such that they act in a way that shareholders' interest is represented. Thus, financial leverage can be employed as a means to monitor the actions of the agents.

2.2.3 Trade-Off Theory

Powell and Baker, (2009) note that trade-off theory maintains the firm's optimal ratio of debt is assessed through a trade-off amid costs involved and the benefits derived from borrowing, this holds the assets of the firm and investment plans constantly. According to Mohapatra (1999) static trade-off theory opines that firms that have large tangible assets have a higher debt to equity ratio. Firms that depend solely on opportunities for growth intangible assets might be exposed to distress cost. Firms that are exposed to business risks are uncertain about generating adequate income to optimize their debt tax shield and thus issue less debt. Bruslerie and Latrous, (2012) argue that leverage is beneficial to shareholders provided they are compensated to a point where tax gains deductibility of interest counterbalances potential costs from bankruptcy.

2.3 Determinants of Financial Leverage

Financial leverage was affected by several factors; these factors might have either long-term or short-term impact on the firm's performance. These determinants include firm size and profitability.

2.3.1 Firm Size

A firm's size is a crucial aspect that determines the amount of debt it can access to fund its projects. According to Gonenc (2005), large firms access debts easily than small firms because of the positive reputation from their stakeholders. Large firms are more profitable due to economies of scale and relatively low production costs. Further, the firms operate efficiently because they apply advanced technology that

may be unaffordable to small firms. Due to the instability of smaller firms, most financial institutions are reluctant to offer them debt.

Smaller firms mainly require debt to finance growth and expansion strategies such as research and development to boost sales. The size of firm is indicated by natural log of assets (Petersen & Kumar, 2010).

2.3.2 Firm Profitability

Profit maximization is the primary objective of businesses. According to Penman (2007), profitability refers to firm ability produce income from its business activities. Based on their stability and the ability to access cheap financing in the form of debts, larger firms are considered more profitable than the smaller ones. Additionally, large firms gain from economies of scope and incur average costs that boost their profitability. The instability and limited capacity of smaller firms affect their ability to access debt from financial institutions. To gain competitive advantage, firms need to engage themselves in activities that result to satisfactory profitability level.

Majority of firms use profitability ratios to determine their financial performance as well as shareholders' returns. Petersen and Kumar (2010) explain that profitability is among the primary concerns for most companies. Profitability level is useful in decision-making as it indicates a firm's level of efficiency. Pandey (2005) cites that profitability ratios are useful to managers and firm owners as they indicate the efficiency level as well as a firm's economic performance. In the current study, profitability will be measured using ROA.

2.4 Empirical Studies

Ongore (2011) tested the effects of firm ownership identity and managerial discretion on ROA of Kenyan listed firms. The methodology applied included a census survey of all the listed firms and published data sources. Correlation, and regression analysis was employed to detect the association amidst parameters. A significant and positive connection was found between managerial discretion and performance. The limitation for this study is that it did not factor in leverage and how it affects ownership structure.

Subba (2011) carried an examination in the link amidst ownership structure and financial leverage of 465 sampled firms in Australia (2004-2010). Panel data was employed and pooled OLS approach was employed to test the nexus amidst study parameters. A significant connection amidst structure of ownership and capital structure was disclosed. Bondholders recorded a significant linkage on capital structure when shareholding increased and an inverse effect when it declined. Managerial ownership lacked any effect on capital structure however; it had an effect on short-term debt levels. The study findings did not consider the individual implications of ownership structure on financial leverage instead this study looked at the effect that structure of ownership had on capital structure. This study was done in a developed country.

Hubert and Imen (2012) tested the link between corporate ownership structure and debt (leverage) of French firms, this study sampled 112 firms quoted under the stock market in France between 1998-2009. An inverted U-shape approach was utilized to detect the link between variables (shareholders' ownership and leverage). It was

found that minority ownership, shareholders (controlling) utilized more of debt to widen their stake in capital and repel unfriendly efforts from takeovers. Additionally, financial distress promoted majority stakeholders to optimize the leverage ratio of a firm. A significant link was found between ownership and debt.

Avulamusi (2013) performed an investigation involving the link amongst ROA and commercial banks' structure of ownership. A descriptive form of design was applied in a sample of 20 commercial banks. Secondary type of data was derived from CBK annual reports in a period of 5 years (2008-2011). It was concluded that, there existed a positive link amidst foreign ownership and ROA. This study was limited to commercial banks while the current study will be focusing on all the listed firms.

Phuong (2013) examined the link between foreign shareholding, structure of capital and firm performance of Vietnamese listed firms. An exploratory study design was applied with the help of unbalanced panel data drawn from all non-financial firms covering a period of 6 years (2007-2012). A pooled OLS and fixed-effect regression method were utilized. It was discovered foreign ownership was negatively linked to leverage and state ownership attained a positive impact. Further, leverage was found to be significantly and inversely linked to performance. This study was done in a global setting which is different from the local setting.

Onsumo (2014) assessed the link amid financing structure and agency costs of listed firms at NSE. A descriptive form of a research design was used. Target population involved all listed firms that had been operational in 2009 to 2013. Secondary data sources were utilized and a regression model adopted to find out how the variables related. The results revealed a positive correlation between agency costs and capital

structure. This study failed to factor in the connection amidst ownership structure and leverage which is the main focus of the current study.

Mohamed and Khairy, (2015) did an exploration involving board traits, sharing structures and financial leverage in Egypt. A sample involving 36 firms (non-financial) were selected from 50 firms that actively traded in Egyptian Stock Exchange (ESE), this study covered 5-years (2007-2011). Total debt ratio, short-term debt ratio and long-term debt ratio (measures of corporate financial leverage).

Corporate traits, board size and non-executive directors, CEO duality were considered as explanatory variables. Ownership structures (managerial ownership, institutional ownership, block holder's ownership and governmental ownership). Control variables were size of the firm, profitability, tangibility and growth. OLS method was employed for analysis of data. Institutional ownership and government ownership were found to be related positively to corporate leverage. Board size (and block holding) was significantly and negatively correlated. Despite the fact that Egyptian firms tend to have weak mechanisms of corporate governance compared to most firms in the developing nations, it was concluded that board traits and the structure of ownership played an influential role on corporate financial leverage decisions. This research failed to explicitly reveal the link amidst ownership traits and financial leverage.

Mutisya (2015) explored the link amidst shareholding structure and ROE of firms listed at NSE. To detect the link between the variables, a descriptive design was applied and a census of 58 NSE firms spanning a 5-year period (2010-2014). Data was obtained from NSE handbook. A multiple regression was used to assess this relationship and it was found that the distribution of ownership impacted negatively

on ROE. A statistically insignificant relationship was also found to exist amidst ownership structure and ROE.

This research limited itself to ownership structure and financial performance and completely ignored leverage. In an examination conducted by Marete (2015) regarding the connection between firm size and financial leverage of listed firms, a descriptive design was employed in NSE firms. Data was obtained from NSE handbooks for a period spanning 5-years (2010-2014). A regression analysis was utilized and it was unearthed that financial leverage and firm size were statistically significant and positively related. This study did not consider ownership structure and its effect on financial leverage. Afang and Musa (2016) tested the link amongst shareholding structure and ROE of Nigerian conglomerate listed at Nigerian Securities Exchange using an explorative design. Study population involved 50 conglomerates, panel data was covering duration of 5 years. A multiple kind of a regression equation was used and the results depicted that management and foreign ownership shareholding impacted negatively on ROE. Size of the firm was positively linked to firm performance. This study was carried out in an international setting whose situations are different from local setting.

2.5 Conceptual Framework

This study theorized that ownership structure influenced financial leverage. Ownership structure was the independent variable (state ownership, institutional ownership, managerial ownership and foreign ownership); control variables include firm size and profitability. Dependent variable was financial leverage.

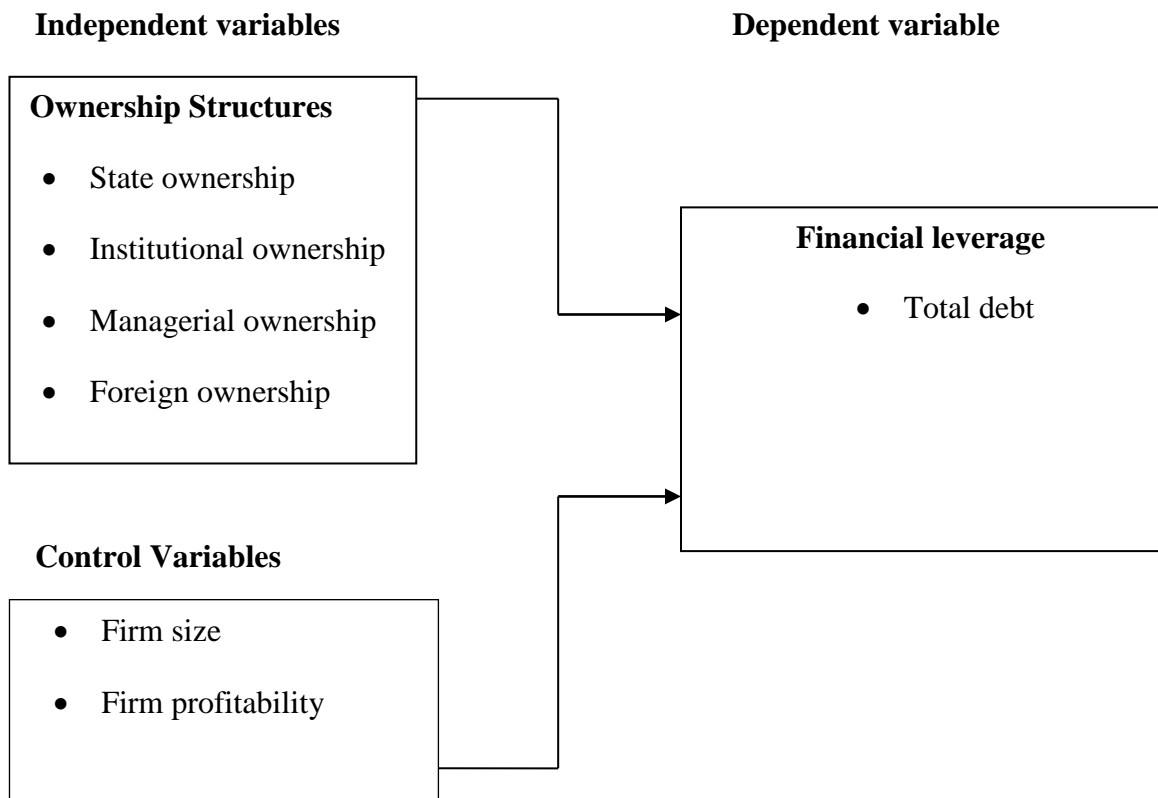


Figure 2.1: Conceptual Framework

2.6 Summary of the Literature Review

In conclusion, the theories that guide this study are aligned to the study objective; they include MM theory which posits that with absence of corporate taxes the levered firm value is similar to that of the unlevered firm and that the levered firm value might be higher compared to the unlevered firm. Agency theory asserts that the management must prioritize the interest of their stakeholders. The stakeholders can achieve this through assigning agency costs. Trade-off Theory insists on the need to optimize debt ratio through comparing costs and benefit of borrowing. Studies draw a mixture of reaction on the link between ownership structure and financial leverage (Ongore, 2011, Hubert & Imen, 2012, Avulamusi, 2013) found a significant relationship, (Mutisya, 2015) found an inverse relationship, (Subba, 2011) found a negative relationship. These studies seem not to agree on the link amongst shareholding structure and leverage. Therefore, this study finds it worthwhile to conduct an exhaustive study and clarify the effect of structure of ownership on financial leverage of non-financial firms quoted at quoted in NSE.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Under this chapter, the researcher outlines the methodological approach that was applied to accomplish the study objective. Sections described in this chapter are research design, study population, procedures and processes that were utilized in collecting data including analysis of data and presentation.

3.2 Research Design

Descriptive design was applied in the research. Kothari (2005) maintains that a descriptive design will be relevant in enabling the researcher to establish the relationship between variables that included ownership structures and financial leverage. Also, this form of design was useful when the researcher is seeking to find out hypothetical relationships between variables. This design was also applied by Rajan and Zingales (1997) in their attempt to find out the relationships that existed between variables.

3.3 Study Population

Population entails totality of items having similar traits. Other characteristics of a population include having comparable units with the same features (Mugenda & Mugenda, 2003). The population targeted included listed non-financial firms that had been operational over the last 5 years (CMA, 2017), they are 50 (as represented in Appendix I) thus a census survey was applicable considering that this population is small.

The choice to base this study on non-financial firms was derived from the fact that unlike financial firms that undergo through capital holding regulations by CBK; these regulations did not apply to non-financial firms despite all listed firms being regulated by CMA.

3.4 Data Collection

Secondary type of data was utilized. This type of data was got from CMA annual reports. Cooper and Shindler (2008) explain that data collection is a methodical approach which is applied to gather and assess information from different sources with the sole objective of achieving a clearer picture of an area of interest. Collection of data allowed the researcher to predict future outcomes and examine the findings. The study covered a period of 5 years (2013-2017), this period was considered reasonable in enabling the researcher to establish a more accurate and reliable relationship that might exist between the variables being investigated.

3.5 Data Analysis

Analysis of data was executed using SPSS. The reason for choosing this tool was because it gave a complex set of statistical and physical tools of analysis. Mugenda and Mugenda (2003), notes that data analysis uses logic to internalize collected data to determine uniformity and trend among other important details in a study. Inferential statistics such as regression and correlation analysis was applied for analysis. Mean and standard deviation were utilized in data presentation to find out the trends, patterns and the relationships between the variables.

3.5.1 Analytical Model

A regression equation was adopted and it consisted of 6 independent variables (ownership structures: state, institutional, managerial and foreign, firm size and profitability) and a dependent variable which was financial leverage. It was assumed that the independent variables affected financial leverage. This dependent variable was assessed using short-term and long-term debt divided with total assets. This study sought to extend the model adopted by Ongore (2011) who used a regression equation in establishing the link between variables. The regression equation applied in this study was as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon$$

Where;

Y = Financial leverage that was evaluated by dividing total debt divided by total assets

X₁ = state ownership which was measured as a proportion of common shares held by state divided by cumulative shares in issue.

X₂ = institutional ownership which was measured as a proportion of common shares held by institutions divided by cumulative shares in issue.

X₃ = managerial ownership which was measured as a proportion of common shares held by management divided by cumulative shares in issue.

X₄ = foreign ownership which was measured as a proportion of common shares held by foreign investors divided by cumulative shares in issue.

X_5 = firm size that was evaluated using natural logarithm of assets.

X_6 = profitability that was evaluated using return on assets

α = Regression constant

ε = Error term

$\beta_1\beta_2\dots \beta_n$ = coefficients of variation

3.5.2 Tests of Significance

F-test and T-test was carried out. In the F-test, when computed F-statistics was bigger compared to F-value, null hypothesis got rejected. P-value was determined using F-statistic which was an indication that the finding was a result of chance. T-tests was conducted to establish whether the coefficients in the regression equation were significant.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

Under this chapter an analysis of results and its interpretation was guided by the broad objective of the study which was to determine the effect of ownership structure on financial leverage of non-financial firms listed at the NSE. The study adopted a descriptive research design to find out the relationships between variables of listed financial institutions.

4.2 Descriptive Statistics

Descriptive analysis consists of means and standard deviations (SD), maximum, minimum and skewness. Mean is defined as a central value of a set of numbers. Mean measures central tendency that is used to describe typical values. Standard deviation is the spread of values in a sample while skewness measures symmetry.

Table 4.1 Descriptive Statistics

Units	Mean	Standard Deviation	Skewness	Maximum	Minimum
Managerial State	0.499	0.301	-0.111	0.93	0.04
Institutional Foreign	0.191	0.322	1.248	0.87	0
ROA	0.206	0.212	1.913	0.96	0
Logarithm of assets	0.238	0.337	0.747	0.89	0
Long-term debt	-0.856	11.013	-12.324	0.858	-139.77
	6.991	1.549	-2.31	9.786	0
	0.43	0.24	-0.092	0.951	0

In Table 4.1, the results showed that managerial ownership of non-financial listed firms increased from 0.04 to 0.93, with a margin of 0.89. It had a mean of 0.49, SD of 0.301 and skewness of 0.350, which implied that most managers and executives have

varied ownerships in listed non-financial firms. Institutional ownership reported an increase from 0.00 to 0.96; with a margin of 0.96, it had a mean of 0.206, SD of 0.212 and skewness of 1.913. This was an indication that although institutional ownerships increased in the study period, it had a minimal variation from the mean. State ownership increased significantly in the study period, from 0.00 to 0.87, with a mean value of 0.191, SD of 0.322 and a small deviation from the mean as revealed by the level of skewness which was 1.248.

Foreign ownership reported an increase from 0.00 to 0.89; it attained a mean value of 0.238 and the highest SD (0.337). This might have been attributable to a small number of foreign investors whose level of investments varied significantly within the study period. The findings further established that firm size attained a maximum value of 9.786, and a minimum of 0.00, the mean value of 6.991 and a SD of 1.549. On the other hand, long-term debt had a minimum value of 0.00, maximum value of 0.95, mean of 0.43 and SD of 0.24.

4.3 Pearson Product Moment Correlation Coefficient

Correlation analysis was done to establish the existing strong points on relationships among variables (ownership structure and financial leverage). Pearson correlation scale is applied to interpret correlation values that lie between 0.00 to 1 as follows: between 0.0 – 0.3 indicate existence of no correlation, 0.31 – 0.5 depict presence of a weak correlation. A range of 0.51 – 0.7 demonstrates a moderate correlation and amid 0.71 – 1.0 depicts presence of a strong correlation among variables. The results are captured in Table 4.2.

Table 4.2: Correlation Analysis

	Financial leverage	Managerial ownership	State ownership	Institutional ownership	Foreign ownership	ROA	Firm Size
Financial leverage	1						
Managerial ownership	-.082	1					
State ownership	-.047	-.455**	1				
Institutional ownership	-.062	.032	-.366**	1			
Foreign ownership	.135	-.532**	-.370**	-.067	1		
ROA	.007	-.022	-.064	.023	.043	1	
Firm Size	.095	-.320**	.359**	-.142	-.038	.101	1

In Table 4.2, the findings showed non-existence of correlation between ownership structures (foreign, state, institutional and managerial), ROA, firm size and financial leverage of non-financial listed firms. The correlation values were as follows:-0.082, -0.047, -0.062, 0.135, 0.007 and 0.095, respectively.

4.4 Regression Analysis

A linear regression was carried out to detect the link amongst ownership structures and financial leverage of listed non-financial firms.

Table 4.3: Summary of Output

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.190 ^a	.036	.021	.2556389

a. Predictors: (Constant), Logarithm of assets, Foreign, ROA, Institutional, State, Managerial

This model does not fit the data well. According to the computed adjusted R-square, only 2.1% of the changes in financial leverage are as a result of the changes in the independent variables: logarithm of assets, foreign, dividend pay-out, ROA, institutional, state and managerial.

Table 4.4: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.380	6	.063	.969	.048 ^a
	Residual	10.129	155	.065		
	Total	10.509	161			

Analysis of variance portrays that the overall regression model used is significant because its probability value is less than 5%, (0.048).

Table 4.5: Model Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.364	.227		1.603	.111
	Managerial	-.139	.204	-.162	-.680	.498
	State	-.172	.186	-.217	-.927	.355
	Institutional	-.147	.146	-.123	-1.003	.045
	Foreign	-.027	.179	-.035	-.152	.880
	ROA	-.021	.100	-.017	-.211	.833
	Logarithm of assets	.018	.016	.104	1.183	.039

a. Dependent Variable: financial leverage

The regression model obtained is as follows:

$$\text{Financial leverage} = 0.364 - 0.147X_1 + 0.018X_2 + \varepsilon$$

Managerial, state, foreign ownerships and ROA were eliminated from the regression equation because they were insignificant.

Therefore institutional ownership and logarithm of assets were significantly related to financial leverage because their p-values were less than 5%, (0.045 & 0.039, respectively).

State, managerial, foreign (ownerships) and ROA were insignificantly linked to financial leverage since their p-values exceeded 5%, (0.498, 0.355, 0.880 & 0.833, respectively). Thus, null hypothesis was accepted and alternative hypothesis rejected.

Logarithm of assets was positively linked to financial leverage (0.018). This implies that a unit increase in each of these variables will lead into a corresponding increase in financial leverage. Ownership structures (Managerial, state, institutional, foreign) and ROA were negatively linked to financial leverage (-0.139, -0.172, -0.147, -0.027 & -0.021, respectively), meaning that a unit increase in this variable will lead into corresponding decline in financial leverage.

4.5 Discussion of Findings

The descriptive results showed that profitability and firm size increased significantly in the study period. These findings are consistent to Chai (2010) who found that firm profitability and firm size recorded the highest increases in the study period. Managerial, institutional, state and foreign ownerships structures increased gradually in the study period which was an indication that most listed non-financial firms performed well in the study period. These findings are consistent to Mutisya (2015) who found that ownership structures (managerial, state, foreign and institutional) recorded a slight increase in the study period. Long-term debt, ROA, firm size and managerial ownership size were inversely skewed; these implied that these variables were slightly spread-out unlike foreign, institutional and state ownership structures.

The correlation findings discovered that there was no correlation between ownership structures: managerial, state, institutional and foreign and financial leverage (-0.082, -0.047, 0.062 & -0.135, respectively). The findings abide by the observations of Mutisya (2015), who discovered that there was no correlation between ownership

structures (state, managerial and foreign) and ROA. Similarly, there lacked existence of a correlation between profitability and size of firm with long-term debt (0.007 & 0.095, respectively). These results are consistent to Setiawan et al. (2016) who established that there was no correlation between profitability, firm size and long-term debt. Results from regression analysis established that the coefficient of determination was 3.6%, these implied that the regression equation was not a good fit for the data. Hence, it was a poor predictor. These results contradict the observations made by Hamid et al. (2012) who found that the coefficient of determination was a reliable predictor. Overall regression equation was discovered to be significant as its probability value was smaller than 5%, (0.048). These results conform to the observations by Ongore (2011).

Firm size was positively related to long-term debt (0.018). These results abide by the observations of Mukonyi et al. (2016) who unravelled that size of the firm was linked positively to long-term debt. Ownership structures (state, managerial, foreign and institutional) and profitability were negatively linked to long-term debt (-0.139, -0.172, -0.147, -0.027 & -0.021, respectively). Firm size and institutional ownership were significantly linked to long-term debt. These findings are Mutisya (2015) who found a significant connection amid firm size and long-term debt. Contrary to this, managerial ownership, state ownership, foreign ownership and firm profitability were insignificantly linked to long-term debt (0.498, 0.365, 0.880 & 0.883). Consistent to these, are the observations by Basil and Erhan (2016).

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides comprehensive findings on descriptive statistics and inferential statistics and their interpretation. These findings have been discussed in line with the research objective which was determining the effect of ownership structure on financial leverage of non-financial firms listed at NSE. The sections discussed under this chapter include major finding, recommendations, limitations and areas for further research.

5.2 Summary of Findings

Results of descriptive statistics established that profitability and firm size increased rapidly during the study period. These results abide to the views of Chai (2010) who established that firm profitability and size of the firm attained significant increases in the study period. Managerial, institutional, state and foreign ownerships structures reported a slow growth in the study period which was an indication that listed non-financial firms performed relatively well in the study period. These findings are consistent to Mutisya (2015), reported that ownership structures (state, foreign, managerial and foreign ownerships) increased during the study period. Managerial ownership, profitability and firm size were inversely skewed; these imply that these variables were slightly spread-out unlike foreign, institutional and state ownership structures.

The correlation outcome discovered that there lacked a correlation between ownership structures (managerial, state, institutional and foreign) and long-term debt. These results conform to the observations made by Mutisya (2015) who discovered that there was no correlation between ownership structure and ROA. Similarly, there lacked a correlation between profitability, firm size and long-term debt. These results are consistent to Setiawan et al. (2016) who found no correlation amid firm size, profitability and long-term debt.

The coefficient of determination was found to be 3.6%, these implied that the equation for regression used was not a good fit for the data. Hence, it was not reliable thus a poor predictor. These results contradict the findings by Hamid et al. (2012), who established that the coefficient of determination was a good predictor and thus a good fit for the data. Overall regression equation was found to be significant 5%, (0.048). These results are consistent to Ongore (2011).

Firm size was positively linked to long-term debt. These results abide by the observations of Mukonyi et al. (2016) who revealed that size of firm was positively linked to financial leverage. Institutional ownership and firm size were significantly linked to long-term debt. These results are consistent to Mutisya (2015) who established a significant association amid firm size, institutional ownership and ROA. Contrary to these, ownership structures (state, managerial and foreign) and ROA were insignificantly related to long-term debt. These findings conform to the observations of Basil and Erhan (2016), who discovered that state, managerial and foreign ownerships were insignificantly linked to long-term debt.

5.3 Conclusion

The research concluded that size of the firm and profitability of listed non-financial firms increased rapidly during the study period, this led to overall performance of these firms. Ownership structures (state, managerial, foreign and institutional) recorded slow growth in the study period.

Results of correlation analysis revealed that there was no correlation between ownership structures (managerial, institutional, state and foreign) and financial leverage. Similarly, there was no correlation between profitability, firm size and financial leverage of listed non-financial firms.

Regression findings established that coefficient of determination was unfit for the data hence a poor predictor. Analysis of variance showed that overall regression model was significant. Firm size was positively and significantly linked to long-term debt. Institutional ownership was negatively and significantly linked to long-term debt. Ownership structures (managerial, foreign and state) were negatively and insignificantly linked to long-term debt. Similarly, profitability was inversely and insignificantly linked to long-term debt.

5.4 Recommendations

Agency theory indicates that managerial ownership is vital tool for effective corporate governance that may foster alignment between the interest of the managers and stakeholders. Thus, study recommends that managerial ownership should serve a mechanism to reduce agency cost and improve firm value; this is because management decisions impact on investor choice of investment.

The study recommends that listed firms should maintain high levels of institutional ownership. These imply that when institutional stakeholders have majority shares, the firm will pay huge dividends and minimize monitoring costs. It is important to note that institutions do not monitor firm operations directly; instead they force opportunist managers to distribute available free cashflows such that they do not have any projects to exploit and create value.

The study recommends that the government through Capital Markets Authority should formulate policies that seek to restore the citizens' purchasing power and consumer protection. This can be achieved by hiring managers who focus on profitability of state-owned firms as opposed to leaving the firms in the hands of politicians and bureaucrats who disregard prudent business principles.

5.5 Limitations of the Study

Secondary data sources were utilized; that consist of general purpose reports which are historical and easily to manipulate. This kind of data is not accurate and reliable and this might impact negatively on the quality and reliability of findings.

The research used a descriptive research design accompanied by research questions. The major study limitation was that although the researcher established the direction, and the nature of existing relationships between variables, it was difficult to establish the 'cause and effect' relationship among variables.

This research utilized a descriptive kind of research design with a clearly defined research question. The main weakness of form of study design is that it cannot establish causality between variables. Even though with a descriptive research design the researcher can establish the nature of existing relationships between variables, the design cannot establish the causal effects among variables.

This study spans for a period of five years; it is highly recommended for future researchers to conduct a longitudinal study spanning for a period of like 20 years. This way, the researcher can establish the nature of existing relationships between the variables accurately.

5.6 Suggestions for Further Research

A replica of this research should be executed in the same sector using a different methodological approach for example use of a longitudinal design and panel regression analysis. This will broaden the researchers' understanding on the effect that ownership structure have on financial leverage. Through a comparison of findings, the researcher will identify variables that significantly impact on financial leverage and those that have no effect. This will enable the researcher to draw a conclusion on factors that affect financial leverage.

Another similar study needs to be conducted in other countries particularly in the Sub-Saharan region. This will enable the researcher to identify other factors that have a bearing on financial leverage and the nature of relationships between variables. This will give a detailed review regarding the nature of the relationship established, and the universality and relevance of ownership structures and its effect on financial leverage among listed non-financial firms.

REFERENCES

- Afang, H.A., & Musa, B. D. (2016). Ownership structure and the financial performance of listed conglomerate firms in Nigeria, *The Business and Management Review*, 7, 3, 1-5
- Ang, J., Cole, R., & Lin, J. (2009). Agency costs and ownership structure. *Journal of Finance*, 20 (1), 81-106.
- Avulamusi, A. (2013). The relationship between ownership structure and financial performance of commercial banks in Kenya. *Unpublished Journal*, University of Nairobi.
- Avulamusi, A. (2013). The relationship between ownership structure and financial performance of commercial banks in Kenya, *Unpublished Journal*, University of Nairobi.
- Bruslerie, H, H., & Latrous, I. (2012). Ownership structure and debt leverage: empirical test of a trade-off hypothesis on French Firms, *Journal of Multinational Financial Management*, 1-39.
- Cooper, D. R., & Schindler, P. S. (2008). *Business research methods*, Boston, Mass. [u.a.: McGraw-Hill
- Din, S., Javid, A., & Imran, M. (2013). External and internal ownership concentration and debt decisions in an emerging market: Evidence from Pakistan, *Asian Economic and Financial Review*, 3(12), 1583-1597.
- Din, S., Javid, A., & Imran, M. (2013). External and Internal Ownership Concentration and Debt decisions in an Emerging Market: Evidence from Pakistan, *Asian Economic and Financial Review*, 3(12), 1583-1597.
- Ganguli, S. (2013). Capital structure-does ownership structure matter? Theory and Indian Evidence, *Studies in Economic and Finance*, 30(1), 56-72.
- Holderness, C. G. (2009). The myth of diffuse ownership in the United States, *Review of Financial studies*, 2, 1,213-217
- Huang, B., Lin, C., & Huang, C. (2013). The influences of ownership structure: Evidence from China. *Journal of Finance*, 46(1), 209-226.
- Hubert, D.B., & Imen, L. (2012). Ownership structure and debt leverage: empirical test of a trade-o hypothesis on French firms, *Journal of Multinational Financial Management*, Elsevier, 22 (4), 111-130.
- Jensen, M.C. (1996). The agency cost of free cash flow: corporate finance and takeovers, *American Economic Review*, 2, 5, 78-90
- Kararti, T. (2014). Impact of ownership structure on leverage on non-financial firms in developing economies, *International Research Journal of New York University*, 1, 1, 16-46

- Khan, M., & Jain, P. (2005). *Basic financial management*, New Delhi, Tata Mc Graw-Hill Education
- Kothari, C. R. (2005). *Research methodology: methods & techniques*, New Delhi: New Age International (P) Ltd.
- Lee, J. (2008). *Handbook of quantitative finance and risk management*, Springer Science & Business Media. New York.
- Lee, Y., & Lee, S. (2014). Interaction effects between ownership concentration and leverage on firm performance, *Management Review, An International Journal*, 9(1), 70-106.
- Liu, Q., Tian, G., & Wang, X. (2011). The effect of ownership structure on leverage decision: new evidence from Chinese listed firms, *Journal of the Asia Pacific Economy*, 16, 2,201-205
- Mohamed, G. A., & Khairy, E. (2015). The effect of board characteristics and ownership structure on the corporate financial Leverage, *Accounting and Finance Research*, 5 (1), 132-133
- Mohapatra, K. A. (1999). *Corporate financial management*, New Delhi, Discovery Publishing House.
- Mukonyi, P., Basweti, K., & Kamau, S. (2016). The relationship between ownership structure and leverage of firms listed in the Nairobi Securities Exchange, *IOSR Journal of Economics and Finance (IOSR-JEF)*, 7, 3, 2321-5925.
- Mutisya, S.B. (2015). The relationship between ownership structure and financial performance of companies listed at the Nairobi Securities Exchange, *Unpublished Journal*, University of Nairobi
- Naser, K., Al-Hussaini, A., & Nuseibeh, R. (2006). Determinants of corporate social disclosure in developing countries: The case of Qatar, *Advances in International Accounting*, 19(1), 1–23
- Nikbakht, E. (2006). *Finance*, New York, Barron's Educational Series.
- Ochieng, M. (2013). Determinants of leverage of Savings and Credit Co-Operatives in Kenya: An empirical approach, *International Journal of Business and Commerce*, 2(10), 58-65.
- Ongore, V.O. (2011). The relationship between ownership structure and firm performance: an empirical analysis of listed companies in Kenya, *African Journal of Business Management*.
- Onsumo, P. G. (2014). The relationship between capital structure and agency costs of firms listed at the Nairobi Securities Exchange, *Unpublished Journal*, University of Nairobi.

- Pandey, I. M. (2010). *Financial management*, New Delhi. Vikas Publishing House
- Pandey, M. (2009). *Essentials of financial management*, New Delhi. Vikas Publishing
- Periasamy, M. (2009). *Financial management*, New Delhi, Tata Mc Graw-Hill Education.
- Phuong, T.V. (2013). Foreign ownership, capital structure and firm performance: Empirical evidence from Vietnamese listed firms', *IUP Journal of Corporate Governance*, 12, 2, 40–58 (co-author: Duc Nam Phung).
- Powell, G., & Baker, K.H. (2009). *Understanding financial management: A practical guide*, New York, John Wiley and Sons.
- Rubach, M. (1999). *The changing face of corporate ownership*, London, Routledge publishers.
- Slama, S. & Taktak, Z. (2014). Ownership structure and financial performance in Islamic banks, *Journal of Islamic and Middle Eastern Finance and Management*, 7(2), 146-160.
- Spitzer, R. (2007). *Transforming performance measurement: rethinking the way we measure and drive organizational success*, New York Amacom publishers.
- Subba, R.Y. (2011). Influence of ownership structure on finance leverage: A Study of Australian Firms, *The Journal of Finance*, 39(3), 857-878.
- Yang, Y., Chen, J., Kweh, Q. & Chen, H. (2013). Ownership structure and efficiency in Taiwanese electronics firms. *Review of Accounting and Finance*, 12 (4), 351-368.
- Yarram, S. (2013). Ownership and financial leverage: Australian Evidence, *Asia Pacific Journal*, 17(1), 13-23.
- Zhuang, J. (1999). *Some conceptual issues of corporate governance*, Michigan, Economic and Development Resource Center

Years	Managerial	State	Institutional	Foreign	ROA	Logarithm of assets	Long-term debt
2017	0.67	0	0.33	0	0.038068	5.758	0.631
	0.36	0	0.03	0.61	0.106181	6.553	0.663
	0.69	0	0.31	0	0.039927	6.293	0.625
	0.46	0	0.01	0.53	0.318341	5.505	0.682
	0.85	0	0.15	0	-0.01389	6.951	0.614
	0.09	0	0.24	0.67	0.117987	6.86	0.569
	0.79	0	0.21	0	0.046751	6.756	0.132
	0.18	0	0.13	0.69	-0.29165	5.754	0.261
	0.86	0	0.14	0	0.0549	6.531	0.361
	0.19	0	0.05	0.76	0.047267	5.267	0.596
	0.73	0	0.27	0	0.020807	8.156	0.448
	0.16	0	0.11	0.73	0.030018	8.132	0.313
	0.12	0	0.07	0.81	0.028435	8.161	0.035
	0.11	0.78	0.11	0	0.033227	8.565	0.076
	0.13	0.81	0.06	0	0.010967	7.827	0.337
	0.05	0.06	0.13	0.76	0.04129	8.291	0.624
	0.78	0	0.22	0	0.038533	8.302	0.61
	0.84	0	0.16	0	-0.01947	6.291	0.581
	0.87	0	0.13	0	0.026295	5.695	0.724
	0.06	0.83	0.11	0	0.013524	8.089	0.693
	0.69	0	0.31	0	0	4.191	0.663
	0.59	0	0.41	0	0.235356	7.028	0.543
	0.66	0	0.34	0	0.052382	6.544	0.55
	0.68	0	0.32	0	0.036929	7.126	0.485
	0.17	0.73	0.1	0	0.055426	6.694	0.429
	0.17	0	0.12	0.71	0.08996	6.922	0.531
	0.29	0	0.05	0.66	0.113396	7.634	0.361
	0.22	0	0.95	0.73	0.059105	6.354	0.454
	0.79	0	0.21	0	0.084306	6.796	0.424
	0.21	0.79	0	0	-0.06966	7.145	0.48
	0.14	0.86	0	0	0.017284	8.213	0.11
	0.93	0	0.07	0	-0.19243	7.514	0.118
	0.13	0.87	0	0	0.034385	8.128	0.153
	0.11	0	0	0.89	-0.00613	7.518	0
	0.23	0	0.16	0.61	0.075633	5.878	0.103
	0.88	0	0.12	0	0.04259	7.772	0.031
	0.09	0	0.08	0.83	0.049757	7.355	0
	0.79	0	0.21	0	0.026594	7.934	0
	0.12	0.77	0.11	0	0.120907	7.365	0.009
	0.25	0	0.08	0.67	0.031363	7.437	0.031
							0.2
	0.25	0	0.75	0	0.036419	7.217	

Years	Managerial	State	Institutional	Foreign	ROA	Logarithm of assets	Long-term debt
2016	0.64	0	0.46	0	0.10288	7.063	0.057
	0.91	0	0.09	0	0	0	0.048
	0.89	0	0.11	0	0	0	0
	0.77	0	0.23	0	0.003472	6.271	0.061
	0.63	0	0.37	0	0.033932	7.339	0.041
	0.27	0	0	0.73	0.099149	6.299	0.026
	0.67	0	0.33	0	0.193317	6.304	0.001
	0.63	0.37	0	0	0.206386	7.734	0
	0.73	0.27	0	0	0.0609	6.061	0.003
	0.04	0	0.96	0	0	4.204	0.002
	0.31	0	0.69	0.57	0	5.701	0.007
	0.45	0.65	0	0	0.073413	7.438	0.043
	0.45	0	0.55	0	0.054428	6.806	0.082
	0.63	0.37	0	0	0.103591	8.086	0.084
	0.67	0	0.33	0	-0.11842	5.699	0.194
	0.36	0	0.03	0.61	0.044418	6.57	0.139
	0.69	0	0.31	0	0.060581	6.318	0.24
	0.46	0	0.01	0.53	0.083185	5.535	0.502
	0.85	0	0.15	0	0.010123	6.957	0.499
	0.09	0	0.24	0.67	0.106733	6.904	0.512
	0.79	0	0.21	0	0.045751	6.839	0.415
	0.18	0	0.13	0.69	-0.21355	5.712	0.357
	0.86	0	0.14	0	0.109484	6.564	0.327
	0.19	0	0.05	0.76	0.036908	5.315	0.326
	0.73	0	0.27	0	0.028371	8.257	0.341
	0.16	0	0.11	0.73	0.031446	8.221	0.721
	0.67	0	0.33	0	0.047768	8.444	0.76
	0.77	0	0.23	0	0.020985	7.676	0.572
	0.12	0	0.07	0.81	0.03522	8.15	0.046
	0.11	0.78	0.11	0	0.031795	8.592	0.094
	0.13	0.81	0.06	0	0.012034	7.966	0.101
	0.89	0	0.11	0	0.026741	8.083	0.001
	0.05	0.06	0.13	0.76	0.042048	8.343	0.256
	0.78	0	0.22	0	0.039394	8.364	0.19
	0.93	0	0.07	0	-0.01546	4.001	0.321
	0.84	0	0.16	0	0.090101	6.297	0.464
	0.87	0	0.13	0	0.000476	5.682	0.345
	0.06	0.83	0.11	0	-0.05292	8.172	0.426
	0.77	0	0.23	0	0.137009	5.836	0.001
	0.69	0	0.31	0	0.024489	4.654	0.003
	0.59	0	0.41	0	0.221141	7.059	0.053
	0.66	0	0.34	0	0.045771	6.617	0.117

Years	Managerial	State	Institutional	Foreign	ROA	Logarithm of assets	Long-term debt
2015	0.68	0	0.32	0	0.027937	7.208	0.124
	0.17	0.73	0.1	0	0.064074	6.746	0.138
	0.17	0	0.12	0.71	0.065279	7.105	0.127
	0.29	0	0.05	0.66	0.085314	7.634	0.162
2015	0.22	0	0.95	0.73	0.072626	6.469	0.181
	0.79	0	0.21	0	0.058224	6.835	0.138
	0.23	0	0.06	0.61	0.094092	5.949	0.325
	0.09	0	0.08	0.83	0.041608	7.438	0.437
	0.64	0	0.46	0	0.054521	7.278	0.569
	0.91	0	0.09	0	0.212471	9.486	0.696
	0.77	0	0.23	0	0.004157	6.278	0.725
	0.63	0	0.37	0	0.026295	7.377	0.642
	0.67	0	0.33	0	0.215868	6.343	0.563
	0.04	0	0.96	0	0.170343	8.942	0.267
	0.31	0	0.69	0.57	0	0	0.488
	0.45	0	0.55	0	0.032649	6.909	0.481
	0.67	0	0.33	0	-0.09	5.649	0.648
	0.36	0	0.03	0.61	0.04	6.586	0.63
	0.46	0	0.01	0.53	0	5.53	0.826
	0.09	0	0.24	0.67	0.09	6.932	0.798
	0.18	0	0.13	0.69	0	5.781	0.765
	0.19	0	0.05	0.76	0.04	5.354	0.795
	0.16	0	0.11	0.73	0.03	8.325	0.749
	0.67	0	0.33	0	0.05	8.537	0.701
	0.77	0	0.23	0	0.02	7.785	0.739
	0.12	0	0.07	0.81	0.03	8.247	0.621
	0.11	0.78	0.11	0	0.03	8.69	0.49
	0.13	0.81	0.06	0	0.01	8.09	0.61
	0.05	0.06	0.13	0.76	0.05	8.347	0.659
	0.78	0	0.22	0	0.03	8.455	0.086
	0.93	0	0.07	0	-0.07	4.286	0.214
	0.84	0	0.16	0	0.03	6.293	0.23
	0.87	0	0.13	0	-2.08	5.679	0.164
	0.06	0.83	0.11	0	-0.02	8.26	0.128
2014	0.77	0	0.23	0	0.13	5.874	0.116
	0.69	0	0.31	0	0.1	4.9	0.119
	0.59	0	0.41	0	0.21	7.077	0.147
	0.66	0	0.34	0	0.05	6.613	0.178
	0.68	0	0.32	0	0.01	7.202	0.143
	0.17	0.73	0.1	0	0.06	6.838	0.126
	0.17	0	0.12	0.71	0.09	7.123	0.092
	0.29	0	0.05	0.66	0.1	7.613	0.049
	0.22	0	0.95	0.73	0.05	6.633	0.034
	0.23	0	0.06	0.61	0.08	6.083	0.627

Years	Managerial	State	Institutional	Foreign	ROA	Logarithm of assets	Long-term debt
	0.09	0	0.08	0.83	0.03	7.604	0.619
	0.25	0	0.08	0.67	0.03	7.521	0.819
	0.27	0	0	0.73	0.1	6.362	0.835
	0.33	0	0	0.67	0.23	7.261	0.951
	0.67	0	0.33	0	0.19	6.404	0.636
	0.63	0.37	0	0	0.11	7.798	0.781
2013	0.73	0.27	0	0	-0.19	5.969	0.704
	0.04	0	0.96	0	0.15	9.023	0.77
	0.31	0	0.69	0.57	-0.5	7.701	0.678
	0.45	0.65	0	0	-0.11	7.372	0.674
	0.45	0	0.55	0	0.05	6.874	0.568
	0.63	0.37	0	0	0.17	8.129	0.392
	0.11	0.78	0.11	0	0.029544	8.747	0.521
	0.13	0.81	0.06	0	-0.0092	8.098	0.661
	0.05	0.06	0.13	0.76	0.027118	8.369	0.617
	0.06	0.83	0.11	0	-0.16243	8.2	0.432
	0.17	0.73	0.1	0	-0.5435	6.799	0.502
	0.21	0.79	0	0	0.309553	7.364	0.326
	0.14	0.86	0	0	0.033601	8.535	0.363
	0.93	0	0.07	0	0.142682	7.24	0.293
	0.13	0.87	0	0	0.026984	8.44	0.286
	0.63	0.37	0	0	0.142338	7.826	0.467
	0.73	0.27	0	0	-0.05146	6.179	0.342
	0.45	0.65	0	0	-0.22749	7.31	0.6
	0.63	0.37	0	0	0.202955	8.196	0.294
	0.11	0.78	0.11	0	0.028434	8.8095	0.723
	0.13	0.81	0.06	0	-0.0064	8.2295	0.292
	0.05	0.06	0.13	0.76	0.030168	8.397	0.258
	0.06	0.83	0.11	0	-0.1359	8.2855	0.278
	0.17	0.73	0.1	0	-0.45304	6.871	0.467
	0.21	0.79	0	0	0.303852	7.3895	0.294
	0.14	0.86	0	0	0.02716	8.6275	0.27
	0.93	0	0.07	0	0.425728	7.1725	0.339
	0.13	0.87	0	0	0.024437	8.5475	0.367
	0.12	0.77	0.11	0	0.085892	7.6225	0.28

APPENDICES

APPENDIX I: SECONDARY DATA

APPENDIX II: LISTED NON-FINANCIAL FIRMS AT NSE

AGRICULTURAL

Eaagads Ltd

Kakuzi Ltd

Kapchorua Tea Co. Ltd

The Limuru Tea Co. Ltd

Sasini Ltd

Williamson Tea Kenya Ltd

AUTOMOBILES AND ACCESSORIES

Car & General (K) Ltd

Marshalls (E.A.) Ltd

Sameer Africa Ltd

COMMERCIAL AND SERVICES

Atlas African Industries Ltd

Express Kenya Ltd

Hutchings Biemer Ltd

Kenya Airways Ltd

Longhorn Publishers Ltd

Nairobi Business Ventures Ltd

Nation Media Group Ltd

Standard Group Ltd

TPS Eastern Africa Ltd

Uchumi Supermarket Ltd

WPP Scan group Ltd

CONSTRUCTION & ALLIED

ARM Cement Ltd

Bamburi Cement Ltd

Crown Paints Kenya Ltd

E.A.Cables Ltd

E.A.Portland Cement Co. Ltd

ENERGY & PETROLEUM

KenGen Co. Ltd
KenolKobil Ltd
Kenya Power & Lighting Co Ltd
Kenya Power & Lighting Ltd 4% Pref 20.00
Kenya Power & Lighting Ltd 7% Pref 20.00
Total Kenya Ltd
Umeme Ltd

INVESTMENT

Centum Investment Co Ltd
Home Afrika Ltd
Kurwitu Ventures Ltd
Olympia Capital Holdings Ltd
Trans-Century Ltd

INVESTMENT SERVICES

Nairobi Securities Exchange Ltd Ord 4.00

MANUFACTURING & ALLIED

A.Baumann & Co Ltd
B.O.C Kenya Ltd
British American Tobacco Kenya Ltd
Carbacid Investments Ltd
East African Breweries Ltd
Eveready East Africa Ltd
Flame Tree Group Holdings Ltd
Kenya Orchards Ltd
Mumias Sugar Co. Ltd
Unga Group Ltd

TELECOMMUNICATION & TECHNOLOGY

Safaricom Ltd

REAL ESTATE INVESTMENT TRUST

STANLIB FAHARI I-REIT. Ord.20.00

Source: NSE, 2017

APPENDIX III: OUTPUT OF ANALYSIS

