

**RELATIONSHIP OF FIRM OWNERSHIP STRUCTURE AND SIZE ON FINANCIAL
PERFORMANCE OF PRIVATIZED STATE OWNED ENTERPRISES IN NAIROBI
SECURITIES EXCHANGE, KENYA**

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**A Research Project Presented to the Institute of Postgraduate Studies of Kabarak
University in Partial Fulfillment of the Requirements for the Award of Master of Business
Administration (Finance Option)**

KABARAK UNIVERSITY

NOVEMBER, 2018

DECLARATION

This research project is my original work and has not been submitted to any institution or university for examination.

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GMB/NE/1119/09/12

RECOMMENDATION

To the Institute of Postgraduate Studies:

The research project entitled “**Relationship of Firm Ownership Structure and Size On Financial Performance of Privatized State Owned Enterprises in Nairobi Securities Exchange, Kenya**” and written by **Brainson Kimiriny Enkirisai** is presented to the Institute of Postgraduate Studies of Kabarak_University. We have reviewed the research project and recommend it be accepted in partial fulfillment of the requirement for award of the degree of Master of Business administration (finance option)

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DEDICATION

This research project is dedicated to my loving parents for their financial, spiritual and emotional support.

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I would like to thank the almighty God for giving me the strength during the entire compilation of this project. I would like to recognize the tireless efforts of my lecturers Dr. Symon Kiprop and Dr. John Tanui for their time and guidance.

ABSTRACT

Firms' ownership may be used to increase firms' value and also solve problems associated with managers and shareholders. Firm size is gaining importance among researchers as far as performance is concern. To-date the government has divested several SOEs using different approaches among the most popular being; public offering, pre-emptive rights and competitive bidding and direct sales. The study intended to analyze relationship of firm ownership structure and size and performance listed state corporations in Nairobi Securities Exchange. Particularly, the study analyzed effect of government, local, foreign ownership and firm size on financial performance of privatized state owned enterprise in Nairobi Securities Exchange. The study adopted a quantitative longitudinal research design to analyze this relationship and guided by relevant theories such as Growth of Firms Theory, Economic Theory, Stakeholders Theory and Dynamic Trade-Off Theory. The study targeted the 11 privatized listed firms in Nairobi Stock Exchange. The listed privatized State owned Enterprises were few but the period of the study was widened in order to give more accurate information. Data from secondary sources and mainly audited financial reports covering a period of 10 years (2008-2017) were analyzed for the purpose of the study. The study used mean, standard deviation to describe the data and inferential statistics used to describe the relationship between ownership structure and size on financial performance and tested using Panel Regression analysis. The study was informative to Capital Market Authority, Central Bank and NSE policy regulators in providing insight from the study for designing policies to that will improve privatization process, regulation on firms' ownership and size to control any dominance. Government shares was the only variable found to have a significant effect on ROA with a p value of 0.000 holding local shares, foreign shares and firm size constant which all had insignificant effect. Relationship between ownership structure and firm size on ROA remained statistically significant when interest rate was introduced as moderating factor with a p value of 0.0005 whereas for ROE the relationship was statistically insignificant when interest rate was introduced as moderating factor.

Key Terms: *Ownership Structure, Privatization, Firms Performance, Firm Size*

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LIST OF ABBREVIATIONS AND ACRONYMS

CBK	Central Bank of Kenya
GDP	Gross Domestic Product
EBIT	Earnings before Interest and Tax
FGLS	Feasible Generalized Least squares
NIM	Net Interest Margin
NPM	Net Profit Margin
NSE	Nairobi Stock Exchange
SME	Small and Medium Enterprise
OECD	Organization for Economic Co-operation and Development
ROA	Return on Asset
ROE	Return on Equity
SOE	State Owned Enterprise
VIF	Variance Inflation Factor

OPERATIONAL DEFINITION OF TERMS

Financial Performance	This is a measure by which firms generate revenue from its assets and equity (Gitman, 2007). This definition as it is was adopted by the study.
Firm Size	This is a measure of asset that a firm has developed over years (Reilly & Brown, 2003). This definition as it is was adopted by the study.
Ownership Structure	This is the distribution of equity with regard to votes and capital by the firm’s equity owners (Zhuang, 1999). This definition was adopted by the study as it is.
Privatization:	This is transferring ownership from government to a hybrid of partly government owned and partly privately owned (Chambers, 2008). This definition as it is was adopted by the study.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Performance of firms may be measured by use of various techniques. Some of the techniques may include; ratios like profitability and efficiency ratios (Kaguri, 2013). Many approaches of firm performance have been used of which financial performance is more used than other measurement parameters. Relationship of ownership and size of corporations on performance of listed government corporations in NSE is the focus of the study. Corporate governance framework aimed to enhance accountability and transparency to facilitate increased efficiency of a firm for wealth creation of the firm and the welfare of all the stakeholders (Berk and DeMarzo, 2007). Ownership is structured in order to create value and also to avoid challenges of control by some specific shareholders (Qui, 2012). Corporate governance is the main concern of the relationship between ownership structure, size on financial performance (Hassan & Butt, 2009). Financial institutions, banks, government and other establishments are mostly the owners of companies. Each of the ownership combinations made is more effective in improving performance of the company. The structure of shareholding of a company can be said to be the basis of corporate governance and will end up reflecting on financial performance of the company (Oketch 2017). Larger companies are thought to be having higher efficiency, more gainful investment opportunities, lower risk, and more diversification. They also enjoy the benefits of economies of scale and can compete globally and therefore can perform better financially.

The Nairobi Securities Exchange(NSE) has 67 listed companies categorized into 11 various segments which include banking, agriculture, construction and allied, automobiles and accessories, investment services, insurance, commercial and services, telecommunication and technology, investment, energy and petroleum and manufacturing and allied segments. Out of this listed companies,11 are privatized state owned enterprises (www.nse.go.ke).

1.1.2 Privatization

The past 25 years states especially in emerging economies have put invested in state enterprises through restructuring, equity financing, that is financing firms from owners equity contribution among others. The reason behind such concern is to improve performance of the state

corporations. States always hope that when the state corporations are able to do well then they can recoup their investments. State ownership was meant to create check and balances as private equity owners put more investments in the corporation (Shirley & Nellis, 2011).

Following poor performance of public enterprises, it was no longer tenable for the government to continue taking the burden managing the enterprises. Attempts were made to improve the performance of the public enterprises; these included (Koimet, 2006). White and Bhatia (1998) points out that by 1990 State Owned Enterprises (SOEs) in Kenya led to privatization and the ownership changed representing government and private board members to 1% of the Gross Domestic Product (GDP) in 199. Further between 1990-92. In order to reverse the situation coupled with pressures from Bretton institutions the government embarked on privatization venture. Several strategies have been used to accelerate performance of State Corporation; clear setting of firms' objectives, introduction of accountability systems, employees' incentives including better pay, development and welfare. The Government of Kenya embarked on privatization to realize these noble objectives. To date the government has divested over 140 SOEs using different approaches among the most popular being; public offering, pre-emptive rights and competitive bidding and direct sales.

Naikuni (2004) opines that Kenya was advised by IFC to privatize Kenya Airways to make it more efficient in terms of financial performance which lead to the Royal Dutch Airline KLM to buy stake in Kenya Airways worth USD\$ 70 billion with other Kenyans also buying stake in the airline worth USD 200 million, others bought by local and foreign financial institutions and employees.

1.1.3 Firm Size

The size of a firm may affect different things in the firm such as customer loyalty, goodwill and patronage as well as its level of receptiveness to its stakeholders. The size of a firm will determine the capital base as well as shareholder base of the firm which enlightens on the level of stewardship which is to be expected from the board of directors and the administrators of the firm Obigbemi *et al* (2015).

Firm size has been used as intervening variables but in this study it will be used as independent

variable. Many studies have used the number of employees, number of board members to show or measure size of a company. For this study, return on total asset and market capitalization was used to differentiate sizes of firms. Firms can be differentiated by the asset they own as a measure of their sizes. Classification by OECD (2005) classifies firms by the number of employees, for example organizations with less than 50 employees are classified as small whereas those with more than 500 employees are classified to be big. Ownership structure is another critical characteristic by which firms can be classified. Financial institutions, banks, government and other establishments are mostly the owners of companies. Each of the ownership combinations made is more effective in improving performance of the company. The structure of shareholding of a company can be said to be the basis of corporate governance and will end up reflecting on financial performance of the company (Oketch 2017). Larger companies are thought to be having higher efficiency, more gainful investment opportunities, lower risk, and more diversification. They also enjoy the benefits of economies of scale and can compete globally and therefore can perform better financially.

1.1.4 Ownership Structure and Financial Performance

Financial performance measures firms rolling up of policies and operations (Erasmus, 2008). How well organization performance can be measured using financial performance. Erasmus (2008) observes that that ROE, quick and liquidity ratios are some of the known measurement of financial performance of a firm. Financial performance is an indicator on how health a firm is (Pandey, 2008). Financial performance is the profit or losses achieved. ROE is a measure on how a firm utilizes shareholders' equity to generate profit which may be distributed back to them as wealth gained out of their investment (Khravish, 2011).

Jiang (2015) observed that characteristics of ownership structure in governance are the allocation of firms' shares to different shareholders of company ownership and management. Shareholders of firms take the responsibilities of management to hired managers and retain the power of control. The shareholders continue to provide incentives to the management to motivate them towards performance that will make them work hard to generate wealth to the shareholders and also champion the long term objectives of the organization (Matengo, 2008).

According to Hassan and Butt (2009) firm ownership and performance is issue governance.

George and Nyambonga (2014) pointed out that despite the impressive performance of the NSE, firms listed at NSE are still dogged with challenges of ownership structure where the controlling shareholders took the opportunity to use their powers to undertake activities of personal gain. Firms' ownership is meant to diversify powers and control firms' value by the shareholders to avoid personal or group interest which derails investors interest in the firms (Lioui and Shaema, 2012). Uzel (2015) argued that the organizational performance is important because firms main mandate is to generate revenue which can be turned into profit. Iravo, Ongori and Munene (2013) raised concern over the difference between successful organization and none successful ones. Mukulu, Nteete and Namusonge (2012) observe that for firms to improve in performance there must be a clear way of measuring it with clear indicators. Gonzalez and Molina (2010) observed that, higher ownership-concentration improve firm's performance and concluded that ownership structure is has key control on firm performance

1.2 Statement of the Problem

The shifts in shares of listed firms through trading are the main business of security market worldwide. According to Anthony (2014) the trading of firms in security market acceleration is therefore what changes their ownership structures which shift from government to local ownership even to foreign ownership. This is evidenced by a deliberate policy of divestiture pursued by Kenyan Government came up with strategy of reducing its ownership by selling shares to private firms and individuals by infusing modern management styles that improves firms' performance (Ndemo, 2009). Anselm (2014) points out that the traditional approach that analyzes the relationship between governance and performance in most cases do incorporate ownership in terms of the firms' shares. Some studies done in Kenya that have analyzed the subject of ownership and performance include (Mehrijardi, 2012; Mbogo, 2012). In spite of changes in ownership structure occasioned by privatization, some privatized firms in NSE are still struggling to be profitable; the likes of Uchumi Supermarket and Kenya Airways are not profitable to date. The period of 2008-2017 was essential to the scope of the study because during this time, there were changes in business environment and also various government policies that affect business operations. There is no single study that relates firms' ownership and size with financial performance especially in state owned listed firms at NSE necessitating the current study.

1.3 Objectives of the Study

1.3.1 General Objectives

The general objective of the study was to analyze relationship of firm ownership structure and size on financial performance of privatized state owned enterprise in NSE.

1.3.2 Specific Objectives

- i. To ascertain effect of government ownership on financial performance of privatized state owned enterprise in Nairobi Securities Exchange
- ii. To assess effect of local ownership on financial performance of privatized state owned enterprise in Nairobi Securities Exchange
- iii. To determine effect of foreign ownership on financial performance of privatized state owned enterprise in Nairobi Securities Exchange
- iv. To establish effect of total asset on financial performance of privatized state owned enterprise in Nairobi Securities Exchange
- v. To analyze effect of market financial capitalization on privatized state firms in NSE.

1.4 Hypotheses of the Study

HO₁: There is no significant relationship between government ownership and financial performance of privatized state owned enterprise in Nairobi Securities Exchange

HO₂: There is no significant relationship between local ownership and financial performance of privatized state owned enterprise in Nairobi Securities Exchange

HO₃: There is no significant relationship between foreign ownership and financial performance of privatized state owned enterprise in Nairobi Securities Exchange

HO₄: There is no significant relationship between total asset and financial performance of privatized state owned enterprise in Nairobi Securities Exchange

HO₅: There is no significant relationship between market capitalization and financial performance of privatized state owned enterprise in Nairobi Securities Exchange.

1.5 Significance of the Study

The current study will be informative to Capital Market Authority, Central Bank and NSE policy regulators in providing insight from the study for designing policies to that will improve

privatization process, regulation on firms' ownership and size to control any dominance. Academicians and researchers will find the findings of this study beneficial in broadening their knowledge on ownership structure, size and financial performance and opening up avenues for further research in areas like; Efficiency, corporate governance, investments and others. In practice, privatization and corporate turnaround strategists will find the outcome of this study important in practically designing strategic practices that can design ownership proportions and firm sizes that will enhance privatized SoEs financial performance, advice on capital injections for expansion and also design working operation cost controls that over time will further achieve the desired financial performance.

1.6 Scope of the study

This study covered the following elements of ownership structures: foreign ownership representing the number of foreign owned shares, government ownership representing the number of government owned shares and local ownership. The study also covered how firms' firm size and financial performance relate among the firms listed privatized SoEs in Nairobi Security Exchange (NSE) as measured by the effect of total asset and market capitalization. Financial performance was measured using ROE and ROA (Dar, Naseem, Rehemani & Niazi, 2011). The study was conducted in the State Owned Enterprise listed firms in NSE. Audited financial reports from the 11 listed SoEs were analyzed covering the period 2008 to 2017.

1.7 Limitation and Delimitation of the Study

The following limitation hampered the study from attaining its objectives.

Sample size of selected SOEs was small compared to all listed firms in NSE and also privatized firms in Kenya. The researcher selected a representative sample of the SoEs listed in NSE. The other limitation was the reliability of information from financial reports of the firms which the researcher depended on as the main source of data.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides an insight on theories and other studies that have previously been done that are related to the current study. The following is covered: theoretical review which include; Growth of Firms Theory, Economic Theory, Stakeholders Theory and Dynamic Trade-Off Theory. Empirical literature are presented in an attempt to identify literature gap, finally, the researchers' own conceptualization is presented showing the independent, dependent and moderating variables.

2.2 Theoretical Literature Review

2.2.1 Growth of the Firm Theory

The proponent of GFT was Penrose (1959) who advanced a concept on how a firm can grow bearing in mind its efficiency and profitability. Penrose (1959) advances that firms can grow through effective management, production and diversification. He further advanced that firms can grow through having comparative resources, developing capabilities and competitive edge that would give them advantage when they operate. This theory will be used to analyze firms' performance of the listed formally state owned state corporations. Firms can create economic value from effective and new innovations that benefits the shareholders. The amount of resources that a firm commands is not directly correlated with the profit it makes but for purposes of increasing productive opportunities (Penrose, 1959).

Managers therefore are catalysts meant to accelerate the production process by combining a number of factors of production with a view of economic value creation for prosperity more especially in large firms. This is what leads to growth of a firm compared to others in a competitive environment catalyst by availability of management meant to do the conversion of raw materials into value (Penrose, 1959). Firms should be managed using knowledge base which the managers should possess based on training and experiences. This will shape the profitability direction of the firms by removing inefficiencies which make firms lose competitiveness (Penrose, 1959).

2.2.2 Economic Theory

Economic Theory was proposed by Amato and Wilder (1990) to explain how firm size poses an advantage for such firms which would allow them leverage on resources for profit maximization. Large firms have diversified capabilities, exploitation of economic advantages for increased profitability. These unique economic positioning make larger firms perform better than the large ones (Amato and Wilder, 1990). Difference in profitability for example may exist among firm due to internal factors such as; market share, firm size, skills among others. Specific factors such as previous achievement, competitiveness and capabilities that enhance competitive advantage may make firm profitability differ as per firm size. This theory will be used to analyze firm size.

Economic theory is based on the fact that firm size makes it increase its production capacity and competitiveness. This is because size can be a barrier to entry by the competitors and also leverage on its resources for efficient production. In banking set up, a firm may intensively use its assets to acquire technologies which may it serve its customers effectively and also make it more competitive compared to firms which do not have such advantages. This will make competitors to operate in peripheries so that the competitive firm remains a strong brand hard to penetrate (Chrystal & Lipsey, 1997).

Firm size influences performance, a large firm is characterized by; capabilities for economies exploitation expansion of its scope leading to superior performance (Amato and Wilder, 1990). Firm's size therefore is correlated with market power, a firm with large size commands a larger market power comparatively. Barney (1991) opines that the capability a firm depends on its market share and skill leverage which are indicators of firm competitiveness also relative to its profitability.

2.2.3 Stakeholder Theory

Stakeholders Theory was advanced by Freeman (1984). The theory stipulates that the way firms are run is dependent on stakeholders' interest. Ulrich *et al.* (2008) observes that stakeholders are at the centre of firm success because some of them are customers, others are equity holders whereas others are the regulators. This theory advances that when managers are making

decisions about the firm, they should factor in stakeholders interest which is the reason why firms exist (Manville & Ober, 2003; White, 2009). According to Freeman (1994) a firm cannot generate the required value if they ignore stakeholders by understanding their needs, their level of participation and the interest they command.

Companies ought to avoid vested interest and instead lobby for all shareholders interest (Freeman, 1994). The theory is a champion shared roles, shared opportunities and shared benefits among all stakeholders rather than manipulation by few individual so that the stakeholders can invest more in the firm based on what they get out of them (Freeman, 1984; Freeman & McVea, 2001). Ulrich et al. (2008) stakeholders are the elements of firm success and therefore corporate leaders must invest in their interest as a matter of protection and also prosperity. The theory advances that decisions should favour interest of stakeholders including shareholders, customers, suppliers, communities and government (Manville & Ober, 2003; White, 2009).

Advocates of stakeholder theory have failed to document how to make tradeoff dealing with larger stakeholders' interest making managers to be a puppet of a few stakeholders and therefore cannot make meaningful decisions (Freeman, 1994). Kaptein and Van Tulder (2003) observes that the theory sometimes makes managers very hard to account for their actions resulting to mismanagement and mis-reporting of key disclosures. Wheelen and Hunger, (2002) opines that corporate can only maximize value by incorporating strategic plan which include; a corporate vision, strategy and tactics. Freeman (1994) concludes that when a firm ignores the interest of its stakeholders, it will never maximize its value in the long run. Stakeholders' theory will be used to analyze changes in firms shares which is the basis of ownership which also is the firms long term plan to achieve its performance plans. This theory will be used to analyze ownership structure which affects firms' performance.

2.2.4 Dynamic Trade-Off Theory

This theory recognizes importance of time and other aspects that are sometimes forgotten in the running of firms particularly the roles of what a firm expect and the cost that comes along with it (Luigi & Sorin, 2009). The model postulates that firms must foresee costs that is associated with performance expectation (Luigi & Sorin, 2009). The targets set by firms are important in

aligning operations to achieve them which sometimes deviate from expectations which the managers must factor in as costs (Fischer, Heinkel & Zechner, 1989). Dynamic trade-off models are useful in considering the alternatives of cost carried forward.

This theory therefore explains that although firms may deviate from their targets capital structures, they must adjust their operations to re-focus on the targets. This deviation could be due to a number of reasons for instance time value which may create uncertainty. Prudently, adjustments should be done based on changes in costs and adjustment changes (Fischer, Heinkel & Zechner, 1989). Such deviations are gradually removed over time for a firm to converge to the target capital structure which differs from firm to firm (Frank & Goyal, 2007). The theory however assumes that there exist an observable target which in practice is difficult to determine. Dynamic trade-off models are useful in pushing forward leverages to the next financial period. A firm can change its leverage under the assumptions that EBIT in changes in capital structure and separation of investment and financing policy (Goldstein, Ju and Leland, 2001). According to Luigi and Sorin (2009), the first dynamic model states that firms can react to economic shocks by taking large liability as a strategy of taking advantage of taxes. This view has however may not hold in practice since firms will always incur transaction costs which were ignored in their model.

2.3 Empirical Literature Review

This section presents empirical studies related to the objective of the study presented in terms of; Government Ownership and Financial Performance, Local Ownership and Financial Performance, Foreign Ownership and Financial Performance, Total Asset and Financial Performance so to market capitalization.

2.3.1 Government Ownership and Financial Performance

Ownership by governments is normally characterized by resources, power and the easiness of accessing monies. Objectives of a government may always differ from those of institutional investors. Making profit may be the only aim of institutional investors while a governments' objective may be to stabilize the economy, increase collection of tax or reduce unemployment in addition to making profit. Government shares influences firms' financial performance by

reducing information asymmetry (Borisova et al., 2012). A study by Jiang, Laurenceson, and Tang's (2008) on listed companies in Shanghai Stock Exchange (SSE) established a positive relationship between government ownership and ROEAs is supported by (Ng, Yuce and Chen, 2009). This positive relation is attributed to the benefits enjoyed from the government for example protection from industry subsidiaries and government support (Ng, Yuce and Chen (2009).

Government ownership is expected to influence performance through political appointment of the managers who may not be very effective and may be interested with perusing political agendas Mutisya (2015) observes that Government ownership is inefficient and bureaucratic and that the ownership rights of government firms are not motivated towards desired performance. Boubakri et al. (2005) argued that government owned firms are advantaged as the government can allocate capital to them for investments as a means of spurring such investments. However he points out that government should transfer control rights of the decision making process from politicians to managers.

Anselm (2014) emphasized that efficient structure is relevant as the owners of a firm have economic relations with the firm. Government ownership is expected to influence performance through political appointment of the managers who may not be very effective and may be interested with perusing political agendas. Mutisya (2015) observed that Government ownership is inefficient and bureaucratic and that the ownership may not improve performance.

Mrad and Hallara (2012) established that state ownership improved firms return on asset. Gitundu *et al.* (2016) argues that government companies should restructure although it is important for government to retain some shares for purposes of control. Zeng *et al.* (2011) analyzed firms in China from 2006 to 2008 established that state ownership achieved more firms. Beltratti *et al.* (2012) observes that sometimes government ownership pursure objective not related with firms' profitability (Taylor, 2011). Alulamusi (2013) also established that government ownership had insignificant relationship with firms' performance. Institutional shareholding not only should follow capital market regulations but also act in good faith to protect other small shareholders investment into the companies. However, Huyghebaert and

Wang, (2012) noted that Chinese public listed companies can use their share muscles to look beyond china for purposes of making such firms more profitable and having extensive market expansion which in turn benefit even the small shareholders rather than manipulation for personal benefits. However, Farinós (2007) argued government owned companies due to their relationship with the government they enjoy the advantages against private companies as far as their operations, resources and opportunities are concern. By the fact that they are under constant vigilant by both government and public investors they are well governed making them likely to perform better than private companies. Yan and Zhong (2012) established that government owned firms and have significant impacts on their financial performance. Beltratti et al. (2012) argued that government owned may pursue goals not related to profitability. Wanjugu et al. (2016) argued that Government firms are sometimes inefficient and bureaucratic negatively affecting ROA.

Ongore *et al* (2011) established that government shares do not influence firm performance. Esther et al. (2016) argues that government companies need to reduce their ownership control by selling some of their shares in state corporation as a means of mobilizing funds for their operations and also to allow local and foreign ownership to inject effective management systems that can make the companies improve their performances.

Earnhart and Lizal (2010) observe that poor ownership structures make those with higher stakeholders to control the firms into their direction based on their voting power rather than prudent management that can make such firm perform better. Institutional shareholding not only should follow capital market regulations but also act in good faith to protect other small shareholders investment into the companies. However, Huyghebaert and Wang, (2012) noted that Chinese public listed companies can use their share muscles to look beyond china for purposes of making such firms more profitable and having extensive market expansion which in turn benefit even the small shareholders rather than manipulation for personal benefits. Cases where government ownership is large, bureaucracy creeps into the firms which also make them inefficient. However, government owned firms should use their ownership positions to develop policies that enable firms to operate profitably to avoid negative implications for firm performance (Wadongo, Odhuno & Kambona, 2010).

Zeng et al. (2012) established that the firms have high disclosures as a means of winning public and social confidence, good organizational image and reputation and insignificant financial performance. Yan and Zhong (2012) observe that Chinese firms are characterized by; economic decentralization, and political bureaucracies and stiff competition affect financial performance of such firms.

Fred (2011) observes a positive relationship between set goals and firms' achieve performance because when goals are specific, they help to achieve specific set performance. Goals are also used in organizations to evaluate performance and therefore state-owned firms should avoid politics in firms' business and adopt goal setting theory in setting their firms short-term and long term goals. Literatures have proven that goalsetting theory improves the performance of individuals, teams and organizations (Thorgren & Vincent, 2013). Wanjugu et al. (2016) argued that Government firms are what make government firms inefficient is the bureaucracy that makes it had to monitor activities of the managers. Foreign ownership significantly influence performance because they are able to monitor the managers behavior which lacks in government firms.

Mei (2013) conducted a study on government owned firms listed in the stock market using panel data regression covering 2003-2010 and found out that and established U-shaped relationship between structure and performance. The shares distribution enhanced the relationship between ownership and profitability ratios of the firm especially in sectors as; the oil, natural gas, mining, publishing, broadcasting and media sector. The high performance was achieved due to government support and political connections.

Other empirical study analyzed the relationship between Government Shares and firms Performance found positive relationship between institutional investors and KSE firm performance (Alfaraih, Alanezi and Almujaed, 2012). This finding indicated existence of powerful and influential role of institutional investors in corporate governance mechanism. To the contrary, when government exit ownership of such firms, the relationship turned negative. A study by Tran, Nonneman and Jorissen (2014) on Government Ownership and Firm

Performance in Vietnam using a panel dataset of 2004-2012 found insignificant relationship between ownership, profitability and labor productivity of government owned firms whereas when size was increased, labor productivity. Government ownership is expected to influence performance through political appointment of the managers who may not be very effective and may be interested with perusing political agendas Mutisya (2015) observes that Government ownership is inefficient and bureaucratic and that the ownership rights of government firms are not motivated towards desired performance. Boubakri et al. (2005) argued that government owned firms are advantaged as the government can allocate capital to them for investments as a means of spurring such investments. However he points out that government should transfer control rights of the decision making process from politicians to managers.

Razak, Ahmad and Joher (2011) study in Malaysia Listed Companies analyzing impact of an alternative ownership/control structure of corporate governance on firm found out that government ownership lead to monitoring system that lead to better performance using Tobin's Q as market performance based on 210 firms from 1995 to 2005 using panel data regression approach. The study found an existence of A significant effect of ownership by a government was found on company performance. This was after controlling for company specific characteristics such as company size, leverage, non-duality, and growth.

2.3.2 Local Ownership and Financial Performance

Local ownership by perfect knowledge of local market may influence firm's performance positively. Local ownership refers to the companies owned by locals. Margaritis and Psillaki (2010) established that firms with ownership on from different quarters faces more agency costs which lowers their financial performance compared to firms with specific ownership have sound controls which improves financing efficiency and lower agency costs leading to good financial performance. Czarnitzki (2015) study observes that firms owned by many shareholders' usual experience poor performance. Kiruri (2013) found that firms which had local and foreign ownership had better profitability. Nafula (2012) found insignificant influence of ownership structure on firms' performance.

Another empirical study on relationship between ownership structure and financial performance

established significant relationship between ownership structures on firms' financial performance. This is supported by Jensen and Fama (1986) who documented that dispersed ownership makes it hard for the firms to control the management opportunistic actions that exploit the firms. This scenario leads to managerial entrenchment, where the management does value reduction activities which is an evident of lack of monitoring of the shareholders.

Earnhart and Lizal (2010) found out that more concentrated ownership makes minority shareholders control firms' decision rights ignoring the interest of medium and small investors. According to their study institution shareholding is able to monitor and govern listed firms greater ownership for purposes of improving operation performance. Ownership concentration significant influence on firms' performance (Fazlzadeh & Tobhaz, 2011). Daskalakset et al. (2014) asserts that ownership structure may also be influenced by firm size found to have significant relationship with financial performance in larger firms which were associated with higher performance pointing out that size of a firm was a proxy for firms' performance potentiality because larger firms are more diversified hence have low risk of facing financial distress problems. The study by Miring'u and Muoria (2011) support Nafula (2012) who established insignificant influence of ownership structure on firms' performance. However, their study findings contradicted the findings of Wanjiku (2011) who established ownership was dependence of growth and Corporate Governance.

2.3.3 Foreign Ownership and Financial Performance

Lee (2008) using panel established that firm's foreign ownership is insignificant to firm's financial performance. His findings were further supported by Cespedes, Gonzalez and Molina (2010) found out that higher ownership-concentration improve firm's performance and concluded that Ownership structure is key in firms' performance. Ochieng and Ahmed (2014) found that the financial performance had not met the expectation brought about with ownership structure. Chege (2013) observes that, foreign shares were significant in explaining results as a unit changes in foreign shares were found to be significant in explaining profitability. However local ownership both retail, and corporate, had no relationship. Halkos and Tzeremes (2010) established significant influence of foreign ownership on performances. Huang and Shiu (2009), and Caves (2007) supported the findings of Halkos and Tzeremes. However, Azzam, Fouad and

Ghosh (2013) argue that firms from foreign countries performed well local compared to local firms.

Foreigners appoint qualified managers who may have positive impact on performance. An empirical study on ownership and capital structure on firms' performance established a significant relationship with performance (Clarkson, Overell and Chapple, 2011). Djankov and Simeon (2008) established significant relationship between foreign ownership compared to local ownership. However Ochieng and Ahmed (2014) found out that Kenya Airways which brought on board foreigner investors and found that the financial performance had not met the expectation.

Another empirical found out that foreign firms performed better than local ones because of their experience to monitor and motivate managers to divert behaviours that undermine the wealth creation motivation of the firm owners and by the fact that transfer of new technology and globally tested management practices to the firm, which help in enhancing the efficiency by decreasing operating expenses, generating savings for the firm and significantly impacting on their financial performance (Aydin, Sayim and Yalama, 2007). Foreign ownership is best at transferring managerial technical skills that make the firms more efficient (Pallathitta, 2005). Zemplerová (2010) in a study of the Czech Republic of research and development employee established insignificant relationship with foreign ownership. However, Uwuigbe and Olusanmi (2012) established opposite results.

Halkos and Tzeremes (2010) found out significant influence of foreign ownership on firm's financial performances. Huang and Shiu (2009), and Caves (2007) supported the findings of Halkos and Tzeremes by pointing out that foreign-owned firm had sector specific advantages compared to local firms. Joint ventures perform better than foreign-owned firms (Greenaway, Guariglia, and Yu, 2014). Huang, Shiu (2009) argued that local investors knowledge of the local environment compared to foreign investors leading to better performance. However, Azzam, Fouad and Ghosh (2013) observe a different scenario where foreign ownership performed better than local firms.

However, Aneta (2016) found out a direct correlation between foreign ownership and performance which is also supported by Greenaway, Guariglia and Yu (2014), and Akimova and Schwödiauer (2004). A study by Lee (2008) established that firm's financial performance had effect on ownership concentration by increasing financial performance. A similar study by Cespedes, Gonzalez and Molina (2010) found out that higher ownership-concentration improve firm's performance making ownership structure an important consideration in controlling allocation affecting firm performance.

Lee (2008) conducted study of Korean firms using panel data established that ownership concentration does not influence 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.

Phung and Mishira (2015) established inverse relationship between ownership and firms' performance of Vietnam firms. Abdulsamad and Yusoff (2011) established that managerial ownership enhances firm performance compared to government shares. žanić (2012) study from Zagreb Stock Exchange between 2003-2009 established significant relationship with block ownership whether corporate or family local based firms.

Cooke and Huang (2011) conducted a study on foreign ownership on Performance focusing on the emerging markets. 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. Huang and Shiu (2009), and Caves (2007) supported the findings of Halkos and Tzeremes by pointing out that foreign-owned firm had sector specific advantages compared to local firms. Joint ventures perform better than foreign-owned firms (Greenaway, Guariglia, and Yu, 2014). Huang, Shiu (2009) argued that local investors knowledge of the local environment compared to foreign investors leading to better performance 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. Phung and Mishra (2015) established convex relationship with firm performance.

Helen and Bature (2016) in their study of listed conglomerate firms in Nigeria found out that there exists a significant negative relationship between foreign ownership and performance of a firm. This may have been attributed to the fact that local managers would be less motivated when foreign experts are engaged hence lowering performance. Saseela and Thirunavukkarasu (2017) in their study of Sri Lankan listed beverage food and tobacco companies found that foreign ownership structure is positively correlated with financial performance with a significant impact. This means that those companies with a higher foreign ownership will most likely achieve higher or good financials in the context of Listed beverage and Tobacco companies in Sri Lanka.

2.3.4 Firm Size and Financial Performance

Jonsson (2007) found that firm size had no significant relations with profitability. Velnampy & Nimalathashan (2010) found out that firm size had no significant relationship influence on performance. Malik (2011) found significant relationship between firm size and profitability. Ching & Gerab (2012) found out that firms which were which were large in size had significant relationship with performance. This findings were consistent with those of Mwangi (2018) who studied the relationship of Size and financial performance of Kenyan commercial who found a positive relationship.

Abbasi and Malik (2015) accepted the alternative hypothesis that firm size has moderating inspiration between independent variable (Firm growth) and dependent variable (Firm performance). Kannadhasan (2013) found no significant difference in the performance (ROA and RONW) among the users of four business strategies and firm size. Dalsgaard and Choquette (2015) acknowledge the moderation of high-tech firms, institutional quality and industry had

negative effect on performance. 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. Another empirical study by Chelliah, Pandian, Sulaiman and Munusamy (2010) established that size is a moderating factor for internationalization for relatively smaller firms. Aladwan (2015) did a study on the relationship between size and profitability of Jordian commercial banks during the period 2007-2017. He found that size has an inverse relationship with profitability. Anitha(2018) studied factors affecting manufacturing firms' financial performance in Nairobi stock exchange and found out that an increase in the size of a firm would lead to an increase in financial results by almost a third.

2.3.5 Firms' Financial Performance Measures

Several studies (Peters & Bagshaw, 2014; Ahamed et al. 2014; Ofori et al. 2014; Flammer, 2013) have attempted the influence of firm size and ownership on performance with some findings establishing relationship between size, ownership and performance whereas others found no relationship. Palangkaraya, Stierwald and Yong (2005) established that firm size significantly influenced profitability also supported by Akinyomi et al. (2013) and Cabral and Mata, ,2003; Wu, 2006).

2.4 Knowledge Gap

Most of the studies were based on stewardship theory and focused on how true stewardship relationship reduces agency costs, enhances efficiency and reduces conflicts. The studies did not analyze the combination of ownership and size on firms' performance taking the case of former State Corporation privatized and listed in NSE which is of interest to the current study creating the knowledge gap to be filled. George and Nyambonga (2014) pointed out that despite the impressive performance of the NSE; firms listed at NSE are still dogged with challenges of ownership structure where the controlling shareholders took the opportunity to use their powers to undertake activities of personal gain.

The closest studies included; Antonio (2007) which analyzed influence of ownership on firm

value, Munyua and Ragui (2013) which examined diverse shareholders, Pallathitta (2005) and Short (2002) in their study large firm's capital structure, Shleifer and Vishny, 1986; Barucci, 2005) analyzed institutional investors. Studying ownership structures and firm size and their effect on financial performance among former State Corporation privatized in NSE helps expose the influence of ownership structures on firms' financial performance of listed firms in an environment with unique attributes like those in the Kenyan environment and other emerging markets. The current research intends to fill those literature gaps by using a comprehensive approach relationship of firm ownership structure and size on ROA and ROE of privatized state owned enterprise listed in NSE.

2.5 Conceptual Framework

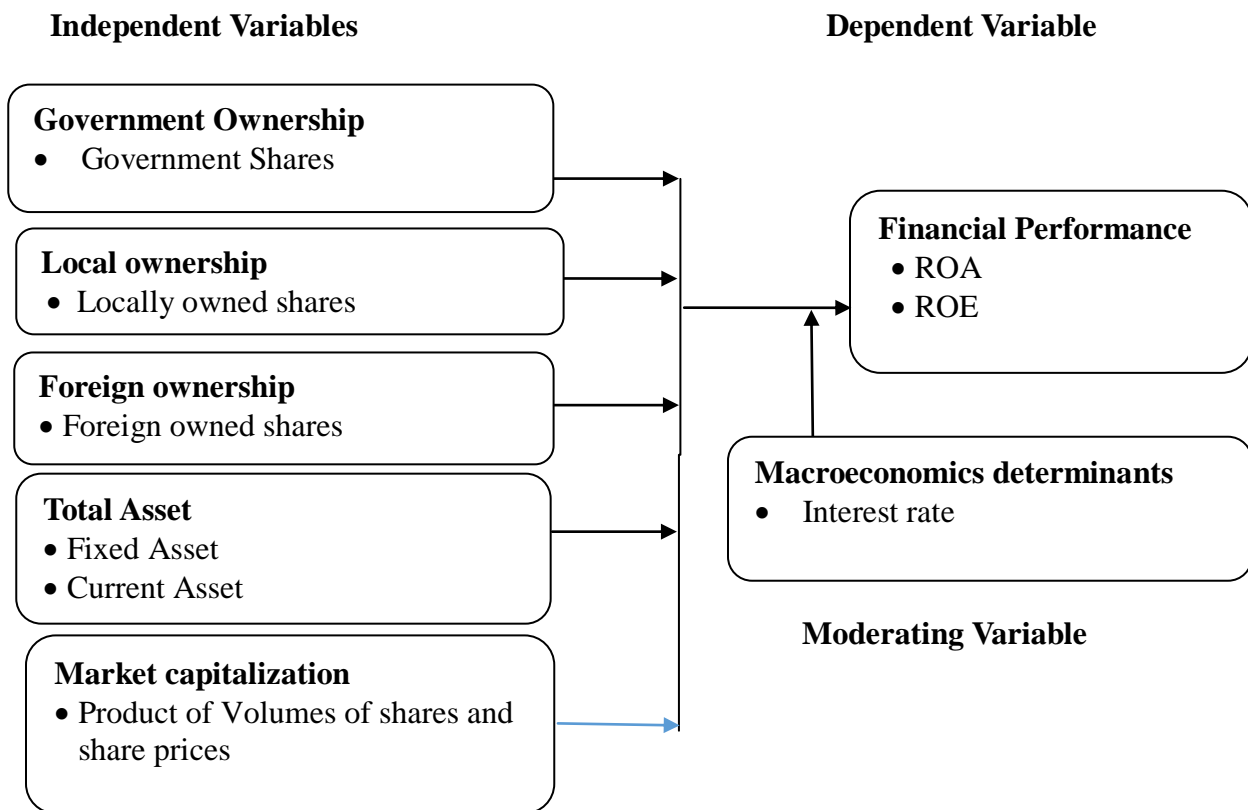


Figure 2.1: Conceptual Framework

Source: Own conceptualization (2018).

The first independent variable is government ownership, the second variable is local ownership,

the third variable is foreign ownership which. The fourth independent variable is total asset measured in terms of fixed and current asset. The fifth variable is market capitalization measured in terms of volume of shares and share prices. Whereas the dependent variable of the study is firms' performance measured in terms of ROE and ROA. The moderating variable is macroeconomics determinant measured in terms of interest rate. The study therefore hypothesizes that macroeconomics determinants may moderate the relationship between firms' ownership shares, sizes and financial performance.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter presented the methodology which were used in carrying out the study. They include population, design, sampling procedure, instruments for collection of data, data collection and analysis.

3.2 Research design

This study adopted a quantitative longitudinal research design which follow data repeated over a period of time (Forgues, Bernard and Vandangeon-Derumez, 2011). Longitudinal research designs explain changes over time and presents cause and effect relationships. The design was used because the ownership structure (government, local, foreign shares), firm size (total asset) and firm performance (ROA, ROE) have changed over time in the period of the study (2008-2017).

3.3 Target Population

The target population was the privatized State Owned Corporation in different segments in NSE. Currently there are 11 SOEs in different investment segments in the Nairobi Securities Exchange.

3.4 Sampling and Sampling Technique

The study purposively took 11 listed Privatized State Owned Corporations in different investment segments in the Nairobi Securities Exchange; in the commercial and services market segment there are; Kenya Airways and Uchumi Super Market. In the Banking segment there are; Housing Finance Ltd and National Bank Kenya. In construction and allied there are; Athi River Mining Ltd, Bamburi Cement Ltd and East African Portland Cement Ltd. In Energy and Petroleum Segment there are; Kenya Power Ltd and Kengen Ltd. In insurance Segment there is Kenya Re-insurance Corporation and in Manufacturing there is Mumias Sugar Company. Since the target population of the privatized government firms is few, the study purposively took the entire population.

3.5 Data Collection Instruments

Secondary data was the source of information analyzed to attain the set objectives. The secondary data on government shares in the companies, local owned shares, foreign shares, total

asset, amount of shares and average share price and outstanding shares of the listed firms. The study covered a period of 10 years beginning from the period 2008 to 2017. The time scope is to see trends that was useful in variables relationship. The research took data covering 10 years because this is adequate time to monitor changes in ownership structure, firm size and their respective financial performance. This period is also chosen because some of the listed State Corporation like Kenya Airways, Mumias Sugar Company and Uchumi Supermarket Ltd have faced financial performance challenges which is of interest to the study whether such challenges are associated with firm's ownership structure and size.

3.6 Data Analysis

Panel data methodology was employed for the purpose of this study and the reason being that the data for the study is ultimately time series. Data collected for the purpose of the study were evaluated by use of inferential and descriptive statistics statistical techniques. This was made successful with the help of a computer programme - STATA for windows. Multivariate regression model based on panel data from comprehensive annual financial reports was employed in analyzing relationship of firm ownership and size on financial performance of privatized state owned enterprise in Nairobi Securities Exchange based on the following models:

$$\text{Equation } Y_t = \alpha + \beta_1(GO)_t + \beta_2(LFO)_t + \beta_3(FO)_t + \beta_4(TA)_t + \beta_5(MC)_t + \varepsilon \dots\dots\dots (i)$$

Where;

$Y = \text{ROA/ROE}$, $\alpha = \text{constant}$, $\beta_1 \dots \dots \beta_5 = \text{parameter estimates}$

$(GO)_t = \text{Government Ownership over year } t$

$(LFO)_t = \text{Local Firm Ownership over year } t$

$(FO)_t = \text{Foreign Ownership over year } t$

$(TA)_t = \text{Total Asset over year } t$

$(MC)_t = \text{Market Capitalization over year } t$

ε is the error of prediction.

The moderating effect of the interest cap on the relationship between firm ownership structure and size on performance of privatized state owned enterprise in Nairobi Securities Exchange was tested by use hierarchical regression analysis as shown

$$\text{Equation } Y_t = \alpha + \beta_1(GO)_t + \beta_2(LFO)_t + \beta_3(FO)_t + \beta_4(TA)_t + \beta_5(MC)_t + \beta_6(IRC)_t + \varepsilon \dots (ii)$$

Where;

α = constant

β_1, \dots, β_5 = Regression Coefficients of independent variables

β_6 = Regression Coefficients of intervening variable (Interest Rate cap)

$(IRC)_t$ = Interest Rate Cap over year t

t = Time dimension

ε = the error of prediction.

3.7 Ethical Considerations

The researcher observed all the necessary research ethics in getting quality information at the same time protecting the source. First, the respondents were not required to disclose their identity as the first step of protecting them and that the information obtained only used for academic purpose without any manipulation, pressure or intermediation.

CHAPTER FOUR
DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

The descriptive and inferential analysis, findings and interpretation of relationship of firm ownership structure and size and financial performance. Is presented in this chapter. The chapter is organized in terms of; Section 4.2 summary of the general information while Section 4.3 provides a presentation of the Descriptive Statistics. Section 4.4 discusses on inferential analysis and on the other hand, section 4.5 provides the different diagnostic tests done. Hypotheses tests analysis are given in section 4.6.

4.2. Descriptive Statistics

The table 4.1 gives the mean, standard deviation, minimum and maximum values of the variables above. Descriptive analysis is commonly used to show standard deviation and averages of different variables being considered in research. It further presents the maximum and minimum values of variables which aid in getting a depiction on the minimum and maximum values which a variable can attain.

Table 4.1: Descriptive Statistics

This are mean and standard deviation for the independent, dependent and moderating variables ('000 Millions Where Applicable)

Variable	Obs	Mean	Std. Dev.	Min	Max
G_shares	109	18785.48	3509	173	107633
L_shares	110	3757.264	2911.59	1051	9819
F_shares	110	3348.955	2455.47	700	12457
F_capital	110	.8118182	.1431826	.4	1
T_asset	110	3115989	7037603	1204	3,600,715
ROA	110	.8990909	.409763	0	2.8

ROE	110	.6140909	.2579143	.1	1
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The mean government share employed in the privatized state corporations was Ksh 18,785.48 million deviating at Kshs. 3,509 million compared to local shares whose mean was 3,757.264, foreign shares whose mean was Kshs. 3,348.955 million deviating at Kshs. 2,455.47 million indicating that in terms of ownership structures of privatized state corporations, the government had more ownership compared to local and foreign ownership.

Financial capitalization was measured in % where the study established a mean financial capitalization of 81.2% deviating at about 14.3%. The mean total asset employed by the privatized government corporations in NSE was Kshs. 3,115,989 million deviating at Kshs. 703,7603 million. The mean Return on Asset of the firms was 90% deviating by 41% whereas the mean Return on Equity (ROE) was 61.4% deviating at 25.8%. The table 4.1 provides a summary of descriptive statistics on how the firms performed over the period of study.

Table 4.2: Skewness/Kurtosis Test for Normality

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj chi2(2)	Prob>chi2
G_shares	109	0.0000	0.0040	33.24	0.0000
L_shares	110	0.0005	0.0119	14.90	0.0006
F_shares	110	0.0000	0.0502	17.93	0.0001
T_asset	110	0.0000	0.0000	48.49	0.0000

Since the $p < 0.05$ for skewness and kurtosis the null hypothesis of normality was rejected. The data is not normally distributed. Lack of normality in financial data is expected due to the stylized facts of financial data which include non-normality which makes the Ordinary Least Squares model difficult to use hence panel regression model is a preferred method (Brooks, 2008). The assumption of normality is rejected as a result of lack of asymmetry in returns. Non-normality is also expected as returns have fatter tails than that expected from a normal distribution (Cont, 2001).

4.3. Inferential Data Analysis

Inferential statistics was used to test the influence of ownership structure, firm size and financial performance in order to make generalizations about the firms. Panel data analysis was adopted to explore the causal relationship between liquidity and stock returns. Hypotheses in the study were tested using the test of significance approach where the significance of the regression coefficients was tested. Fixed and random regression effects were tested before using Hausman Test to arrive at the preferred test. Probability values were used to determine the level of significance. For all the inferential statistics, a predetermined 5% level of significance was used for decision making on whether to accept or reject H_0 . If the $p < 0.05$, the null hypothesis was rejected hence the alternative hypothesis was considered true hence showing significance. Alternatively, if the $p > 0.05$ then the null hypothesis was accepted hence the alternative hypothesis was considered not true hence showing lack of significance.

4.3.1 Random Effect and Fixed Regression Model for ROE and ROA

Table 4.3: Fixed Effect Regression Model for ROA

Fixed-effects (within) regression				Number of obs	=	109
Group variable: code				Number of groups	=	11
R-sq: within = 0.1932				Observ per group: min =		9
between = 0.0849				avg =		9.9
overall = 0.0958				max =		10
corr(u_i, Xb) = -0.6040				F(5,93)	=	4.45
				Prob > F	=	0.0011
ROA	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
G_shares	.0000326	8.29e-06	3.94	0.000	.0000162	.0000491
L_shares	-.0000757	.0000733	-1.03	0.304	-.0002213	.0000699
F_shares	.0000302	.0000523	0.58	0.565	-.0000737	.0001341
F_capitali	-.7240371	.9109445	-0.79	0.429	-2.532992	1.084918
T_asset	-5.221408	2.78e-08	-1.88	0.063	-1.074507	2.99e-09
constant	1.230683	.9619434	1.28	0.204	-.679546	3.140912
Sigma_u 1.2523031						
Sigma_e 1.0168845						
rho .60264102 (fraction of variance due to u_i)						
F test that all u_i=0:			F(10, 93) =	6.33	Prob > F = 0.0000	

The fixed effects model on table 4.3 shows that the combined effect of government shares, local shares, foreign shares which were measures of the firms' ownership structure and total asset and financial capitalization which were measures of firms' size traded by the state privatized firms listed in NSE, Kenya between 2008 to 2017 on return on asset was statistically significant. The chi square from the analysis was found to be 0.0011 with R squared value of 0.0958. This meant which meant. The chi value $0.011 < 0.05$. This meant that the combined effect brought about by

the independent variables on return on asset was by T model's chi square value of 0.0011 which is much less than 0.05, the value of R squared 0.0958 meant that independent variables had a combined effect on return on asset was by 9.6% while the remaining 90.4% was brought by other trading other than government shares, local shares, foreign shares which were measures of the firms' ownership structure and total asset and financial capitalization which were measures of the firms' ownership structure and total asset and financial capitalization. A conclusion was made from the findings that the analyzed independent variables can be used to foretell on the possible outcome of ROA within the privatized firms listed in NSE, Kenya between 2008 to 2017.

Further analysis from the model showed that government shares was the only independent variable that had significant influence on the privatized firms listed in NSE ROA, although the changes in unit was quite minimal, $r=0.0000326$, $p=0.000<0.05$ demonstrating that a rise in government shares will lead to a growth ROA by 0.0000326 units holding local shares, foreign shares and firm size constant. This finding is supported by several authors; Farinós (2007) argued government owned companies due to their relationship with the government they enjoy the advantages against private companies as far as their operations, resources and opportunities are concern. By the fact that they are under constant vigilant by both government and public investors they are well governed making them likely to perform better than private companies. Yan and Zhong (2012) established that government owned firms have significant impacts on their financial performance. Beltratti et al. (2012) argued that government owned may pursue goals not related to profitability. Wanjugu et al. (2016) argued that Government firms are sometimes inefficient and bureaucratic negatively affecting ROA. The finding is further supported by Huyghebaert and Wang, (2012) noted that Chinese public listed companies can use their share muscles to look beyond chine for purposes of making such firms more profitable and having extensive market expansion which in turn benefit even the small shareholders rather than manipulation for personal benefits. Cases where government ownership is large, bureaucracy creeps into the firms which also make them inefficient. However, government owned firms should use their ownership positions to develop policies that enable firms to operate profitably to avoid negative implications for firm performance (Wadongo, Odhuno & Kambona, 2010).

From the findings, local shares were found to be having a statistically insignificant relationship

with ROA with $p=0.304>0.05$. Local shares therefore cannot be used to foretell the outcome of ROA. Local shares and ROA were observed to be having a negative relationship. A rise in the number of local shares in the listed SoEs will lead to a decline in ROA by -0.0000757 units holding other variables constant. Foreign shares and ROA on the other hand were found to be having a statistically insignificant relationship with $p=0.565>0.05$ and consequently cannot be used to foretell the outcome of ROA although they are positively related. A rise in the number of foreign shares held in SoEs will lead to a rise in ROA by -0.0000302 units holding other variables constant. This finding is supported by Margaritis and Psillaki (2010) who established that firms with ownership from different quarters faces more agency costs which lowers their financial performance compared to firms with specific ownership have sound controls which improves financing efficiency and lower agency costs leading to good financial performance. Czarnitzki (2015) study observes that firms owned by many shareholders' usual experience poor performance. Kiruri (2013) found that firms which had local and foreign ownership had better profitability. Nafula (2012) found insignificant relationship between the ownership structure and corporate structure indicating that regulatory bodies had a greater effect on the observance of corporate governance tenets by these institutions and that they had a significant impact on firms' performance.

The finding is further supported by Fazlzadeh and Tobhaz (2011) in their empirical study of listed firms in Iran found that ownership concentration brought a positive effect on firm performance compared to institutional ownership which had negative impact on firm performance. According to Daskalakis et al. (2014) the ownership structure may also be influenced by firm size found to have significant relationship with financial performance in larger firms which were associated with higher performance pointing out that Size of a firm was a proxy for financial performance potentiality because larger firms are more diversified hence have low risk of facing financial distress problems. The study by Miring'u and Muoria (2011) support Nafula (2012) who established insignificant relationship between the ownership structure and corporate structure and by extension firms' performance. However, their study findings contradicted the findings of Wanjiku (2011) who established ownership was dependence of growth and Corporate Governance.

Market financial capitalization and ROA were found to be having a statistically insignificant relationship with $p=0.063>0.05$. This meant that market financial capitalization cannot be used to foretell the outcome of ROA. Market financial capitalization has a negative relationship with ROA. A rise in market financial capitalization will lead in a decline in ROA by -0.7240371 units holding other variables constant. The relationship between firm size and ROA was found to be statistically insignificant with $p=0.063>0.05$. This meant that market financial capitalization cannot be used to foretell the outcome of ROA. Firm size and ROA were found to be negatively related. Growth in firm size will lead in a decline in return on asset by -5.221408 units holding other variables constant. Overall, whereas local shares, foreign shares, market financial capitalization and firm size were found to be having insignificant relationship with ROA comparatively, together with other forecasters, it was found that their combined effect was statistically significant in forecasting the outcome of ROA as a measure of the privatized state corporations listed in NSE financial performance.

Table 4.4: Fixed Effect Regression Model for ROE

Fixed-effects (within) regression					Number of obs	=	109
Group variable: code					Number of groups	=	11
R-sq: within = 0.0277					Obs per group: min	=	9
between = 0.0038					avg	=	9.9
overall = 0.0073					max	=	10
					F(5,93)	=	0.53
corr(u_i, Xb) = -0.5350					Prob > F	=	0.7531
ROE	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]		
G_shares	1.114506	2.18e-06	0.51	0.612	-3.21e-06	5.43e-06	
L_shares	-.000018	.0000192	-0.94	0.352	-.0000562	.0000202	
F_shares	-3.508206	.0000137	-0.25	0.800	-.0000308	.0000238	
F_capital	-.2876975	.2391199	-1.20	0.232	-.7625424	.1871473	
T_asset	6.201911	7.30e-09	0.01	0.993	-1.44e-08	1.45e-08	
constant	.9064088	.252507	3.59	0.001	.4049799	1.407838	
sigma_u	.08952512						
sigma_e	.26692884						
rho	.10111235 (fraction of variance due to u_i)						
F test that all u_i=0:					F(10, 93) =	0.53	Prob > F = 0.8674

The fixed effects model on table 4.4 shows that the combined effect of government shares, market financial capitalization, foreign shares which were measures of the firms' ownership structure and total asset and market financial capitalization which were measures of firms' size traded by the state privatized firms listed in NSE, Kenya between 2008 to 2017 on return on

equity was statistically significant. The chi square value and R squared value from the model is 0.7531 and 0.0073 respectively. The chi value $p=0.7531 > 0.05$. This meant that the combined effect brought about by the independent variables on ROE was by 0.73% whereas the other 99.3% was brought about by other factors other than the arrangement of government shares, local shares, foreign shares which were measures of the firms' ownership structure and total asset and financial capitalization. A conclusion was therefore reached that the independent variables of the study cannot be used to foretell the outcome of ROE of privatized firms listed in NSE, Kenya between 2008 to 2017.

Further analysis from the model showed that government shares trading had insignificant effect on the privatized firms listed in NSE return on equity, with the changes in unit was quite minimal, $r=1.114506$, $p=0.612 > 0.05$ indicating that an increase in government shares will result in an increase in return on equity by 1.114506 units keeping local shares, foreign shares, market financial capitalization and firm size constant. The relationship between local shares and returns on asset was statistically insignificant with $p=0.352 > 0.05$ and therefore cannot be used to predict the outcome of return on equity. Local shares have a negative relationship with ROE. A rise in local shares will lead in a decline in ROE by -0.000018 units holding other variables constant. Foreign shares were found to be having a statistically insignificant relationship with ROE with $p=0.800 > 0.05$. This meant that foreign shares cannot be used to foretell the outcome of ROE. A rise in foreign shares will lead to a decline in ROE by -3.508206 units holding other variables constant.

Market financial capitalization was found to be having a statistically insignificant relationship with ROE with $p=0.232 > 0.05$. This meant that market capitalization cannot be used to foretell the outcome of ROE. Market financial capitalization and ROE were found to be negatively related. A rise in market financial capitalization will lead to a decline in ROE by -0.2876975 units holding other variables constant. A statistically insignificant relationship between firm size and ROE was found with $p=0.993 > 0.05$. This meant that market financial capitalization cannot be used to foretell the outcome ROE. Firm size and ROE were found to be having a negative relationship. This means a rise in firm size will lead in a decline in ROE by 6.201911 units holding other variables constant. Overall, while government shares, local share, foreign shares, market financial capitalization and firm size were found to be having insignificant relationship with ROE together with other forecasters, it was also noted that the combined effect of this

independent variables had a statistically insignificant effect to foretell ROE as a measure of the privatized state corporations listed in NSE financial performance.

Table 4.5: Random Effect Regression Model for ROA

Random-effects GLS regression		Number of obs	=	109
Group variable: code		Number of groups	=	11
R-sq: within	= 0.1464	Obs per group: min	=	9
between	= 0.2714	avg	=	9.9
overall	= 0.1828	max	=	10
		Wald chi2(5)	=	17.84
corr(u_i, X) = 0 (assumed)		Prob > chi2	=	0.0032

ROA	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
G_shares	.0000196	5.60e-06	3.50	0.000	8.63e-06	.0000306
L_shares	.0000418	.0000559	0.75	0.454	-.0000678	.0001515
F_shares	-.0000141	.0000522	-0.27	0.787	-.0001165	.0000883
F_capital	-.0612151	.8882303	-0.07	0.945	-1.802115	1.679684
T_asset	-3.331008	2.23e-08	-1.49	0.135	-7.7008	1.0408
Constant	.577872	.9036053	0.64	0.522	-1.193162	2.348906

sigma_u	.53815643
sigma_e	1.0168845
rho	.21879558 (fraction of variance due to u_i)

The random effects model on table 4.5 shows that the combined effect of government shares, local shares, foreign shares which were measures of the firms' ownership structure and total asset and financial capitalization which were measures of firms' size traded by the state privatized firms listed in NSE, Kenya between 2008 to 2017 on return on asset was statistically significant. The p value and the R squared value were 0.0032<0.05 and 0.1828 respectively. This meant that

combined effect brought about by the independent variables on ROA of the study were by 18.3% whereas the other 71.7% was brought about by other factors other than combination of government shares, local shares, foreign shares which were measures of the firms' ownership structure and total asset and financial capitalization. A conclusion was therefore made the independent variables of the study can be used to foretell the outcome of ROA of privatized firms listed in NSE, Kenya between 2008 to 2017.

Further analysis from the model showed that only government shares trading had significant effect on the privatized firms listed in NSE ROA, although the changes in unit was quite minimal, $r=.0000196$, $p=0.000<0.05$ showing that a rise in government shares will lead in a rise in ROA by .0000196 units holding local shares, foreign shares and firm size constant. Local shares had a statistically insignificant relationship with ROA with $p=0.454>0.05$. This meant that local shares cannot therefore be used to foretell the outcome of ROA. Local shares have a positive relationship with ROA. A rise in local shares will lead to a rise ROA by .0000418 units holding other variables constant. A statistically insignificant relationship with $p=0.787>0.05$ was found between foreign shares and ROA. This meant that foreign shares cannot be used to foretell the outcome of ROA though positive relationship exists. A rise in foreign shares will lead in a decline in ROA by 0.0000141 units holding other variables constant.

Market financial capitalization has a statistically insignificant relationship with ROA with $p=0.945>0.05$. This meant therefore that market financial capitalization as an independent variable cannot be used to predict the outcome of ROA. Market financial capitalization has a negative relationship with ROA. An upsurge in market financial capitalization will lead in a decline in ROA by 0.0612151 units holding other variables constant. Firm size has a statistically insignificant relationship with ROA with $p=0.135>0.05$. This meant that size as an independent variable cannot be used to foretell the outcome of ROA. Firm size and ROA are negatively related. Growth in firm size will lead to a decline in ROA by -3.331008 units holding other variables constant. Overall, while local shares, foreign shares, market financial capitalization and firm size were reported to have insignificant relationship with ROA, their combined effect was found to be statistically significant to foretell ROA as a measure of the privatized state corporations listed in NSE financial performance.

Table 4.6: Random Effect Regression Model for ROE

Random-effects GLS regression					Number of obs	=	109
Group variable: code					Number of groups	=	11
R-sq: within = 0.0129					Obs per group: min	=	9
between = 0.5269					avg	=	9.9
overall = 0.0343					max	=	10
					Wald chi2(5)	=	3.66
corr(u_i, X) = 0 (assumed)					Prob > chi2	=	0.5990
ROE	Coef.	Std. Err.	z	P>z	[95% Conf. Interval]		
G_shares	-5.471507	8.53e-07	-0.64	0.522	-2.22e-06	1.131706	
L_shares	-4.061506	8.932706	-0.45	0.650	-.0000216	.0000134	
F_shares	-4.634206	.0000108	-0.43	0.667	-.0000257	.0000164	
F_capital	-.3470015	.1857721	-1.87	0.062	-.7111081	.017105	
T_asset	3.265710	3.641209	0.09	0.929	-6.820109	7.472409	
Constant	.9359582	.1803704	5.19	0.000	.5824387	1.289478	
sigma_u	0						
sigma_e	.26692884						
rho	0	(fraction of variance due to _i)					

The random effects model on table 4.5 shows that the combined effect of government shares, market financial capitalization, foreign shares which were measures of the firms' ownership structure and total asset and market financial capitalization which were measures of firms' size traded by the state privatized firms listed in NSE, Kenya between 2008 to 2017 on return on equity was statistically significant. The p value reported of 0.5990 which is greater than 0.05, the R squared value of 0.0343 showed that combined effect brought about by independent variables on ROE was by 3.3% whereas the other 96.7% is explained by other trading factors other than

the combination of government shares, local shares, foreign shares which were measures of the firms' ownership structure and total asset and financial capitalization. A conclusion was made therefore that the independent variables used by the study could not be used to foretell the result of ROE of privatized firms listed in NSE, Kenya between 2008 to 2017.

Further analysis from the model revealed that government shares trading had insignificant effect on the privatized firms listed in NSE return on equity, with the changes in unit was quite minimal, $r=-5.471507$, $p=0.522>0.05$ indicating that an increase in government shares will result in a decrease in return on equity by 5.471507 units keeping local shares, foreign shares and firm size constant. The relationship between local shares and returns on equity was with. A statistically insignificant effect of $p=0.650>0.05$ brought about by the relationship between local shares and ROE was reported. This showed that local shares as an independent variable could not be used to foretell the effect of ROE. The relationship between local shares and return on equity was negatively related. A rise in local shares will lead in a decline in ROE by -4.061506 units holding other variables constant. The effect of foreign shares on ROE was statistically insignificant with a $p=0.667>0.05$. From the findings, foreign shares could therefore not be used to foretell the outcome of ROE. A rise in the number of foreign shares will lead in a decline in ROE by -4.634206 units holding other variables constant.

The effect of market financial capitalization on ROE was statistically insignificant with $p=0.062>0.05$. Market capitalization could not therefore be used to foretell the outcome of ROE. Market financial capitalization was negatively related to ROE. A rise in market financial capitalization will lead in a decline in ROE by -.3470015 units holding other variables constant. The effect of firm size on ROE was statistically insignificant at $p=0.929>0.05$. This meant that firm size cannot be used to foretell the outcome of ROE. A positive relationship exists between firm size and ROE. A rise in firm size will lead in a rise in ROE by 3.265710 units holding other variables constant. Overall, insignificant relationship between government shares, local shares, foreign shares, market financial capitalization and firm size with ROA was reported. Statistically insignificant relationship was found when all the independent variables were combined to predict ROE as a measure of the privatized state corporations listed in NSE financial performance.

4.3.2 Hausman Test

Hausman (1978) test was run on random effects regression estimation in order to decide on the suitable estimator of the panel data utilized, the outcome found was statistically insignificant, with p-value of 0.2619. The hypothesis that random effect model was preferred to fixed effect model was rejected as the p-value of 0.2619 gotten was higher than 0.05. Fixed effects model (FEM) was therefore accepted as the suitable estimator for the panel data to fixed model effect.

Table 4.7: Hausman Test

	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))	
	random	fixed	Difference	S.E.	
G_shares	.0000196	.0000326	-.000013		.
L_shares	.0000418	-.0000757	.0001176		.
F_shares	-.0000141	.0000302	-.0000443		.
F_capitali	-.0612151	-.7240371	.662822		.
T_asset	-3.33e-08	-5.22e-08	1.89e-08		.

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$$\text{chi2}(5) = (b-B)'[(V_b-V_B)^{-1}](b-B) = 7.28$$

$$\text{Prob}>\text{chi2} = 0.2619$$

Hausman test was carried out so as to help in selecting a suitable model in between random effects and fixed effects in relation to ROA. The null hypothesis in this case was that the random effects model was preferred to the fixed effects model. A chi-square value of 7.28 was reported with a $p = 0.2619 > 0.05$ for ROA. This implies that at 5 percent level, the chi-square value gotten was statistically insignificant and therefore led the researcher into rejecting the null hypothesis. The alternate hypothesis that fixed effect was preferred to random effect as suggested by Greene

(2012) was therefore reverted to for ROA.

4.4 The Moderating Effect of Interest Rate of Relationship between Ownership Structure, Firm Size and Firm Performance.

This section presents the results of the moderating effect of interest rate on the relationship between ownership structure, firm size and performance. Using Hausman Test, fixed effect was preferred to random effect and therefore was used in the analysis of the Moderating Effect of Interest Rate of Relationship between Ownership Structure, Firm Size on firm performance. The intention of this analysis was to establish whether the introduction of interest rate accelerated or not the Effect ownership structure, firm size on firm performance.

Table 4.8: The Moderating Effect of Interest Rate on the Relationship between Ownership Structure, Firm Size on ROA

Fixed-effects (within) regression	Number of obs = 109
Group variable: code	Number of groups = 11
R-sq: within = 0.2245	Obs per group: min = 9
between = 0.0776	avg = 9.9
overall = 0.1079	max = 10
corr(u_i, Xb) = -0.5402	F(6,92) = 4.44
	Prob > F = 0.0005

ROA	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
G_shares	.0000291	8.38e-06	3.47	0.001	.0000124	.0000457
L_shares	-.0000745	.0000723	-1.03	0.305	-.000218	.000069
F_shares	.0000296	.0000516	0.57	0.568	-.0000728	.000132
F_capitali~n	-.6928661	.8980596	-0.77	0.442	-2.47649	1.090758
T_asset	-4.96e-08	2.74e-08	-1.81	0.074	-1.04e-07	4.87e-09
Interest	.0542043	.0281083	1.93	0.057	-.0016211	.1100298
Constant	.6932566	.9882911	0.70	0.485	-1.269575	2.656088
sigma_u	1.1932386					
sigma_e	1.0023387					
rho	.58629507	(fraction of variance due to u_i)				

F test that all u_i=0: F(10, 92) = 6.16 Prob > F = 0.0000

The results from Table 4.8 revealed that interest rate did not change the relationship between ownership structure, firm size on ROA. The relationship between ownership structure, firm size on ROA by the state privatized firms listed in NSE, Kenya between 2008 to 2017 remained statistically significant as was confirmed by the model's chi square value of 0.0032 which is

much less than 0.05.

Table 9: The Moderating Effect of Interest Rate on the Relationship between Ownership Structure, Firm Size on ROE

Fixed-effects (within) regression		Number of obs	=	109		
Group variable: code		Number of groups	=	11		
R-sq: within	= 0.0304	Obs per group: min	=	9		
between	= 0.0083	avg	=	9.9		
overall	= 0.0066	max	=	10		
		F(6,92)	=	0.48		
corr(u_i, Xb) = -0.5767		Prob > F	=	0.8208		
ROE	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
G_shares	1.36e-06	2.24e-06	0.61	0.545	-3.09e-06	5.81e-06
L_shares	-.0000181	.0000193	-0.94	0.352	-.0000565	.0000203
F_shares	-3.46e-06	.0000138	-0.25	0.803	-.0000308	.0000239
F_capitali~n	-.2898963	.2401174	-1.21	0.230	-.7667902	.1869976
T_asset	-1.22e-10	7.33e-09	-0.02	0.987	-1.47e-08	1.44e-08
Interest	-.0038235	.0075154	-0.51	0.612	-.0187497	.0111028
constant	.9443179	.2642429	3.57	0.001	.4195086	1.469127
sigma_u	.09445386					
sigma_e	.2679989					
rho	.11049028 (fraction of variance due to u_i)					
F test that all u_i=0:		F(10, 92)	=	0.54	Prob > F = 0.8568	

The results from Table 4.9 revealed that interest rate did not change the relationship between ownership structure, firm size on ROE. The relationship between ownership structure, firm size on ROE by the state privatized firms listed in NSE, Kenya between 2008 to 2017 remained statistically insignificant as was confirmed by the model's chi square value of 0.8208 which is much greater than 0.05.

4.5 Diagnostic Test Results

The study used the following diagnostic tests: Random effects tests, cross sectional dependence test, unit root test, multicollinearity test, time fixed effects test, Hausman specification test and test for autocorrelation to test for data normality.

4.5.2 Test for Fixed Effect

Table 4.10: Test for Fixed Effect

Testparm	arb	apb	incp	ccc	ROA
G_shares					0
L_shares					0
F_shares					0
F_capital					0
T_asset					0
ROA					0
ROE					0

chi2(4) = 13.85

Prob > chi2 = 0.2710

The test results revealed a p value of 0.2710 which is more than 0.05, so the researcher failed to reject the null that the coefficients for all years are jointly equal to zero, therefore no time fixed effects are needed in this case.

4.5.2 Test for Random Effect

The study conducted Lagrangian multiplier test to decide between random effects regression and simple Ordinary Least Square regression. Pagan Lagrangian and Breusch multiplier test were used for random effects. The null hypothesis tested was that pooled estimation was appropriate.

Table 4.11: Breusch and Pagan Lagrangian multiplier test for random effects

$$ROA[\text{code},t] = Xb + u[\text{code}] + e[\text{code},t]$$

Estimated results:

	Var	sd = sqrt(Var)
ROA	1.999866	1.414166
e	1.034054	1.016884
u	.2896123	.5381564

Test: $\text{Var}(u) = 0$

chibar2(01) = 12.73

Prob > chibar2 = 0.0002

A Chibar2 =12.73 and $p=0.0002 < 0.05$ was reported, the null hypothesis that pooled estimation is appropriate was accepted. It was concluded therefore that fixed effects was suitable model for the study.

4.5.3 Test of cross-sectional dependence

	__e1	__e2	__e3
__e1	1.0000		
__e2	0.01542	1.0000	
__e3	-0.16470	0.7546	1.0000

Breusch-Pagan LM test of independence: $\chi^2(3) = 3.25, Pr = 0.9143$

Based on 109 complete observations over panel units

Residuals across entities are not correlated was the null hypothesis in the B-P/LM test for

independence. A p value of 0.9143 was found from the findings. The p value gotten was higher than 0.05. The researcher failed to reject the null hypothesis and a conclusion was made that there was no cross sectional dependence from the data analyzed.

Table 4.12: Modified Wald test for group wise heteroscedasticity

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity

Ho: Constant variance

Variables: fitted values of roalog

chi2(1) = 0.41

Prob > chi2 = 0.7462

Panel level heteroscedasticity was tested by use of Breusch-Pagan / Cook-Weisberg as shown above. The null hypothesis tested was that the error variance was homoscedastic. A chi-square value of 0.41 with a p-value of 0.7462 was reported by the test. The findings suggest that there is an existence of heteroscedasticity in the study data as mentioned by Poi and Wiggins (2001). The chi-square value was statistically significant at 1 percent level and therefore the null hypothesis was rejected. Cross-sectional time-series FGLS regression estimation approach was therefore undertaken to solve this problem.

4.5.5 Multicolleniarity Test

Table 4.13: Multicolleniarity Test

Variable	VIF	1/VIF
ROA	1.57	0.4781
ROE	1.85	0.5473
gov	1.21	0.4061
private	1.43	0.4473
Capital	1.78	0.6108
exp	1.66	0.5713
Period	1.94	0.4817
Mean VIF	1.63	

The study used Variance inflation factors was used for the study and the results were compared to those from the correlation matrix, to test for multicolleniarity. The outcomes showed that multicolleniarity did not exist between all the variables as the VIF was less than 10 (Hair et al., 1999).

4.4.6 Autocorrelation Test

Table 4.14: Autocorrelation Test

Number of gaps in sample 2
Durbin-Watson d statistics (3, 7) =0.1278

The study used the Durbin-Watson test for autocorrelation was used for the study to test the existence of autocorrelation in the collected data and the outcomes are shown in the table above. The null hypothesis to be tested for this test was that there was no first order autocorrelation in the data. D test with 3 and n 7 degrees of freedom was reported for the test statistic. The p-value of the D test was 0.1278. This that the D test was statistically insignificant at 5 percent level. These findings show that there existed no problem of first order autocorrelation in the analyzed data. Wooldridge test was further used to test for autocorrelation.

4.4.6 Unit Root Test

Table 15: Unit Root Test

Ho: All panels contain unit roots	Number of panels = 110
Ha: Some panels are stationary	Number of periods = 10
AR parameter: Panel-specific	Asymptotics: T,N -> Infinity
Panel means: Included	sequentially
Time trend: Not included	

ADF regressions: No lags included

	Statistic	p-value	Fixed-N exact critical values		
			1%	5%	10%
t-bar	1.7598		0.948	1.089	1.640
t-tilde-bar	2.7582				
Z-t-tilde-bar	14.2109	0.007			

The hypothesis of existence of unit root in the data was rejected since $p=0.007 < 0.05$

4.6 Hypotheses Tests

The first objective was to ascertain effect of government ownership on financial performance of privatized state owned enterprise in Nairobi Securities Exchange. The government ownership was used as proxies to on financial performance of privatized state owned enterprise in Nairobi Securities Exchange. The first hypothesis **HO₁** was there is no significant relationship between government ownership and financial performance of privatized state owned enterprise in Nairobi Securities Exchange. Based on fixed effect model statistically chosen for the study, the study established that government ownership and financial performance of privatized state owned enterprise in Nairobi Securities Exchange had government shares trading had significant effect on the privatized firms listed in NSE return on asset, although the changes in unit was quite minimal, $r=0.0000326$, $p=0.000 < 0.05$ demonstrating that a rise in government shares will result in an increase in return on asset by 0.0000326 units keeping local shares, foreign shares and firm size constant. On the other hand, that government shares trading had insignificant effect on the privatized firms listed in NSE return on equity, with the changes in unit was quite minimal, $r=1.114506$, $p=0.612 > 0.05$ indicating that an increase in government shares will result in an increase in return on equity by 1.114506 units keeping local shares, foreign shares, market

financial capitalization and firm size constant. Hypothesis that **HO₁** that there is no significant relationship between government ownership and financial performance of privatized state owned enterprise in Nairobi Securities Exchange was therefore rejected since government shares had significant effect on firms ROA.

The second objective of the study was to assess effect of local ownership on financial performance of privatized state owned enterprise in Nairobi Securities Exchange. The hypothesis **HO₂**: was that there is no significant relationship between local ownership and financial performance of privatized state owned enterprise in Nairobi Securities Exchange. Statistically insignificant relationship was found between local shares and ROE with $p=0.304>0.05$. The results therefore mean that local shares cannot be used to foretell the possible outcome of ROE. A negative relationship exists between local shares and ROE. There is a high chance that an upsurge in local shares holding will lead to in a decline in ROA and therefore performance by -0.0000757 units keeping other variables constant. Results on the relationship of local shares and ROE insignificant and negative. A rise in the number of local shares held will lead to a decline in ROE by $-.000018$ units keeping other variables constant. A statistically insignificant relationship exists between foreign shares and ROE with $p=0.800>0.05$. This means that foreign shares owned in a SoE cannot be used to forecast the outcome of ROE. A rise in the number of foreign shares owned will lead to drop in ROE by -3.508206 units keeping other variables constant. The second hypothesis **HO₂** that there is no significant relationship between local ownership and financial performance of privatized state owned enterprise in Nairobi Securities Exchange was therefore accepted since local shares had insignificant relationship with both ROA and ROE.

The third objective of the study was to determine effect of foreign ownership on financial performance of privatized state owned enterprise in Nairobi Securities Exchange. The third hypothesis **HO₃** was there is no significant relationship between foreign ownership and financial performance of privatized state owned enterprise in Nairobi Securities Exchange. The study established that the relationship between foreign shares and returns on asset was statistically insignificant with $p=0.565>0.05$ and therefore cannot be used to predict the outcome of return on asset though positively related. An increase in foreign shares will result in an increase in return on asset by $-.0000302$ units keeping other variables constant. On the other hand, the relationship

between foreign shares and returns on asset was statistically insignificant with $p=0.800>0.05$ and therefore cannot be used to predict the outcome of return on equity. An increase in foreign shares will result in a decrease in return on equity by -3.508206 units keeping other variables constant. The hypothesis **HO₃** that there is no significant relationship between foreign ownership and financial performance of privatized state owned enterprise in Nairobi Securities Exchange was therefore accepted since foreign shares had insignificant relationship with both ROA and ROE.

The fourth objective was to establish effect of total asset on financial performance of privatized state owned enterprise in Nairobi Securities Exchange whereas the fourth hypothesis **HO₄** was that there is no significant relationship between total asset and financial performance of privatized state owned enterprise in Nairobi Securities Exchange. It was found that market capitalization had a statistically insignificant effect on ROA with a $p=0.063>0.05$. This means market financial capitalization cannot be used to foretell the outcome of return on asset. The relationship between market financial capitalization has a negative relationship with ROA. An upsurge in market financial capitalization will lead to a decrease in ROA by -0.7240371 units keeping other variables constant. On the other hand, statistical insignificant effect was also found between market capitalization and ROE and with $p=0.232>0.05$. Market capitalization cannot therefore be used to forecast on the possible outcome of ROE. Market financial capitalization has a negative effect on ROE. An upsurge in market financial capitalization will lead to a fall in ROE by -.2876975 units keeping other variables constant. The hypothesis **HO₄** that there is no significant relationship between total asset and financial performance of privatized state owned enterprise in Nairobi Securities Exchange was therefore accepted since market financial capitalization had insignificant relationship with both ROA and ROE.

The fifth objective was to analyze effect of market financial capitalization on performance of privatized state owned enterprise in Nairobi Securities Exchange and the fifth hypothesis **HO₅**: was that there is no significant relationship between market capitalization and financial performance of privatized state owned enterprise in Nairobi Securities Exchange. It was discovered that the relationship between firm size and returns on asset was statistically insignificant and with a $p=0.063>0.05$. This means therefore that size of a state owned enterprise listed in Nairobi Stock Exchange cannot be used to predict the and therefore cannot be used to

predict the outcome of ROA. Firm size has a negative effect on ROA. Growth in firm size will most likely lead to a decrease in ROA by -5.221408 units keeping other variables constant. On the other hand, a statistically insignificant effect with $p=0.993>0.05$ was found between size and ROE of listed SoEs. This therefore means that size cannot be used to foretell the outcome of ROE. The relationship between firm size and return on equity was negatively related. A growth in firm size will lead to a result in a decline in ROE by 6.201911 units keeping other variables constant. The hypothesis **HO₅**: that there is no significant relationship between market capitalization and financial performance of privatized state owned enterprise in Nairobi Securities Exchange was therefore accepted since total asset had insignificant relationship with both ROA and ROE.

The sixth objective was to ascertain the moderating effect of interest rate on the relationship between ownership structure, firm size and firm performance with its hypothesis **HO₆**: stated as interest rate does not significantly moderate the relationship between ownership structure, firm size and firm performance. the study established that the relationship between ownership structure, firm size on ROA by the state privatized firms listed in NSE, Kenya between 2008 to 2017 remained statistically significant when interest rate was introduced as moderating factor as was confirmed by the model's chi square value of 0.0032 which is much less than 0.05. Whereas on the other hand the relationship between ownership structure, firm size on ROE by the state privatized firms listed in NSE, Kenya between 2008 to 2017 remained statistically insignificant when interest rate was introduced as moderating factor as was confirmed by the model's chi square value of 0.8208 which is much greater than 0.05. The hypothesis that interest rate does not significantly moderate the relationship between ownership structure, firm size and firm performance was therefore rejected since the study established a significant relationship between ownership structure, firm size and ROA as opposed to ROE.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The main aim of this study was to analyze relationship of firm ownership structure and size on financial performance of privatized state owned enterprise in NSE. Summary of the findings of the study on the relationship of firm ownership structure and size on financial performance of privatized state owned enterprise listed in NSE and makes conclusion centered on the findings. The recommendations from the findings and areas for further research are also discussed.

5.2 Summary

First, the study established that the mean government share employed in the privatized state corporations was Ksh 18,785.48 million deviating at Kshs. 3,509 million compared to local shares whose mean was 3,757.264, foreign shares whose mean was Kshs. 3,348.955 million deviating at Kshs. 2,455.47 million indicating that in terms of ownership structures of privatized state corporations, the government had more ownership compared to local and foreign ownership. Secondly, the study established a mean financial capitalization of 81.2% deviating at about 14.3%. The mean total asset employed by the privatized government corporations in NSE was Kshs. 3,115,989 million deviating at Kshs. 703,7603 million. The mean Return on Asset of the firms was 90% deviating by 41% whereas the mean Return on Equity (RPE) was 61.4% deviating at 25.8%. The table 4.1 provides a summary of descriptive statistics on how the firms performed over the period of study

The choice on which model to use, either fixed or random effect showed that the hypothesis of the Hausman test which stated that random effects model was favored to the fixed effects model, since the test revealed statistically insignificant chi-square value which in the end made the researcher prefer fixed effect. Various diagnostic tests were also carried out for the study to test on normality of the data which included test for time fixed effect which established that the coefficients for all years are together equal to zero, therefore no time fixed effects, recommending that random effects was suitable model for the study. Test for cross sectional

dependence showed that there was no cross sectional dependence from data analyzed. The analyzed data were found to having Heteroskedasticity and this was improved by the Cross-sectional time-series FGLS regression estimation approach. Multicolleniariry diagnostic test revealed non existence of multicolleniariry between all the variables

5.3 Conclusions

The study established that the combined effect of government, local, foreign shares, firm size measured in terms of total asset and market financial capitalization of privatized government firms listed in NSE between 2008 to 2017 on return on asset was statistically significant whereas that of return on equity was statistically insignificant. Results gotten from the model showed that out of the five independent variables evaluated; only government shares traded had significant effect on the firms' return on asset. This means that an increase of government shares lead to an increase in return on asset keeping changes in the other four variables constant which are local, foreign shares, firm size and market financial capitalization constant which all were found to have insignificant effect.

Further findings on moderating effect of interest rate revealed that the relationship between ownership structure, firm size on ROA by the state privatized firms listed in NSE, Kenya between 2008 to 2017 remained statistically significant when interest rate was introduced as moderating factor as was confirmed by the model's chi square. Whereas the relationship between ownership structure, firm size on ROE by the state privatized firms listed in NSE, Kenya between 2008 to 2017 remained statistically insignificant when interest rate was introduced as moderating factor as was confirmed by the model's chi square. The hypothesis that interest rate does not significantly moderate the relationship between ownership structure, firm size and firm performance was therefore rejected since the study established a significant relationship between ownership structure, firm size and ROA as opposed to ROE.

5.4 Recommendations

5.4.1 Policy Recommendations

The study revealed that government shares had significant relationship with the firms' return on asset. However, the study recommends that ownership structure in Kenya should be restructured to reduce government ownership further to pass more control and decision making to private

investors. The study therefore recommends that the government and NSE policy makers should ensure that strategies implemented in ensuring that firms grow faster in size and that ownership does not grow among few owners but rather spread out to many as a way of attracting more skills and competencies among the shareholders that can be tapped to improve firm asset base development. The study recommends that the Government of Kenya should create a conducive business environment which attracts foreign investors as it noted that foreign investors can possess firm-specific advantages that are not available to domestic firms, and thus achieve superior performance.

5.4.2 Recommendation for Further Research

An empirical study should be carried out on analyze relationship of firm shares and size on financial performance of the firms across different segments in NSE. The findings from such a study will shade more lights on whether the ownership structure and firm size affect financial performance generally or segment specific in NSE. The findings firm the study will broaden the concept of shares and size on financial performance in NSE.

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APENDICES

APPENDIX I: INTRODUCTORY LETTER

Brainson Enkirisai
P.O Box 2517-2100,
Nakuru
+254728963775.

Re: To Whom It May Concern

Dear Sir,

I cordially invite you to participate in a survey that constitutes part of my Master of Business Administration qualification at Kabarak University. I am undertaking a project research on the topic “relationship of firm ownership structure and size on financial performance of privatized firms listed in Nairobi Security Exchange.” I therefore request your office to allow me collect the necessary data for this study and assure you that all the information given was treated with utmost confidentiality, since this is purely an academic research. Do not hesitate to contact me in case of any clarification.

Thank you in advance for your assistance and co-operation.

Yours Sincerely,

Brainson Enkirisai
Kabarak University

APPENDIX II: DATA COLLECTION SCHEDULE

Year (2008-2017)

Year

Firm Code	Gov Shares	Local investors' shares	Foreign investors' shares	Stock Returns	Current Asset	Current Liability	Total Asset	Income	Inter Rate
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									

Note; The data collection schedule is continuously filled for each year until the 10th year is reached.

APPENDIX III: LISTED STATE CORPORATIONS IN NSE

SNO	FIRM	SEGMENT
1	Housing Finance Group	Banking
2	National Banks of Kenya	Banking
3	Uchumi Super Market Ltd	Commercial and Service
4	Kenya Airways	Commercial and Service
5	Bamburi	Construction and Allied
6	Athi River Mining	Construction and Allied
7	East Africa Portland Cement Ltd	Construction and Allied
8	Kenya Power and Lighting Ltd	Energy
9	Kengen Ltd	Energy
10	Kenya Re-Insurance Corporation Ltd	Insurance
11	Mumias Sugar Ltd	Manufacturing

Source; NSE (2018)

APPENDIX IV: KABARAK UNIVERSITY INTRODUCTION LETTER



KABARAK UNIVERSITY

INSTITUTE OF POST GRADUATE STUDIES

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KABARAK, KENYA
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24th October, 2018.

Ministry of Higher Education Science and Technology,
National Council for Science, Technology & Innovation,
P.O. Box 30623 – 00100,
Nairobi

Dear Sir/Madam,

RE: RESEARCH BY BRIANSON KIMIRINY -GMB/N/1119/09/12

The above named is a student of Kabarak University taking Masters in Business Administration (Finance option). His research is entitled “**Relationship of Firm Ownership Structure and Size on Financial Performance of Privatized State Owned by Nairobi Security Exchange**” he has been **Examined and Accepted** by the Board of Postgraduate Studies.

He is therefore authorised to proceed on with his research. Any assistance accorded to him is highly appreciated

Thank you.

Yours faithfully,

Dr. Betty Tikoko
DIRECTOR - (POST GRADUATE STUDIES)



Kabarak University Moral Code

As members of Kabarak University family, we purpose at all times and in all places, to set apart in one's heart, Jesus as Lord. (1 Peter 3:15)



Kabarak University is ISO 9001:2015 Certified

APPENDIX V: RESEARCH PERMIT

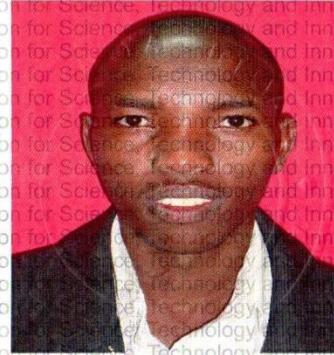
THIS IS TO CERTIFY THAT: **Permit No : NACOSTI/P/18/36088/26516**
MR. BRAINSON ENKIRISA KIMIRINY **Date Of Issue : 31st October,2018**
of KABARAK UNIVERSITY, 0-20100 **Fee Received :Ksh 1000**

Nakuru, has been permitted to conduct
research in Nairobi County

on the topic: RELATIONSHIP OF FIRM
OWNERSHIP STRUCTURE AND SIZE ON
FINANCIAL PERFORMANCE OF
PRIVATIZED STATE OWNED
ENTERPRISES IN NAIROBI SECURITIES
EXCHANGE.

for the period ending:
30th October,2019.


.....
Applicant's
Signature




.....
Director General
National Commission for Science,
Technology & Innovation

THE SCIENCE, TECHNOLOGY AND **INNOVATION ACT, 2013**

The Grant of Research Licenses is guided by the Science,
Technology and Innovation (Research Licensing) Regulations, 2014.

CONDITIONS

1. The License is valid for the proposed research, location and specified period.
2. The License and any rights thereunder are non-transferable.
3. The Licensee shall inform the County Governor before commencement of the research.
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
5. The License does not give authority to transfer research materials.
6. NACOSTI may monitor and evaluate the licensed research project.
7. The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice.

National Commission for Science, Technology and innovation
P.O. Box 30623 - 00100, Nairobi, Kenya

TEL: 020 400 7000, 0713 788787, 0735 404245

Email: dg@nacosti.go.ke, registry@nacosti.go.ke

Website: www.nacosti.go.ke



REPUBLIC OF KENYA



National Commission for Science,
Technology and Innovation

RESEARCH LICENSE

Serial No.A 21537

CONDITIONS: see back page



**NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION**

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Website: www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref. No. **NACOSTI/P/18/36088/26516**

Date: **31st October, 2018**

Brainson Enkirisai Kimiriny
Kabarak University
Private Bag - 20157
KABARAK.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *“Relationship of firm ownership structure and size on financial performance of privatized state owned enterprises in Nairobi Securities Exchange”* I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **30th October, 2019.**

You are advised to report to **the County Commissioner and the County Director of Education, Nairobi County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

**GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner
Nairobi County.

The County Director of Education
Nairobi County.