

Ownership Identity And Capital Structure: A Panel Analysis For Quoted Firms In Kenya

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ABSTRACT

The objective of this paper was to determine the relationship between ownership identity and capital structure of non-financial firms listed on the NSE. The target population was 42 firms, however, only 35 firms had consistency of data for a balanced panel regression for the period 2008-2017. The study adopted longitudinal quantitative research design with random-effects GLS model. The ownership identity was measured using managerial, institutional, government and retail ownerships while capital structure was measured using leverage ratio. The analysis show that the relationship between capital structure and managerial ownership was positive and statistically insignificant while Institutional ownership was found to be positive and significant. In addition, Government ownership was found to be negatively insignificant and lastly, Retail ownership was found to be negatively and insignificantly related. This study recommends that there is need to nurture a good relationship with all institutional investors such as banking companies, insurance companies, pension funds, trust funds and mutual funds to benefit from the pool of expertise they engage to do investment and financing researches. Finally, since there is prospect for East African regional integration, an examination of ownership structure and leverage within East African Community Countries ought to be investigated.

KeyWords: Ownership Identity, Managerial Ownership, Institutional Ownership, Government Ownership, Capital Structure and Nairobi Securities Exchange (NSE)

INTRODUCTION

Leverage is possibly the firm's most fundamental financial decision which involves in depth and careful thoughts (Wanyoike & Nasieku, 2015). To note, Siddiqui and Shoaib (2011), argue it is not possible to obtain an optimal capital mixture, that is, the point where balance can be confirmed between the cost of capital and required rate of return. To this effect, several theories have been advanced to explain the optimal gearing level including the MM, Pecking Order, Static Tradeoff, Free cashflow and the Agency Cost theories. However, none of the theory address what is the optimal level of debt to equity (Abor, 2005 and Ishaya & Abduljeleel, 2014). Besides, Wanyoike & Nasieku, (2015) argue that the firm's decision of its source of capital will affect its competitiveness. In addition, based on agency cost theory, it's implied that leverage is caused by a multitude of factors, one being ownership structure (Myers & Majluf, 1984).

The link between ownership identity and financial policy is acknowledged in early studies such as Williamson (1964) and Jensen (1986). Ownership structure relates to the decision making segment or shareholding patterns of a firm, it's classified into; ownership concentration and

owner identity (Zhuang, 1999). Past researchers have done many studies on the relationship between managerial ownership and capital decisions (a few includes, Jensen et al., 1992; Eckbo and Verma, 1994 finding a link between the two). Until 1990s, scholars began to apprehend the role of institutional investors in affecting the firm's financial policy (Bathala et al., 1994). Hossein, Mohammad, Massoud and Arezoo (2013) in Turkey show that the percentage of insides shareholders and that owned by institutional shareholders each has a positive effect on leverage. In addition, Liu, Tian and Wang (2011) in China document that state ownership have a positive relationship with firm's leverage.

Abundant studies have revealed equity ownership structure is an important mechanism in corporate control such as Denis and McConnell (2003), as it influences the quality of corporate governance and its ability to reduce agency costs (Berk & DeMarzo, 2007), this in addition support that ownership structure affects leverage decisions. Contrary, a study by Yarram (2012) in Australia show no significant relationship between ownership structure and leverage. Furthermore, Faccio and Lang (2002) note that firms in the developing countries have a different ownership structure compared to their counterparts in the US and UK. This is likely to impact differently in leverage ratio optimization decisions.

In Kenya, the existence of an owner identity effect is based on the argument that different owners may have diverse strategic objectives and the controlling owner's objective preference would influence the operation and performance of the firm. According to Ongore, K'Obonyo and Ogutu (2011) the most frequently defined owner identities in Kenyan listed firms are; state, institution, foreign and dispersed ownership. Further, under the Capital Markets Regulations, every legal entity that offers securities to the public or listed company shall reserve at least 25% of its ordinary shares for investment by local investors in the issuer or listed company. Local investors include investors from the East African Community partner states (CMA, 2014). The pensions industry in Kenya constitutes about 22% of the market capitalization of the Nairobi stock Exchange (RBA, 2015). In addition, every quoted firm must provide a list of ten major shareholders in its annual reports (CMA Act, 2.1.3(b)).

RESEARCH PROBLEM

Despite studies in other developing countries revealing that there is a relationship between ownership and leverage such as Arief, Noer, Roy and Nur (2013) with a population of 442 public firms listed in the Indonesia Stock Exchange report a significant and positive effect on capital structure. Likewise, Hossein et al. (2013) using firms listed on Tehran Stock Exchange (TSE) report that ownership diversity or mix have a significant positive effect on leverage. Interestingly, Said (2013) in Pakistan findings concur with Chung (2012), in South Korea, that a negative relationship exists between ownership and leverage of a firm. Based on the literature reviewed, there is mixed reaction on the relationship between ownership patterns and leverage. This triggers a question; Does ownership identity really affect leverage in Kenyan context? This has created a gap to be addressed as soon as possible taking a focal point of developing country especially Kenya.

LITERATURE REVIEW

A study by Liu, Tian and Wang (2011) examines the influence of state control and ownership structure on the leverage decision of Chinese firms, and document that state ownership have a positive relationship with firm leverage. Further, agency cost theory, as proposed by Jensen and Meckling (1976) put forward that agency cost and ownership structure have significant influence on a firm's capital structure. Some past studies on the capital structure concept have observed how shareholders' rights affect a firm's capital structure decisions (For example, Friend and Lang, 1988; Berger, 1997).

Gathogo and Ragui (2014) using 22 quoted firms, 25 unquoted firms and 153 SMEs in Kenya during the period 2000-2010. The results reveal that only 36% of the variations in the debt-equity ratio could be explained by the variations in the explanatory variables of the model (size, asset growth, profitability, liquidity, cost of debt, business risk industry type). This relatively low overall explanatory power implies that there might be other factors affecting the firms' financing decision than those hypothesized by the study which includes not incorporating ownership structure and legal factors.

The effect of ownership on capital structure show diverse findings with corporations controlled by state as a majority shareholder having a higher leverage compared to corporations controlled by individual shareholders (Li et al., 2011; Okuda & Nhung, 2012). Ruan, Tian and Ma (2011) found a non-linear relationship between ownership and the firm's value and capital structure in other words, managerial ownership has both negative and positive associations with leverage. Garcia-Teruel and Martinez-Solano (2010) stated that state owned company tends to have a conventional capital structure policy, hence state owned company will use debt capital reasonably.

Arief et al. (2013) with a population of 442 public firms listed in the Indonesia Stock Exchange, the results of testing the determinants of capital structure using a static model that included a variable of ownership indicate that tax shield, company size, and fixed assets have a significant and positive effect on capital structure. Their findings support the trade-off theory in the formation of capital structure in Indonesia. The ownership variables were found to have a significant negative relationship which indicate that the State ownership has a significant influence on the formation of capital structure in the State-owned enterprise and that they have a lower debt ratio compared to the non-State owned firms.

Hosseini, Noroozi, Nadem and Chadegani (2013) undertook a study with the main objective being to examine the effect of ownership structure and corporate governance on capital structure of firms listed on Tehran Stock Exchange (TSE). Leverage was used as a measurement for capital structure while the percentage of insides shareholders and the amount of shares owned by institutional shareholders were used as a measurement for ownership structure. These variables have a significant positive effect on capital structure. They argued that inside shareholders and institutional shareholder's existence driven corporations to use more debt in financing because, both groups have inclination to use more debt capital. The results were consistent with previous researches which were done by Chaganti and Damanpour (2005), Al-Najjar and Taylor (2008), Bokpin and Arko (2010) and Maximiliano and Molina (2011).

A study by Yarram in 2012 analyzed the relationship between ownership structure and capital structure of a sample of 465 Australian firms for the period 2004-2010. An examination of leverage levels indicates that long-term debt accounts for nearly three-fourths all debt or approximately 13 per cent of total capital for large Australian firms. Global financial crisis appears to have no significant impact on leverage levels of Australian firms. Managerial ownership in Australian firms is very small on an average with less than 1 per cent shareholding held by both independent and non-independent directors. Pooled OLS analysis show evidence of a significant non-linear relationship between ownership structure and leverage. Panel data analysis shows no significant relationship between ownership structure and leverage as a measure of capital structure.

Mohamed and Khairy (2016) investigate the relationship between some corporate governance mechanism such as board characteristics, ownership structure and corporate financial

leverage in an emerging market, Egypt. A sample of 36 non-financial firms were selected from the more actively traded 50 listed Egyptian firms in the Egyptian Stock Exchange (EGX) covering the period from 2007 to 2011. Employing multiple regression models (OLS) the findings show that institutional ownership and governmental ownership are significantly positively related to corporate leverage, whereas board size, board female, and block holding are found to be significantly negatively correlated. Their findings suggest that board characteristics and ownership structure play an important role in deciding the Egyptian corporate financial leverage.

Locally, Mukonyi, Basweti and Kamau (2016) establish the relationship between ownership structure and leverage of firms listed on the NSE. The results of the study reveal that there is a weak positive relationship between state ownership and leverage with a correlation coefficient value of 0.186. The study also revealed that there is no statistical significant relationship between state ownership and debt to equity ratio. Further, the study results revealed that there is a negative relationship between private ownership and leverage. Additionally, foreign ownership was found to be negatively correlated with leverage. Lastly, institutional ownership was found to be positively but not significantly related with leverage. The multiple regression analysis findings shown that there is a weak positive relationship between ownership structure and leverage. Even so, the association between ownership structure and leverage was not statistically significant.

RESEARCH METHODOLOGY

The research design adopted in this study is quantitative research design whereby secondary panel data was collected and analyzed using random-effects GLS regression model in order to determine the casual relationship of the dependent and independent variables. The target population of the study comprised of all the 42 non-financial companies listed on the NSE as at 31st December 2017 (NSE, 2017). The exclusion of financial oriented firms was considered since their ownership structure and the resultant financial and capital structure is subject to regulatory requirements (Santos, 2001).

However, only 35 listed non-financial firms had consistency of data for a balanced panel regression. The data covered a period of ten years from 2008 to 2017. The study used multiple regression analysis to show the degree of relationship between the two study variables as backed by Mugenda and Mugenda (2012). This study used STATA data analysis software to produce descriptive and inferential statistics. The model of regression used for this study was as shown below;

$$CS_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon_{it}$$

Where:

CS = Capital Structure

β_0 = Constant term of the Regression Model

β_1, \dots, β_4 = Regression Model Variables Co-efficients

X_1 = Managerial Ownership,

X_2 = Institutional Ownership,

X_3 = Government Ownership and

X_4 = Retail Ownership

i = Non-financial listed Firms from 1-35

t = Time Period (2008-2017)

ε = Regression Model Error Term

RESEARCH FINDINGS

Correlation Analysis

Pearson correlation analysis was executed to gauge the strength of relationship between variables used in this study. According to Kombo and Tromp (2010) the correlation coefficient represents the linear relationship between two variables. The computation of correlation coefficient yields a statistic that ranges from -1 to 1. From table 1 below, the findings revealed that Managerial ownership was significantly negatively correlated with Institutional ownership and insignificantly positively with Government ownership, and Retail ownership. In addition, it was negatively insignificantly related to capital structure.

Further, Institutional ownership was significantly negatively correlated with Government ownership, Retail ownership, and Capital structure. Finally, analysis showed that Retail ownership was significantly negatively correlated with Capital structure. This implies that as Retail ownership increases, Capital structure decreases as well, or as Retail ownership decreases, Capital structure increases. However, it is noted that all correlation co-efficients show a weak relationship between the study variables as they are below absolute value of 0.5 or 50%.

Table 1: Pearson’s Correlation Matrix

Variables	MO	IO	GO	RO	CS
MO	1.0000				
IO	-0.3765*	1.0000			
GO	0.0381	-0.3650*	1.0000		
RO	0.0633	-0.3162*	-0.3645*	1.0000	
CS	-0.0176	-0.1389*	0.1867*	-0.2101*	1.0000

*significant correlations at 5% level

MO=Managerial Ownership, IO= Institutional Ownership, GO=Government Ownership, RO=Retail Ownership and CS= Capital Structure

Hausman Specification Test

According to Borenstein (2009) and Woodridge (2004) under fixed effects, there is an assumption that all the dispersion in observed effect is due to sampling error whereas under random effects, there is allowance that some of the dispersion observed may illustrate real differences in effect size across non-financial listed firms at the NSE. From table 2 below, using Hausman Specification Test, the model was found to be best fitted using random-effects.

Table 2: Fixed Effects Model (FEM) versus Random Effects Model (REM)

Model(s): Dependent Variable	Independent Variable(s)	Chi2(4)=(b- B)'[(V_b-V_B)^(- 1)](b-B)	Prob>chi2	Modelling Technique (FEM or REM)
Model: CS	d.MO, IO, d2.GO, RO	0.59	0.9640	REM

Panel Regression Analysis

Unit root tests were applied to investigate or detect non-stationarity in all the study variables. Levin-Lin-Chu unit-root test revealed that managerial ownership (MO) and Government ownership (GO) were non-stationary thus differencing was necessitated up to first order for MO and second order for GO. While Retail ownership, Institutional ownership (IO) and Capital structure were found to be stationary.

In table 3 below, the overall R squared was 0.0591 while R squared for within was 0.0041 and R squared for between was 0.0976. This implied that the variables considered in the model explained the dependent variable Capital Structure (CS) by a total of 5.91 percent. However, since P value of 0.0355 is less than 0.05, it implies that variables considered in the model do explain the dependent variable CS significantly. Further, the relationship between capital structure and managerial ownership was found to be positive and statistically insignificant (p value = 0.491>0.05). Therefore, a unit increase in managerial ownership led to increased capital structure (CS) by 4.7867% holding other factors constant. Institutional Ownership (IO) and CS was found to be positive and significant (p value = 0.012>0.05). This implies that for a unit increase in IO led to an increase in capital structure by 0.014% holding other factors constant. Further, Government Ownership (GO) and CS was found to be negatively and insignificant (p value = 0.145>0.05). The study found that for a unit increase in GO led to a decline in capital structure by 1.49% holding other factors constant. Lastly, Retail Ownership (RO) and CS was found to be negatively and insignificantly related (p value = 0.070>0.05). The study found that for a unit increase in RO led to a decrease in capital structure by 2.24% holding other factors constant. The final model was derived as follows;

$$\ln CS = \frac{4.3272}{(5.07)} + \frac{0.0479MO}{(0.69)} + \frac{0.00014 IO}{(2.62)} - \frac{0.0149GO}{(1.46)} - \frac{0.0224RO}{(1.81)}$$

Table 3: Panel Regression Results

Random-effects GLS regression		Number of obs = 276			
Group variable: code					
Number of groups = 35					
R-sq:		Obs per group:			
within = 0.0041		min = 5			
between = 0.0976		avg = 7.9			
overall = 0.0591		max = 8			
corr(u_i, X) = 0 (assumed)		Wald chi2(4) = 4.39			
		Prob > chi2 = 0.0355			
LnCS	Coef.	Std. Err.	Z	P>z	[95% Conf. Interval]
d1.MO	.0478677	.0695631	0.69	0.491	-.0884736 .184209
IO	.0001376	.015243	-2.62	0.012	-.0609003 -.007964
d2.GO	-.0149168	.0102311	-1.46	0.145	-.0349695 .0051358
RO	-.0223713	.012351	-1.81	0.070	-.0465789 .0018363
_cons	4.3272	.8536489	5.07	0.000	2.654079 6.000322
sigma_u = 1.0398026					
sigma_e = .90368695					
rho = .56969485 (fraction of variance due to u_i)					

DISCUSSION OF RESULTS AND CONCLUSION

Based on the regression findings, capital structure has a positive and statistically insignificant relationship with Managerial ownership of the listed non-financial firms at the NSE. This is in line with the previous findings by Bokpin and Arko (2010); Maximiliano and Molina (2011); and Hossein, Noroozi, Nadem and Chadegani (2013) who also documented a positive relationship though it was statistically significant. This indicate that inside shareholder's existence drives firms to use more debt in financing because managers have preference to use more debt capital with an aim to take advantage of interest tax shield benefits though this is not always the case for listed firms in Kenya.

Further, Institutional ownership and capital structure was found to be positive and significantly related. Similar results were confirmed by Al-Najjar and Taylor (2008), Bokpin and Arko (2010), Maximiliano and Molina (2011), and Mohamed and Khairy (2016) who argued that institutional shareholder's existence motivate corporations to use more debt capital in their capital structure. The results contradict the findings by Mukonyi, Basweti and Kamau (2016) who found a positive relationship however it was insignificant.

There was a negative and insignificant relationship between government ownership and capital structure. This is in agreement with the results of Arief et al. (2013) though the relationship was found to be significant. However, it is contrary to the findings of Mukonyi, Basweti and Kamau (2016) who revealed that there is no statistical significant relationship between state/government ownership and debt to equity mix.

Lastly, retail ownership and capital structure was found to be negatively and insignificantly related. This was also confirmed by Mukonyi, Basweti and Kamau (2016) who argued that there is a negative relationship between private ownership and leverage for firms listed on the NSE. This signifies that individual owners would prefer firms with low level of debt to equity capital mix and that as their ownership proportion increases the capital structure of listed firms may or may not significantly change.

RECOMMENDATIONS

Based on the study findings the study recommends that all listed firms should constantly observe the percentage of shareholdings owned by management, and institutional investors since this group prefers to use more of debt compared to government and individual owners. This study recommends that there is need to nurture a good relationship with all institutional investors such as banking companies, insurance companies, pension funds, trust firms and mutual funds. Through such all parties will benefit since both quoted firms and these other institutional investors can run research at the same time and benefits from the group of expertise in each sector.

This study evaluated the relationship between ownership mix/structure and capital structure of non-financial listed firms in Kenya. There is necessity for a similar study to be carried out and the relationship be tested for a long term. Secondly, the current study was limited to only ten years (2008-2017) there is need to increase the time period in addition consider unbalanced panel data or even cross sectional data to in order to accommodate more firms or capture more data. Finally, since there is prospect for East African regional integration, an examination of ownership identity and leverage within East African Community Countries ought to be investigated.

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