**Scholars Journal of Economics, Business and Management (SJEBM)** **e-ISSN 2348-5302**
***Abbreviated Key Title: Sch. J. Econ. Bus. Manag.*** **p-ISSN 2348-8875**

A Unit of Scholars Academic and Scientific Society, India
www.saspjournals.com

# Effect of Government and Foreign Ownership on Financial Performance of Privatized State Owned Enterprise in Nairobi Securities Exchange

**Brainson Kimiriny Enkirisai*, Dr. Symon Kiprop, Dr. John Tanui**
School of Business Management and Economics, Kabarak University, Private Berg, Kabarak, Kenya

***Corresponding author**
*Brainson Kimiriny Enkirisai*

**Article History**
*Received: 03.11.2018*
*Accepted: 09.11.2018*
*Published: 30.11.2018*

**DOI:**
10.36347/sjebm.2018.v05i11.012

**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 and foreign ownership 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.
**Keywords**: Ownership Structure, Privatization, Firms Performance, Firm Size.

## INTRODUCTION

Performance of firms may be measured by use of various techniques. Some of the techniques may include; ratios like profitability and efficiency ratios [1]. 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 [2]. Ownership is structured in order to create value and also to avoid challenges of control by some specific shareholders [3]. Corporate governance concern ownership structure, size and performance [4]. 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 [5]. 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.

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 [6]. White and Bhatia [7] 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.

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.*, [8].

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 stud, 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 [9] 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.

Jiang [10] 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 chapion the long term objectives of the organization [11].

According to Hassan and Butt [4] firm ownership and performance is issue governance. George and Nyambonga [12] 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 [3]. Uzel [13] 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 [14] raised concern over the difference between successful organization and none successful ones. Mukulu, Nteete and Namusonge [15] observe that for firms to improve in performance there must be a clear way of measuring it with clear indicators. Gonzalez and Molina [16] observed that, higher ownership-concentration improve firm's performance and concluded that ownership structure is has key control on firm performance

The shifts in shares of listed firms through trading are the main business of security market worldwide. According to Anthony [17] 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 [18]. Anselm [19] 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 [20, 21]. 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.

**Objectives and Hypotheses of the Study**
**Objectives**

- To ascertain effect of government ownership on financial performance of privatized state owned enterprise in Nairobi Securities Exchange

- To determine effect of foreign ownership on financial performance of privatized state owned enterprise in Nairobi Securities Exchange

**Hypotheses**

- **$HO_1$:** There is no significant relationship between government ownership and financial performance of privatized state owned enterprise in Nairobi Securities Exchange
- **$HO_2$:** There is no significant relationship between foreign ownership and financial performance of privatized state owned enterprise in Nairobi Securities Exchange

## Literature and Conceptual Framework

### Literature

### Government Ownership and Performance

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 [22] 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.*, [23] 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 [19] 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 [22] observed that Government ownership is inefficient and bureaucratic and that the ownership may not improve performance.

Mrad and Hallara [24] established that state ownership improved firms return on asset. Gitundu *et al*., [25] argues that government companies should restructure although it is important for government to retain some shares for purposes of control. Zeng *et al.*, [26] analyzed firms in China from 2006 to 2008 established that state ownership achieved more firms. Beltratti *et al.*, [27] observes that sometimes government ownership pursure objective not related with firms' profitability [28]. Alulamusi [29] also established that government ownership had insignificant relationship with firms' performance. However, Farinós [30] 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 [31] established that government owned firms and have significant impacts on their financial performance. Beltratti *et al*., [27] argued that government owned may purse goals not related to profitability. Wanjugu *et al*., [32] argued that Government firms are sometimes inefficient and bureaucratic negatively affecting ROA.

Ongore *et al.,* [33] established that government shares do not influence firm performance. Esther *et al.*, [34] 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 [35] 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 [36] 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 [37].

Zeng *et al.*, [26] 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 [31] observe that Chinese firms are characterized by; economic decentralization, and political bureaucracies and stiff competition affect financial performance of such firms.

Fred [38] 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 [39]. Wanjugu *et al.*, [32] 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 [40] conducted a study on government owned firms listed in the stock market using panel data regression covering 2003-210 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 [41]. 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 [42] on Government Ownership and Firm Performancein Vietnam using a panel dataset of of 2004-2012 found insignificant relationship between ownership, profitability and labor productivity of government owned firms whereas when size was increased, labor productivity.

Razak, Ahmad and Joher [43] 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 established a significant impact of government ownership on company performance after controlling for company specific characteristics such as company size, non-duality, leverage and growth.

**Foreign Ownership and Performance**

Lee [44] 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 [16] found out that higher ownership-concentration improve firm's performance and concluded that Ownership structure is key in firms' performance. Ochieng and Ahmed [45] found that the financial performance had not met the expectation brought about with ownership structure. Chege [46] 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 [47] established significant influence of foreign ownership on performances. Huang and Shiu [48], and Caves [49] supported the findings of Halkos and Tzeremes. However, Azzam, Fouad and Ghosh [50] 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 [51]. Djankov and Simeon [52] established significant relationship between foreign ownership compared to local ownership. However Ochieng and Ahmed [45] 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 [53]. Foreign ownership is best at transferring managerial technical skills that make the firms more efficient [54]. Zemplinerová [55] in a study of the Czech Republic of research and development employee established insignificant relationship with foreign ownership. However, Uwuigbe and Olusanmi [56] established opposite results.

Halkos and Tzeremes [47] found out significant influence of foreign ownership on firm's financial performances. Huang and Shiu [48], and Caves [49] 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 [57]. Huang, Shiu [58] argued that local investors knowledge of the local environment compared to foreign investors leading to better performance. However, Azzam, Fouad and Ghosh [59] observe a different scenario where foreign ownership performed better than local firms.

However, Aneta [60] found out a direct correlation between foreign ownership and performance which is also supported by Greenaway, Guariglia and Yu [57], and Akimova and Schwödiauer [61]. A study by Lee [44] established that firm's financial performance had effect on ownership concentration by increasing financial performance. A similar study by Cespedes, Gonzalez and Molina [16] found out that higher ownership-concentration improve firm's performance making ownership structure an important consideration in controlling allocation affecting firm performance.

Lee [44] 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 [62] established inverse relationship between ownership and firms' performance of Vietnam firms. Abdulsamad and Yusoff [63] established that managerial ownership enhances firm performance compared to government shares. Žanić [64] study from Zagreb Stock Exchange between 2003-2009 established significant relationship with block ownership whether corporate or family local based firms.

Cooke and Huang [65] 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. 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 Mishira [62] established convex relationship with firm performance.

Helen and Bature [66] 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 mangers would be less motivated when foreign experts are engaged hence lowering performance. Saseela and Thirunavukkarasu [67] 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.

**Conceptual Framework**

The first independent variable is government ownership, the second variable is foreign ownership which. 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.

## RESEARCH DESIGN

The study adopted a quantitative longitudinal research design targeting the privatized State Owned Corporation in different segments in NSE. Currently there are 11 SOEs in different investment segments in the Nairobi Securities Exchange. 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 Group Ltd and National Bank of 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 and Lighting 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. Secondary data was the source of information analyzed to attain the set objectives. The study covered a period of 10 years beginning from the period 2008 to 2017. The time scope is to see trends that were 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. 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. 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:

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

Where;

Y= ROA/ROE, α =constant, $\beta_1 \ldots \ldots \beta_5$ = parameter estimates
$(GO)_t$ = Government Ownership over year t
$(LFO)_t$ = Local Firm Ownership over year t
$(FO)_t$ = Foreign Ownership over year t
$(TA)_t$ = Total Asset over year t
$(MC)_t$ = Market Capitalization over year t
ε is the error of prediction.

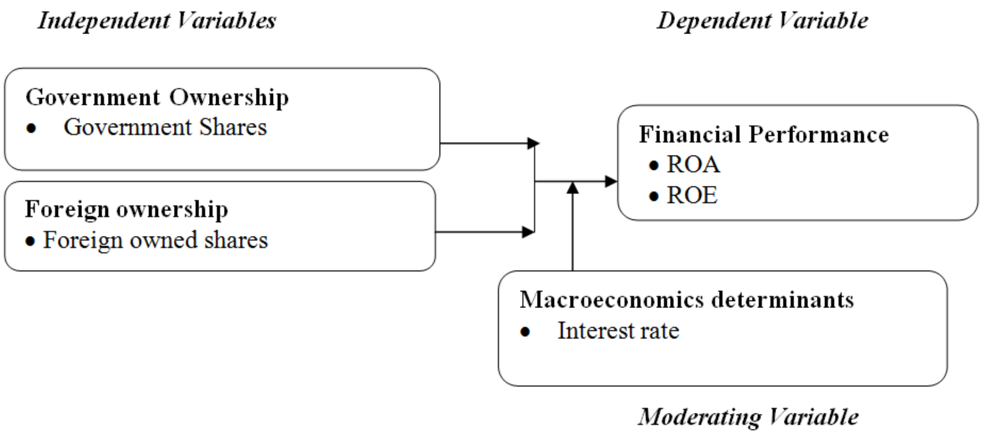


**Fig-1: Conceptual Framework**
Source: Own conceptualization (2018)

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

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

Where;

α = constant
$\beta_1 \ldots \ldots \beta_5$= Regression Coefficients of independent variables
$\beta_6$= Regression Coefficients of intervening variable (Interest Rate cap)
$(IRC)_t$= Interest Rate Cap over year t
t=Time dimension
ε = the error of prediction.

## FINDINGS AND DISCUSSIONS

### Relationship between Government and Foreign Ownership on Financial Performance

The fixed effects model on Table-1 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.

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 [68] 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 [31] established that government owned firms have significant impacts on their financial performance. Beltratti *et al.*, [27] argued that government owned may pursue goals not related to profitability. Wanjugu *et al*., [76] argued that Government firms are sometimes inefficient and bureaucratic negatively affecting ROA. The finding is further supported by Huyghebaert and Wang [36] 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 [37].

**Table-1: 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 |
| | | | | | F(5,93) = | 4.45 |
| corr(u_i, Xb) = -0.6040 | | | | | 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 |
| F_shares | .0000302 | .0000523 | 0.58 | 0.565 | -.0000737 | .0001341 |
| 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 | |

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 - .0000302 units holding other variables constant. This finding is supported by Margaritis and Psillaki [69] 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 [70] study observes that firms owned by many shareholders' usual experience poor performance. Kiruri [1] found that firms which had local and foreign ownership had better profitability. Nafula [71] 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 [72] 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 Daskalakiset *et al.*, [73] 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 [74] support Nafula [71] 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 [75] who established ownership was dependence of growth and Corporate Governance.

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. 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.

**Table-2: 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 |
| F_shares | -3.508206 | .0000137 | -0.25 | 0.800 | -.0000308 | .0000238 |
| 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 | |

## Hypotheses Test

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 $HO_1$ 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 $HO_1$ 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 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 $HO_2$ 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 $HO_2$ 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.

## CONCLUSION

The study established that the combined effect of government and foreign shares of privatized government firms listed in NSE between 2008 to 2017 on return was statistically significant whereas that of return on equity was statistically insignificant. Results gotten from the model showed that 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 foreign shares which all was 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.

## REFERENCES


1. Kaguri AW. Relationship between firm characteristics and financial performance of life insurance companies in Kenya. Unpublished M. Sc. Thesis, University of Nairobi, Kenya. 2013 Oct.
2. Berk J, and DeMarzo P. *Corporate finance*, *International* ed. edn, Pearson Education, Boston; 2007.
3. Lioui A, Sharma Z. Environmental corporate social responsibility and financial performance: Disentangling direct and indirect effects. Ecological Economics. 2012 Jun 1;78:100-11.
4. Butt S, Hasan A. Impact of ownership structure and corporate governance on capital structure of Pakistani listed companies. 2009.
5. Otieno OP. *The effect of ownership structure on financial performance of firms listed at the nairobi securities exchange* (Doctoral Dissertation, School Of Business, University Of Nairobi). 2017.
6. Koimet J. *Methods and Practices of privatization. Papers and Proceedings of Privatization Workshop held in Kenya, 23rd- November 1992 and Bangladesh, 1-6 December 2006*. United Nations, New York; 2006.
7. White, O. C., & Bhatia, A. (1998). *Privatization in Africa*. World Bank.
8. Foyeke OI, Iyoha FO, Ojeka S. Firm size and financial performance: A determinant of corporate governance disclosure practices of Nigerian companies. Journal of Accounting and Auditing: Research & Practice. 2015.
9. OECD. *SME and Entrepreneurship Outlook*. Paris: OECD; 2005.
10. Jiang N, You B, Sheng M, Sun Y. Electrodeposited Cobalt‐Phosphorous‐Derived Films as Competent Bifunctional Catalysts for Overall Water Splitting. Angewandte Chemie. 2015 May 18;127(21):6349-52.
11. Matengo M. *The Relationship between Corporate Governance Practices and Performance: the Case of Banking Industry in Kenya* (Doctoral dissertation, University of Nairobi). 2008.
12. George GE, and Nyambonga TO. A critical analysis of equity ownership structure on firms performance: a case of publicly listed firms Kenya, *Research Journal of Finance and Accounting*, 2014; 5(11).
13. Uzel M. *Effect of Strategic Management Drivers on the performance of the hotel industry in Kenyan Coast. Unpublished PhD*. Thesis. Nairobi. Jomo Kenyatta University of Agriculture and Technology; 2015.
14. Iravo M, Ongori J, Munene C. Factors affecting the performance of hotels and restaurants in Kenya. A case of Kisii County. Interdisciplinary journal of contemporary research in business. 2013;4(12):897-928.
15. Mukulu E, Nteete K, Namusonge GS. Pedagogical Approaches Determining the Performance of Entrepreneurship Education in Kenya Public Universities. International Journal of Humanities and Social Science. 2012;2(13):1-3.
16. Cespedes J, Gonzalez M, and Molina C. Owner -ship and capital structure in Latin *America Journal of Business Research*, 2010; 63(3), 248–254.
17. Abira AN. The Effect Of Ownership Structure On Financial Performance Of Companies Listed In The Nairobi Securities Exchange. Unpublished MBA project. Available at: http://erepository. uonbi. ac. ke. Accessed on. 2014 Oct;9.
18. Ndemo K. Effect of Financial Literacy on Management of Personal Finances among Employees of Commercial Banks in Kenya. Unpublished MSC Project, Nairobi: Kenyatta University; 2009.
19. Anselm AI. Voluntary vs. Mandatory Corporate Governance: Towards and Optimal Regulatory Framework' bepress Legal Series. *Working Paper*, 2014; *566 4.*
20. Mehrjardi MS. *Size and Profitability of Banks in Kenya*. An unpublished MBA project, University of Nairobi, 2012.
21. Osei-Poku J, Mbogo CM, Palmer WJ, Jiggins FM. Deep sequencing reveals extensive variation in the gut microbiota of wild mosquitoes from K enya. Molecular ecology. 2012 Oct;21(20):5138-50.
22. Mutisya B. *The relationship between ownership structure and financial performance of companies listed at the Nairobi securities exchange*. Unpublished MBA thesis, Nairobi: University of Nairobi, 2015.
23. Boubakri N, Cosset JC, Fischer K, Guedhami O. Privatization and bank performance in developing countries. Journal of Banking & Finance. 2005 Aug 1;29(8-9):2015-41.
24. Mrad M, Hallara S. The impact of residual government ownership on performance and value creation: The Case of privatized French companies. Procedia-Social and Behavioral Sciences. 2012 Oct 24;62:473-88.
25. Gitundu EW, Kiprop SK, Kibet LK, Kisaka SE. The influence of ownership structure on financial performance of privatized companies in Kenya. African Journal of Business Management. 2016 Feb 28;10(4):75-88.

26. Zeng SX, Meng XH, Zeng RC, Tam CM, Tam VW, Jin T. How environmental management driving forces affect environmental and economic performance of SMEs: a study in the Northern China district. Journal of Cleaner Production. 2011 Sep 1;19(13):1426-37.
27. Beltratti A, Stulz RM. The credit crisis around the globe: Why did some banks perform better?. Journal of Financial Economics. 2012 Jul 1;105(1):1-7.
28. Taylor F, Ward K, Moore TH, Burke M, Smith GD, Casas JP, Ebrahim S. Statins for the primary prevention of cardiovascular disease. The Cochrane database of systematic reviews. 2011(1):CD004816.
29. Fazlzadeh A, Hendi AT, Mahboubi K. The examination of the effect of ownership structure on firm performance in listed firms of Tehran stock exchange based on the type of the industry. International Journal of Business and Management. 2011 Feb 28;6(3):249.
30. Farinos JE, Garcia CJ, Ibanez AM. Operating and stock market performance of state-owned enterprise privatizations: the Spanish experience. International Review of Financial Analysis. 2007 Jan 1;16(4):367-89.
31. Yeasmin S, Rahman KF. Triangulation'research method as the tool of social science research. BUP journal. 2012 Sep;1(1):154-63.
32. Moon M, Kim T, Park J, Cho S, Ryu D, Suh S, Kim HS. Changes in spatial variations of sap flow in Korean pine trees due to environmental factors and their effects on estimates of stand transpiration. Journal of Mountain Science. 2016 Jun 1;13(6):1024-34.
33. Ongore VO, K'obonyo PO, Ogutu M. Implications of firm ownership identity and managerial discretion on financial performance: empirical evidence from Nairobi Stock Exchange. International journal of humanities and social science. 2011;1:187-95.
34. Klionsky DJ, Abdelmohsen K, Abe A, Abedin MJ, Abeliovich H, Acevedo Arozena A, Adachi H, Adams CM, Adams PD, Adeli K, Adhihetty PJ. Guidelines for the use and interpretation of assays for monitoring autophagy. Autophagy. 2016 Jan 2;12(1):1-222.
35. Earnhart D, Lizal L. Effect of corporate economic performance on firm-level environmental performance in a transition economy. Environmental and resource economics. 2010 Jul 1;46(3):303-29.
36. Huyghebaert N, Wang L. Expropriation of minority investors in Chinese listed firms: The role of internal and external corporate governance mechanisms. Corporate Governance: An International Review. 2012;20(3):308-32.
37. Wadongo BI, Edwin O, Oscar KO. Managerial roles and choice of performance measures in the Kenyan five-star hotels using a cross-sectional correlational design. Managing Leisure. 2010 Apr 1;15(1-2):17-31.
38. Polman CH, Reingold SC, Banwell B, Clanet M, Cohen JA, Filippi M, Fujihara K, Havrdova E, Hutchinson M, Kappos L, Lublin FD. Diagnostic criteria for multiple sclerosis: 2010 revisions to the McDonald criteria. Annals of neurology. 2011 Feb;69(2):292-302.
39. Bañuelos AL, Descals FJ, Castaño MB. Can We Be Passionate About Our Work? A Review On Passion At Work. Papeles del Psicólogo. 2016 Jan 1;37(3):165-9.
40. Mei J, Diao Y, Appleton AL, Fang L, Bao Z. Integrated materials design of organic semiconductors for field-effect transistors. Journal of the American Chemical Society. 2013 Apr 26;135(18):6724-46.
41. Alfaraih M, Alanezi F, Almujamed H. The influence of institutional and government ownership on firm performance: evidence from Kuwait. International Business Research. 2012 Sep 3;5(10):192.
42. Tran NM, Nonneman W, Jorissen A. Government ownership and firm performance: the case of Vietnam. International Journal of Economics and Financial Issues. 2014 Jul 14;4(3):628-50.
43. Razak NH, Ahmad R, Joher HA. Does government linked companies (GLCs) perform better than non-GLCs? Evidence from Malaysian listed companies. Journal of applied finance & banking. 2011;1(1):213-40.
44. Lee S. Ownership structure and financial performance: Evidence from panel data of South Korea. Working Paper, University of Utah, Department of Economics; 2008.
45. Ochieng MD, Ahmed AH. The Effects of Privatization on the Financial Performance of Kenya Airways. International Journal of Business and Commerce. 2014;3(5):10-26.
46. Chege JW. Relationship between ownership structure and financial performance among commercial banks listed in the Nairobi Securities Exchange in Kenya. Retrieved from: UoN Repository database. 2013 Oct.
47. Halkos GE, Tzeremes NG. The effect of foreign ownership on SMEs performance: An efficiency analysis perspective. Journal of Productivity Analysis. 2010 Oct 1;34(2):167-80.
48. Lin CY, Huang CS, Huang CY, Yin MC. Anticoagulatory, antiinflammatory, and antioxidative effects of protocatechuic acid in diabetic mice. Journal of agricultural and food chemistry. 2009 Jul 2;57(15):6661-7.
49. Caves RE. In praise of the Old IO. International Journal of Industrial Organization. 2007 Feb 1;25(1):1-2.
50. Azzam I, Fouad J, Ghosh DK. Foreign Ownership and Financial Performance: Evidence from Egypt. International Journal of Business. 2013 Sep 1;18(3).
51. Clarkson PM, Overell MB, Chapple L. Environmental reporting and its relation to corporate environmental performance. Abacus. 2011 Mar;47(1):27-60.
52. Djankov S, La Porta R, Lopez-de-Silanes F, Shleifer A. The law and economics of self-dealing. Journal of financial economics. 2008 Jun 1;88(3):430-65.

53. Aydin N, Sayim M, Yalama A. Foreign ownership and firm performance: Evidence from Turkey. International Research Journal of Finance and Economics. 2007 Sep;11(2007):103-11.
54. George R. Corporate governance and firm performance: An analysis of ownership structure, profit redistribution and diversification strategies of firms in India. Tilburg University, School of Economics and Management; 2005.
55. Zemplinerova A. Innovation activity of firms and competition. Politická ekonomie. 2010 Jan 1;58(6):747-60.
56. Uwuigbe U, Olusanmi O. An empirical examination of the relationship between ownership structure and the performance of firms in Nigeria. International Business Research. 2012;5(1):208.
57. Greenaway D, Guariglia A, Yu Z. The more the better? Foreign ownership and corporate performance in China. The European Journal of Finance. 2014 Sep 2;20(7-9):681-702.
58. Huang SL, Yang CW. Designing a semantic bliki system to support different types of knowledge and adaptive learning. Computers & Education. 2009 Nov 1;53(3):701-12.
59. Muhammad AZ, Siddiqui S. Domestic and foreign banks' profitability: Differences and their determinants. International Journal of Economics and Financial Issues. 2013 Dec 2;2(1):33-40.
60. Hintošová AB, Kubíková Z. The effect of the degree of foreign ownership on firms' performance. Review of Economic Perspectives. 2016 Mar 1;16(1):29-44.
61. Akimova I, Schwödiauer G. Ownership structure, corporate governance, and enterprise performance: Empirical results for Ukraine. International Advances in Economic Research. 2004 Feb 1;10(1):28-42.
62. Phung DN, Mishra AV. Ownership structure and firm performance: Evidence from Vietnamese listed firms. Australian Economic Papers. 2016 Mar;55(1):63-98.
63. Abdulsamad AO, Yusoff WF, Lasyoud AA. The influence of the board of directors' characteristics on firm performance: Evidence from Malaysian public listed companies. Corporate Governance and Sustainability Review. 2018;2(1):6-13.
64. Tropini C, Roth EA, Zanic M, Gardner MK, Howard J. Islands containing slowly hydrolyzable GTP analogs promote microtubule rescues. PloS one. 2012 Jan 17;7(1):e30103.
65. Cooke FL, Huang K. Postacquisition evolution of the appraisal and reward systems: A study of Chinese IT firms acquired by US firms. Human Resource Management. 2011 Nov;50(6):839-58.
66. Andow HA, David BM. Ownership structure and the financial performance of listed conglomerate firms in Nigeria. The Business & Management Review. 2016 Apr 1;7(3):231.
67. Balagobei S, Velnampy T. A Study on Ownership Structure and Financial Performance of Listed Beverage Food and Tobacco Companies in Sri Lanka. International Journal of Accounting and Financial Reporting. 2017 Oct 10;7(2):36-47..
68. Pérez-Farinós N, Ordobás M, García-Fernández C, García-Comas L, Cañellas S, Rodero I, Gutiérrez-Rodríguez Á, García-Gutiérrez J, Ramírez R. Varicella and herpes zoster in Madrid, based on the Sentinel General Practitioner Network: 1997–2004. BMC infectious diseases. 2007 Dec;7(1):59.
69. Margaritis D, Psillaki M. Capital structure, equity ownership and firm performance. Journal of banking & finance. 2010 Mar 1;34(3):621-32.
70. Czarnitzki D, Delanote J. R&D policies for young SMEs: input and output effects. Small Business Economics. 2015 Oct 1;45(3):465-85.
71. Nafula R, Suarez Zubiran N. Born Global firms from emerging economies: Investigating their success factors in international markets. 2012.
72. Ng'ang'a PN. *Effect of Ownership Structure on Financial Performance of Companies listed at the Nairobi Securities Exchange in Kenya* (Doctoral dissertation, COHRED-JKUAT). 2011.
73. Zalosnik MI, Pollano A, Trujillo V, Suarez MM, Durando PE. Effect of maternal separation and chronic stress on hippocampal-dependent memory in young adult rats: Evidence for the match-mismatch hypothesis. Stress. 2014 Sep 1;17(5):445-50.
74. Miring'u AN. 1., & Muoria ET. An analysis of the effect of Corporate Governance on Performance of Commercial State Corporations in Kenya. 2011.
75. Wanjiku S. *Corporate Governance practices of Firms and its relationship with growth of companies listed in Nairobi Security Exchange*. Unpublished MBA project, Nairobi: Nairobi University. 2011.
76. Wachira W, Brookes M, Haines R. Viewing the impact of outsourcing from a Kenyan perspective. Asian Journal of Management Science and Economics Vol. 2016;3(1).