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Ownership Structure and Firm Value

By: Henry Kimathi Mukaria[1], Mirie Mwangi (PhD)[2], Duncan Elly Ochieng' (PhD)[3] and Kennedy Okiro (PhD)[4]

Abstract

Purpose: This paper investigate the relationship between ownership structure and value of listed firms at the Nairobi Securities Exchange.

Methodology: The study targeted 64 listed firms as at December 2017. Panel data analysis for pooled ordinary least squares, fixed and random effect models was employed. Moreover, a feasible generalized least square estimator was adopted in attempt to attain robust results.

***Findings**:* The study findings revealed managerial ownership has a statistically significant negative effect on firm value, as sign of eroding effect on wealth. By contrast, institutional and foreign ownership depict statistically significant positive effect on value which depict firm value enhancement by institutional and foreign investors. The study findings are considered robust and reliable as were found consistent across all the approximation models.

***Implications**:* The study conclusion was that the diverse constituents of shareholders influence firm value differently. Specifically, firms owned by firm directors appear to be worth less and can be likened to agency conflicts value eroding effect. However, foreign and institutional investors are valued more probably in association to institution of effective monitoring mechanisms.

Value: The article extends empirical insights in Kenyan context that assist to resolve previous research inconsistences on nature of specific ownership class and firm value. Additionally, the findings as well reignites the debate on the practise effectiveness for top managers stock options compensation schemes. Moreover, policy formulators to continually devise governance mechanism that lure foreign and institutional investors in attempt to protect investors' wealth.

Keywords: Ownership Structure, Managerial Ownership, Institutional Investors, Foreign Shareholders, Firm Value

[1,2,3,4,]Department of Finance and Accounting, School of Business, University of Nairobi
[1]hkimathi@chuka.ac.ke

Introduction

Corporate governance mechanism in organizations continue to receive considerable media and academia attention as a trending corporate finance issue. Specially, the aspect of ownership structure and its link to firm value, continuous to elicits debate. The separation of ownership and management may result to agency costs which could be accelerated by conflict of interests between owners and firm management (Jensen & Meckling, 1976). Share holdings can manifest a sound or otherwise governance mechanism to either accelerate or mitigate any conflicts in firms (Chen, Hou & Lee, 2012). Firm owners inform of foreigners, the management itself, institutional investors, among others can pursue actions that benefit the entire organization or only their own welfare. In the absence of agency conflicts, the different categories of firm owners as well as corporate executives can pursue wealth enhancing investments (Tirole, 2006). Thus, the structure of shareholding appear to explain the worth to investors but an argument on precise nature of the link is still puzzling among scholarly output.

Shareholders value signifies the worth to owners generally based on expected futures cash flows (Damodaran, 2002). Firm management engage in optimal investments under sound governance practices so as to maximize shareholders wealth. The maximization of shareholders wealth is an important objective for all firms (Demsetz & Villalonga, 2001). Indeed, McConnell and Servaes (1990) contend that value of entity is a function of the structure of equity ownership. Ownership structure characterises the interest of various constituents of equity holders such as managerial, institutional and foreign shareholding in a firm (Welch, 2003). Managerial holding capture the ownership by corporate insiders of board members and firm managers (Kao, Hodgkinson & Jaafar, 2019). Institutional shareholding is ownership by entities such as investment firms, commercial banks, insurance industries, pension funds, mutual funds and state holdings (McKnight & Weir, 2009). Foreign shareholding embodies ownership by non-local investors who playing a monitoring governance role in firms around the world (Thanatawee, 2014; Ferreira & Matos, 2008).

Objective of the Study

To determine the relationship between ownership structure and value of companies listed at the Nairobi Securities Exchange.

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The remainder of this article is designed as outlined. The subsequent section documents review of literature backing the theoretical and interactions between ownership and value of firm. Afterwards, the data sets and methodology framework is detailed. Then a section that describe results and discussion is presented. Lastly, the conclusions and recommendations are outlined.

Literature Review and Hypotheses Development

Ownership structure and corporate value link is premised on the optimal balance that subsist between the hypothesis of alignment of interest and entrenchment. The agency theory by Jensen and Meckling (1976) describes the conflict that exists between listed firms principals and the management arising from separation of ownership and firm management. While shareholders always strive to maximize the firm value, managers might seek to pursue their own interests in a case of entrenchment. On the other hand, alignment of interest hypothesis can occur via monitoring executives' action in an effort to control any errant behaviour of tunnelling firm resources so as to maximize entity's value (Tirole, 2006). In a related perspectives, entities owe a duty to fulfil the obligations of diverse stakeholders based on Freeman (1984) Stakeholder theory. Owners of firms are motivated to serve the societal interests. Consequently, firms mitigate agency costs and undertake monitoring in order to efficiently utilise resources and realize sufficient returns to share equitably among entities stakeholders. The difference constituents of shareholders play different roles aimed at safeguarding investment returns.

Evidence from prior empirical literature has sought to settle the role ownership structure play in determining the value of firm. However, the extant literature on ownership-value bond presents results that are not uniform in agreement. In case of shareholding by management, the study findings are split between an emphasis upon the managers realizing goal congruence with that of the shareholders and the claim that manager may pursue their own benefits at the expense of shareholders. At the outset, Demsetz and Villalonga (2001) cast considerable doubt on any link between managerial ownership and US firms performance in a two stage estimation that suggest shareholding by management as an endogenous variable. In contrast, adopting OLS regression for firm listed at the Kuala Lumpur Stock Exchange, Haniffa and Hudaib (2006) reveal managerial shareholding is significantly negatively related to accounting performance but not to the firm market value. Moreover, Fahlenbrach and Stulz (2009) investigated managerial ownership on value of 4,900 US firms based on a panel regression model. The findings revealed no evidence that decrease in managerial ownership reduces value.

A subsequent study by Chen, Hou and Lee (2012) examine the role of managerial and directors shareholdings on financial performance of publicly traded tourist hotels in Taiwan. Panel regression test show that managers' shareholdings does significantly positively affect financial performance and further reflect U-shape effect for directors shareholdings on ROA, ROE and Tobin's Q. This signify that minimum performance arises at a higher level of managerial and directors' ownerships and vice versa. Nevertheless, the focus of the study was the hotel industry only. A recent study in Kenya context by Mokaya and Jagongo (2015), notwithstanding a cross-sectional ordinary regression analysis, found that equity ownership structure exhibited a direct connection on the performance of listed firms at the Nairobi Securities exchange. In summary, the link between ownership by management and value appears to be unresolved although the authors use myriad of analysis methodologies in different contexts researched. Thus this article seek to extend the debate on owner manager and value bond in Kenya context using current data by testing the following hypothesis: H_1: the relationship between managerial ownership and value of firms listed at the NSE is not significant.

Vast studies have explored institutional investors' link to value too. Indeed, the institutional equity holders can exercise their supremacy to extract private benefits from an entity or could take part in active role of containing management. An argument by Shleifer and Vishny (1986) laid a model foundation that involvement of large shareholders in monitoring increase value of firm due to their potential to mitigate agency problems. Subsequently, McConnell and Servaes (1990) documented empirical evidence of a positive relation between shareholdings held by institutions and corporate value based on Tobin's Q for US listed firms.

Subsequent to proliferation of ownership mechanisms studies, a study by Ongore (2011) further provide support in Kenya that institutional investors holdings is direct related to performance for 42 listed firms for the period 2009- 2012. Similarly, Ahmad and Jusoh (2014) show a positive and significant relation of institutional ownership on both Tobin's Q and share price which is an endorsement that institutional investors participate in monitoring that enrich value of 730

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Malaysia public listed companies. However, the study use 3 years firm data observations. More recently, AL-Najja (2015) reveal no relation between institutional equity holding and performance of Jordanian listed entities, nonetheless the study adopted lagged ownership variables and accounting based return on asset. Thus, the aforementioned studies showing relations between value of corporate and ownership by institutions is as yet fairly inconclusive. In line with the outlined arguments, the arising hypothesis tested is: H_2: the relationship between institutional ownership and value of firms listed at the NSE is not significant.

On yet another category of ownership form, many studies exist focusing on the bond between foreign ownership and value. Ferreira and Matos (2008) present a case of positive value impact as a result of ownership by foreign and independent institutions for 11,224 non US firms in 27 countries over the period from 2000 to 2005 while employing firm-clustered standard errors panel regression. This is evidence of effective direct or indirect monitoring by foreign investors. Similar to the finding, Mishra (2014) adopting panel regression results show that foreign holding has a direct and significant impact on value for 1,357 firms in Australia over the period from 2001 to 2009. Consistent with the agency theory, this finding manifest effectiveness in monitoring role on corporate management. By contrast, Malik (2015) study although targeting a small sample of only 14 pharmaceutical firms and relying on accounting performance measures, observe an insignificant inverse effect between foreign as well as local institutions on performance of firms in India for the period 2004 - 2014. Meanwhile, Nairobi Securities Exchange provides a conducive environment to invest in equities and bonds including foreigners (Nairobi Securities Exchange, 2018). However, no local study was available to the knowledge of authors testing the influence of foreign investors on value of Kenya listed firms. To this end, the ensuing hypothesis tested was: H_3: the link between foreign ownership and value listed at the NSE is not significant.

The extant empirical literature reveal results that are not in agreement uniformly regarding the bond that exist between ownership structures and shareholders value. The motivation for this article is to build on growing ownership studies and enrich corporate governance mechanism literature. In view of this, while using current 8 year panel rich data, this article offers empirical

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ISSN 2522-3186

evidence and extends findings for Kenya context as it deepens the knowledge base on the nature of relationship between different shareholder constituents and value.

Data variables and Model Specification

The data on ownership of firm was sourced from the publicly existing databank of Capital Market Authority of Kenya and listed firms annual reports. The share market prices were obtained from Nairobi Securities Exchange price lists circulations while book value of equity is retrieved from annual reports. The data set comprises of the 64 listed firms on the Nairobi Securities Exchange for a time span of 8 years from 2010 to 2017. Due to unavailable data for some firm years, the final sample of 57 firms yielded unbalanced panel of 397 corporate-years observations.

The dependent variable of study is firm value which is proxied by Tobin's Q while the explanatory variables are the shareholding proportions by foreigners, instructional investors and management equity stakes. The study variables operationalization is adopted from previous studies. The summary measurement for the variables of study are displayed in Table 1

Table 1: Variables and operationalization

Variable	Abbreviation	Proxy
Foreign Ownership	FO	Ratio of foreign share ownership
Institutional Ownership	IO	Proportion of institutions share ownership
Managerial Ownership	MO	Ratio of Board members and CEO Ownership
Firm Value	TQ	Ratio of market to book value of equity

A panel data model framework that enable control for both time and firm level variations as well as omitted variable biases was employed (Wooldridge, 2013). The estimation model considered for the analysis is outlined as follows.

$$FV_{it} = \beta_0 + \beta_1 MO_{it} + \beta_2 IO_{it} + \beta_2 FO_{it} + \varepsilon_{it}$$

Where FV_{it} = Firm Value for i^{th} firm in t^{th} year

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ISSN 2522-3186

$\mathrm{MO}_{\mathrm{it}}$ = proportion of management shareholding to total outstanding shares for i^{th} firm in t^{th} year

$\mathrm{IO}_{\mathrm{it}}$ = ratio of institutional ownership to total outstanding ordinary shares for i^{th} firm in t^{th} year

$\mathrm{FO}_{\mathrm{it}}$ = ratio of foreign shareholding to total outstanding ordinary shares for i^{th} firm in t^{th} year

ε_{it} = error term

Results and Discussions

Table 2 outlines the summary of the descriptive statistics of the study variables.

Table 2: Study Variables Summary Statistics

	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
Firm value	0.10	7.40	1.51	1.30	1.96	4.58
Managerial ownership	0.00	0.82	0.13	0.20	1.70	1.88
Institutional ownership	0.01	0.95	0.48	0.25	-0.19	-1.21
Foreign ownership	0.00	0.94	0.28	0.28	0.61	-1.10

The average firm value was 1.52 and varies by 1.30. The highest value in the data was 7.40 and the lowest was 0.10 showing the broad range of value manifested among the listed firms. The least managerial ownership was zero, a sign that for some firms, management did not own any shares at all. On the flip side, the most ownership level was 0.82, a case for significant ownership by managers in some firms. Managerial share interest reveal a positive skewness of 1.7 and kurtosis value of 1.88 which is a fairly mesokurtic ownership distribution by the management members. The institutional equity holding mean value is 0.48 while the minimum value is 0.01. The maximum shareholding level of 0.95 show that institution held a substantial stake in some firms. The mean share holding by foreign investors stood at 0.28 with a deviation of 0.28. Whereas, the equity stake by foreign investors range from nil to 0.94 among the listed firms.

In the next step, a pairwise correlation that show the strength of correlation between firm value and study variables and also among the specific category of ownership structures is summarized in correlation matrix Table 3.

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ISSN 2522-3186

Table 3: Correlation between Ownership Structure and Firm Value

	Firm value	Managerial Ownership	Institutional Ownership	Foreign Ownership
Firm Value	1			
Managerial Ownership	-0.235**	1		
	.000			
Institutional Ownership	-0.36	0.352**	1	
	.470	.000		
Foreign Ownership	1.19*	-0.374**	-0.802**	1
	0.017	.000	.000	

*ρ < 0.05; **ρ < 0.01

As shown in table 3, a statistically significant negative correlation exist between value and managerial. On the contrary, there was a positive correlation between value and foreign equity holding signifying that the value improves as foreign holding increased. The institutional equity holding demonstrated an inverse but insignificant association with the value of firm. In, addition, the ratio of foreign shareholding is negatively correlated with both managerial and institutional ownership. However, managerial ownership is positively corrected with ownership by institutions.

In an attempt to achieve robust results, the test of heteroskedasticity, autocorrelation and panel stationarity were conducted. Breusch-Pagan test for heteroskedasticity whereas Wooldridge test checked for the status of auto correlation. The summary results of assumptions test are displayed in Table 4.

Table 4: Test Results of Heteroskedasticity and Autocorrelation

	Model
Breusch-Pagan Test	20.268
P-value	0.0001
Wooldridge Test ($\chi 2$)	174.43
P-value	0.000

The results outline in Table 4 of the constant variance hypothesis indicate that the presence of heteroskedasticity. Additionally, the results confirm that the model fit suffers the problem of autocorrelation. A subsequent panel unit root test was carried undertaken by applying the Augmented Dickey-Fuller (ADF) test and the summary results are available in Table 5.

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ISSN 2522-3186

Table 5: Panel Unit Root

	Level Unit Root	
Variable	ADF t statistic	Critical Value
Firm Value	-7.4776	-2.897
Managerial Ownership	-5.7259	-2.897
Institutional Ownership	-4.8353	-2.897
Foreign Ownership	-4.7064	-2.897

Table 5 summary show ADF calculated t-statistics are larger than critical value -2.897 (absolute terms). This reveals that all the variables data series are stationary. To this end, spurious regression are avoided while using the variables stationary data series (Wooldridge, 2013). Thereafter, in an attempt to enrich the reliability of the results, the fixed effects, Pooled OLS and random effects estimation models were fitted. Table 6 sets out the comparative results of the fixed effects, pooled OLS and random effects estimation models.

Table 6: **Results of the Fixed Effects, Pooled OLS and Random Effect Regressions**

Item	Fixed Effects	Pooled OLS	Random Effect
Managerial Ownership	-2.5454*	-1.4885***	-2.0262**
	(0.0409)	(0.0000)	(0.0027)
Institutional Ownership	1.72639**	1.04389*	1.54158**
	(0.0074)	(0.014637)	(0.0049)
Foreign Ownership	0.86485*	0.91863 *	1.05154*
	(0.0154)	(0.015907)	0.0125
Intercept		0.9461**	0.8248*
		(0.0021)	(0.0528)
F-statistic	7.0335	10.1198	8.4587
p-value	0.0008	0.000	0.000
Adj. R-Squared	0.1242	0.0642	0.05529
Observations	397	397	397

Moreover, due to detection of heteroskedasticity and autocorrelation and guarantee that the results are efficient, the estimation was based on feasible generalized least squares (FGLS). The results from the FGLS regression are displayed on Table 7.

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ISSN 2522-3186

Table 7: Empirical results from FGLS Regression Model

Item	Coefficient
Managerial Ownership	-1.4745*** (0.0000)
Institutional Ownership	0.8687*** (0.00578)
Foreign Ownership	0.9836* (0.02624)
Intercept	1.2758*** (0.0000)
Wald statistic	47.139
Chisq (3)	0
R-Squared	0.596
Observations	397

Table 6 and 7 sets out the regression results on the linkage between ownership structure and value of listed firms. The F-value for all the models outlined in Table 6 are significant. Similarly, the Wald statistic in Table 7 is also statistically significant. This content that all the models are termed fit to predict the relationship between ownership structure and value.

Ownership by management was found to have a significant negative relation to value of firm across all model fit, thus allow fail to reject hypothesis 1. Moreover, the coefficients of all models are closely similar. In this case, the value of firm shrinks as ownership by management rises. This connotes that in cases of ownership by management, the executives appear to pursue own interests that reduce shareholder wealth. The negative result supports the findings of Haniffa and Hudaib (2006) study linking managerial shareholding and perfomance of Malaysia listed firm. However, the study finding is consistent with argument by Demsetz and Villalonga (2001) findings that cast doubt on any link between managerial ownership and performance. Further, the results are not in agreement to Chen, Hou and Lee (2012) and Mokaya and Jagongo (2015) studies that present positive link between managerial stakes and value of firm.

As regards the second hypothesis, results in Table 6 and 7 further confirm that institutional ownership yield a significant and positive effect on firm value. The finding suggest that the greater the shareholding by institutions, the higher the value of firm. This may be ascribed to active monitoring by institutional owners. The results echoes similar observation by Thanatawee (2014) who found a positive link between institutional holding and value of Thailand entities. Similarly, Ongore (2011) reported positive connection between institutional holdings and performance for listed firms in Kenya. A further analysis by Ahmad and Jusoh (2014) similarly reported a positive and significant relation between institutional equity holdings and performance of Malaysian firms, although, the study was for only three years panel data modelling analysis.

Further, the study results as shown in Table 6 and 7 show that foreign holdings is positively related to firm value. This points to incentive by foreign investor to monitor management. The findings are in agreement with Mishra (2014) results that foreign investors improves on value for Australian firms. Likewise Ferreira and Matos (2008) findings reveal a significant positive impact of foreign institutions on firm valuation. This can be an indicator that presence of foreign investors' interest may involve effective monitoring or transfer of superior managerial skills that may improve shareholders wealth. The findings are in contrast to the study of Malik (2015) who established that foreign investors exert negative insignificant influence on the value of pharmaceutical firms in India, notwithstanding the small size of only 14 firms targeted in that study.

Conclusions and Recommendations

This article examines the relationship between managerial, institutional as well as foreign ownership structure and value of listed companies in Kenya. The results substantiate the argument that shareholding by managers is inversely related to value while foreign and institutional investors are directly linked to value of firm. The study results are considered robust and reliable as were found consistent across all the models adopted in the approximation. The study contributes to empirical literature on the direct relationship between ownership structure and value in Kenya context. Further, the article extend empirical insights that assist to resolve previous research inconsistences on nature of specific ownership class and value main effects.

With respect to policy makers and regulators, the study also presents some practical implications. The findings reignites the discourse on the practise effectiveness for executives' stock options compensation schemes as the findings suggest that shareholding by managers can lead to more

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agency problems that reduce value of firm. In addition, policy formulators ought to continually devise governance mechanism that lure foreign and institutional investors to the firm shareholding in attempt to protect investors' wealth. This follows from the finding that ownership by foreign and institutional enhance value of firms.

Further research direction can incorporate interactive effects to capture circumstances when the nature of main effect between ownership structure and value varies so as to provide additional insights. Moreover, research directions can include conceptually linked control variables so as to account for confounding factors thus isolate the main effect of the ownership structure variables. To further explain the effect of managerial ownership on value, an investigation that considers a split between executive and non-executive directors can be undertaken.

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