# DOES CAPITAL STRUCTURE HAVE A MEDIATION EFFECT ON OWNERSHIP STRUCTURE AND FINANCIAL CORPORATE PERFORMANCE? EVIDENCE FROM KENYA

**George Gikama Muthoni** ✉

PhD Candidate, Department of Commerce & Economic studies,

Jomo Kenyatta University of Agriculture and Technology, Kenya

georgegikama@yahoo.com


**Tabitha Merepei Nasieku**

Lecturer, Department of Commerce & Economic studies,

Jomo Kenyatta University of Agriculture and Technology, Kenya

tnmereipei@jkuat.ac.ke


**Tobias Olweny**

Lecturer, Department of Commerce & Economic studies,

Jomo Kenyatta University of Agriculture and Technology, Kenya

tolweny@jkuat.ac.ke

**Abstract**

*The objective of this paper was to determine the mediating effect of capital structure on the relationship between ownership structure and financial performance of non-financial firms listed on the NSE. The target population was forty-two firms, however, only thirty-five 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 and fixed effects models. The ownership structure was measured using managerial, institutional, government and retail ownerships while capital structure was measured using leverage ratio. In addition, financial performance was proxed by ROCE and Tobin's Q. The analysis revealed that the capital structure has no significant mediating influence on managerial, government, and retail ownerships and financial performance. However, the study confirmed that there is a significant*

*partial mediating effect of capital structure on the relationship between institutional ownership and quoted firm's financial performance. The study recommends that the government should introduce initiatives that are aimed at attracting more investors since the current market is dominated by institutional investors. Finally, the study confirms stakeholders, stewardship and pecking order theories and rebuts capital structure irrelevancy and agency theories.*

*Keywords: Mediating Effect, Capital Structure, Ownership Structure, Tobin's Q, Return on Capital Employed (ROCE)*

## INTRODUCTION

Studies on ownership structure date back to the 1920s with the pioneering works of Berle & Means (1932) and Coarse (1937) later Jensen & Meckling (1976). They provide background into further study on the effects of ownership structure on financial policies and firm performance. For example, Lele and Jun (2011) recognize that ownership structure determines the decision making behavior of a firm and eventually the performance. The ownership structure whether concentrated or diffuse influences the profit-maximizing interests of shareholders and the performance of a company (Demsetz & Villalonga, 2001).

Most empirical papers conclude firms from continental Europe are more leveraged than their counterparties in the USA and the UK. Borio (1990) conventionally named the former countries as "high leverage countries" and the latter as "low leverage countries". Further, Rutherford (1988) surveyed previous literature and added evidences from O.E.C.D to show firms in France, Germany and Japan carry proportionally more debt than these in Anglo-American economies. Numerous reasons have been put forward by waves of scholars to explain such observed differences. Borio (1990) attribute the difference in level of debt to the difference in extent and maturity of the financial intermediaries of the said countries. However, some scholars, such as Bergiof (1990); Frankel and Montgomery (1991); Rajan and Zingales (1995) and Ishaya & Abduljeleel (2014) asserts that the internal mechanism of corporate control measured by owner's identity is a major cause of capital structure differences between countries.

According to Harris and Raviv, (1991) and Quang and Xin (2014) there are two parties that will be concerned about the firm performance due to leverage; one will be equity holders, who are owners of the firm and they carry the highest risk in the business as they have a residual claim to the assets of the firm. They are rewarded through appreciation of the value of their share equity and through dividends. Second are the debt holders, they are rewarded

through interest and principal repayment. The owners take great caution by making sure the firm pursues financial plans only to their betterment thus influencing firm's debt-equity mix. Moreover, based on agency cost theory, it's noted that leverage is influenced by a multitude of factors including ownership structure (Myers & Majluf, 1984). In support, Liang *et al.* (2011) and Wahla *et al.* (2012) note that ownership identity is the most vital element influencing capital structure.

To evaluate firm performance, it is necessary to determine the components of good performance using performance metrics. To be suitable, a performance metric must be measureable, relevant and significant to the business (Oakland 1989). However, there is still debate among several fields concerning how the performance of firms should be measured and the factors that affect financial performance of firms (Liargovas & Skandalis, 2008). Moreover, a single factor cannot reflect every aspect of a company performance and therefore the use of several indicators allows a better evaluation of the financial profile of firms. Financial performance used in empirical research on ownership and capital structures fit into accounting-based measures and market-based measures (Almajali *et al.*, 2012; Lindow, 2013).

## Statement of the Problem

One of the most fundamental questions with respect to corporate finance is concerned with capital structure; to what degree should firms be financed with debt compared to equity? As key objective of firms' financing decisions is wealth maximization and the impact such financing decision has on firm's profitability (Mwangi, Makau & Kosimbei, 2014; Wanyoike & Nasieku, 2015). However, Quang and Xin (2014) note that the main responsibility of determining the optimal mix of debt to equity that will maximize firm's value falls under the owners. Moreover, ownership structure is one of the important factors in shaping the corporate policies such as investing, financing and dividend policies (M&M, 1963; Jensen & Meckling, 1976; Mehran 1992; Lin & Chang, 2010; Shoaib & Yasushi, 2017).

According to Anthony (2014) as long as the company's shares are trading, their ownership is bound to change at any time. In addition, owners also have divergent views on the optimal leverage that can maximize firm's value (Kumar, 2003; Raji, 2012; Chancharat, 2015). Further, Mwangi *et al.* (2014) note that listed non-financial firms at the NSE have over time altered their capital structures to enhance profitability, but whether this has been achieved is yet to be empirically documented.

The reviewed studies have yielded mixed results on the relationships between ownership structure and capital structure on performance and also do not consider any mediating effect of capital structure on ownership structure and financial performance. This

raises a research question; Does capital structure have a mediating effect on the relationship between ownership structure and financial performance? This study therefore evaluated the mediating effect of capital structure on the relationship between ownership structure and financial performance.

## LITERATURE REVIEW

Vo and Nguyen (2014) seeking to evaluate the interrelationship among managerial ownership, leverage and dividend policies. Using three-stage least squares (3SLS) estimation on a sample of 81 listed firms on HCM City Stock Exchange (HOSE), Vietnam, during the period 2007-2012. The empirical results indicate that managerial ownership has a negative relationship with leverage. The result supports the Agency Theory.

Shoaib and Yasushi (2017) who examined the impact of managerial ownership and external ownership on financing preferences using the case of non-financial firms listed on Karachi stock exchange during the period of 2008-2012. The findings suggest that the external ownership has a significant effect on capital structure in accordance with the presence of block-holders. In contrast, the insider ownership has a complicated effect; it shows significant positive and negative relationship to leverage at lower and certain higher proportion of managerial shareholding respectively.

Heydari, Seyedeh and Armin (2015) carried a study with an objective to investigate the relationship between institutional ownership with financial policies and performance of listed companies in Tehran Stock Exchange by selecting a total of 90 companies for the period 2006 to 2010. Using Pearson correlation and multiple regression analyzes the results show that institutional ownership has positive and significant relationship with dividend policy and have negative and significant relationship with capital structure.

Pöyry and Maury (2010), investigate a sample of 95 Russian listed firms from 2000 to 2004, also find that firms with high state ownership have a significantly higher debt level than others. The results imply that firms with other types of ownership do not have equal access to capital sources. Specifically, state-owned firms may have substantial advantages with respect to access to the debt market because of the preferential treatment they receive from state-owned banks. For example, while other private firms must rely on capital sources with high costs, state-owned firms can obtain debt financing at a low cost. As a result, they can use more debt than other corporations in general.

Agyei and Owusu (2014), explored the relationship between ownership structure and corporate governance on capital structure of some listed manufacturing companies in Ghana Stock Exchange for the period 2007 to 2011 for which firm level data for eight (8) randomly

selected manufacturing listed at Ghana Stock Exchange was examined by using descriptive, correlation and multivariate regression analysis. Corporate governance variables employed are board size, board composition, and CEO/Chair duality. Results reveal that Board Size, Board Composition, Institutional and Retail shareholding is significantly correlated with leverage ratio positively, whereas it is negatively influenced by CEO/Chair duality. However, firm size and return on assets are found to have a positive and negative significant effect on capital structure respectively. Therefore, results suggest that corporate governance and ownership structure play important role in firm's capital mix determination.

Besides, Coase (1991), in a sort of critique on his own work done in 1937, state that it is significant to pay more attention to the role of capital structure as an instrument that can mediate and moderate economical transactions within the firm and, consequently, between owners and other stakeholders. Thus, based on the available literature, this study will contribute to the growing literature on ownership structure, capital structure and firm's financial performance. In short, the relationship between ownership structure, capital structure and firm's performance has been noted as complex one, moreover, past empirical evidence is not consistent about the direction of these relationships hence a need for a new study.

## RESEARCH PHILOSOPHY

This study was anchored on a positivism research philosophy because it is based on existing theory and it had formulated quantitative hypotheses that were tested. The choice was based on the fact that in order to empirically establish the relationships between the variables, hypotheses are formulated and tested and findings generalized. Positivists concerned with facts other than impressions and this is consistent with the notion of observable social reality (Mugenda & Mugenda, 2012; Saunders et al., 2012).

## RESEARCH METHODOLOGY

The research design adopted in this study was quantitative research design. The quantitative design is a formal, objective, systematic process in which numerical data are used to obtain information about the world (Burns & Grove, 2005). This research design was selected for the study since the data collected on the study variables are financial ratios and hence of quantitative in nature. The target population of the study comprised of all non-financial companies listed on the NSE. The NSE had 42 non-financial firms listed as at 31st December 2017 (NSE, 2017).

Since balanced data is preferred over unbalanced panels, because it allows an observation of the same unit thus the firms were drawn on the consistency of data to enable the

researcher to achieve the study objectives hence addressing the main issue under analysis as a result only 35 out of 42 firms had consistency of data for balanced panel regression. The study employed secondary data that was extracted from audited financial statements and annual reports of individual non-financial firms over the ten (10) year period, 2008 to 2017. The choice of 10 years is after considering that most of the quoted firms experienced re-organization and restructuring between 2009 and 2012 and hence change in shareholding patterns heightened during this period (CMA statistical bulletins, 2010-2016). Lastly, STATA version 14 analytical tool was utilized for data analysis, transformation and diagnosis.

Mediating analysis may use various approaches however, this study adopted Baron and Kenny approach as recommended by Kenny and Judd (2014); Hayes (2013). The method was preferred due to its ability to withstand variation in sample sizes (Hoyle, 1999). Panel Regression Analysis was performed to test the mediating effect using the process advocated by Baron and Kenny (1986).

In **step one** of the mediating analysis, regression analysis was performed to assess the relationship between firm performance (dependent variable) and ownership structure (independent variables) ignoring capital structure (the mediator). The models were as follows:

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

$Tobin's\ Q_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon_{it}$ ………….… 2

In **step two** of the mediating analysis, regression analysis was performed to assess the relationship between capital structure (mediating variable) and ownership structure (independent variables) ignoring the dependent variable (firm performance). The model was as follows:

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

In **step three** of the mediating analysis, regression analysis was performed to assess the relationship between capital structure (mediating variable) and firm performance (dependent variable) while ignoring the ownership structure (independent variables). The models were as follows:

$ROCE_{it} = \beta_0 + \beta_1 CS_{it} + \varepsilon_{it}$ …………………………………….…… 4

$Tobin's\ Q_{it} = \beta_0 + \beta_1 CS_{it} + \varepsilon_{it}$ …………………………..………….. 5

The **fourth step** of the mediating analysis was performed to assess the relationship between firm performance (dependent variable), of capital structure (mediating variable) and ownership structure (independent variables). The models are as follows:

$ROCE_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 CS_{it} + \varepsilon_{it}$ ……… 6

$Tobin's\ Q_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 CS_{it} + \varepsilon_{it}$ …. ..7

*Where: ROCE and Tobin's Q = Financial Performance measures*

*ROCE= Return on Capital Employed*

$\beta_0$ *= constant term of the models*

$X_1$ *= Managerial Ownership(MO),* $X_2$ *= Institutional Ownership(IO),*

$X_3$ *= Government Ownership(GO),* $X_4$ *= Retail Ownership(RO)*

*CS = Capital Structure*

$\beta_1,......, \beta_5$ *= coefficients of the models*

*i  = firms from 1-35*

*t = time in years from 2008-2017 (10 yrs)*

$\varepsilon$ *= Error term of the models*


## ANALYSIS AND FINDINGS

### Diagnosis Tests

The study adopted the Levin-Lin-Chu unit-root test. The test revealed that there was absence of unit root implying that ROCE, Tobin's Q, IO, RO and CS were stationary. However, MO achieved stationarity at first order and GO at second order differencing as shown in table 1 below.


Table 1: Summary of Unit Root Tests of the Study Variables

| Variables | Unadjusted t-statistic | P value at lag(0) | Unadjusted t statistic after 1<sup>st</sup> differencing | P value at lag (0) after 1<sup>st</sup> differencing | Unadjusted t statistic after 2<sup>nd</sup> differencing | P value at lag (0) after 2<sup>nd</sup> differencing |
|---|---|---|---|---|---|---|
| ROCE | -19.0692 | 0.0000 | | | | |
| Q | -17.0855 | 0.0000 | | | | |
| MO | -7.5324 | 0.9736 | -13.4085 | 0.0000 | | |
| IO | -22.4864 | 0.0000 | | | | |
| GO | -8.8987 | 1.0000 | -9.6125 | 0.9985 | -17.6951 | 0.0000 |
| RO | -22.6621 | 0.0000 | | | | |
| CS | -16.0237 | 0.0000 | | | | |

*ROCE=Return on Capital Employed, Q=Tobin's Q, MO=Managerial Ownership, IO= Institutional Ownership, GO=Government Ownership, RO=Retail Ownership and CS= Capital Structure.*


In table 2, Hausman test preferred fixed effects model (FEM) to random effects model for two models with Q as the dependent variables and random effects models where ROCE and CS

were dependent variables. In addition, random effects model was also preferred when Q and CS were considered together.

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

| Model(s): Dependent Variable | Independent Variable(s) | $Chi^2(4)=(b-B)'[(V\_b-V\_B)^{\wedge}(-1)](b-B)$ | Prob>chi$^2$ | Modelling Technique (FEM or REM) |
|---|---|---|---|---|
| **Model 1: ROCE** | d.MO, IO, d2.GO, RO | 3.30 | 0.5093 | REM |
| **Model 2: CS** | d.MO, IO, d2.GO, RO | 0.59 | 0.9640 | REM |
| **Model 3: ROCE** | CS, d.MO, IO, d2.GO, RO | 5.34 | 0.2544 | REM |
| **Model 4: ROCE** | CS | 0.07 | 0.7952 | REM |
| **Model 5: Q** | d.MO, IO, d2.GO, RO | 14.00 | 0.0073 | FEM |
| **Model 6: CS** | d.MO, IO, d2.GO, RO | 0.59 | 0.9640 | REM |
| **Model 7: Q** | CS | 0.23 | 0.6289 | REM |
| **Model 8: Q** | CS, d.MO, IO, d2.GO, RO | 13.90 | 0.0076 | FEM |

Notes: b = consistent under Ho and Ha; obtained from xtreg;  B = inconsistent under Ha, efficient under Ho; obtained from xtreg;  Test:  Ho:  difference in coefficients not systematic; prescript *d* and *d2* is first and second differencing respectively; level of significance is 5%

From table 3 below, normality test was performed using Shapiro Wilk where all the models were observed to be normally distributed. Variance Inflation Factors (VIF) was performed to detect any Multi-collinearity. The mean values in each model was less than ten and according to Woodridge (2004), it implies there was no any multi-collinearity. To test for panel level heteroscedasticity, the study adopted the likelihood ratio (LR) test method where all models demonstrated homoscedasticity implying absence of variances.

To detect presence of autocorrelation in panel data, the study employed the Wooldridge test for autocorrelation against the null hypothesis that there was no first order autocorrelation. As for serial correlation, the study found that models 5, 7 and 8 had serial correlation and as a solution according to Woodridge (2007) and Green (2008) is application of robust as a remedy.

Table 3: General Diagnostics for Model Validation

| Model: (Dependent Variable) | Independent Variable(s) | VIF (Mean) | Normality Z (p value) | Heteroscedasticity LR test | Serial Correlation (Wooldridge test) | Linearity | Final model |
|---|---|---|---|---|---|---|---|
| **Model 1:** ROCE | *d*.MO, IO, *d*2.GO, RO | 1.90 | 9.296 (0.0000) | 0.00 (1.000) | F=3.044, (0.0909) | - | Non-Linear |
| **Model 2:** CS | *d*.MO, IO, *d*2.GO, RO | 1.90 | 12.214 (0.0000) | 0.00 (1.000) | F=2.743, (0.1069) | - | Non-Linear |
| **Model 3:** ROCE | CS | 1.00 | 9.627 (0.0000) | 0.00 (1.000) | F=3.800, (0.0604) | - | Non-Linear |
| **Model 4:** ROCE | CS, *d*.MO, IO, *d*2.GO, RO | 1.73 | 9.297 (0.0000) | 0.00 (1.000) | F=3.633, (0.0660) | - | Non-Linear |
| **Model 5:** Q | *d*.MO, IO, *d*2.GO, RO | 1.90 | 9.139 (0.0000) | 0.00 (1.000) | F=73.813, (0.0000) | - | Non-Linear Robust |
| **Model 6:** CS | *d*.MO, IO, *d*2.GO, RO | 1.90 | 12.214 (0.0000) | 0.00 (1.000) | F=2.743, (0.1069) | - | Non-Linear |
| **Model 7:** Q | CS | 1.00 | 9.893 (0.0000) | 0.00 (1.000) | F=75.518, (0.0000) | - | Non-Linear Robust |
| **Model 8:** Q | CS, *d*.MO, IO, *d*2.GO, RO | 1.73 | 9.140 (0.0000) | 0.00 (1.000) | F=73.847, (0.0000) | - | Non-Linear Robust |

**Panel Regression**

The study conducts panel regression analysis to test the mediating effect of capital structure using the four step process advocated by Baron and Kenny (1986) to produce the results shown below.

Estimated ROCE models were as follows;

Model 1: $lnFP = \underset{(1.7)}{1.1761} - \underset{(0.06)}{0.0033MO} + \underset{(0.64)}{0.0053\,IO} - \underset{(0.13)}{0.0017GO} + \underset{(0.97)}{0.0097RO}$

Model 2: $lnCS = \underset{(5.07)}{4.3272} + \underset{(0.69)}{0.0479MO} + \underset{(2.62)}{0.00014\,IO} - \underset{(1.46)}{0.0149GO} - \underset{(1.81)}{0.0224RO}$

Model 3: $lnFP = \underset{(12.33)}{1.7781} + \underset{(0.94)}{1.50e-06CS}$

Model 4: $lnFP = \underset{(1.69)}{1.1817} + \underset{(0.55)}{8.85e-07\,CS} - \underset{(0.06)}{0.0033MO} + \underset{(0.61)}{0.0052\,IO} - \underset{(0.13)}{0.0017GO} + \underset{(0.97)}{0.0098RO}$

Estimated Q models were as follows;

Model 5: $lnFP = \underset{(6.49)}{9.0417} - \underset{(2.62)}{0.0399MO} - \underset{(6.45)}{0.1072\,IO} + \underset{(5.85)}{0.0067GO} - \underset{(5.61)}{0.0894RO}$

Model 6: $lnCS = \underset{(5.07)}{4.3272} + \underset{(0.69)}{0.0479MO} + \underset{(2.62)}{0.00014\,IO} - \underset{(1.46)}{0.0149GO} - \underset{(1.81)}{0.0224RO}$

Model 7: $lnFP = \underset{(0.76)}{0.1066} + \underset{(16.37)}{2.12e-07CS}$

Model 8: $lnFP = \underset{(6.48)}{9.0423} + \underset{(8.25)}{1.94e-07\,CS} - \underset{(2.62)}{0.0399MO} - \underset{(6.44)}{0.10723\,IO} + \underset{(5.84)}{0.0067GO} - \underset{(5.60)}{0.0894RO}$

The study performed hypothesis testing by determining statistical significance of the coefficients of explanatory variables. Test-of-significance method is meant to verify the truth or falsity of a null hypothesis by using sample results. The study considered eight multiple regression models for the two indicators for financial performance.

Capital structure has no mediating role in the relationship between MO, GO & RO and financial performance measured by either ROCE or Tobin's Q at the NSE and therefore we failed to reject and confirmed the respective hypotheses. However, capital structure has a partial mediating role in the relationship between IO and financial performance measured by Tobin's Q at the NSE. Tobin's Q being a market ratio is said to be more superior than ROCE since it improves on accounting-based measures, since they can give management an indication of investors' perceptions of the firm's past performance and future prospects (Bhat, 2008). Therefore, the study rejected respective hypothesis.

## CONCLUSIONS

The failure to reject the first hypothesis (**H₁**) which explored on the mediating effect of capital structure on the relationship between managerial ownership (MO) and financial performance of non-financial firm at the NSE implies that an increase in management shareholding will lead to less application of debt finance which will not influence the firm's financial performance.

The rejection of the second hypothesis (**H₂**) which explored on the mediating effect of capital structure on the relationship between institutional ownership (IO) and financial performance of non-financial firm at the NSE infers that institutional investors have become key players in today's financial markets. Their increasing importance in corporate governance is observed from the growing weight of firm's equity they control thus their role have changed dramatically from that of simply passive investors to active monitors.

The failure to reject the third hypothesis (**H₃**) which explored on the mediating effect of capital structure on the relationship between government ownership (GO) and financial

performance of non-financial firm at the NSE implies that firms with high state ownership may have better access to the debt market because they have less chance of bankruptcy because of the guarantee of the state while the ultimate owners of state-owned shares are the citizens, the voting rights belong to government departments or bureaucrats whose salaries are normally not directly linked to the performance of the firms that they monitor and control.

The failure to reject the forth hypothesis ($H_4$) which explored on the mediating effect of capital structure on the relationship between retail ownership (RO) and financial performance of non-financial firm at the NSE implies that capital structure does not intervene the relationship between retail ownership and financial performance at the NSE. The regression analysis on capital structure and financial performance is not statistically significant when retail ownership is present and this could be explained by the fact that NSE is an emerging capital market, the retail investors are yet to own a significant shareholding to influence major corporate decisions such as debt to equity mix thus such shareholders have little or no influence on firm's financial performance.

## RECOMMENDATIONS

The study therefore recommends that, the government should consider infusing private sector-like management systems and progress the divestiture program to attract more private individuals and institutions to co-own the majority state owned corporations where the government should be selling of its stake. However, the government should not fail to invest in listed firms despite its ownership having no mediation influence on leverage hence performance since retaining some ownership in foreign and local firms increases shareholder's confidence, protection of investments and managerial monitoring.

Further, the regulator, capital market authority (CMA) should introduce policies that are aimed at encouraging potential investors and also ensuring that non-financial listed firms have adopted strong corporate governance systems that would go a long way to enhance performance through better corporate decision making relating to financing, dividends, and asset mix or investing. Such policies could involve offering education seminars and stiff penalties to firms that would fail to comply with the laid down policies.

Lastly, there is also a need for more studies of the same nature utilizing other indicators like political instability and corruption, factors which are more pronounced in Africa continent given weak judicial and social structures influencing performance of key industries or sectors of the economy. In addition, future researchers could also introduce different variables other than capital structure and ownership structures, and testing for moderation or mediating effect of such variables on the relationship between ownership structure and corporate performance.

Also future research needs to look at non-financial performance measures as suggested by Norton and Kaplan model.

## REFERENCES

Agyei, A., & Owusu, A. R. (2014). The Effect of Ownership Structure and Corporate Governance on Capital Structure of Ghanaian Listed Manufacturing Companies. International Journal of Academic Research in Accounting, Finance and Management Sciences, 4(1), 109-118.

Berle, A., & Means, G. (1932). The Modern Corporate and Private Property. New York: Macmillan.

Chancharat, N. (2015). Capital Structure and Corporate Performance: Evidence from Thailand. IJER © Serials Publications, 12(4), 1353-1370

Demsetz, H., & Villalonga, B. (2001). Ownership Structure and Corporate Performance. Journal of Corporate Finance, 7, 209-233.

Heydari S., Seyedeh, F.M.R., & Armin, S. (2015). Investigating The Relationship Between Institutional Ownership with Financial Policies and Performance of Listed Companies in Tehran Stock Exchange. Singaporean Journal of Business Economics, and Management Studies, 3(11), 18-30.

Jensen, M., & Meckling, W. (1976). Theory of the firm: managerial behavior, agency costs, and ownership structure. Journal of Financial Economics, 3, 305-360

Lindow, C.M. (2013). A strategic fit perspective on family firm performance. Wiesbaden: Springer Gabler

Mugenda, O., & Mugenda, A. (2012). Research Methods: Quantitative and Qualitative Approaches. Nairobi: Act Press

Mwangi, L. W., Muathe, S.K., and Kosimbei, G. (2014). Relationship between Capital Structure and Performance of Non-Financial Companies Listed in the Nairobi Securities Exchange, Kenya. Global Journal of Contemporary Research in Accounting, Auditing and Business Ethics, 1(2), 72-90.

Myers, S., & Majluf, N. (1984). Corporate finance and investment decisions when firms have information that investors do not have. Journal of Financial Economics 13: 187-221.

Pöyry, S., & Maury, B. (2010). Influential ownership and capital structure. Managerial and Decision Economics, 31(5), 311-324

Quang, D. X., & Xin, W.Z., (2014). The Impact of Ownership Structure and Capital Structure on Financial Performance of Vietnamese Firms. International Business Research, 7(2), 64-71.

Rajan, R., & L. Zingales. (1995). What do we know about capital structure? Some evidence from international data. Journal of Finance, (5), 1421-1460

Raji, I. (2012). Effects of Ownership Structure on the Performance of Listed Companies on the Ghana Stock Exchange. A Dissertation Submitted to the Institute of Distance Learning, Kwame Nkrumah University of Science and Technology.

Saunders M., Lewis, P. & Thornhill, A. (2012). Research Methods for Business Students. Prentice Hall: London.

Shoaib, K., & Yasushi, S. (2017). Ownership and Capital Structure of Pakistani Non-Financial Firms. e-Finanse, 12(1), 57-67.

Vo, D. H., & Nguyen, V. T. (2014). Managerial Ownership, Leverage and Dividend Policies: Empirical Evidence from Vietnam's Listed Firms. International Journal of Economics and Finance. 6(5), 274-284.

Wanyoike, C. G., & Nasieku, T. (2015). Capital structure determinants among companies quoted in securities exchange in East Africa. International Journal of Education and Research, 3 (5), 483-496.