

EFFECT OF INSTITUTIONAL OWNERSHIP ON FINANCIAL PERFORMANCE IN KENYA: MODERATED MEDIATION ROLE OF CAPITAL STRUCTURE AND CORPORATE DIVERSIFICATION

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ARTICLE INFO

Received: 29 August 2021

Revised: 10 October 2021

Accepted: 26 October 2021

Keywords:

Corporate Diversification,
Capital Structure,
Financial Performance

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Journal of Scientific Research in
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ABSTRACT

Purpose: The study aimed at examining the moderating effect of capital structure in the indirect relationship between institutional ownership and financial performance through corporate diversification of listed firms at the Nairobi securities in Kenya.

Approach/Methodology/Design: Post positivist research paradigm and explanatory research design guided the study in which 35 listed firms from 2003 to 2017 were included.

Findings: There was a significant interaction effect between capital structure and institutional ownership on financial performance through corporate diversification. The study extended market power theory by examining institutional ownership structure given that corporate diversification is not only a source of power to drive a firm's performance.

Practical Implications: Institutional investors provide equity capital that is collaborated with the firm's capital structure. As a result, there exist sufficient resources to take on diversification strategy despite this translating to a smaller amount in terms of financial performance. The study had implications on Market timing theory which opines that market timing is a 'first order determinant' to aid in selecting a suitable form of financing given debt and equity. Ideally, the preferences of different owners in the firm would affect the choice between debt and equity financing.

Originality/value: Investigation of the interaction effect between capital structure and institutional ownership on financial performance through corporate diversification.

INTRODUCTION

In finance discipline, firm performance is attributed to the attainment of key decisions that broadly touch on investment, financing, and dividends. As a cursor, firm performance has been defined in terms of the ability to manage resources (Iswatia & Anshoria, 2007) and make the most of resources to generate revenue. Performance is thus paramount to the shareholders who seek to maximize their wealth with no exception to firms listed at Nairobi Securities Exchange (NSE) in Kenya. There has been a difference in performance ranging from huge performing firms like Safaricom PLC and on the lower end, loss maker firms that have in some cases led

to delisting. Hence, the delisting of firms in Kenya has been attributed to declining performance or failure in adhering to regulatory requirements. In 2015, Cooper Motor Corporation (CMC) holdings, Access Kenya, Africa Online and Unilever Kenya were delisted. Moreover, in 2017, Hutchings Biemer and A. Baumann limited were added to the list of firms that have been delisted in Kenya. The driving force behind performance in most firms is shareholders or owners. They own shares with the sole aim of maximizing their wealth. Shareholders seek to acquire economic benefits from invested capital which is only guaranteed by the going concern of the firm. As such, ownership structure in a firm matters not only as a remedy to reduce agency conflicts (Jensen & Meckling, 1976) but also to abet in garnering performance benefits. Therefore, since major scandals in listed companies revolve around ineffective performance, the inability to explicitly recognize the dimension of ownership structure can further worsen and ultimately ground the firm.

Shareholders identified from distinct categories play a role in elevating performance (Leech & Leahy, 1991). Given the varied investment priorities and preferences of shareholders, they will not sit and wait for agents to make decisions on their own. Globally, institutional investors have intensified their equity investments in most firms (Gomez, 2014) thereby becoming main actors (Gharbi & Jarboui, 2017). For this reason, all attention in the study was directed towards institutional ownership which is made possible by outsiders comprising of institutions who do not have a direct link with the management of the firm (McCann & Vroom, 2009). Notably, institutions are given ownership as to mainly enhance active monitoring (Boone & White, 2015; Lin & Fu, 2017) and reduction of insider ownership (Lin & Fu, 2017). This leads to maximization of shareholder value (Lin & Fu, 2017), attracting of analysts who are interested more in firms with institutional owners (Boone & White, 2015; Lin & Fu, 2017), increasing liquidity as well as reducing information asymmetry (Boone & White, 2015). In terms of performance, institutional investors seek to be associated with 'blue chip' companies given profitability and dividends other than the governance system. This is evident from the studies whereby institutional ownership positively affects a firm's performance (Thomsen & Pedersen, 2000; Fazlzadeh, Hendi, & Mahboubi, 2011; Masry, 2016; Zhang & Kyaw, 2016).

Undeniably, shareholders being the principals participate in key investment decisions that seek to elevate financial performance. This implies that the actual direct effect of institutional ownership on financial performance may not be direct but through corporate diversification. As a key point to note, firms only diversify as long as the benefits they derive exceed the costs (Marinelli, 2011). Corporate diversification has been positively linked to firm's performance as reported in India, Sri Lanka, and Pakistan (Salma & Hussain, 2018), Asian – Pacific countries (Lee, Hsieh, & Yang, 2014), Serbia (Krivokapic, Njegomir, & Stojic, 2017) and South Africa (Oyewobi, Windapo, & Cattell, 2013). Contrary to this, corporate diversification has been found to negatively relate to firm performance in Croatia (Pavić & Pervan, 2010) and Vietnam (Phung & Mishra, 2016). Other studies have reported nonlinear relationships (Elango, Ma, & Pope, 2008) while some puts forth no relationship between corporate diversification and firm performance as evident from Pakistan (Iqbal, Hameed, & Qadeer, 2012), Italy, Netherlands (Akpınar & Yigit, 2016) and Kenya (Manyuru, Wachira, & Amata, 2017). From an institutional ownership perspective, there exists a positive link with corporate diversification (Gharbi & Jarboui, 2017).

As much as owners seek to enhance financial performance, corporate diversification is a capital-intensive strategy which in turn draws attention to capital structure. As a consequence, the relationship between institutional ownership and corporate diversification is moderated by capital structure. According to (Su, 2010), corporate diversification positively relates to the capital structure while (Menéndez-Alonso, 2003) reported no relationship. In the Kenyan context, (Nzioka, 2017) found significant negative and no relationship given product and geographic diversification respectively on capital structure. Moreover, mixed results are available given institutional ownership-capital structure linkage. For instance, there exists a positive (Brailsford, Oliver, & Pua, 2002; Huang, Lin, & Huang, 2011), negative (Çinko & Kasaboğlu, 2017), and no significant relationship (Pirzada, Mustapha, & Wickramasinghe, 2015) between institutional ownership and capital structure. Despite the valuable insights by researchers, there still exists a gap. As a result, the study sought to determine whether capital structure moderates the direct relationship between institutional ownership and financial performance through corporate diversification of firms listed at NSE in Kenya.

LITERATURE REVIEW

Theoretical Review

The study was anchored on market power theory proposed by (Montgomery, 1994) and market timing theory (MTT) by Baker and Wurgler in 2002 (Baker & Wurgler, 2002). In the 1970s, market power according to William G. Shepherd is based on the ability of the firm to influence. As per Organization for economic corporation and development (OECD), market power is the ability to raise and maintain prices above a certain level that will prevail under competition. With all these views of market power, the current sought to evaluate market power from corporate diversification perspective anchoring on (Montgomery, 1994) perspective. Generally, (Montgomery, 1994) explained the key reasons for corporate diversification based on resource, agency, and market power views. According to the latter view, diversification is thus a source of market power which in turn proves a positive relationship between corporate diversification and a firm's performance. In this case, corporate diversification mediates between a firm's market power and performance. With institutional investors in the picture, they are known to have a say in the type as well as risk level to be tolerated in relation to investment decisions (Al-Thuneibat, 2018). In this case, institutional investors determine diversification as an investment strategy adopted by the firm. Therefore, market power theory formed the basis of conceptualizing institutional ownership, corporate diversification, and financial performance.

Outstandingly, institutional investors aid a firm in supporting the active monitoring view (Demiralp, D'Mello, Schlingemann, & Subramaniam, 2011); (Boone & White, 2015; Lin & Fu, 2017) enhancing shareholder value (Lin & Fu, 2017), management disclosure, liquidity and attracting more analysts to the firm (Boone & White, 2015). However, there is a need to consider the capital-intensive nature of corporate diversification as a strategy to elevate not only the investor's wealth but also the performance of the firm. To finance their investments, a firm chooses between debt and equity. However, a firm is warned against using too much debt as it can lead to asset substitution and even conflicts between agents and bondholders (Jensen & Meckling, 1976). According to (Baker & Wurgler, 2002), the choice of financing is guided by market timing which is regarded as the 'first order determinant' of capital structure.

Thus, a suitable form of financing is selected which is found valuable in the financial market at a particular point in time. MTT posits that a firm will issue equity instead of raising capital using debt when the market value is high compared to book value. In addition, equity is issued at a time when the related costs are low. If the market value is low and costs associated with the issue are high, the firm will opt to repurchase equity. Furthermore, equity will be issued at the time when investors are showing eagerness about earnings in future (Denis & Sarin, 2001);(Baker & Wurgler, 2002). In the study, MTT was therefore relevant as both investment and financing decisions are to be made in the firm. MTT thus formed a basis of conceptualizing the moderating role of capital structure in the relationship between institutional ownership and corporate diversification among firms listed at NSE in Kenya.

Relationship between Institutional Ownership and Financial Performance

Notably, institutional investors' behavior varies hence the variation in their effect on firm performance. Active investors have long-term investment horizons (Chen, Harford, & Li, 2007) and are therefore more apparent when it comes to firm performance (Sahut & Gharbi, 2010). Myopic on the other hand have shorter investment horizons (Dong & Ozkan, 2008) while passive investors unlike active have not only investment but also business relations with the firm (Chen et al., 2007). Regardless of their behaviors, their pros and cons according to (Al-Thuneibat, 2018) could affect performance as a whole. Therefore, several researchers have found a chance to analyze the institutional ownership - performance linkage. In the process, institutional ownership has been found to positively (Thomsen & Pedersen, 2000; Fazlzadeh et al., 2011; Masry, 2016; Zhang & Kyaw, 2016) relate with firm's performance. Furthermore, (Zraiq & Fadzil, 2018) reported a positive but insignificant while (Bhattacharya & Graham, 2009),(Saleh, Zahirdin, & Octaviani, 2017) found adverse and partial relationship respectively between institutional ownership and financial performance. Other than performance, institutional ownership has been positively linked to corporate diversification (Gharbi & Jarboui, 2017). Moreover, institutional investors have been found to have positive (Brailsford et al., 2002; Huang et al., 2011;Pirzada et al., 2015) and negative (Çinko & Kasaboğlu, 2017) impact on firm's capital structure. From these, it is of essence to note that most studies have examined direct relationship given institutional ownership and other variables as firm's performance, corporate diversification and capital structure hence the gap. The study sought to examine the effect of institutional ownership on performance given both the moderating and mediating role of capital structure.

Mediating Role of Corporate Diversification

In listed firms, different types of shareholders are attracted once the shares are floated to the general public. For this reason, more equity capital is raised as well as the creation of an ownership structure. According to market power theory, a firm's performance is driven by market power attained through diversification. In relation to listed firms, therefore, their power rests on its ownership structure. With their intensity of equity investment, institutional investors have control (Gomez, 2014). This in turn could be used in advocating for improved performance in the firm. Despite their diverse motivation, capabilities, and control (Hautz, Mayer, & Stadler, 2013), shareholders are brought together by strategies that seek to boost financial performance in the firm. As one of the investment strategies, institutional investors can drive up performance. In most studies, corporate diversification has been used as an

independent variable given capital structure (Monteforte & Staglianò, 2015; Jouida & Hellara, 2018) and as well firm's performance (Phung & Mishra, 2016);(Salma & Hussain, 2018). While examining the capital structure of the firm, corporate diversification was treated as a dependent variable (Goranova et al., 2007; Phung, Phan, Nguyen, & Le, 2016; Gharbi & Jarboui, 2017). Corporate diversification has been used as a moderator while investigating the relationship between capital structure and firm performance (Foong & Idris, 2012). On the other hand, (Ye, 2016) investigated whether there was any mediating effect of corporate diversification in the relationship between board heterogeneity and firm value. The existing gap in literature, therefore, led to the investigation of mediating role of corporate diversification between institutional ownership and financial performance of listed firms in Kenya.

Moderating Role of Capital Structure

Fundamentally, most decisions made regarding corporate diversification are capital intensive since a lot of financial resources are required. These financial resources can be raised internally given the equity capital which in this study refers to those by managerial, institutional, and foreign shareholders. Additionally, a firm can borrow funds in form of debt, equity, or both to finance its diversification strategies. Hence, the capital structure which comprises both equity and debt is vital. As much as the owners want to implement diversification, the capital structure of the firm interferes. From the reviewed literature, there exist a significant number of studies that sought to assess the effect of institutional ownership on capital structure (Pirzada et al., 2015; Çinko & Kasaboğlu, 2017). Other researchers have focused on establishing the relationship between corporate diversification and capital structure (Monteforte & Staglianò, 2015; Nzioka, 2017). In regards to the existing literature given institutional ownership and corporate diversification relationship, the study aimed at expounding further on the moderating effect of capital structure. In the long run, by examining the conditional effect of capital structure, the study was thus unique as it deviated from the current direct approach used by most researchers. Per se, the study hypothesized H₀₁; There is no moderating effect of capital structure on the indirect relationship between institutional ownership and financial performance through corporate diversification of firms listed at NSE in Kenya.

Conceptual Framework

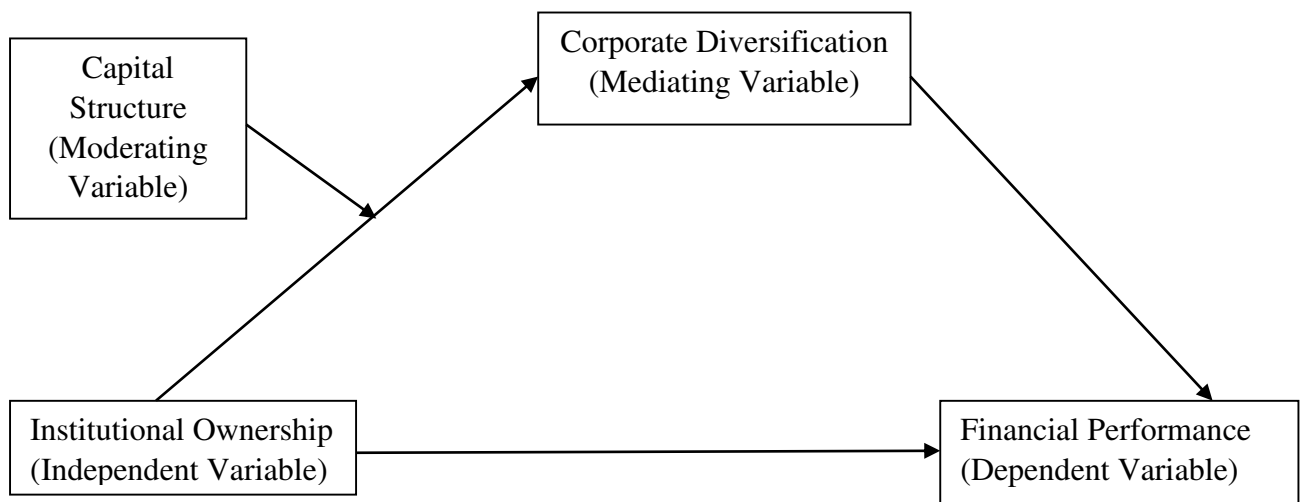


Figure 1: Conceptual Framework of the Study
Source: Researcher (2019)

METHODOLOGY AND PROCEDURES

The study was guided by a post-positivist research paradigm. This is because the research tested the hypothesis (Phillips & Burbules, 2000) while residing on the object of the study and not the researcher's conscience (Elshafie, 2013). The study aimed at establishing the relationship between institutional ownership, corporate diversification, capital structure, and financial performance of firms listed in Kenya. To meet this objective adequately, the explanatory research design was therefore adopted. The design was relevant as it gives a detailed description of the population and entails the use of secondary data (Creswell, 2014). Moreover, the design helped in understanding, explaining, predicting and controlling the relationships between variables. In this study, the criterion for inclusion was based on companies listed under various categories at the NSE, Nairobi Kenya. Listed firms formed the unit of analysis since they meet all the listing requirements by NSE compared to the unlisted. Document analysis research instrument was used as listed firms publish audited financial reports hence available to the general public. The number of firms listed at NSE has been increasing over time to a total of 65 in June 2019. Therefore, since the study period covers a period of fifteen years, the inclusion criteria was based on all firms listed at the NSE from 2003 to 2017. Firms that had been suspended or delisted were excluded leaving only 35 for analysis. This time frame of fifteen years was appropriate to give more observations (525) to test the study hypothesis and infer the findings. As such, audited financial reports yielded panel data from 35 firms selected from Agricultural, Automobile, and accessories, Banking, Commercial and Services, Construction and allied, Energy and Petroleum, Investment, Insurance, Manufacturing, and allied sectors.

RESULTS AND DISCUSSION

Panel data was collected and analyzed using R- software. Ideally, the gateway in the analysis was to compute summary descriptive statistics to give the synopsis of the panel data set under the study. Thus, the basic summary statistics were sample minimum, sample maximum, mean and standard deviation. Correlation analysis was done to determine the strength and direction of association between the study variables. Before estimating panel data models, univariate plotting was done. This helped in showing data and summarizing its distribution since panel or time series stochastic properties can be trending, random walk (drift) and both trend and drift (Kuhnert, Venables, & Zocchi, 2005). Lastly, diagnostics tests were done followed by a panel regression analysis approach was brought into play in testing the hypotheses. The study began by testing the direct effects of institutional ownership on financial performance. However, since many factors might strengthen or change the direction of a simple bivariate or multivariate cause and effect relationship (Hayes & Matthes, 2009) the study tested for indirect effects. Therefore to test indirect effects arising due to moderation, mediation and moderated mediation, bootstrapping procedure was followed as confidence intervals under this method have a double potential advantage over most hypothesis tests (Wood, 2003).

As a quantitative study, all study variables were measured leading to the generation of numbered data for statistical analysis and hypotheses testing. To begin with, financial performance as a dependent variable was measured using the modified Tobin's q formula by (Chung & Pruitt, 1994). Empirically, this indicator had been used by related studies like those by (Phung & Mishra, 2016), (Manyuru et al., 2017) and (Saleh et al., 2017). Secondly,

institutional ownership as a predictor variable was measured after the approach by (Saleh et al., 2017). In this case, institutional ownership was the summation of the percentage of shares owned by institutional investors from both financial and non-financial organizations. Thirdly, corporate diversification was defined in relation to the product (Doaei, Ahmad Anuar, & Ismail, 2014; Monteforte & Staglianò, 2015; Nzioka, 2017). For this reason, corporate diversification was measured using Jacquemin and Berry's Entropy approach. Notably, the same indicator was found to have been utilized in the studies by (Akpınar & Yigit, 2016; Krivokapic et al., 2017; Phung & Mishra, 2016). Lastly given the size of listed firms, capital raised from shareholders' equity might not be enough to meet all the diversification strategy demands. This might necessitate the firm to get some additional capital externally thereafter generating more earnings to owners in the future. The capital structure, therefore, is the mix of debt and equity which is utilized in financing the firm's operations (Modigliani & Miller, 1958). The study adopted the debt equity (D/E) ratio as an indicator of capital structure hence in line with studies by (Su, 2010) and (Shoaib & Yasushi, 2015). The following investigated panel regression analysis models were adopted to test the moderating effect of Capital Structure (CS) on the indirect relationship between Institutional Ownership (IO) and Financial Performance (FP) through Corporate Diversification (CD)

$$CD_{it} = a_1 IO_{it} + a_2 CS_{it} + a_3 (IO * CS)_{it} \dots\dots\dots 1$$

$$FP_{it} = \beta_0 + b_i CD_{it} + c' IO_{it} \dots\dots\dots 2$$

Moderated Mediation Index = $a_3 * b_i$

Direct effect = c'

Total effect = $c' + (a_3 * b_i)$

Descriptive statistics and correlation analysis

In relation to the results in Table 1, Financial Performance (FP) had a minimum and maximum of -0.33 and 29.833 respectively. Principally, since Tobin's q ratio was an indicator of financial performance, the minimum (-0.33) is less than 1 while the maximum (29.833) is greater than 1. Therefore, the minimum (-0.33) as described by Tobin (1969), (Chung & Pruitt, 1994) indicates that there exists less potential growth, worse investment opportunities, undervaluation of stock and poor management of assets under the command of management. Contrary to this, the maximum (29.833) portrays better investment opportunities, higher potential growth, overvaluation of stock, and proper management of assets in the firm. In most firms, the maximum percentage of ownership was totaling 87.14% compared to the minimum of 0.25%. The plausible explanation would be that most firms seek to enhance IO to derive benefits connected to this form of ownership structure. In terms of management, most firms prefer to have more institutional investors to attract analysts (Boone & White, 2015); (Lin & Fu, 2017), reduce insider ownership (Lin & Fu, 2017), enhance monitoring pressure (Del Guercio & Hawkins, 1999); (Boone & White, 2015); (Lin & Fu, 2017), increase management disclosure (Boone & White, 2015). Moreover, increased IO will give a hand in enhancing shareholder value (Lin & Fu, 2017), driving firm performance (Demiralp et al., 2011), determining the level of investment decisions in the firm taking into consideration risk, and return relationship (Al-Thuneibat, 2018).

Table 1 Descriptive Statistics and correlations

Mean	Std. Dev.	Min.	Max.	FP	IO	CD	CS
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FP	1.2059	2.0244	-0.33	29.833	1			
IO	34.4498	23.8492	0.25	87.14	0.0676	1		
CD	0.5877	0.4105	0	1.523	-0.3242**	-0.1834**	1	
CS	2.4493	3.4006	0	31.532	-0.1972**	-0.0764	0.2892**	1

** Correlation is significant at the 0.01 level (2-tailed)

Source: Author

The maximum value supports the view that CD is good for the firm as it boosts performance (Krivokapic et al., 2017), competitive advantage (Foong & Idris, 2012), create investment opportunities (Pawaskar, 1999) as well as reduces unsystematic risks associated with particular investments (Aggarwal & Samwick, 2003). CD is encouraged by some firms as it acts as a source of more compensation, power, and prestige to managers (Jensen, 1986);(Jensen & Murphy, 1990). Theoretically, maximum value supports the views of resource-based theory as CD help the firm in exploiting excess resources (Penrose, 1959). More importantly, CD is encouraged by some firms as it acts as a source of power to drive performance (Montgomery, 1994). In relation to CS, the minimum and maximum values of zero and 31.532 respectively were reported. As for agency theory proponents, the inability to use debt in the firm helps in reducing agency conflicts given to the debt holders (Jensen & Meckling, 1976). Moreover, such firms may have greater investment opportunities thus use more equity capital in the process as pointed out by (Jensen, 1986). Other than having a minimum debt to equity ratio, some firms were found to have a maximum of 31.532. This implies there were firms with huge amount of debt during the study period. This supports the observations that firms require more debt as opposed to equity as they mature (Hovakimian, Opler, & Titman, 2001) and given more growth opportunities at hand (Datta, Iskandar-Datta, & Raman, 2005).

The results presented in Table 1 showed an insignificant positive association between IO and FP ($r = 0.0676, p > 0.01$) is in line with the outlook put across by (Hussain - Tahir, 2015). This shows that IO can be used to predict a positive firm's financial performance trend in the future. From the results, there was a significant negative correlation between CD and FP ($r = -0.3242, p < 0.01$). This implies that as firm implements diversification strategies, FP does not improve but instead decline as affirmed also by (Pavić & Pervan, 2010) and (Phung & Mishra, 2016) A weak negative but significant association between CD in relation to IO was confirmed by $r = -0.1834, p < 0.01$. This implies that since institutional investors are known to affect the level and risk of investment decisions (Al-Thuneibat, 2018), most firms would avoid them hence reducing their number. The association between CS and IO was insignificant and negative ($r = -0.0764, p > 0.01$). This implies that as IO increases, the firm's leverage decreases thus supporting the finding by (Çinko & Kasaboğlu, 2017). Last but not least, a significant positive association was documented between the firm's CS and CD as indicated by $r = 0.2892, p < 0.01$. Thus in support of (Singh, Davidson III, & Suchard, 2003), more financial resources in form of debt and or equity is required as corporate diversification increases.

Panel Unit Root Test

Data sets in real life are not stationary hence resulting in unexpected behavior even though most forecasting assumes that distribution has stationary (Nason, 2013; Shumway & Stoffer, 2017) Hence, panel data points are weakly stationary in nature, that is, those data-points which have constant mean μ , constant variance σ^2 and constant auto-covariance. Above all, unit root

cause problems in statistical inference hence the need to test its presence. To have a robust estimation of variables, the study employed pane unit root tests as Harris-Tzavalis, Levin, Lin and Chu (LLC) and Im, Pesaran and Shin (IPS). From Table 2, null hypothesis was rejected and concluded that all study variables were stationary at levels (p-values for all tests < 0.05). Thus, estimating panel models with variables that were not differenced increased degrees of freedom and therefore better results.

Table 2: Test for Stationarity of the Panel Data

LLC	Time trend included	CS	IO	CD	FP
	t-statistic	-2.1344	-10.1991	-2.5530	-4.1496
	p-value	0.0164	0.0000	0.0053	0.0000
	Time trend not included				
	t-statistic	-1.8673	-12.9750	-4.5541	-5.7228
	p-value	0.0409	0.0000	0.0000	0.0000
Harris-Tzavalis	Time trend included				
	z-statistic	-13.7195	-32.6103	-21.3611	-22.9649
	p-value	0.0000	0.0000	0.0000	0.0000
	Time trend not included				
	z-statistic	-23.5034	-53.8587	-35.6960	-36.7596
	p-value	0.0000	0.0000	0.0000	0.0000
IPS	Time trend included				
	z-statistic	-6.9637	-15.4345	-11.8102	-10.8979
	p-value	0.0000	0.0000	0.0000	0.0000
	Time trend not included				
	z-statistic	-5.9333	-15.4147	-11.5979	-9.8590
	p-value	0.0000	0.0000	0.0000	0.0000

* Ho; All panels contain a unit root

Source: Author

Diagnostic tests

Residuals or error terms arise from the difference between the observed value of the dependent and independent variable. In this study, Shapiro - Wilk W test was found to be appropriate as it can handle samples size of less than 50 but up to 2000. The data was found to be normally distributed as all p-values were greater than 0.05. The Variance Inflation Factor (VIF) measures the impact of collinearity among the variables in a regression model. The VIF which is 1/Tolerance was found to be less than 10. This implied that there was no collinearity between the study independent variables. Variances of residuals were homogeneous according to Breusch-Pagan/Cook-Weisberg test. Durbin- Watson statistic fell within the acceptable range of between 0 and 4. It was therefore concluded that residuals or errors were independent.

Plots of Univariate Properties

Before estimating panel models, this research plotted each variable under this study to understand the nature of the variables. Panel or time series stochastic properties can be trending, random walk (drift) and both drift and trend. The results in Figure 2 showed that all the variables exhibited drifts. The possible implication is that past movement cannot be used to predict the future movement of the variables.

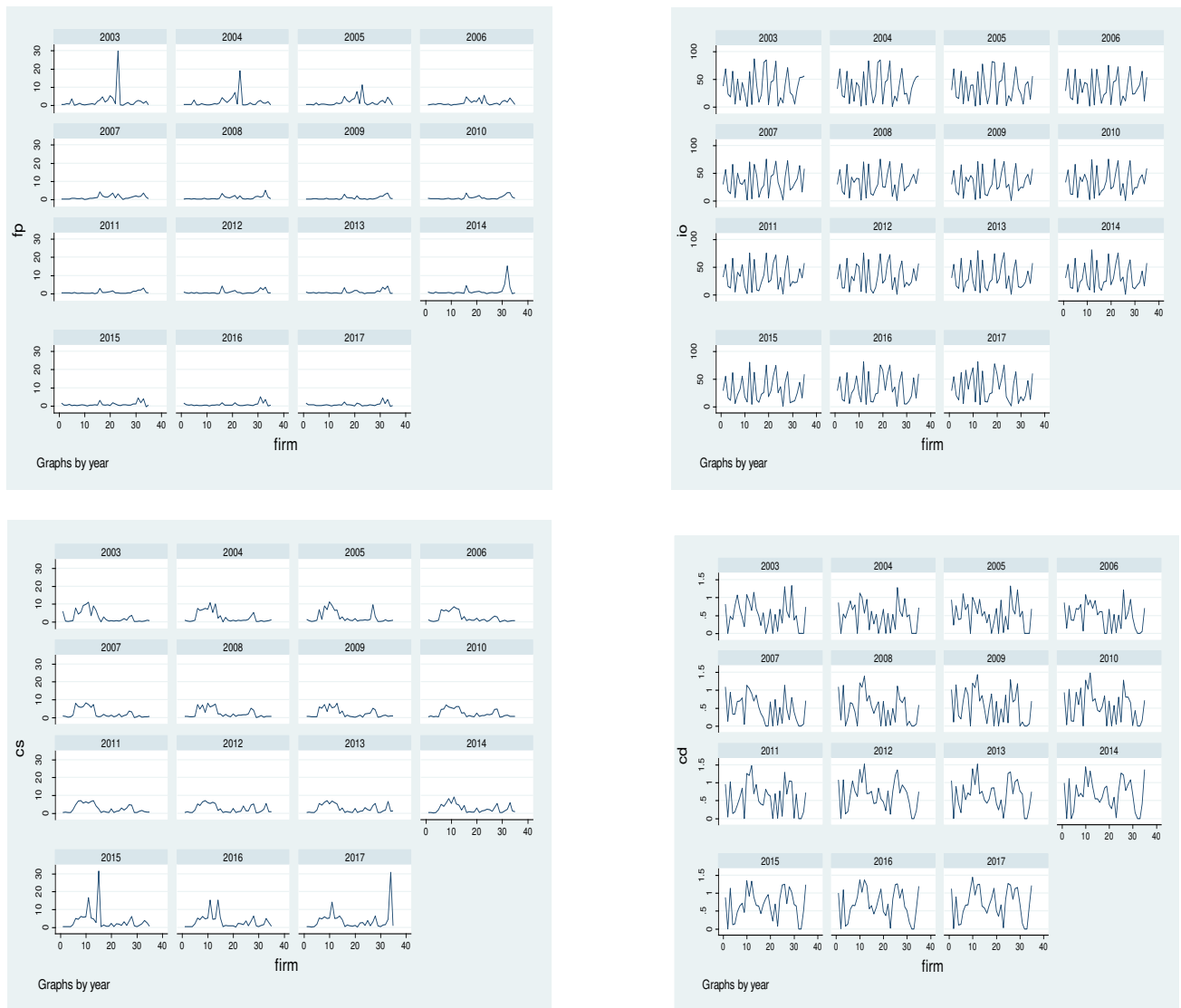


Figure 2: Plots of Univariate Properties

Testing the Moderated Mediation Effects

The integration of moderated and mediation analysis also known as the analysis of moderated mediation in conditional process analysis is used when one's analytical goal is to describe and understand the conditional nature of the mechanism by which a variable transmits its effect on another using ordinary least squares (OLS) regression-based path analysis (Hayes, 2017). It covers the estimation of various classes of models which allow indirect and or direct effects to be moderated. The study aimed at estimating the moderating effect of CS on the indirect relationship between IO and FP through CD. In Table 3, the relationship between CD and the interaction (or moderation of Capital Structure and Institutional Ownership, IO*CS) was positive ($\beta = .001$) and also statistically significant (p-value = $.000 < .05$ level of significance). Thus, one unit increase in the interaction (IO*CS) leads to a change in CD by 0.001 units. It was found that the indirect effect was negative ($\beta = -.002$) and significant with probability (p-value = $.000 < .05$). The hypothesis H_{01} ; There is no moderating effect of capital structure on the indirect relationship between institutional ownership and financial performance through corporate diversification of firms listed at NSE in Kenya was rejected and the study concluded

that there is the moderating effect of Capital Structure on the indirect relationship between Institutional ownership and firm's financial Performance through corporate diversification.

Table 3: Moderating effect of Capital Structure on the indirect relationship between Institutional Ownership and Financial Performance via Corporate Diversification

Variables	Estimate	Std. Error	z-value	P(> z)
CD~				
IO	-0.00587	0.0009	-6.357	0.000
CS	0.00564	0.00734	0.769	0.442
Interaction (CS*IO)	0.0011	0.00023	4.789	0.000
Intercept	0.6846	0.0355	19.260	0.000
FP~				
CD	-1.5911	0.2077	-7.660	0.000
IO	0.00072	0.0036	0.201	0.841
Intercept	2.1163	0.2064	10.254	0.000
Defined Parameters				
Indirect Effects	-0.002	0.0005	-4.075	0.000
Direct Effects	0.001	0.0049	0.201	0.841
Total Effects	-0.001	0.0035	-0.285	0.775

Source: Researcher's Computation, 2019. R Output Results

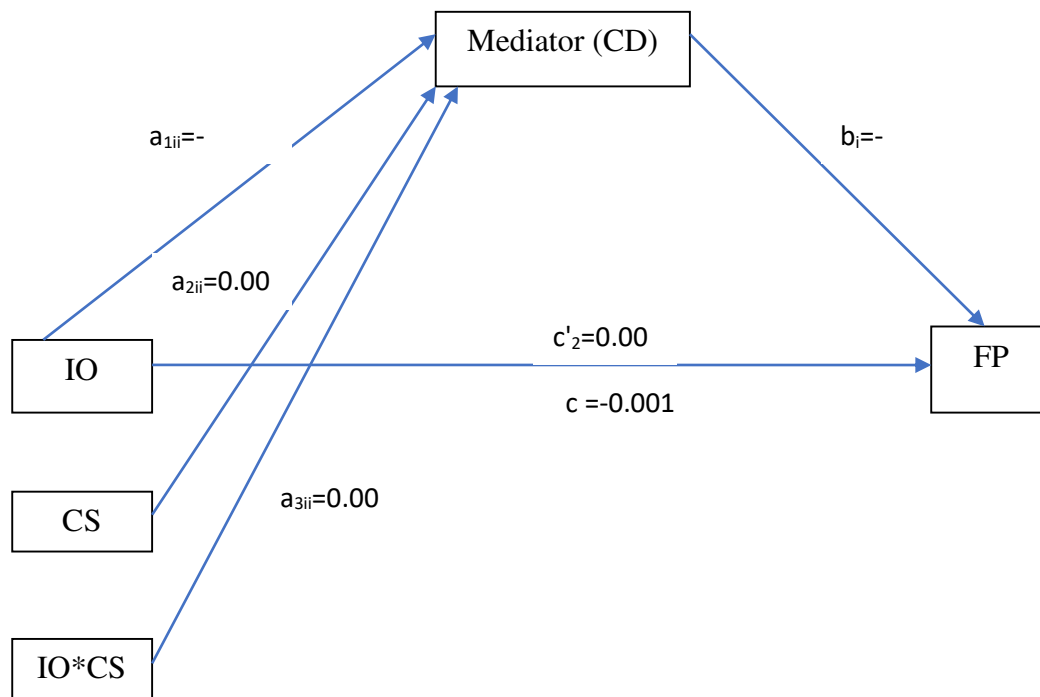


Figure 3: Statistical Path Diagram

Key: IO (Institutional Ownership), CD (Corporate Diversification), CS (Capital Structure), IO*CS (Interaction between Institutional Ownership and Capital Structure), FP (Financial Performance)

The moderating effect of Capital Structure on the indirect relationship between Institutional Ownership and Financial Performance through Corporate Diversification can be fitted in regression equations 1 and 2 as follows;

$$CD_{it} = -0.006IO_{it} + 0.006CS_{it} + 0.001(IO * CS)_{it} \dots\dots\dots 1$$

(0.0009) (0.00734) (0.00023)

$$FP_{it} = 2.1163 - 1.591CD_{it} + 0.001IO_{it} \dots\dots\dots 2$$

(0.2064) (0.2077) (0.0049)

Moderated mediation index of -0.002 is the product of coefficients of path a_3 and b_1 (0.001*-1.5911).

CONCLUSION AND SUGGESTION

The study successfully examined the moderating effect of capital structure on the indirect relationship between institutional ownership and financial performance through corporate diversification. Therefore, there was a significant interaction effect between capital structure and institutional ownership on financial performance through corporate diversification. The latter is viewed as a source of market power that is used in progressing the performance of the firm. Thus, market power theory reveals that a firm earns power through diversification which in turn affects financial performance. As a result, the theory put forth a positive relationship between corporate diversification and financial performance. The study extended market power theory by examining institutional ownership structure given that corporate diversification is not only a source of power to drive a firm's performance. Therefore, corporate diversification was used as a mediator between institutional ownership and financial performance. In the process, the relationship between corporate diversification as a mediator and a firm's performance was negative. The study had implications on Market timing theory which opines that market timing is a 'first order determinant' to aid in selecting a suitable form of financing given debt and equity. Ideally, the preferences of different owners in the firm would affect the choice between debt and equity financing. For instance, from an ownership structure perspective institutional owners have different opinions given the firm's capital structure and corporate diversification strategies. Given this, the study contributed to the market timing theory by going beyond selecting the form of financing. Instead, analysis was done on how components of capital structure (debt and equity) moderated the indirect relationship between institutional ownership and financial performance through corporate diversification.

From the results, the interaction of capital structure with institutional ownership structure led to listed firms diversifying more despite reaping less in terms of financial performance. Practically, the capital structure of the firm is increased by the equity capital paid in by institutional investors. This in turn provides adequate resources to pursue a diversification strategy. Given that interaction of capital structure and institutional ownership structure influence corporate diversification positively, the study suggests to the management of listed firms could first dig dip by carefully examining the motives of undertaking corporate diversification given interlinkage between firm's capital structure and institutional ownership structure. Secondly, before interaction with capital structure, the management of listed firms could turn to ownership structure by regulating the number of institutional investors. This might help in assessing the impact of institutional ownership structure once interaction with the capital structure on corporate diversification as well as financial performance as the ultimate outcome of the firm.

EAC has led to the formulation of the EASEA (Eastern Securities Exchange Association) and EASRA (East African Securities Regulatory Authority) as a way of promoting the performance of the stock market in member states. EASRA in particular is an enormous capital market regulator which allows firms in the EAC region to float their securities. Since CMA is a

member of EASRA, the study, therefore, suggests the utilization of the opportunity to allow firms list their securities in different stock exchanges found in EAC. This will go a long way in improving institutional ownership of firms and their financial performance in general. Moreover, the firm's capital structure will be enhanced given the equity capital raised through regional floating of securities. Given this, owners through management will manage to undertake diversification plans in the firm. To extend the model, future researchers could examine the moderating effect of capital structure on both direct and indirect relationships between institutional ownership and financial performance through corporate diversification. Future research studies could increase the scope by incorporating listed firms in East Africa Community as well as private firms. The focus could be directed on other measurement approaches and forms of diversification such as international, geographic, related, and unrelated other than the product. Institutional ownership could be examined by future studies in relation to shareholding size. More importantly, other types of ownership structure namely foreign, management, family and state ownerships could be examined. In addition, other measurement approaches of financial performance and capital structure could be utilized.

ACKNOWLEDGMENTS

I acknowledge the management of listed firms in Kenya at large. Indeed without the relevant documentation, data collection could have been impossible.

CONFLICT OF INTEREST:

The authors report no conflict of interest in this study.

FUNDING:

No funding received for this study.

REFERENCES

- Aggarwal, R. K., & Samwick, A. A. (2003). Why do managers diversify their firms? Agency reconsidered. *The Journal of Finance*, 58(1), 71-118. <https://doi.org/10.1111/1540-6261.00519>
- Al-Thuneibat, A. (2018). The Relationship between the Ownership Structure, Capital Structure and Performance. *Jabm Journal Of Accounting-Business & Management*, 1(25), 1-20. <https://doi.org/10.14208/ebr.2013.03.02.001>
- Baker, M., & Wurgler, J. (2002). Market timing and capital structure. *The Journal of Finance*, 57(1), 1-32.
- Bhattacharya, P. S., & Graham, M. A. (2009). On institutional ownership and firm performance: A disaggregated view. *Journal of Multinational Financial Management*, 19(5), 370-394. <https://doi.org/10.1016/j.mulfin.2009.07.004>
- Boone, A. L., & White, J. T. (2015). The effect of institutional ownership on firm transparency and information production. *Journal of Financial Economics*, 117(3), 508-533. <https://doi.org/10.1016/j.jfineco.2015.05.008>
- Brailsford, T. J., Oliver, B. R., & Pua, S. L. (2002). On the relation between ownership structure and capital structure. *Accounting & Finance*, 42(1), 1-26. <https://doi.org/10.1111/1467-629X.00001>
- Chen, X., Harford, J., & Li, K. (2007). Monitoring: Which institutions matter? *Journal of Financial Economics*, 86(2), 279-305.
- Chung, K. H., & Pruitt, S. W. (1994). A simple approximation of Tobin's q. *Financial management*, 70-74.

- Çinko, M., & Kasaboğlu, O. T. (2017). A study of the relationship between institutional ownership and Capital structure: Evidence from Turkey. *Marmara İktisat Dergisi*, 1(2), 155-170. <https://doi.org/10.24954/mjecon.2017.9>
- Creswell, J. W. (2014). *A Concise Introduction To Mixed Methods Research*: SAGE publications.
- Datta, S., Iskandar-Datta, M., & Raman, K. (2005). Managerial stock ownership and the maturity structure of corporate debt. *The Journal of finance*, 60(5), 2333-2350. <https://doi.org/10.1111/j.1540-6261.2005.00800.x>
- Del Guercio, D., & Hawkins, J. (1999). The motivation and impact of pension fund activism. *Journal of Financial Economics*, 52(3), 293-340. [https://doi.org/10.1016/S0304-405X\(99\)00011-2](https://doi.org/10.1016/S0304-405X(99)00011-2)
- Demiralp, I., D'Mello, R., Schlingemann, F. P., & Subramaniam, V. (2011). Are there monitoring benefits to institutional ownership? Evidence from seasoned equity offerings. *Journal of Corporate Finance*, 17(5), 1340-1359. <https://doi.org/10.1016/j.jcorpfin.2011.07.002>
- Denis, D. J., & Sarin, A. (2001). Is the market surprised by poor earnings realizations following seasoned equity offerings? *Journal of financial and quantitative analysis*, 36(2), 169-193. <https://www.jstor.org/stable/2676270>
- Doaei, M., Ahmad Anuar, M., & Ismail, Z. (2014). Diversification and financial performance in Bursa Malaysia. *International Journal of Management and Business Research*, 4(4), 309-317.
- Dong, M., & Ozkan, A. (2008). Institutional investors and director pay: An empirical study of UK companies. *Journal of Multinational Financial Management*, 18(1), 16-29. <https://doi.org/10.1016/j.mulfin.2007.06.001>
- Elango, B., Ma, Y. L., & Pope, N. (2008). An investigation into the diversification–performance relationship in the US property–liability insurance industry. *Journal of Risk and Insurance*, 75(3), 567-591. <https://doi.org/10.1111/j.1539-6975.2008.00275.x>
- Elshafie, M. (2013). Research Paradigms: The Novice Researcher's Nightmare. *Arab World English Journal*, 4(2).
- Fazlzadeh, A., Hendi, A. T., & Mahboubi, K. (2011). 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*, 6(3), 249. <https://doi.org/10.5539/ijbm.v6n3p249>
- Foong, S.-Y., & Idris, R. (2012). Leverage, product diversity and performance of general insurers in Malaysia. *The Journal of Risk Finance*, 13(4), 347-361. <https://doi.org/10.1108/15265941211254462>
- Gharbi, M., & Jarboui, A. (2017). Institutional investors' role in diversifying orientation decision across Tunisian companies. *Cogent Economics & Finance*, 5(1), 1244873. <https://doi.org/10.1080/23322039.2016.1244873>
- Gomez, O. (2014). Corporate Risk Taking and Financial Crisis: The Role of Institutional Investors. *Transformations in Business & Economics*, 13(1), 31.
- Goranova, M., Alessandri, T. M., Brandes, P., & Dharwadkar, R. (2007). Managerial ownership and corporate diversification: A longitudinal view. *Strategic Management Journal*, 28(3), 211-225. <https://www.jstor.org/stable/20142435>
- Hautz, J., Mayer, M. C., & Stadler, C. (2013). Ownership identity and concentration: A study of their joint impact on corporate diversification. *British Journal of Management*, 24(1), 102-126. <https://doi.org/10.1111/j.1467-8551.2011.00792.x>
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Publications.

- Hayes, A. F., & Matthes, J. (2009). Computational procedures for probing interactions in OLS and logistic regression: SPSS and SAS implementations. *Behavior research methods*, 41(3), 924-936. <https://doi.org/10.3758/BRM.41.3.924>
- Hovakimian, A., Opler, T., & Titman, S. (2001). The debt-equity choice. *Journal of financial and quantitative analysis*, 36(1), 1-24. <https://www.jstor.org/stable/2676195>
- Huang, B.-Y., Lin, C.-M., & Huang, C.-M. (2011). The influences of ownership structure: Evidence from China. *The Journal of Developing Areas*, 209-227. <https://www.jstor.org/stable/23215271>
- Hussain Tahir, S. (2015). Institutional ownership and corporate value: evidence from Karachi stock exchange (KSE) 30-index Pakistan. *Praktični menadžment: stručni časopis za teoriju i praksu menadžmenta*, 6(1), 41-49.
- Iqbal, A., Hameed, I., & Qadeer, M. (2012). Impact of diversification on firms' performance. *American Journal of Scientific Research*, 80, 42-53. <https://doi.org/10.1016/j.ijhm.2011.03.011>
- Iswatia, S., & Anshoria, M. (2007). *The influence of intellectual capital to financial performance at insurance companies in Jakarta Stock Exchange (JSE)*. Paper presented at the Proceedings of the 13th Asia Pacific Management Conference, Melbourne, Australia.
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American economic review*, 76(2), 323-329. <https://www.jstor.org/stable/1818789>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Jensen, M. C., & Murphy, K. J. (1990). Performance pay and top-management incentives. *Journal of political economy*, 98(2), 225-264.
- Jouida, S., & Hellara, S. (2018). Diversification, capital structure, and performance: A simultaneous equation approach. *Managerial and Decision Economics*, 39(2), 117-130.
- Krivokapic, R., Njegomir, V., & Stojic, D. (2017). Effects of corporate diversification on firm performance: evidence from the Serbian insurance industry. *Economic research-Ekonomska istraživanja*, 30(1), 1224-1236. <https://doi.org/10.1080/1331677X.2017.1340175>
- Kuhnert, P., Venables, B., & Zocchi, S. S. (2005). *An introduction to R: software for statistical modelling & computing*: USP/ESALQ/LCE.
- Lee, C.-C., Hsieh, M.-F., & Yang, S.-J. (2014). The relationship between revenue diversification and bank performance: Do financial structures and financial reforms matter? *Japan and the World Economy*, 29, 18-35. <https://doi.org/10.1016/j.japwor.2013.11.002>
- Leech, D., & Leahy, J. (1991). Ownership structure, control type classifications and the performance of large British companies. *The Economic Journal*, 101(409), 1418-1437.
- Lin, Y. R., & Fu, X. M. (2017). Does institutional ownership influence firm performance? Evidence from China. *International Review of Economics & Finance*, 49, 17-57.
- Manyuru, A., Wachira, M., & Amata, E. (2017). The impact of corporate diversification on firm value in Kenya. *African Journal of Business Management*, 11(11), 241-249. <https://doi.org/10.5897/AJBM2017.8275>
- Marinelli, F. (2011). The relationship between diversification and firm's performance: Is there really a causal relationship. *IESE Business School, University of Navarra Working Paper*, 907.
- Masry, M. (2016). The Impact of Institutional Ownership on the Performance of Companies Listed In the Egyptian Stock Market. *IOSR Journal of Economics and Finance (IOSR-JEF)*, 7, 5-15.

- Menéndez-Alonso, E. J. (2003). Does diversification strategy matter in explaining capital structure? Some evidence from Spain. *Applied Financial Economics*, 13(6), 427-430. <https://doi.org/10.1080/09603100210150930>
- Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American*, 1, 3. <https://www.jstor.org/stable/1809766>
- Monteforte, D., & Staglianò, R. (2015). Firm complexity and capital structure: Evidence from Italian diversified firms. *Managerial and Decision Economics*, 36(4), 205-220. <https://doi.org/10.1002/mde.2660>
- Montgomery, C. (1994). *Corporate Diversification: The Journal of Economic Perspectives*. Oxford University Press.
- Nason, G. (2013). A test for second-order stationarity and approximate confidence intervals for localized autocovariances for locally stationary time series. *Journal of the Royal Statistical Society: Series B (Statistical Methodology)*, 75(5), 879-904. <https://www.jstor.org/stable/24772471>
- Nzioka, S. (2017). *The Relationship between Diversification Strategies and Capital Structure of Non-Financial Firms Listed At the NSE*. KCA University.
- Oyekunle Oyewobi, L., Olukemi Windapo, A., & Cattell, K. S. (2013). Impact of business diversification on South African construction companies' corporate performance. *Journal of Financial Management of Property and Construction*, 18(2), 110-127. <https://doi.org/10.1108/JFMPC-12-2012-0045>
- Pavić, I., & Pervan, M. (2010). Effects of corporate diversification on its performance: The case of Croatian non-life insurance industry. *Ekonomika misao i praksa*(1), 49-66.
- Penrose, E. T. (1959). *The theory of the growth of the firm*. Oxford University Press. <https://doi.org/10.1093/0198289774.001.0001>
- Phillips, D. C., & Burbules, N. C. (2000). *Postpositivism and educational research*. Rowman & Littlefield.
- Phung, D. N., & Mishra, A. V. (2016). Ownership structure and firm performance: Evidence from Vietnamese listed firms. *Australian Economic Papers*, 55(1), 63-98. <https://doi.org/10.1111/1467-8454.12056>
- Phung, D. N., Phan, T. B. N., Nguyen, T. L. H., & Le, T. P. V. (2016). Ownership structure and corporate diversification decision: a study of Vietnamese listed firms. *Corporate Ownership & Control*, 227. <https://doi.org/10.22495/cocv13i3c1p9>
- Pirzada, K., Mustapha, M. Z. B., & Wickramasinghe, D. (2015). Firm Performance, Institutional Ownership and Capital Structure: A Case of Malaysia. *Procedia-Social and Behavioral Sciences*, 211, 170-176. <https://doi.org/10.1016/j.sbspro.2015.11.025>
- Sahut, J.-M., & Gharbi, H. O. (2010). Institutional Investors' Typology and Firm Performance: The Case of French Firms. *International Journal of Business*, 15(1), 33.
- Saleh, M., Zahirdin, G., & Octaviani, E. (2017). Ownership structure and corporate performance: evidence from property and real estate public companies in Indonesia. *Investment Management & Financial Innovations*, 14(2), 252. [https://doi.org/10.21511/imfi.14\(2-1\).2017.10](https://doi.org/10.21511/imfi.14(2-1).2017.10)
- Salma, U., & Hussain, A. (2018). A Comparative Study on Corporate Diversification and Firm Performance across South Asian Countries. *Journal of Accounting & Marketing*, 7, 1-7. <http://dx.doi.org/10.15208/beh.2015.10>
- Shoaib, K., & Yasushi, S. (2015). Capital structure and managerial ownership: Evidence from Pakistan. *Business and Economic Horizons (BEH)*, 11(1232-2016-101199), 131-142. <http://dx.doi.org/10.15208/beh.2015.10>
- Shumway, R. H., & Stoffer, D. S. (2017). *Time series analysis and its applications: with R examples*: Springer.

- Singh, M., Davidson III, W. N., & Suchard, J.-A. (2003). Corporate diversification strategies and capital structure. *The Quarterly Review of Economics and Finance*, 43(1), 147-167. [https://doi.org/10.1016/S1062-9769\(02\)00124-2](https://doi.org/10.1016/S1062-9769(02)00124-2)
- Su, L. D. (2010). Ownership structure, corporate diversification and capital structure: Evidence from China's publicly listed firms. *Management Decision*, 48(2), 314-339. <https://doi.org/10.1108/00251741011022644>
- Thomsen, S., & Pedersen, T. (2000). Ownership structure and economic performance in the largest European companies. *Strategic Management Journal*, 21(6), 689-705. <https://www.jstor.org/stable/3094306>
- Wood, M. (2003). *Making sense of statistics: a non-mathematical approach*. Macmillan International Higher Education.
- Zhang, H., & Kyaw, K. (2016). Ownership structure and firm performance: An empirical analysis of Chinese companies. *Applied Economics and Finance*, 4(2), 57-64. <https://doi.org/10.11114/aef.v4i2.2109>
- Zraiq, M. A. A., & Fadzil, F. H. B. (2018). The impact of ownership structure on firm performance: Evidence from Jordan. *International Journal of Accounting, Finance and Risk Management*, 3(1), 1-4.