EFFECT OF OWNERSHIP CONCENTRATION ON FIRM PERFORMANCE OF COMPANIES LISTED AT THE NAIROBI SECURITY EXCHANGE

BY

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A PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN COMMERCE(ACCOUNTING AND FINANCE) IN THE SCHOOL OF BUSINESS AND PUBLIC MANAGEMENT AT KCA UNIVERSITY

OCTOBER, 2017

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DECLARATION

STUDENT'S DECLARATION

I Antonia Angolo Reg No 13/01594 declare that this is my original work and has not been presented for a degree in any other university.

Sign: …….. Date: ……

Reg No…13/01594…….

SUPERVISOR'S DECLARATION

This thesis has been submitted for examination with my approval as university supervisor

Sign: ……..... Date: …….

Dr. Cristine Nanjala

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DEDICATION

I dedicate this thesis to my family and to the School of Business KCA University for being a strong pillar throughout my course. I thank the Almighty God for the Graces granted to enable me pursue this degree.

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ACKNOWLEDGEMENTS

Many hands and mind were instrumental in bringing this proposal to fruition. First and foremost is my supervisor Dr. Christine Nanjala. She has availed herself in between her busy schedule; providing insight and direction for this research proposal and guiding and mentoring me throughout the study period. She has been a constant source of encouragement. My sincere appreciation goes to my colleagues at KCA University for their concern, support, and encouragement to forge ahead. Always ready and willing to answer my endless questions I asked in my bid to make this work make a contribution to knowledge and the business world. God bless you.

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LIST OF FIGURES

x

LIST OF TABLES

LIST OF ABBREVIATIONS

DE	Debt to Equity
DER	Debt-Equity Ratio
EAC	East African Community
GLC	Government linked companies
GM	Gross Margin
KSE	Kuwait Stock Exchange
LDTA	Long Term Debt to Total Assets
MRA	Meta-Regression Analysis
NSE	Nairobi Securities Exchange
NSE	Nigerian Stock Exchange
OECD	Organization for Economic Cooperation & Development
R&D	Research and Development
ROA	Return on Assets
ROE	Return on Equity
ROS	Return on Sales
SDTA	Short Term Debt to Total Assets
SEM	Structural Equation Modeling
SMEs	Small and medium enterprises
TDTA	Total Debt to Total Assets

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TABLE OF CONTENTS

x

x

ABSTRACT

The recently published huge losses and numerous unresolved disputes resulting in court have thrust corporate governance practices into the spotlight. This raises questions on the effect of corporate governance on financial performance of firms. Much is required especially in the Kenyan Context to find out the combination of ownership structure that is best for better financial performance. This study sought to investigate the effect of ownership concentration on firm performance of listed companies at the Nairobi securities exchange. The study specifically sought to establish the effect of management ownership concentration, government ownership concentration and foreign ownership concentration on firm performance of listed companies at the Nairobi securities exchange. Firm leverage and firm size were used as control variables in the study. The study adopted descriptive Research design. The target population for the study was the 63 listed firms at the NSE in the year 2015. An ordinary least square regression model was used to establish the relationship between the study variables. The results revealed that management ownership had a negative effect on the performance of companies listed at the Nairobi security exchange. The study established that the coefficient for government ownership was 0.242 which means that government ownership had a positive effect on performance of companies listed at the Nairobi security exchange. The study also found that foreign ownership had a coefficient of 0.848 meaning that it had a significant and positive effect on the performance of companies listed at the Nairobi security exchange. Further the study found that size had a negative and significant effect on the performance of companies listed at the Nairobi security exchange. The study established that leverage had a positive and significant effect on the performance of companies listed at the Nairobi security exchange. The study concluded that foreign ownership had the greatest effect on the performance of companies listed at the Nairobi security exchange followed by leverage then government ownership then management ownership while the size of the firm had the least effect on the performance of companies listed at the Nairobi security exchange. The study recommends that the firm, managers should be encouraged to own shares in the company they are managing, that the government should therefore make a deliberate effort to minimize asymmetry in the country as this could cause market failure. In this regard the government can use various signaling devices to bring confidence into the market and that firms should encourage foreign investors to invest in their firms as the higher levels of foreign ownership would lead to better firm profitability hence improve the performance of the firm.

Key words: Management ownership, Government ownership, foreign ownership, Firm performance, Ownership concentration

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

An organization ownership matters for firm performance because the ownership of an organization allocates property rights, or control of assets, to various stakeholders involved in the firm. Neubaum and Huse (2000) posit that property rights present opportunities for actors to realize their interests and affect firm performance since, for example, family ownership of large blocks of shares may force firms to remain in less profitable geographical locations or managers may use their control of operational decisions to divert firms into unprofitable endeavors that may benefit managers' careers but decrease the return to shareholders.

The ownership structure of a firm defines the combination of residual claims and decision control that has consequences on firm behavior. These consequences of ownership structure are conditioned by the legal and institutional setting of the country in which the firm operates (LaPorta, Lopez-de-Silanes, Shleifer, & Vishny, 2002). They further point that firms in common law countries are characterized by a dispersed ownership structure so that the manager shareholder relationship is the main source of conflicts.

Neubaum and Huse (2000) argue that this expropriation may take a variety of forms, such as diversion of corporate opportunities from a firm by its controlling shareholders, transfer pricing favoring the controlling shareholder at non-market prices, loan guarantees using the firm's assets as collateral, and so on. If stakeholders perceive that ownership structure affects expropriation, they will take into account the ownership

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characteristics of a firm to generate their expectations about the firm's possibilities of satisfying their interests.

The concern for most companies, policy makers and economists is whether ownership structure affects corporate performance, and if so, how. According to Berle and Means (1932) incentives given to the management in order to maximize corporate efficiency are controlled by separating ownership. Jensen and Meckling (1976) developed these concerns into what is now known as "agency theory", which is characterized as "a theory of the corporate ownership structure" and the guiding framework for ownership-performance studies.

Demsetz and Villalonga (2001) further observe that the ownership of large companies is so dispersed that no single owner holds more than a tiny fraction of the listed shares in each one of them. As a result of this, it follows that, no single shareholder has the ability or the incentive to exercise control over the company, which in turn leads to companies being inefficiently run. The lack of ability of owners refers to the fact that, when ownership is widely dispersed, a single owner cannot individually have much influence on the way the company is being run.

Wetukha (2011) argues that relationship between board composition and financial performance has long been the subject of an important debate in the corporate finance literature. The past few years has seen an explosion in publicity about corporate misbehavior- both malfeasance and misfeasance. Every month, it seems, brings a new revelation of large scale top management corruption and failure of board oversight in either the corporate or not-for-profit arena. This has led scholars and policy makers to believe that boards of directors' attributes may have an influence in strategic decision making and subsequently firm performance. Some scholars have argued that different

board of directors' attributes impact organizational performance differently owing to their different orientations (Hermalin & Weisbach, 2003).

Although corporate governance is gaining some level of recognition, a lot needs to be done especially on regulation and enforcement. Some listed firms have tremendous governance problems including the unauthorized sale of shares, mismanagement and board conflict. The board of directors, as internal mechanism of governance, has a major function on the limitation of managerial discretion and thereafter to manage the agency relationship between shareholders and managers and stakeholders of company. Improvements in the management and administration of many organizations are thus essential if the global efforts to halt corruption and other types of irregularity are to achieve desired results (Wetukha, 2011).

1.1.1 Ownership Concentration

Ownership concentration refers to the share of the largest owner and is influenced by absolute risk and monitoring costs (Pedersen & Thomsen, 1999). The distribution of power is directly affected by ownership concentration (Zhuang, 1999). Control as a result of shareholding can be weak when there is dispersed ownership. This is because a small shareholder has no incentive to monitor activities of the company as compared to the benefits they receive and hence if all small shareholders behave in such a manner, then there will be no managerial efforts. Another scenario arises when there is high concentration in shareholding. Those shareholders with the highest number of shares will play a role in monitoring the management however the minority shareholders will not be aware of exploitation.

The solution to this stalemate of ownership and concentration can be solved by a better overlap which can lead to higher returns after a reduction in conflicts (Holderness, 2009). A dilemma occurs when higher stakes to managers in a case where there is no

alignment of both managers and shareholders' interests gives managers greater freedom to pursue their own goals without fear of reprisal. This basically means that the trade-off between the alignment and entrenchment determines the effect of managerial ownership on the value of the firm depends on (Denis & McConnell, 2002). Voting and capital right can also allow shareholders to gain control with little equity involvement through mechanisms such as dual class equity, pyramiding, etc.

Most studies that have looked at the impact of ownership concentration on performance have employed the Herfindahl index or the equity stake of several largest investors, typically the top five shareholders (Demsetz & Lehn, 1985). Most studies in developing countries, where data is limited, the equity stake of the largest shareholder (Kapelyushnikov et al, 2001) have been extensively used. Ownership concentration could further be measured by calculating the percentage in shareholding of common stock for each particular form of ownership as will be used in this study to determine ownership concentration of different firms.

1.1.2 Nairobi securities exchange

The history of Nairobi Securities Exchange dates back to 1954 when it started as a voluntary association of stockbrokers, under the Societies Act. Since then, it has overseen quite a number of changes for instance the automation of trading in the year 2006. The previous name used to be Nairobi Stock Exchange before it changed name to Nairobi Securities Exchange in the year 2011. NSE conducts its business every day from 9.am to 3 pm (NSE, 2013).

The number of firms going public at the Nairobi Securities has been on an increasing trend since the 1980's with twelve firms being listed between 1980 and 1999 four of which were part of the government privatization process of the parastatals (Ngugi & Njiru, 2005). In 2012, a number of firms were listed by the Nairobi Securities

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Exchange: CIC insurance company and Umeme Limited. Longhorn became an industry pioneer by being the first publishing company to be listed on an exchange in the EAC. In May 2013, the Nairobi Securities Exchange moved to the Exchange, 55 Westland's Road (Ndirangu & Munyaka, 2014). Currently there are 63 firms listed at the NSE.

1.1.3 Firm Performance

Different measures have been used by researchers to measure Firm performance. They are classified as Accounting based measurement and Market based measurement. Study by Lee (2015) on ownership structure and financial performance used Accounting Rate of return on Assets.

Dzanic (2012) conducted a study on ownership structure and Firm performance using value of Tobin Q as a measure of Firm Performance. Alfaraih, Alanezi and Almujamed (2012) conducted a study on the influence of Government ownership on Firm performance. Both market based measure (Tobin Q) and Accounting based measure (Return on Asset) were used to measure firm performance. This study sought to measure firm performance by use of an Accounting measure (Return on Equity) and a market based measure (Tobin Q)

1.2 Problem Statement

Recent corporate scandals and major accounting failures have focused the minds of governments, regulators, companies, investors and the general public on weaknesses in corporate governance systems and the need to address this issue (OECD, 2004). In the Kenyan context, there has been cases involving corporate scandals and cash fraud for instance the cases involving the collapse of the Euro Bank in 2004, the placement of Uchumi Supermarkets under receivership in 2004 due to mismanagement, the near collapse of Unga Group, National Bank of Kenya and the Board room wrangles and the

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discovery of secret overseas bank accounts for siphoning company money by some directors at CMC Motors (Madiavale, 2011). The recently published huge losses and numerous unresolved disputes resulting in court cases by Kenya Airways and Kenol Kobil have also thrust corporate governance practices into the spotlight. This raises questions on the effect of corporate governance on financial performance of firms.

Lins (2003) states that the present day business entities have different kinds of shareholders. The presence of different individuals in the ownership structure of companies will therefore lead to conflict of interest and the question that will arise is whether difference in the ownership structure influences corporate performance. A question remains on whether there is going to be a difference in the financial performance if the owners of companies consist of different groups such as the state, institutional owners, family owners, individuals, and other corporate (Gedajlovic & Shapiro, 2008). Much is required especially in the Kenyan Context to find out the combination of ownership structure that is best for better financial performance.

Furthermore, studies conducted to investigate the effect of ownership concentration on financial performance of firms continue to yield contradicting results thus making the topic inconclusive. A study by Agrawal and Knoeber (1996) and Cho (1998) found that firms with concentrated ownership tend to significantly outperform manager-controlled firms while according to Demsetz and Lehn (1985) there is no correlation between profitability of firms and their ownership concentration. This is supported by a literature review conducted by Al Matari, Al Swidi & Fadzil (2013) which found 15 studies revealing a positive relationship between ownership structure and firm performance, 6 studies revealing a negative relationship while 12 showed a lack of relationship between the two. With increasing corporate scandals in the modern world,

and Kenya specifically and with the increasing inconclusivity of studies linking the two variables, there is need to conduct a similar study in the Kenyan context.

Furthermore, this study sought to fill research gaps existing in previous studies conducted on the topic. For instance in the Kenyan context, studies have been conducted by Jebet (2001); Mureithi (2005); Manyuru (2005); and Matengo (2008) linking ownership to financial performance of firms. All the studies used a different valuation measure to measure firm performance apart from using both the measure of efficiency which is Tobin Q as well as Return on Equity which indicates the financial performance as was used in the current study. This is a conceptual research gap which the current study sought to fill in this discipline and hence the study sought to investigate the effect of ownership concentration on firm performance of listed companies at the Nairobi securities exchange.

1.3 Objective of the Study.

To investigate the effect of ownership concentration on firm performance of listed companies at the Nairobi securities exchange

1.3.1 Specific objectives of study

The specific objectives of the study were to: To:

i. Establish the effect of management ownership concentration on firm performance of listed companies at the Nairobi securities exchange

ii. Determine the effect of government ownership concentration on firm performance of listed companies at the Nairobi securities exchange

iii. Evaluate the effect of foreign ownership concentration on firm performance of listed companies at the Nairobi securities exchange

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iv. Determine the effect of leverage and firm size as control variables on firm performance of listed companies at the Nairobi securities exchange

1.4 Research Questions

i. What is the effect of management ownership concentration on firm performance of listed companies at the Nairobi securities exchange?

ii. How does government ownership concentration affect firm performance of listed companies at the Nairobi securities exchange?

iii. What is the effect of foreign ownership concentration on firm performance of listed companies at the Nairobi securities exchange?

iv. What is the effect of leverage and firm size as control variables on firm performance of listed companies at the Nairobi securities exchange?

1.5 Significance of the Study

The study findings are expected to be useful to the policy makers to formulate appropriate regulations to guide the governance of listed firms in Kenya. The management of listed as well as non-listed firms can use the study findings to effectively deal with corporate governance issues in their companies. The management of both listed and non-listed firms can be guided by the study findings to determine the appropriateness of various governance characteristics and how they relate to the financial performance of their respective organizations. This would help in designing a governance framework that is able to optimize financial output for them, including planning and administration.

The study is also expected to be an important resource for academicians and future researchers who may wish to investigate the future performance of firms within the listed firms in Kenya. The study will suggest further areas of study and this will open up for more studies on the discipline.

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1.6 Scope of the Study

The study investigated the effect of ownership concentration on firm performance of listed companies at the Nairobi securities exchange. The study used cross sectional data for the year 2015. The study was conducted in Kenya and the study population was listed firms at the NSE. A census was conducted on all the firms. The time scope of the study was the year 2016.

1.7 Limitation of the Study

The study was limited to the effect of ownership concentration on firm performance of listed companies at the Nairobi securities exchange in the year 2015. Other firms other than those listed at the NSE were not investigated under the study. Time and resource limitations limited the study to the listed firms.

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CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

A literature review serves to facilitate the acquisition of information from previous studies and records that stick out as sources of the effect of ownership concentration on firm performance of listed companies at the Nairobi securities exchange. In this section, the researcher scrutinizes information available given the theories and specific factors. The chapter presents the theoretical and empirical literature review. The chapter also presents the research gaps and critique of literature.

2.2 Theoretical Overview

Different theories have been advanced explaining ownership of firms. The study is hinged on the control theory, the stakeholder's theory and the agency theory.

2.2.1 Control theory

According to Bierstaker (1999), the basics of control theory is that for business or system to stand, one individual should authorize the purchase and the selling of products, while another should take custody of the sale and the third individual should account for the number of products sold (Bierstaker, 1999). The better the running of a system operations, the less the cost and greater the benefit associated with.

The advantage of planning is that it forces management to take account of possible decisions from anticipated path. According to the AICPA Audit Committee Toolkit (2004), it will be found that while all of an organization's people are an integral part of internal control, certain parties merit special mention for instance the board of directors (including the audit committee), internal auditors, and auditors. The primary

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responsibility for the development and maintenance of internal control rests with an organization's management.

Bierstaker and Wright (2004) says that with increased significance placed on the control environment, the focus of internal control has changed from policies and procedures to an overriding philosophy and operating style within the organization. Emphasis on these intangible aspects highlights the importance of top management's involvement in the internal control system. If internal control is not a priority for management, then it will not be one for people within the organization either. As an indication of management's responsibility, top management at a publicly owned organization will include in the organization's annual financial report to the shareholders a statement indicating that management has established a system of internal control that management believes is effective. The statement may also provide specific details about the organization's internal control system (Bierstaker, 1999).

According to Kopp and Bierstaker (2006), internal control must be evaluated in order to provide management with some assurance regarding its effectiveness. Internal control evaluation involves everything management does to control the organization in the effort to achieve its objectives. Internal control would be judged as effective if its components are present and function effectively for operations, financial reporting, and compliance. The board of directors and its audit committee has responsibility for making sure the internal control system within the organization is adequate. This responsibility includes determining the extent to which internal controls are evaluated. Two parties involved in the evaluation of internal control are the organization's internal auditors and their external auditors (Roth, 1997).

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Bonner (1990) argues that internal auditors' responsibilities typically include ensuring the adequacy of the system of internal control, the reliability of data, and the efficient use of the organization's resources. Internal auditors identify control problems and develop solutions for improving and strengthening internal control& 1nternal auditors are concerned with the entire range of an organization's internal controls, including financial statement audit. In contrast to internal auditors, external auditors focus primarily that affect financial reporting.

The theory explains the role of internal control in management of the firm and finally its effect on performance of the firm. The owners of a firm vet and pass as effective an internal control management. Ownership concentration plays a critical role in determination of an effective internal control team hence the relevance of this theory to the study as it aims to link the effectiveness of internal control team, the role of owners in selecting the team and performance of the firm. The study will also seek to test the hypothesis that as ownership concentration increases; the positive monitoring effect of concentrated ownership first dominates but later is outweighed by the negative effects, such as the expropriation of minority shareholders.

2.2.2 Agency theory

The agency problem inherent in the separation of ownership and control of assets has been a topic of discussion for many years. Studies such as those by Berle and Means (1932) show the extent to which this separation has become manifest in firms throughout the world. Under this agency relationship, both the agents and the principals are assumed to be motivated solely by self-interest. As a result, when the principal delegates some decision making responsibility to the agents, agents often use this power to promote their own well-being by choosing such actions which may or may not be in the best interests of principals. Agency theory is concerned with the contractual relationship between two or

more persons. According to Jensen and Meckling (1976) an agency relationship is said to exist if a person (agent) engages in activites on behalf of another person (principal). Jensen and Meckling identify managers as the agents, who are employed to work towards maximizing the returns to the share-holders, who are the principals. They assume that as agents do not own the corporations resources, they may commit moral-hazards merely to enhance their own personal wealth at the cost of their principal.

The theory is also relevant to the study as it explains the aspect of information asymetry in the relationship between agents(Managers) and principals (Owners). The theory informs the independent variable of the study. The theory dominantly informs management ownership which is an independent variable. According to the theory, management ownership plays a critical role in the use power accorded by the shareholders in terms of promoting their own well-being by choosing such actions which may or may not be in the best interests of principals.

2.2.3 The stakeholder theory

The Stakeholder theory arose in 1970 and was slowly developed by Freeman in 1984 incorporating corporate accountability to a broad range of stakeholders. According to Wheeler, Colbert & Freeman (2003) a combination of sociological and organizational disciplines are the key ingredients of the theory.

According to the theory, managers in organizations have a large network to serve apart from the business owners. These networks, called stakeholders, range from suppliers to community members and their relationship with the organization are more vital as compared to the relationship between agents and business owners (Addullah & Valentine, 2009). Scholars argue that the organization has an equal role to take care of the stakeholders as much as they take care of the business owners. That is why many

countries in Europe and Asia have come up with stakeholder models of governance which allows stakeholders to sit on the organization's board (Yoshimor, 2005).

The theory is relevant to the study as it also informs the independent variable. Other networks apart from the owners of a firm are also vital to a firm. The firm management regardless of the type should play a role in incorporating stakeholders in running of the firm. This is an act of corporate social responsibility which also affects the performance of the firm.

2.3 Empirical Literature Review

The section provides the empirical literature review of the previous studies that have focused on the same concept under study. The literature is reviewed on a global, regional and local perspective per variable.

2.3.1 Financial Performance

Lee (2008) conducted a study on Ownership Structure and Financial Performance: Evidence from Panel Data of South Korea. The study sought to examine the effect of equity ownership structure on firm financial performance in South Korea. Using panel data for South Korea in 2000--2006, Lee found that firm performance measured by the accounting rate of return on assets generally improves as ownership concentration increases, but the effects of foreign ownership and institutional ownership are insignificant. Lee also found that there exists a hump-shaped relationship between ownership concentration and firm performance, in which firm performance peaks at intermediate levels of ownership concentration. The study provides some empirical support for the hypothesis that as ownership concentration increases; the positive monitoring effect of concentrated ownership first dominates but later is outweighed by the negative effects, such as the expropriation of minority shareholders.

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Phung and Mishira (2015) conducted a study on Ownership Structure and Firm Performance among Vietnamese Listed Firms and established a non-linear relationship between the two. The study established that state ownership has a convex relationship with firm performance. The paper found that firm performance increases beyond 28.67 percent level of state ownership. Foreign ownership has a concave relationship with firm performance.

Džanić (2012) conducted a study on ownership structure and firm performance: Evidence from Zagreb Stock Exchange. The study examined the relationship between ownership structure and firm performance using a sample of firms listed on the Zagreb Stock Exchange in period 2003-2009. Results obtained using panel estimation with fixed effects showed a significant negative relationship between the existence of a block holder owning more than 30% of the equity and the value of the firm's Tobin's Q. However, if there was a family-type second block holder, the effect disappears. Further, the study gave evidence of the negative impact of the fraction of equity owned by management on labor efficiency confirming the quiet-life hypothesis from Bertrand and Mullainathan (2003). Finally, it is shown that foreign ownership is not significantly better than domestic.

Owen, Kirchmaier and Grant (2006) conducted a study on Corporate Ownership Structure and Performance in Europe. They based their analysis on a new and unique dataset of uniform ownership data of the largest 100 firms in the five major European economies. They quantified that the differences in ownership by comparing three distinct ownership structures of firms and relating them to performance. For the first time they employed a Hodrick-Prescott Filter, a methodology widely used in macroeconomics to isolate the trend growth components from cyclical fluctuations, to estimate the share price trend of each firm. They observed that ownership structures in Europe are not consistent

with value maximization principles. Ultimately, their results showed that dominant shareholders destroy value. These findings are in contradiction to similar research based on US samples. Their results remain robust after controlling for industry and country effects, liquidity, and the type of owner.

Abdulsamad and Yusoff (2011) conducted a study on Ownership Structure and Firm Performance among Malaysian Trading and Services Sector. The study findings indicated that concentrated or managerial ownership enhances firm performance, while inversely occurs in government ownership firms. The Trading and Services firms are not affected by ownership structure under pre crisis period.

Kuznetsov and Muravyev (2001) conducted a study on Ownership Structure and Firm Performance in Russia. Based on panel data from 1995 – 1997, the paper focuses on the impact of ownership structure on the performance of Russian non-financial privatized companies that constitute the group of "blue chips" of the country's stock market. We find that ownership concentration results in higher technical efficiency of enterprises, but benefits from productivity improvements do not adequately materialize in higher profitability and market value of companies.

2.3.2 Management ownership and firm performance

Ahmad and Jusoh (2014) conducted a study on institutional ownership and market-based performance indicators: Utilizing generalized least square estimation technique. This study investigates the relationship between institutional ownership and company performance of public listed companies in Malaysia. Three years panel data of 730 Malaysian public listed companies were examined. The results showed that institutional ownership had positive and significant relationship with Tobin's Q and share price. Therefore, the involvement of institutional investor in monitoring and controlling

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activities reduced agency conflict and enhancing corporate performance in the emerging economy.

Phuang and Hoang (2013) conducted a study on Corporate Ownership and Firm Performance in Emerging Market among Vietnamese Listed Firms. The study used fixed effect model. The findings indicated that state ownership has an inverted U-shaped relationship with firm performance; foreign ownership has a U-shaped relationship with firm performance. These results imply that when ownership is concentrated, while state ownership lower firm performance, foreign ownership enhance firm performance.

Manawaduge and Zoysa (2013) conducted a study on The Structure of Corporate Ownership and Firm Performance: Sri Lankan Evidence. This paper examined the impact of ownership structure and concentration on firm performance in Sri Lanka, an emerging market in Asia. The study estimated a series of regressions using pooled data for a sample of Sri Lankan-listed firms to investigate the impact of ownership concentration and structure on firm performance based on agency theory framework, using both accounting and market-based performance indicators. The results of the study provided evidence for a strong positive relationship between ownership concentration and accounting performance measures.

Palia and Lichtenberg (1999) conducted a study on Managerial Ownership and Firm Performance: A Re-Examination Using Productivity Measurement. Consistent with the corporate finance approach, the paper used the ownership stake of a firm's managers as an argument in estimating the firm's production function. Accordingly, the paper brought together the corporate finance and productivity literature. Using a large sample of randomly selected manufacturing firms that does not suffer from any survivorship or large firm size biases, the study found that managerial ownership changes are positively related to changes in productivity. The study also found a higher sensitivity of changes in

managerial ownership to changes in productivity for firms who experience greater than the median change in managerial ownership. These results are robust to including lagged estimates of production inputs, year dummies and separate dummies for each firm to control for unobservable firm characteristics. In addition, the study found that the stock market rewards firms with increases in firm value when these firms increase their level of productivity

Yigit (2014) conducted a study on Ownership Structure, Executive Structure and Firm Performance: Evidence from Turkey. This study investigates the relationship between corporate governance and company performance. Yigit considered two measures of corporate governance during the period 2005–2011. Financial ratio, Return on Sales (ROS) was applied to measure organizational performance. A significant positive relationship between ownership structure and organizational performance and between executive structure and organizational performance was found. The data from businesses listed in Borsa Istanbul was used to understand the relation between corporate governance and organizational performance.

Mueller and Spitz (2006) conducted a study on Managerial Ownership and Company Performance in German Small and Medium-Sized Private Enterprises. The analyzed the relationship between managerial ownership and company performance, testing the incentive and entrenchment hypothesis. They used a panel of 356 companies in the German business-related service sector for the years 1997-2000. Their findings are that performance, measured by survey-based profit information, is increasing in managerial ownership up to around 40 percent. They did not find a significant entrenchment effect, possibly because at levels at which managers could become entrenched, they already bear a large proportion of the costs and have therefore an incentive to maximize company value.

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A study by Gillan and Starks (2003) provided empirical evidence suggesting that institutional investors serve a monitoring role with regard to executive compensation contracts. First, they found a positive relationship between institutional ownership and the pay-for-performance sensitivity of executive compensation. Second, they reported a negative association between concentration of institutional ownership and excess salary.

2.3.3 Government ownership and firm performance

Mei (2013) conducted a study on State ownership and firm performance: Empirical evidence from Chinese listed companies. The study applied panel data regression techniques to 10,639 firm-year observations of nonfinancial Chinese listed firms during 2003–2010 to examine the relationship between state ownership and firm performance. The results show that state ownership has a U-shaped relationship with firm performance. The Split Share Structure Reform in 2005–2006 played a positive role in enhancing the relationship between state ownership and firm profitability ratios. Although state ownership decreased significantly after 2006, it remained high in strategically important industry sectors such as the oil, natural gas and mining sector and the publishing, broadcasting and media sector. The findings revealed that a higher level of state ownership is superior to a dispersed ownership structure due to the benefits of government support and political connections.

Alfaraih, Alanezi and Almujamed (2012) conducted a study on the Influence of Government Ownership on Firm Performance: Evidence from Kuwait. The study empirically explores the effects of institutional and government ownership on the performance of firms listed on the Kuwait Stock Exchange (KSE). Both a market-based measure (Tobin's Q) and an accounting-based measure (ROA) were used to measures firm performance. Based on a sample of 134 firms listed on the KSE in the year 2010, regression analysis results showed a positive relationship between institutional investors

and KSE firm performance, suggesting the powerful and influential role institutional investors play as a corporate governance mechanism. In contrast, a negative relationship is observed between government ownership and KSE firm performance, implying worse market performance when government ownership exists. The findings implied that different types of ownership structures have different affects on firm performance. Some ownership structures enhance performance while others worsen performance.

Tran, Nonneman and Jorissen (2014) conducted a study on Government Ownership and Firm Performance: The Case of Vietnam. This study extended some predictions from a game theoretical model which evaluates the net effect of government ownership on firm performance and empirically tests these predictions using a panel dataset of Vietnamese firms in the period 2004-2012. The empirical results estimated from static and dynamic models confirmed their propositions of a negative effect of state ownership on firm profitability and labor productivity. Furthermore, this study documents a moderating role of firm size in the relationship between state shareholding and the performance of firms with higher state ownership in larger firms enhancing profitability and labor productivity.

Razak, Ahmad and Joher (2011) conducted a study on Government Ownership and Performance: An Analysis of Listed Companies in Malaysia. Therefore, the paper examined the impact of an alternative ownership/control structure of corporate governance on firm performance among government linked companied (GLCs) and Non-GLC in Malaysia. It is believed that government ownership serve as a monitoring device that lead to better company performance after controlling company specific characteristics**.** They used Tobin's Q as market performance measure while ROA was to determine accounting performance measure. This study is based on a sample of 210 firms over a period from 1995 to 2005. They used panel based regression approach to

determine the impact of ownership mechanism on firm's performance. Findings appeared to suggest that there is a significant impact of government ownership on company performance after controlling for company specific characteristics such as company size, non-duality, leverage and growth.

Do and Wu (2014) analyzed the data of 134 non-financial listed companies on the Ho Chi Minh Stock Exchange over the period 2009 and 2012 and found a positive relationship between state ownership and firm performance (proxy by return on assets and return on equity). Wei and Varela (2003) pointed out a U-shaped relationship between state ownership and firm performance in Chinese privatized firms in 1994, 1995, and 1996.

2.3.4 Foreign ownership and firm performance

Cooke and Huang (2011) conducted a study on foreign ownership and Firm Performance: The case of an emerging market. Using a directional distance function approach (DEA), the study investigated the investment allocation choices of foreign investors and how the roles of foreign ownership and firm efficiency in an emerging market after more financial liberalization. Empirical results suggested a possible channel through which high level of foreign ownership significantly positively affects firm's operating efficiency, and then better firm efficiency significantly triggers high firm performance. Interestingly, foreign ownership played not only simply self-select into firm's market value, but also a positive governance role that can dynamically influence firm's profit value, especially high-tech and exporting firms. The two roles are not mutually exclusive. Simply stated, after more financial liberalization, foreign investors are not limited to just speculators. They also played monitoring or disciplinary roles and thus improve firm efficiency and performance. Taiwan case maybe established a paradigm for developing countries to follow.

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Phung and Mishira (2015) conducted a study on Ownership Structure and Firm Performance: Evidence from Vietnamese Listed Firms. They examined the effect of ownership structure on firm performance, for firms listed on Vietnamese stock exchanges, using 2744 firm-year observations over the period from 2007 to 2012. They found a non-linear relationship between ownership structure and firm performance. State ownership has a convex relationship with firm performance. The paper found that firm performance increases beyond 28.67 percent level of state ownership. Foreign ownership has a concave relationship with firm performance. We find that firm performance increases with an increase of foreign ownership up to a level of 43 percent and then decreases. Policy makers should encourage foreign ownership and widely dispersed state ownership in firms, which can help improve firm performance.

Jiang (2012) conducted a study on the Relationship between Foreign Ownership and the Performance of Chinese Listed Companies. The data was collected from annual reports of listed companies in China from 2000 to 2004. A total of 50 companies with foreign ownership in the Shanghai Stock Exchange Market are chosen. The data analysis methodology used was descriptive statistics and multiple regressions. The proxies of each factor are the proportion of foreign ownership, listed years, sales income and debt to assets ratio, return on assets ratio and return on equity ratio. The paper offered a conclusive definition for the present that there is no significant relationship between foreign ownership and the performance of Chinese listed companies. Foreign ownership has the claims over assets of invested companies but no or limited voting rights over strategic decision making.

Mihai and Mihai (2013) conducted a study on the Impact of Foreign Ownership on the Performance of Romanian Listed Manufacturing Companies. The main objective of this paper was to investigate the relation between the foreign ownership and

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manufacturing firm performance. The study was conducte B BN KIJ7 d for the companies listed on Bucharest Stock Exchange, in both segments regulated and non-regulated. The final sample included 261 companies. Return on Assets (ROA), Return on Equity (ROE) and Return on Sales (ROS) were used for measuring the economic and financial performance of the firms. The foreign ownership was measured by the percentage of shares held by foreign investors. Econometric tools like linear regression analysis were used for the analysis. The results of the study suggest that there is a non-significant link between economic and financial performance and the existence of foreign ownership.

Ghahroudi (2011) examined 3500 foreign subsidiaries in Japan and found that foreign ownership has a positive link with transfer of knowledge in the subsidiaries with high numbers of foreign managers and employees. Nakano and Nguyen (2012) investigated the effect of foreign ownership on firm performance in the electronics industry in Japan from 1998 to 2011 and stressed that foreign ownership is significantly associated with firm value. They stated that the monitoring role of foreign ownership helps alleviate suboptimal decisions by managers.

Khanna and Palepu (1999) investigated the effect of family ownership, domestic institutional ownership, and foreign institutional ownership on firm performance. Using data from Indian firms from 1990, 1993, and 1994, they found that while foreign institutional ownership positively affects firm performance, domestic institutional ownership has a negative effect. They stated that foreign institutional ownership is a good monitor in a developing market but domestic institutional ownership is not.

2.3.5 Leverage and firm performance

A study by De Jong (2002), regarding the role of leverage in the overinvestment problem, did investigate the influence of leverage on firm performance. More specifically, De

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Jong (2002) investigated the role of leverage in a normal sample and an overinvestment sample. This hypothesis was tested by relating leverage, free cash flow and Tobin's Q to each other in a Dutch sample, whereby a high amount of free cash flow and a low Tobin's Q indicated that a firm was vulnerable to overinvestment. Free cash flow was calculated by the operating income minus taxes, interest payments and dividends divided by total assets, Tobin's Q was calculated by dividing the firms' market value by the replacement costs of its assets. De Jong (2002) found that leverage did have a positive effect on firm performance (Tobin's q) in the sample of firms vulnerable to overinvestment.

Shahzad et al. (2016) conducted a study to investigate the impact of financial leverage on corporate financial performance of Pakistan's textile sector from 1999-2012 using panel data. The leverage-performance relationship is examined with a special focus on the Global Financial Crisis of 2007-2008. Both accounting-based (Return on Assets - ROA) and market-based (Tobin's Q) measures of corporate financial performance are used. Regression analysis was performed with and without inclusion of financial crisis dummy. Total Debt to Total Assets (TDTA), Long Term Debt to Total Assets (LDTA), Short Term Debt to Total Assets (SDTA) and Debt to Equity (DE) ratios are used as proxies for financial leverage whereas Firm's size and firm's efficiency are used as control variables. The results indicated that financial leverage has a negative impact on corporate performance when measured with ROA whereas in case of Tobin's Q, SDTA coefficient is positive.

Hsu, Lien and Chen (2013) conducted a study on the Moderating Effects of Leverage and Ownership Structure on Firm Performance**.** This study investigated the effects of leverage and ownership structure as moderating effects between R&D expenditures and firm performance. Leverage is important for a firm to complete innovation and ensure the financial resources required to launch new products. Ownership

structure has the capability to diversify their investments and encourage the invested companies to pursue the projects with prospects. The results indicated leverage and ownership structure moderated R&D expenditures and financial leverage based 336 information technology firms. A noteworthy result is that ownership structure has a positive effect on R&D performance relationship. However, leverage has a negative effect on the relationship between R&D and firm performance.

Innocent, Ikechukwu and Nnagbogu (2014) conducted a study on the Effect of Financial Leverage on Financial Performance: Evidence of Quoted Pharmaceutical Companies in Nigeria. The main objective of this study was to determine the effect of financial leverage on financial performance of the Nigeria pharmaceutical companies over a period of twelve (12) years (2001 – 2012) for the three (3) selected companies. This work employed three (3) financial leverage for the independent variables such as: debt ratio (DR); debt-equity ratio (DER) and interest coverage ratio (ICR) in determining their effect on financial performance for Return on Assets (ROA) as dependent variable. The ex-post facto research design was used for this study. The secondary data were obtained from the financial statement (Comprehensive income statement and Statement of financial position) of the selected pharmaceutical companies' quoted on the Nigerian Stock Exchange (NSE). Descriptive statistics, Pearson correlation and regressions were employed and used for this study. The results of the analysis showed that debt ratio (DR) and debt-equity ratio (DER) have negative relationship with Return on Assets (ROA) while interest coverage ratio (ICR) has a positive relationship with Return on Assets (ROA) in Nigeria pharmaceutical industry. The analysis also revealed that all the independent variables have no significant effect on financial performance of the sampled companies. The results further suggested that only 16.4% of the variations on the dependent variable are caused by the independent variables in our model suggesting that

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83.6% of the variations in financial performance are caused by other factors outside our model.

Maghanga and Kalio (2014) conducted a study on Effects of Leverage on the Financial Performance of Parastatals: A Case Study of Kenya Power. The researcher carried out a research with the aim of examining the effects of leverage on financial performance. The target population for the study constituted the management staff in finance division of Kenya Power. The population size was 120 staff from which a sample of 55 respondents was drawn. Data was collected from primary and secondary sources. Primary data was collected by use of structured questionnaires while secondary data was obtained from Kenya Power's annual audited financial reports, and periodic publications. A pilot test involving 10 respondents who were exempted from the main study was carried out prior to the main study. The study applied survey research design and data was analysed by use of descriptive and inferential statistics. The study revealed that leverage has a significant effect on financial performance.

Ebaid (2009) investigated the relationship between financial leverage and corporate performance in Egyptian context by analyzing the data of companies over a period from 1997-2005 using accounting based measures for corporate performance including Return on Assets (ROA), Return on Equity (ROE), and Gross Margin (GM). For measuring financial leverage three proxies were used that includes short term debt to total assets, long term debt to total assets, and total debt to total assets. Firm size was used as control variable in the analysis. The research concluded that the impact of financial leverage varies across different proxies for financial performance. The relationship was found to be negative when performance was measured by ROA and an insignificant impact was found when performance was measured by ROE or GM.

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Baker (1973) investigated the relationship between industry profitability and leverage and also incorporated the effect that risk may have on industry's profitability. Using the data for ten year period, leverage was measured as the ratio of equity to total assets (i.e. low value of leverage would imply higher use of debt capital) instead of debt to equity or debt to total assets. Whereas profitability was measured using after-tax profit rate. The study concluded that industry conditions influence the firms' choice of leverage and these findings are also empirically confirmed by MacKay and Phillips (2005). Baker (1973) also concluded that firms with higher debt capital had greater profitability. Firm's financing source can also contribute towards better profitability of firms and the use of financial leverage does materialize in positive benefits to financial health of a firm and this can also contribute towards better return on equity of these firms.

2.3.6 Firm Size and firm performance

Abbasi and Malik (2015) conducted a study on Firms' Size Moderating effect on Financial Performance in Growing Firms: An Empirical Evidence from Pakistan. In the study Null and alternative hypothesis were constructed, Null hypothesis is concerning the negation of the moderating effect of firm size, while alternative hypothesis is pertaining to the acceptance of the moderating inspiration of firm size between the relationship of firm growth and firm performance. For this purpose, secondary cross-sectional data were gathered from 50 firms listed in Karachi stock Exchange. Before application of regression equation the formality of stationary of data was fulfilled, in addition the issue of the multi-co-linearity was resolved. The results of the regression analysis demonstrated that the alternative hypothesis of the research that firm size has moderating inspiration between independent variable (Firm growth) and dependent variable (Firm performance) is accepted.

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Kannadhasan (2013) conducted a study on Firm Size as a Moderator of the Relationship between Business Strategy and Performance in Indian Automotive Industry. The study explicitly investigated the effect of firm size in moderating the relationship between strategy and performance of automotive companies in India. Findings were drawn from the analysis of the primary data collected from CFOs representing 18 automotive companies operating in India and secondary data collected from CMIE, Prowess data bases. The result showed that there is no significant difference in the performance metrics (ROA and RONW) among the users of four business strategies and firm size.

Hui, Radzi, Jenatabadi, Kasim and Radu (2013) conducted a study on the Impact of Firm Age and Size on the Relationship among Organizational Innovation, Learning, and Performance: A Moderation Analysis in Asian Food Manufacturing Companies. By integrating congruence and organizational lifecycle literature, the authors hypothesized that the impacts of both values are moderated by organizational age and size, such that collectivism exerts stronger beneficial effect in order and larger companies, whereas novelty exerts stronger beneficial effects in younger and smaller companies. This research explored those linkages using structural equation modelling (SEM) and moderation analysis with data from 168 manufacturing companies in food industry was selected from China, Taiwan, and Malaysia. The research model included three latent variable including OL, OI, OP, and two measurement variables contain age and size of the company. The finding of the paper supported that firm age and size are two moderators which are control the relationship among OL, OI, and OP.

Dalsgaard and Choquette (2015) conducted a study on investigation of the Relationship between Firm Size and Export Performance. Meta-Regression Analysis (MRA) was used during data analysis. The conceptual model hypothesized a positive

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relationship between firm size and export performance with root in resource based theory, but acknowledges that the relationship is subject to three negative moderating effects (high-tech firms, institutional quality and industry). The positive relationship was confirmed through a Meta-Regression Analysis (MRA) when firm size and export performance is operationalized as number of employees and export intensity, respectively. The MRA also confirmed the negative moderating effects of high-tech firms and institutional quality, but find no evidence of industry as a moderator.

Chelliah, Pandian, Sulaiman and Munusamy (2010) conducted a study on the moderating effect of firm size: Internationalization of small and medium enterprises (SMEs) in the manufacturing sector. Within this context, the study set out to further the discussion by comparing the global orientation of SMEs in Malaysia with their different level of size. In doing so, it drawn upon the findings of survey of 300 internationalized enterprises located in northern region of Malaysia. The results suggested that size functions as moderating factor for internationalization only for relatively smaller firms. However, there was a difference in opinion between those arguing that there is a positive relationship between these variables and others who contended that there is moderating effect of size on the internationalization.

2.4 Critique of existing Literature

Studies conducted to investigate the effect of ownership concentration on financial performance of firm's yields contradicting results thus making the topic inconclusive. An argument by Agrawal and Knoeber (1996) and Cho (1998) based on primary studies from the US and UK, found that firms with concentrated ownership tend to significantly

outperform manager-controlled firms. A study by Demsetz and Lehn (1985) found no association between ownership concentration and profitability (return on equity) in large US companies when controlling for determinants of concentration and other variables while a literature review conducted by Al Matari, Al Swidi & Fadzil (2013) on the association between ownership concentration, managerial ownership, government ownership, foreign ownership and institutional ownership and firm performance found out that 15 studies revealed a positive relationship between ownership structure and firm performance, 6 studies revealed a negative relationship while 12 showed a lack of relationship between the two.

A study by Lee (2008) found that there exists a hump-shaped relationship between ownership concentration and firm performance while a study by Manawaduge and Zoysa (2013) established that there is a strong positive relationship between ownership concentration and accounting performance measures. This indicates that there is inconclusivity on the topic concerning ownership concentration and firm performance hence the relevance of the current study. Furthermore, methodological approaches by the previous studies are different.

2.5 Research Gaps

Studies conducted on the topic yield contextual, conceptual and methodological research gaps. The contextual research gaps arise because of the difference in the contexts under which the studies are conducted. The current study sought to concentrate on the listed firms at the NSE in the year 2015. Furthermore, review of literature presented the conceptual research gaps. This is a research gap which arises when the studies don't have exactly similar variables. The current study focused on only three types of ownership and control using both firm size and financial leverage. There is a difference in the methodologies used to investigate the relationship between ownership concentration and

firm performance. The study by Phuang and Hoang (2013) used fixed effect model, Manawaduge and Zoysa (2013) used a pooled data regression model. The current study used an ordinary least square regression model with two control variables so as to bring rigor in comparison of the results. Furthermore, the measurement of performance has varied greatly among the reviewed studies.

A study by Yigit (2014) measured financial performance using Return on Sales (ROS), Do and Wu (2014) measured performance using both return on assets and return on equity while a study by Tran, Nonneman and Jorissen (2014) measured performance using net profits. The current study measured performance using both a market-based measure (Tobin's Q) and an accounting-based measure (ROE) so as to provide a basis for comparison with the previous findings.

2.6 Conceptual Framework

Smith (2004) defines a conceptual framework as a hypothesized model identifying the model under study and the relationship between the dependent and independent variables. The dependent variable in the current study is financial performance of firms Listed at NSE measured as ROE and Tobin Q. The independent variables are management ownership, government ownership and foreign ownership. The relationship between the dependent and independent variables is controlled by firm leverage and firm size. The diagrammatic representation of the conceptual framework is presented below.

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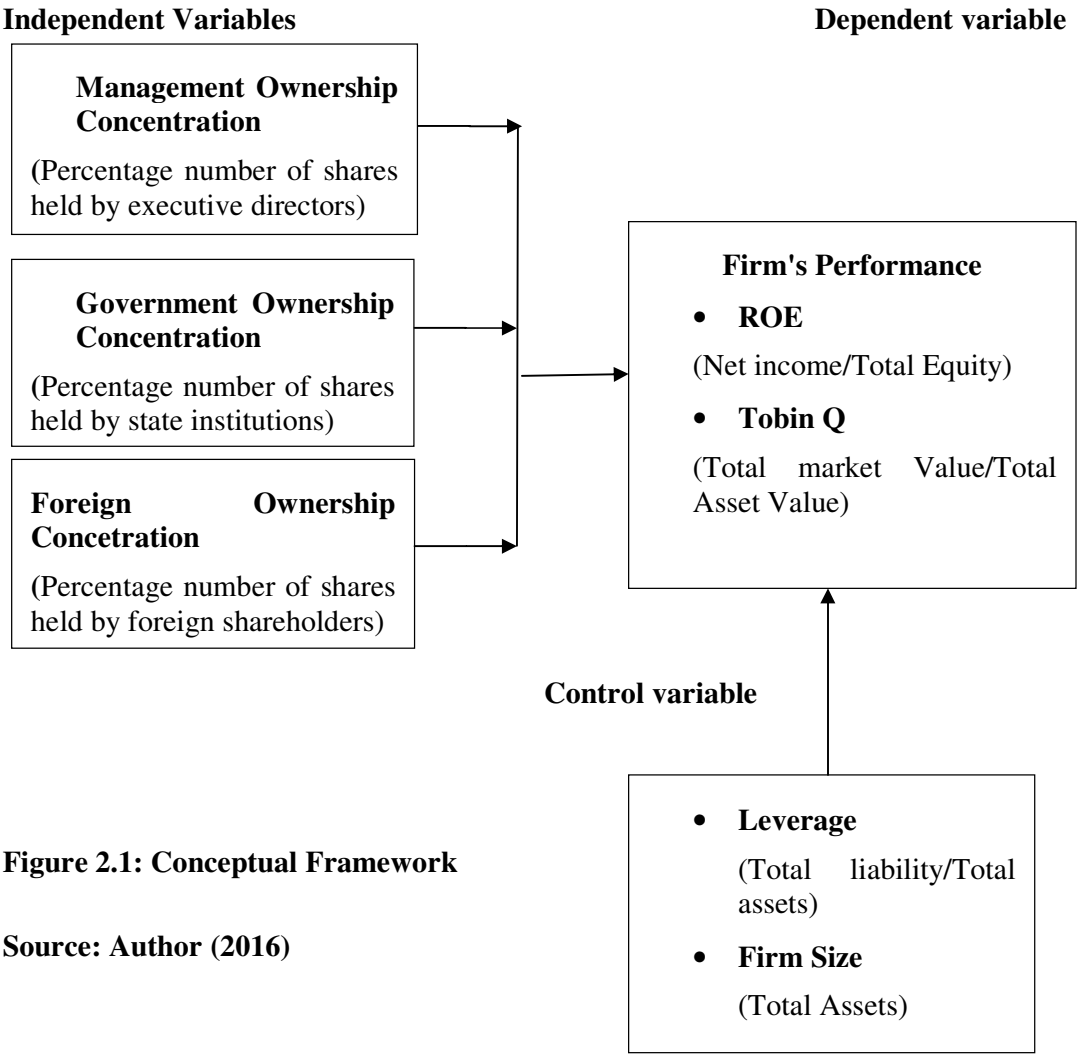

Figure 2.1: Conceptual Framework

Source: Author (2016)

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2.7 Operationalization of Variables

The Operationalization of the study variables is as presented in Table 2.1.

Table 2.1 : Operationalization of Variables

Variable	Measurement
Management Ownership Concentration	Percentage number of shares held by executive directors
Government Ownership Concentration	Percentage number of shares held by state institutions
Foreign Ownership Concentration	Percentage number of shares held by foreign shareholders)
Firm's Performance	• **ROE** Ratio of Net income to Total Equity • **Tobin Q** Ratio of Total market Value to Total Asset Value
Leverage	Ratio of Total liability to Total assets
Firm Size	Log of Total Assets

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CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Kothari (2004) defines research methodology as a way to systematically solve the research problems. Research methodology describes in as much details as necessary, how the research was, what methods were used to achieve the research objectives. The choice of research method that have an influence on the inferences drawn from the analysis of data (Babbie & Mouton, 2001). This chapter presents the methodology, which was used to carry out the study. It describes the research design, target population, the sampling frame, the sample and sampling techniques that were used to select the sample size. It also describes how data was collected and analyzed. The suitable methodology in this study gives the guidelines for information gathering and processing.

3.2 Research Design

Research design is an outline of research study which indicates what the researcher did from writing the hypothesis and its operational implications to the final analysis of data. A research design is the arrangement of conditions for data collection and analysis of data in a manner that aim to combine relevance to research purpose with economy in research procedure (Kothari, 2004). The study adopted descriptive survey design. Descriptive survey design is designed to collect primary or secondary data from a sample with a view of analyzing them statistically and generalizing the results to a population (Cooper & Schindler, 2006). The research data was obtained over the same period of time. Descriptive research design was used to establish the cause and effect relationship between the dependent variable (Firm Performance) and the independent variable

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(ownership concentration). Descriptive research is conducted to describe the present situation, what people currently believe, what people are doing at the moment and so forth (Collins, Onwuegbuzie and Jiao, 2007). The major purpose of descriptive research design is description of the state of affairs as it exists at present (Kothari, 2004) and it aims in answering the `what' and `which' questions. The research design was appropriate for the current study as it sought to establish what effect ownership concentration has on financial performance of firms listed at Nairobi securities exchange.

3.3 Target Population

According to Kombo and Tromp (2006) a population is a well-defined set of people, services, elements, and events, group of things or households that are being investigated to generalize the results. This definition assumed that the population is not homogeneous. Lumley (2004) defines population as a larger collection of all subjects from where a sample is drawn. It refers an entire group of individuals, events or objects having common observable characteristics (Mugenda & Mugenda, 2006). Cooper and Schindler (2008) observe that a population is the total collection of elements about which one wants to make inferences. Similar view is also expressed by Kothari (2006). This study targeted all the 63 firms listed at the Nairobi Securities Exchange in the year 2015 (Appendix II). The source was the Financial statements of Companies listed at the Nairobi Securities Exchange and CMA Quarterly statistical Bulletin for the year 2015.

3.4 Sample and sampling technique

The study was conducted a census of all the 63 firms listed at the Nairobi Securities Exchange in the year 2015 instead of adopting a sampling methodology. This was justified on the basis that the number of firms are few. The firms which were listed at the Nairobi securities exchange in the year 2015 were 63.

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3.5 Data Collection Instruments

Mugenda and Mugenda (2003) observe that the choice of a tool and instrument depends mainly on the attributes of the subject, research topic, data and expected results. This study analyzed secondary data to investigate the effect of ownership concentration on firm performance of listed companies at the Nairobi securities exchange. Secondary data is the data that is gathered for other purposes and used in the research project. Secondary data involves the collection and analysis of published material and information from sources such as annual reports, published data on Company websites, research centers and libraries. This study collected annual data on percentage number of shares held by executive directors, percentage number of shares held by state institutions, percentage number of shares held by foreign shareholders, financial performance, Leverage and total assets of the firms listed at the NSE in the year 2015. Only relevant data that met the objectives of the study was sought.

3.6 Data Collection Procedure

This study utilized cross sectional data from secondary sources. This entailed extraction of data from the annual reports and financial statements of the firms listed at the Nairobi Securities Exchange for the study period. The data was also extracted from NSE handbook for the study period. A secondary data collection template was used for data collection (Appendix I).

3.7 Data processing and analysis

After data has been collected, it was cleaned before analysis. Accurate and authentic data was used. Data analysis is a practice in which raw data is ordered and organized so that useful information can be extracted from it (Gall et al, 2007). The study conducted data analysis using an ordinary least square regression model. SPSS statistical software was used for data analysis.

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Model specification

The following regression models were used according to the variables in the study. Each model was run with and without the control variables (In order to assess the effects of controls). The control variables also act as the independent variables on the dependent variable (Niresh & Thirunavukkarasu, 2014).

Model 1: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$

Model 2: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$

Model 3: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_5 X_5 + \varepsilon$

Model 4: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$

Where:

Y = Firm performance (Tobin Q and ROE)

$\mathbf{X_1}$ = Management ownership

$\mathbf{X_2}$ = Government ownership

$\mathbf{X_3}$ = Foreign ownership

$\mathbf{X_4}$ = Leverage

$\mathbf{X_5}$ = Firm size

$\boldsymbol{\beta_0}$ is the Y intercept or constant term

$\boldsymbol{\beta_1}$. $\boldsymbol{\beta_5}$ are the regression coefficients for each independent variable and $\boldsymbol{\varepsilon}$ is the random or stochastic term

3.8 Pre-analysis Plan

First the study had descriptive analysis to verify if any variables need transformation into logs. Next, the correlation matrix was presented to verify if any two

independent variables have high correlations. If any two variables are highly correlated, then one of the variables with a higher standard deviation would have been dropped from the regression analysis. Finally, normality tests were conducted to find out if there are any outliers in the data. The study investigated whether the variables follow a normal distribution. To test the moments of the distribution, this study used the Jarque – Bera (1987) test where a null hypothesis of normality is tested against the alternative hypothesis of non-normal distribution. For normal distribution, the JB statistic is expected to be statistically indifferent from zero. Rejecting the null for any variable implied that the variables are not normally distributed and a logarithmic transformation is necessary. Normality rules out the possibility of getting on-standard estimators.

3.9 Post-estimation tests

The study also conducted tests on the residuals of the regression models. The residuals were supposed to be free from the problem of Heteroskedasticity. In addition, the residuals should be independent.

3.9.1 Heteroskedasticity

Ordinary least squares (OLS) assumption stipulates that the residuals should have a constant variance (i.e. they should be Homoskedastic). To ascertain whether the residuals meet this criterion the study used the White's test for Heteroskedasticity where the null hypothesis under this test is that residuals are Homoskedastic. The independence of residuals was also checked using a scatter plot of residuals against fitted values since Cook and Weisberg (1999) argues that hypothesis tests for equality of variance are often not reliable because they also have model assumptions and are typically not robust to departures from these assumptions. Residuals was plotted against fitted values (in most cases, these are the estimated conditional means, according to the model), since it is not uncommon for conditional variances to depend on conditional means, especially to

increase as conditional means increase. (This showed up as a funnel or megaphone shape to the residual plot). Any non-random pattern in a lag plot suggests that the variance is not random.

3.9.2 Omitted variables

The study run four different nested models where variables in one model are also in another model and hence there was a need to test for the difference between nested models. According to Weesie (2001), one model is considered nested in another if the first model can be generated by imposing restrictions on the parameters of the second. Most often, the restriction is that the parameter is equal to zero. In a regression model, restricting a parameter to zero is accomplished by removing the predictor variables from the model. For example, in the models above, model 1, the model with the predictor variables management ownership concentration, government ownership concentration and foreign ownership concentration is nested in model 2 with predictor variable management ownership concentration, government ownership concentration, foreign ownership concentration and leverage. The study used three tests, likelihood ratio (LR) test, Wald test and Lagrange multiplier (LM) tests to test for the difference in the four models given the omission of some variables. Weesie (2001) argues that the LR test requires that two models be run, one of which has a set of parameters (variables), and a second model with all of the parameters from the first, plus one or more other variables. The Wald test examined a model with more parameters and assess whether restricting those parameters (generally to zero, by removing the associated variables from the model) seriously harms the fit of the model. In contrast, the score test examined the results of a smaller model and asks whether adding one or more omitted variables would improve the fit of the model. In general, the three tests came to the same conclusion (because the Wald and score test, at least in theory, approximate the LR test).

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If the difference is statistically significant, then the less restrictive model (the one with more variables) is said to fit the data significantly better than the more restrictive model. The LR test statistic is calculated in the following way:

$$LR = -2 \ln (L(m1)/L(m2)) = 2(ll(m2)-ll(m1))$$

Where L(m*) denotes the likelihood of the respective model, and ll(m*) the natural log of the models' likelihood. This statistic is distributed chi-squared with degrees of freedom equal to the difference in the number of degrees of freedom between the two models (i.e., the number of variables added to the model) (Weesie, 2001).

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CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the information processed from the data collected during the study on the effect of ownership concentration on firm performance of companies listed at the Nairobi security exchange. This chapter comprised of the following sub-section; descriptive statistic, inferential statistics, interpretation of the findings and post-estimation tests.

4.2 Descriptive Statistics

This section focuses on the general description of the study variables characteristics including the Mean, standard deviation (Std. Dev), Skewness and Kurtosis. It also descriptively tabulates the independent variables namely management ownership concentration, Foreign ownership concentration and Government ownership concentration structure according to CMA Quarterly Bulletin for the year 2015.

Table 4.0 Descriptive Statistics – Concentration Structures

Firm	Management - % no of shares held by local individuals	Government -% no of shares held by state institutions	Foreign - % no of shares held by foreign shareholders
Kakuzi Ltd	39.01	28.21	32.78
EAAGADS LTD	12.50	66.27	21.23
Kapchorua Tea	17.00	54.48	28.52
The Limuru Tea	31.22	67.79	0.99
Sasini Ltd	24.72	74.15	1.13
Williamson Tea	28.05	14.99	56.96

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Car & General	21.71	77.76	0.53
Marshalls (E.A.)	11.79	82.84	5.38
Sameer Africa Ltd	17.93	79.52	2.54
Barclays Bank of Kenya Ltd	14.98	12.02	72.99
CFC Stanbic	4.73	17.56	71.71
Diamond Trust Bank Kenya	17.29	32.52	50.21
Equity Bank Ltd	15.77	41.09	43.13
Housing Finance	23.30	75.00	1.69
I&M Holdings Ltd	10.73	76.06	13.21
Kenya Commercial Bank	26.54	43.77	29.68
National Bank of Kenya	20.33	79.06	0.61
NIC Bank	17.46	80.41	2.13
Standard Chartered Bank	10.53	14.48	74.99
The Co-operative Bank	16.45	79.04	4.51
Atlas Development	27.13	67.66	5.22
Deacons kenya			
Express Kenya	32.56	66.49	0.94
Kenya Airways	19.48	39.04	41.48
Longhorn Kenya	34.74	64.15	1.10
Nation Media Group	19.39	21.11	59.50
Nairobi Business Ventures			
Standard Group	7.19	23.29	69.52
TPS Eastern Africa	8.56	25.85	65.59
Uchumi Supermarket	33.23	50.68	16.09
Scangroup Ltd	17.83	13.89	68.29

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Athi River Mining	23.64	53.27	23.08
Bamburi Cement	3.98	28.99	67.03
Crown Berger	15.02	56.72	28.25
E.A.Cables	22.40	74.57	3.03
E.A.Portland Cement	1.82	68.62	29.57
KenGen Co.	18.04	80.52	1.44
KenolKobil	10.46	37.75	51.79
Kenya Power & Lighting	9.20	79.75	11.05
Total Kenya	4.70	1.11	94.20
Umeme Ltd	0.03	3.05	2.61
Britam Holdings Ltd	30.98	41.23	27.79
CIC Insurance Group	21.70	76.74	1.56
Jubilee Holdings	21.65	9.35	68.99
Kenya Re Insurance	13.02	74.61	12.37
Liberty Kenya Holdings	3.47	31.03	65.50
Pan Africa Insurance Holdings	35.06	63.18	1.76
Centum Investment	55.98	37.05	6.97
Home Afrika	63.81	26.46	9.73
Kurwitu Ventures Ltd	99.90	0.10	-
Olympia Capital Holdings	48.08	50.22	1.70
Trans-Century	70.18	9.61	20.21
Nairobi Securities Exchange	12.56	47.02	40.42
B.O.C Kenya	14.26	9.43	76.31
British American Tobacco	6.08	10.83	83.09
Carbacid Investments			

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	51.29	38.09	10.62
East African Breweries	9.06	57.51	33.44
Eveready East Africa	29.55	59.62	10.83
Flame Tree Group	90.56	9.03	0.41
Kenya Orchards	51.30	46.08	0.04
Mumias Sugar	64.42	32.48	3.10
Unga Group	35.61	59.14	5.24
Safaricom Ltd	4.31	83.12	12.57

Source: CMA Quarterly Statistical Bulletin Q4 2015

As shown in table 4.0, most of the shares in most of the companies are held by local individuals (for example in Kurwitu Ventures Ltd 99.9% of the shares are owned by management) which implies that management ownership affects firm performance. On the same government owns a part of most of the companies hence impacting on the performance (for example in Marshalls (E.A.), the government owns 82.8%). Finally foreigners also own a part of the companies which in turn affects their performance (for example in British American Tobacco 83.1% is foreign owned).

Table 4. 1: **Descriptive statistics – Mean, Standard Deviation, Skewness and Kurtosis**

	Mean		Std. Deviation	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Statistic	Std. Error	Statistic	Std. Error
Performance	4.5098	2.61702	20.77196	5.627	.302	34.306	.595
Management ownership	31.5805	7.53406	59.79976	6.589	.302	48.251	.595
Government ownership	44.8486	3.37407	26.78085	-.162	.302	-1.324	.595

x

Foreign ownership	26.1484	3.51593	27.90686	.830	.302	-.713	.595
Leverage	6.7578	6.14317	48.75989	7.936	.302	62.990	.595
Size	8.2938	.20300	1.61122	.634	.302	-.545	.595

The results in Table 4.1 showed that management ownership had a mean score of 31.5805, government ownership had a mean score of 44.8486, foreign ownership had a mean score of 26.1484, leverage had a mean of 6.7578, firm size had a mean score of 8.2938 and firm performance had a mean score of 4.5098. Analysis of skewness shows that firm performance, management ownership, foreign ownership, leverage and size are asymmetrical to the right around their mean. Analysis of kurtosis shows that firm performance, management ownership and leverage have positive kurtosis.

4.3 Correlation Matrix

The results in table 4.2 show the coefficient of determination of relationship between dependent variable and independent variables as well as coefficient of determination of relationship among the independent variables.

Table 4. 2: Correlations Matrix

		Performance	Management Ownership	Government Ownership	Foreign Ownership	Leverage	Size
Performance	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	63					
Management ownership	Pearson Correlation	-.115	1				
	Sig. (2-tailed)	.368					
	N	63	63				
Government ownership	Pearson Correlation	.307*	-.500**	1			
	Sig. (2-tailed)	.015	.000				
	N	63	63	63			
Foreign ownership	Pearson Correlation	-.206	.595**	-.954**	1		
	Sig. (2-tailed)	.105	.000	.000			
	N	63	63	63	63		
Leverage	Pearson Correlation	.860**	-.071	.190	-.126	1	
	Sig. (2-tailed)	.000	.580	.136	.325		

X

	N	63	63	63	63	63	
Size	Pearson Correlation	-.333**	.566**	-.971**	.974**	-.228	1
	Sig. (2-tailed)	.008	.000	.000	.000	.072	
	N	63	63	63	63	63	63

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (1-tailed).

From the table 4.2, the study found that management ownership and performance are correlated negatively (r=-0.115). The table further indicated that government ownership and performance are positively related (r=0.307). It was further established that, Foreign ownership and performance were negatively related (r=-0.206). Similarly, results showed that leverage and performance were positively related (r=0.860). Finally the results reveal that size and performance were negatively related (r=-0.333). Therefore the study concludes that none of the variables were highly correlated with performance since none of their coefficients exceeded 0.95 and hence none was dropped.

4.4 Regression Analysis

In addition, the researcher conducted a multiple regression analysis so as to test relationship among variables (independent) on performance of companies listed at the Nairobi security exchange. The researcher applied the statistical package for social sciences (SPSS V 17.0) to code, enter and compute the measurements of the multiple regressions for the study.

4.4.1 Independent Variables Without Control Variables

The researcher conducted a multiple regression analysis so as to test relationship among variables (independent) and performance of companies listed at the Nairobi security exchange.

Table 4. 3: Regression Analysis for Variables without Control Variables

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**

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1	.433[a]	.188	.147	19.18905

a. Predictors: (Constant), FOREIGN, MANAGEMENT, GOVERNMENT

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5026.448	3	1675.483	4.550	.006[b]
	Residual	21724.965	59	368.220		
	Total	**26751.413**	**62**			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-62.552	22.119		-2.828	.006
	Management ownership	-.044	.053	-.127	-.835	.407
	Government ownership	1.032	.317	1.330	3.250	.002
	Foreign ownership	.848	.328	1.139	2.585	.012

a. Dependent Variable: PERFOMANCE

b. Predictors: (Constant), Management Ownership, Government Ownership, Foreign Ownership

From the table 4.3, the adjusted R^2 was found to be 0.147 inferring that management ownership, government ownership, foreign ownership explained only 14.7% of the performance of companies listed at the Nairobi security exchange.

Further the regression model test was found to be significant since p-value (0.006) was less than 0.05 and the calculated F (4.550) was larger than the critical value of F= 2.7581.

The established model was:

$Y= -62.552+-.044X_1 + 1.032X_2 + 0.848X_3$

The results reveal that performance of companies listed at the Nairobi security exchange will be -62.552 if all other factors are held constant. The study results also show

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that if all other factors are held constant an increase in management ownership will lead to a 0.044 decrease on the performance of companies listed at the Nairobi security exchange and as shown by r=1.032, the study reveals that increase in government ownership would lead to an increase in the performance of companies listed at the Nairobi security exchange. Further the study showed that if there was a unit change in foreign ownership, a 0.848 increase in the performance of companies listed at the Nairobi security exchange would be realized if all other factors are held constant.

4.4.2 Independent Variable with Leverage as Control Variable

The researcher conducted a multiple regression analysis so as to test relationship among independent variables and leverage as the control variable and performance of companies listed at the Nairobi security exchange.

Table 4. 4: Regression Analysis for Variables with Leverage as Control Variables

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.884[a]	.782	.767	10.02377

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	20923.813	4	5230.953	52.062	.000[b]
	Residual	5827.600	58	100.476		
	Total	26751.413	62			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-30.903	11.825		-2.613	.011
	Management ownership	-.022	.028	-.062	-.778	.440

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Government ownership	.510	.171	.658	2.985	.004
Foreign ownership	.417	.175	.560	2.385	.020
Leverage	.341	.027	.801	12.579	.000

a. Dependent Variable: Performance

b. Predictors: (Constant), Leverage, Management Ownership, Government Ownership, Foreign Ownership

From the table 4.4, the adjusted R^2 was found to be 0.767 inferring that management ownership, government ownership, foreign ownership and leverage explained only 76.7% of the performance of companies listed at the Nairobi security exchange.

Further the regression model test was found to be significant since p-value (0.000) was less than 0.05 and the calculated F (52.062) was larger than the critical value of F= 2.5252.

The established model for the study was:

$Y= -30.903+-.022X_1 + 0.510X_2 + 0.417X_3+ 0.341X_4$

The results reveal that performance of companies listed at the Nairobi security exchange will be -30.903 if all other factors are held constant. The study results also show that if all other factors are held constant an increase in management ownership will lead to a 0.022 decrease on the performance of companies listed at the Nairobi security exchange and as shown by r=0.510, the study reveals that increase in government ownership would lead to an increase in the performance of companies listed at the Nairobi security exchange. Further the study showed that if there was a unit change in foreign ownership, a 0.417 increase in the performance of companies listed at the Nairobi security exchange would be realized and an increase in leverage increases performance of companies listed at the Nairobi security exchange by 0.341 if all other factors are held constant.

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4.4.2 Independent Variable with Size as Control Variable

The researcher further conducted a multiple regression analysis so as to test relationship among independent variables and size as the control variable on performance of companies listed at the Nairobi security exchange.

Table 4. 5: Regression Analysis for Variables with Size as Control Variables

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.617[a]	.381	.338	16.89718

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10191.558	4	2547.890	8.924	.000[b]
	Residual	16559.855	58	285.515		
	Total	**26751.413**	**62**			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	220.890	69.429		3.182	.002
	Management Ownership	-.016	.047	-.047	-.348	.729
	Government Ownership	.078	.358	.100	.217	.829
	Foreign Ownership	1.732	.356	2.328	4.867	.000
	Size	-31.910	7.502	-2.475	-4.253	.000

a. Dependent Variable: Performance

b. Predictors: (Constant), Size, Management Ownership, Government Ownership, Foreign Ownership

From the table 4.5, the adjusted R^2 was found to be 0.338 which shows that management ownership, government ownership, foreign ownership and size explained only 33.8% of the performance of companies listed at the Nairobi security exchange.

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Further the regression model test was significant since p-value (0.000) was less than 0.05 and the calculated F (8.924) was larger than the critical value of F= 2.5252.

The established model for the study was:

$Y= 220.89+-.016X_1 + 0.078X_2 + 1.732X_3+ -31.910X_4$

The results reveal that performance of companies listed at the Nairobi security exchange will be 220.89 if all other factors are held constant. The study results also show that if all other factors are held constant an increase in management ownership will lead to a 0.016 decrease on the performance of companies listed at the Nairobi security exchange and that increase in government ownership would lead to 0.078 increases in the performance of companies listed at the Nairobi security exchange. Further the study showed that if there was a unit increase in foreign ownership, a 1.732 increase in the performance of companies listed at the Nairobi security exchange would be realized and that size contributed to 31.910 decreases in the performance of companies listed at the Nairobi security exchange given that if all other factors were held constant.

4.4.4 Overall Regression Results

The researcher finally conducted an overall multiple regression analysis so as to test relationship among independent variables and control variable and performance of companies listed at the Nairobi security exchange.

Table 4. 6: Overall Regression Results

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.894[a]	.799	.781	9.71629

ANOVA					
Model	**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**

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1	Regression	21370.255	5	4274.051	45.273	.000[b]
	Residual	5381.158	57	94.406		
	Total	**26751.413**	**62**			

Coefficients

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	58.376	42.625		1.370	.176
	Management Ownership	-.014	.027	-.041	-.528	.599
	Government Ownership	.242	.207	.312	1.170	.247
	Foreign Ownership	.736	.224	.989	3.283	.002
	Leverage	.315	.029	.739	10.882	.000
	Size	-10.325	4.748	-.801	-2.175	.034

a. Dependent Variable: Performance

b. Predictors: (Constant), Size, Leverage, Management Ownership, Government Ownership, Foreign Ownership

From the table 4.6, the adjusted R^2 was found to be 0.781 inferring that management ownership, government ownership, foreign ownership, leverage and size explained only 78.1% of the performance of companies listed at the Nairobi security exchange.

Further the regression model test was found to be significant since p-value (0.000) was less than 0.05 and the calculated F (45.273) was larger than the critical value of F= 2.3683.

The established model for the study was:

$Y= 58.376+-.014X_1 + 0.242X_2 + 0.736X_3+ 0.315X_4+ -10.325X_5$

The results reveal that performance of companies listed at the Nairobi security exchange will be 58.376 if all other factors are held constant. The study results also show that if all other factors are held constant an increase in management ownership will lead to a 0.014 decrease on the performance of companies listed at the Nairobi security

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exchange and as shown by r=0.242, the study reveals that increase in government ownership would lead to an increase in the performance of companies listed at the Nairobi security exchange. Further the study showed that if there was a unit change in foreign ownership, a 0.736 increase in the performance of companies listed at the Nairobi security exchange would be realized if all other factors are held constant.

The study further found that size contributed to 10.325 decreases in the performance of companies listed at the Nairobi security exchange if all other factors are held constant and that if leverage increases, performance of companies listed at the Nairobi security exchange would increase by 0.315 if all other factors are held constant.

Overall foreign ownership had the greatest effect on the performance of companies listed at the Nairobi security exchange followed by leverage then government ownership then management ownership while the size of the firm had the least effect on the performance of companies listed at the Nairobi security exchange. All variables were significant except management ownership and the government ownership.

KEY

Y = Firm performance (Tobin Q and ROE) $\mathbf{X_1}$ = Management ownership

$\mathbf{X_2}$ = Government ownership $\mathbf{X_3}$ = Foreign ownership $\mathbf{X_4}$ = Leverage

$\mathbf{X_5}$ = Firm size

4.5 Regression Diagnostics

Under this section diagnostic tests for testing the regression assumptions will be presented.

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4.5.1 Test for Normality

The testing for normality in this study was conducted using Jarque – Bera as shown in the table below.

Table 4. 7: Normality Statistics

	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Management ownership	6.589	.302	48.251	.595
Government ownership	-.162	.302	-1.324	.595
Foreign ownership	.830	.302	-.713	.595
Leverage	7.936	.302	62.990	.595
Size	.634	.302	-.545	.595
Valid N (list wise)				

Analysis of skewness shows that firm performance, management ownership, foreign ownership, leverage and size are asymmetrical to the right around their mean. Analysis of kurtosis shows that firm performance, management ownership and leverage have positive kurtosis. This means that the variables were normally distributed.

4.5.2 Heteroscedasticity Test

In the classical linear regression model, one of the basic assumptions is Homoskedasticity assumption that states as the probability distribution of the disturbance term remains same for all observations. That is the variance of each u_i is the same for all values of the explanatory variable.

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Table 4. 8: Heteroskedasticity Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	41.805	27.700		1.509	.137
	Management ownership	-.029	.018	-.211	-1.630	.109
	Government ownership	.375	.134	1.242	2.793	.007
	Foreign ownership	.813	.146	2.803	5.577	.000
	Leverage	-.060	.019	-.364	-3.213	.002
	Size	-8.920	3.086	-1.776	-2.891	.005

a. Dependent Variable: AbsUt

Accordingly, in order to detect the heteroscedasticity problems, Breusch-Pagan or Cook- Weisberg test was utilized in this study. This test states that if the p-value is significant at 95 confidence interval, the data has heteroscedasticity problem, whereas if the value is insignificant (greater than 0.05), the data has no heteroscedasticity problem. Thus, as shown in table above all the five variables (management ownership, government ownership, foreign ownership, leverage and size) had p-values of less than 0.05 hence implying that they had no heteroscedasticity problem.

4.5.3 Homoscedasticity

This was done using a scatter plot as shown in figure 4.1 below.

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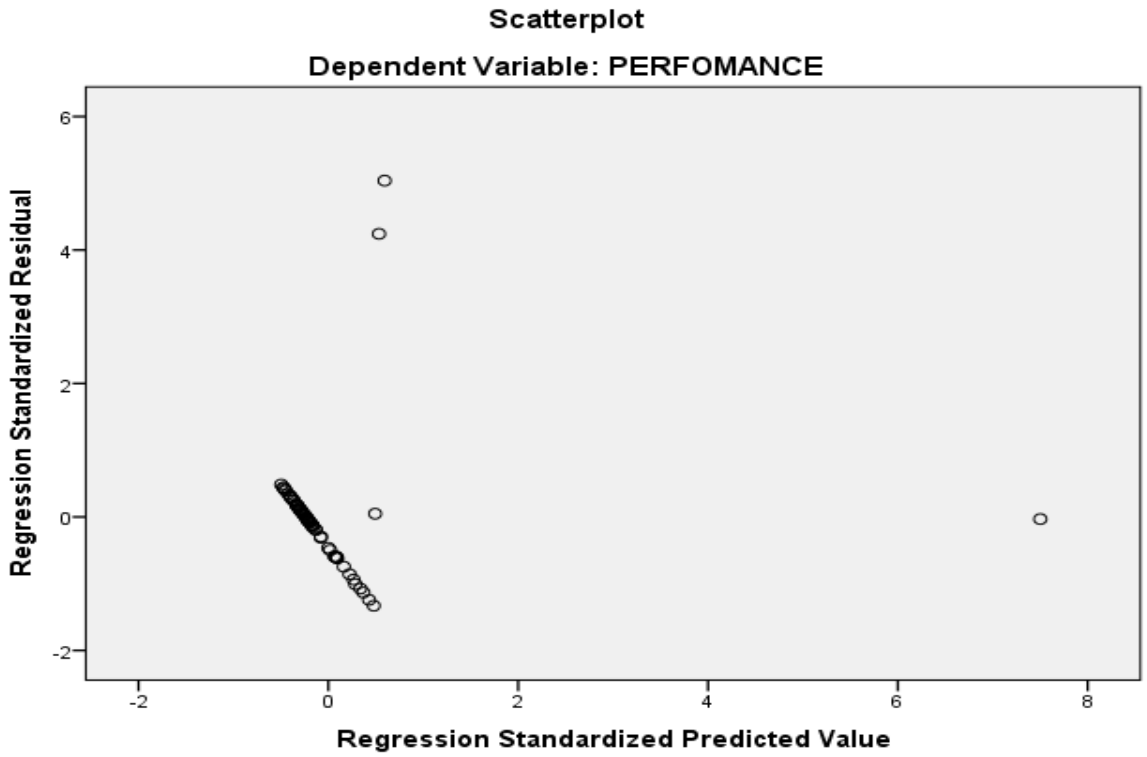

Figure 4. 1: Scatter Plot

The generated scatter plot with standardized predicted values on the horizontal axis and standardized residuals on the vertical axis shows that most of the plotted values were concentrated on the same place. The study therefore concludes that there homoscedasticity assumption was satisfied.

4.5.4 Test for Omitted Variables

The Wald test was used to determine statistical significance for each of the independent variables and the omitted variables.

Table 4. 9: Test for Omitted Variables

Model		Wald	Sig.
1	Management Ownership	9.132	.799
	Government Ownership	0.65	.003
	Foreign Ownership	5.356	.021
	Leverage	4.266	.039
	Size	.253	.615
	Constant	.423	.524

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From these results the study found that management ownership, foreign ownership, leverage and size were added significantly to the model/prediction, but government ownership did not add significantly to the model.

4.5.5 Test for Multicollinearity

The study utilized Collinearity Statistics to find out whether the independent variables are adequately correlated to show a substantial causal correlation.

Table 4. 10: Coefficients

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Management Ownership	.584	1.711
	Government Ownership	.050	20.118
	Foreign Ownership	.039	25.714
	Leverage	.765	1.308
	Size	.026	38.437

From the findings, the VIF of management ownership (1.711) and foreign ownership (1.308) were between 1 and 10. This leads to assumption that there was no Multicollinearity problem.

4.5.6 Autocorrelation Test

If the errors are correlated with one another, it would be stated that they are 'serially correlated'. A test of this assumption is therefore conducted. The first test was Durbin-Watson which is shown in the regression output of the model.

Table 4. 11: **Model Summary**

Model	Durbin-Watson
1	1.138

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As per this test expressed in table 4.11, the value of Durbin--Watson for the model is 1.138 which is far from 2. Thus, the null hypotheses were rejected for the model so there is a problem of autocorrelation.

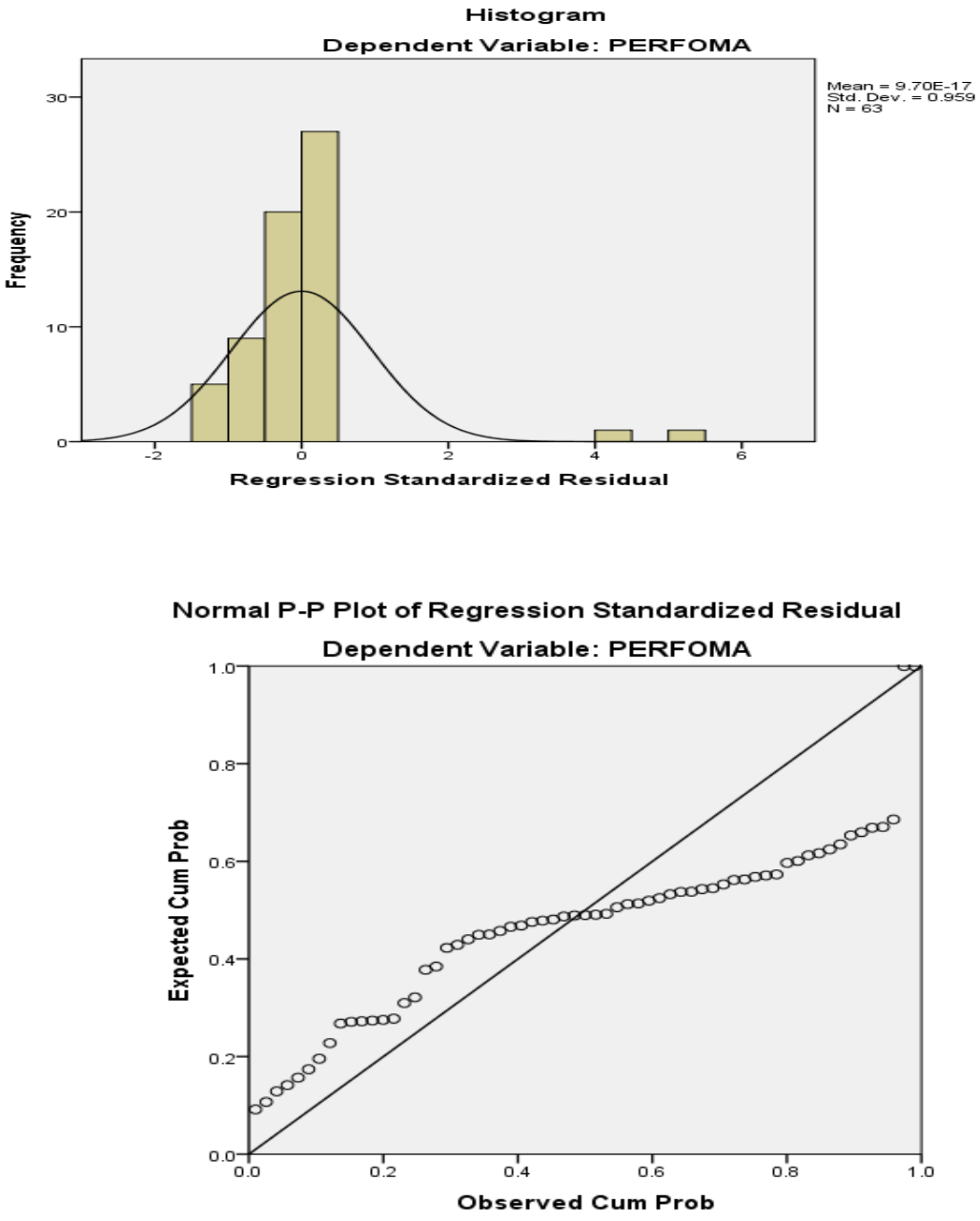

Figure 4. 2: Residual Plots

From the residuals plot, it is clear that there was no problem of autocorrelation since the plots exhibited linear regression model.

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4.6 Interpretation of the Findings

From the regression model, the study found out that management ownership concentration, government ownership concentration, foreign ownership concentration, leverage and size had an effect on performance of companies listed at the Nairobi security exchange. The study found that the intercept was 58.376. The three independent variables and two control variables that were studied (management ownership, government ownership, foreign ownership, leverage and size) explain a substantial 78.1% of firm performance as represented by adjusted R^2 (0.781). This consequently means the five variables add to 78.1% of firm performance while other factors not studied in this research contribute 21.9% of firm performance.

In general foreign ownership had the greatest effect on the performance of companies listed at the Nairobi security exchange followed by leverage then government ownership then management ownership while the size of the firm had the least effect on the performance of companies listed at the Nairobi security exchange.

The results revealed the coefficient of that management ownership was -0.014, meaning that management ownership had a negative effect on the performance of companies listed at the Nairobi security exchange.

The study established that the coefficient for government ownership was 0.242 which means that government ownership had a positive effect on performance of companies listed at the Nairobi security exchange.

The study also found that foreign ownership had a coefficient of 0.736 meaning that it had a significant and positive effect on the performance of companies listed at the Nairobi security exchange.

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Further the study found that size had a negative and significant effect on the performance of companies listed at the Nairobi security exchange as shown by a coefficient of 10.325. The study established that leverage had a coefficient of 0.315 meaning that leverage had a positive and significant effect on the performance of companies listed at the Nairobi security exchange.

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CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presented the discussion of key data findings, conclusion drawn from the findings highlighted and recommendation made there-to. The conclusions and recommendations drawn were focused on addressing the objective of the study.

5.2 Summary of the Findings

The study found out that management ownership Concentration, government ownership concentration, foreign ownership concentration, leverage and size had an effect on performance of companies listed at the Nairobi security exchange. The study found that the intercept was 58.376. The three independent variables and two control variables that were studied (management ownership, government ownership, foreign ownership, leverage and size) explain a substantial 78.1% of firm performance as represented by adjusted R^2 (0.781). This consequently means the five variables add to 78.1% of firm performance while other factors not studied in this research contribute 21.9% of firm performance. These findings are in line with study conducted by Kuznetsov and Muravyev (2001) which suggested that ownership concentration results in higher technical efficiency of enterprises, but benefits from productivity improvements do not adequately materialize in higher profitability and market value of companies.

In general foreign ownership had the greatest effect on the performance of companies listed at the Nairobi security exchange followed by leverage then government ownership then management ownership while the size of the firm had the least effect on the performance of companies listed at the Nairobi security exchange. This is similar to study conducted by Džanić (2012) who noted a significant negative relationship between

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the existence of a block holder owning more than 30% of the equity and the value of the firm's Tobin's Q.

The results revealed the coefficient of management ownership was -0.014, meaning that management ownership had a negative effect on the performance of companies listed at the Nairobi security exchange. Phuang and Hoang (2013) indicated that state ownership has an inverted U-shaped relationship with firm performance; foreign ownership has a U-shaped relationship with firm performance.

The study established that the coefficient for government ownership was 0.242 which means that government ownership had a positive effect on performance of companies listed at the Nairobi security exchange. Razak, Ahmad and Joher (2011) believed that government ownership serve as a monitoring device that lead to better company performance after controlling company specific characteristics**.**

The study also found that foreign ownership had a coefficient of 0.736 meaning that it had a significant and positive effect on the performance of companies listed at the Nairobi security exchange. This conforms to study by Phung and Mishira (2015) on Ownership Structure and Firm Performance which found a non-linear relationship between ownership structure and firm performance. State ownership has a convex relationship with firm performance.

Further the study found that leverage and firm size affects performance of companies listed at the Nairobi security exchange significantly. This concurs with Hsu, Lien and Chen (2013) who indicated that leverage is important for a firm to complete innovation and ensure the financial resources required to launch new products. Ownership structure has the capability to diversify their investments and encourage the invested companies to pursue the projects with prospects.

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5.3 Conclusions

The study concluded that management ownership negatively affects the performance of companies listed at the Nairobi security exchange – Establish the effect on management ownership on firm performance of listed companies as the Nairobi securities Exchange. Secondly, government ownership positively affects the performance of companies listed at the Nairobi security exchange – Determine the effect of Government ownership on firm performance of listed companies at the Nairobi Securities Exchange.

The study further concluded that foreign ownership affect the performance of companies listed at the Nairobi security exchange significantly and positively – Evaluate the effect of foreign ownership on firm performance of listed companies at the Nairobi Securities Exchange - while leverage and firm size affects performance of companies listed at the Nairobi security exchange significantly.

Finally the study concluded that foreign ownership had the greatest effect on the performance of companies listed at the Nairobi security exchange followed by leverage then government ownership then management ownership while the size of the firm had the least effect on the performance of companies listed at the Nairobi security exchange.

5.4 Recommendations

There is a negative relationship between management ownership concentration and firm performance. Management ownership concentration mainly consists of the public and the managers of the companies. It has been argued that when managers don't own shares in their company, they become less committed to the organization since they don't have a stake in the residual income of the firm, and are not likely to bear the cost of mismanagement. This translates to inferior performance. The study therefore

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recommends that the firm, managers should be encouraged to own shares in the company they are managing.

Further, the firms listed in the NSE seem to follow pecking order theory which is based on assumption of asymmetry of information. This being the case it then follows that the degree of asymmetry in Kenya may be quite high, the government should therefore make a deliberate effort to minimize asymmetry in the country as this could cause market failure. In this regard the government can use various signaling devices to bring confidence into the market. The study also recommends that firms should desist from higher levels of block holder owners in order to reduce ownership concentration. This will help improve the performance of firms in Kenya.

The study also recommends that firms should encourage foreign investors to invest in their firms as the higher levels of foreign ownership would lead to better firm profitability hence improve the performance of the firm. The study further recommends that government ownership in firms in Kenya should be reduced. This is because higher levels of government ownership are detrimental to the performance of firms.

The findings on the relationship between foreign ownership firms and their domestic counterparts and firm performance used to inform policy. As observed by other researchers, it is possible for domestic owned firms to attain the same level of productivity as foreign owned firms with appropriate management. Governments would be erring if they were to adopt the concept that only foreign owned firms may be in a position to efficiently utilize resources and develop pro-foreign firm's investment policies.

In attracting foreign direct investments, policy makers can stick to areas where foreign firms are reluctant to transfer their proprietary knowledge to domestic owned

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firms. This is especially so in fields such as emerging technologies and heavy manufacturing. In fields such as services and widely available technology, the policy makers can restrict entry by foreign owned firms as they prefer no benefits to the country. The governments can therefore restrict foreign firms to specific sectors of the economy and leave the less competitive to the domestic firms.

5.5 Limitations of the Study

The study used multiple regression analysis due to the nature of the study, yet it possesses assumptions which may not hold often. The study was limited to 63 firms listed at the Nairobi Securities Exchange in the year 2015.

The study was limited to secondary data, which was collected from CMA handbook and Annual Financial statement for the study period. Secondary data involves past information which may not be a true reflection of the current needs of the study. This data can also be general and vague and may not really help with decision making, the information and data may not be accurate. This might have exposed the study to bias and assumptions and impacted negatively on the study findings.

5.6 Recommendations for Further Studies

The study concluded that the same study should be done on effect of ownership concentration on firm performance based on specific sector listed at the Nairobi security exchange.

Future studies should be conducted to establish the critical level of shareholding, beyond which there would be accelerated firm performance arising from commitment of managers.

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Another area of interest to future researchers is the identification of the factors that contribute to poor performance as the domestic ownership of firm's increases. Which of these factors could be responsible for the poor performance? Do domestic firms exploit their home advantage and market knowledge to their advantage? Researchers could be interested in identifying the challenges that deter domestic owned firms from exploiting these advantages.

Further studies should also be conducted to establish the effects of ownership identity on firm performance of a company listed in the NSE, i.e. separate from ownership concentration.

To establish the role played by foreign owners and the large shareholders, a study can be conducted to establish how listed firm use the two types of shareholders in their decision making. The study could also establish how the large shareholders and foreign shareholders influence decisions in the listed firms.

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APPENDIX I: Sample Secondary data collection sheet

The data will be collected for 63 firms listed at the NSE.

Firm	Management ownership (% number of shares held by executive directors)	Government ownership(% number of shares held by state institutions)	Foreign ownership(% number of shares held by foreign shareholders)	Net income	Total equity	Total market value	Total asset	
1								
2								
3								
4								
5								

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APPENDIX II: Listed Firms

No.	Sector	No.	Sector
	AGRICULTURAL		**ENERGY & PETROLEUM**
1	Eaagads Ltd	36	KenGen Co. Ltd
2	Kakuzi Ltd	37	KenolKobil Ltd
3	Kapchorua Tea Co. Ltd	38	Kenya Power & Lighting
4	The Limuru Tea Co. Ltd	39	Total Kenya Ltd
5	Rea Vipingo Plantations Ltd	40	Umeme Ltd
6	Sasini Ltd		**INSURANCE**
7	Williamson Tea Kenya Ltd	41	British-American Investments Co.(Kenya) Ltd
	AUTOMOBILES & ACCESSORIES	42	CIC Insurance Group Ltd
8	Car & General (K) Ltd	43	Jubilee Holdings Ltd
9	Marshalls (E.A.) Ltd	44	Kenya Re Insurance Corporation Ltd
10	Sameer Africa Ltd	45	Liberty Kenya Holdings Ltd
	BANKING	46	Pan Africa Insurance Holdings Ltd
11	Barclays Bank of Kenya Ltd		**INVESTMENT**
12	CFC Stanbic of Kenya Holdings Ltd	47	Centum Investment Co Ltd
13	Diamond Trust Bank Kenya Ltd	48	Home Afrika Ltd
14	Equity Group Holdings Ltd	49	Kurwitu Ventures Ltd
15	Housing Finance Co.Kenya Ltd	50	Olympia Capital Holdings Ltd
16	I&M Holdings Ltd	51	Trans-Century Ltd
17	Kenya Commercial Bank Ltd		**INVESTMENT SERVICES**
18	National Bank of Kenya Ltd	52	Nairobi Securities Exchange Ltd
19	NIC Bank Ltd Ord 5.00		**MANUFACTURING & ALLIED**
20	Standard Chartered Bank Kenya Ltd	53	A.Baumann & Co Ltd
21	The Co-operative Bank of Kenya Ltd	54	B.O.C Kenya Ltd
	COMMERCIAL AND SERVICES	55	British American Tobacco Kenya Ltd
22	Atlas Development & Support Services LtdGEMS	56	Carbacid Investments Ltd
23	Express Kenya Ltd	57	East African Breweries Ltd
24	Hutchings Biemer Ltd	58	Eveready East Africa Ltd
25	Kenya Airways Ltd	59	Flame Tree Group Holdings Ltd
26	Longhorn Kenya Ltd	60	Kenya Orchards Ltd
27	Nation Media Group Ltd	61	Mumias Sugar Co. Ltd
28	Standard Group Ltd	62	Unga Group Ltd
29	TPS Eastern Africa Ltd		**TELECOMMUNICATION & TECHNOLOGY**
30	Uchumi Supermarket Ltd	63	Safaricom Ltd
	CONSTRUCTION & ALLIED		
31	ARM Cement Ltd		
32	Bamburi Cement Ltd		
33	Crown Paints Kenya Ltd		
34	E.A.Cables Ltd		
35	E.A.Portland Cement Co. Ltd		