Copernican Journal of Finance & Accounting

2019, volume 8, issue 3

e-ISSN 2300-3065
p-ISSN 2300-1240

Oke, L.A., Saheed, D.O., & Quadri, Y.O. (2019). An empirical analysis of corporate capital structure and financial performance of listed conglomerates in Nigeria. Copernican Journal of Finance & Accounting, 8(3), 93–112. http://dx.doi.org/10.12775/CJFA.2019.014

Lukman Adebayo Oke*
Kwara State University

Daud Omotosho Saheed**
Kwara State University

Yusuf Olamilekan Quadri***
Kwara State University

AN EMPIRICAL ANALYSIS OF CORPORATE CAPITAL STRUCTURE AND FINANCIAL PERFORMANCE OF LISTED CONGLOMERATES IN NIGERIA

Keywords: corporate, capital structure, financial performance, conglomerates, ROA, panel data.

J E L Classification: G30, G32, L22, L25, C23.

Abstract: The relationship between capital structure and firms' financial performance has attracted the attention of many researchers both locally and globally. The paucity

Date of submission: August 16, 2019; date of acceptance: October 19, 2019.

* Contact information: okelukman2003@yahoo.com, Department of Accounting and Finance, Kwara State University, Malete, Nigeria, phone: +2348034305255; ORCID ID: https://orcid.org/0000-0003-2019-989X.

** Contact information: oshoprints@gmail.com Department of Accounting and Finance, Kwara State University, Malete, Nigeria, phone: +2347036215657; ORCID ID: https://orcid.org/0000-0003-1365-2860.

*** Contact information: quadyu@yahoo.com Department of Accounting and Finance, Kwara State University, Malete, Nigeria, phone: +2348065587154; ORCID ID: https://orcid.org/0000-0002-3755-7924.

of empirical evidence from Nigeria in this regard, especially on Nigerian conglomerate firms, portends the need for further research. Against this backdrop, the study investigated the impact of capital structure on the financial performance of listed conglomerates in Nigerian using descriptive statistics, pairwise correlation and panel data regression technique to analyze the secondary data extracted from the annual reports and accounts of the six (6) selected conglomerates for the period 2008 to 2017. The study found that financial leverage proxy by total debt ratio, long-term debt ratio and short-term debt ratio have significant impact on the selected firms' financial performance proxy by return on assets, except debt to equity ratio that reveals an insignificant impact on return assets (ROA). Firm size and growth also reported a significant effect on the financial performance of the selected firms. The findings is in tandem with the proposition of the agency cost theory in the Nigeria settings but with caution considering the facts that firms in Nigeria were largely finance through short term debt obligation as against long term debt funding that was presumed in the agency cost theoretical proposition. It is therefore recommended that managers of companies should be guided when seeking credit advances from the financial market as it is important when considering the appropriate capital mix that optimize firm value.

Introduction

An energetic and developed private sector that can serve as engine of growth and development is extremely essential in any country (Gwatidzo, 2009). As emerging countries endeavor to assemble their private sector, absence of sufficient capital as far as debt and equity may block the growth and survival of organizations particularly in Africa. Because of this constraint, firms endeavor to ensure they join accessible various kinds of debt and equity in an ideal way that can ensure the maximization of investors' wealth or minimized the weighted cost of capital. This proposes that capital structure may influence firm value (performance). This is a finished takeoff from the Modigliani and Miller (1958; 1963) proposition that the diverse mix of obligation and value (capital structure) does not influence firm value. Modigliani and Miller (1958) posit in their first proposition that the capital structure of the firm is autonomous of the firm value.

While the irrelevance capital structure hypothesis of Modigliani and Miller (1958) was accorded numerous criticisms because of its hopeful assumptions of no taxes, no transaction or issues costs, perfect market combined with the straightly related capital structure refinement (Modigliani & Miller, 1963), the agency cost theoretical model promoted by Jensen and Meckling (1976) expected that firms have ideal capital structure position they endeavor to accomplish. The optimal capital structure of the firm in the agency cost hypothetical model is the capital structure level that limits the organization cost and maximizes

the value of the firm. This infers capital structure choice of the firm as dynamic. The dynamic idea of capital structure recommends that capital structure of firms change crosswise over firms and time for example each firm in an industry for instance can change their capital structure after some time to guarantee the agency cost is minimized and value of the firm is maximized. More thus, capital structure is viewed as naturally dynamic instead of static. Firms regularly don't change immediate when settling on capital structure decision. There are transaction costs and adjustment procedures included when modifying capital structure towards the target level. Along these lines, empirical analyses of capital structure must be treated as a dynamic wonder instead of static.

The empirical proof on capital structure and firm performance especially in Nigeria is insufficient (see Adesola, 2009; Onaolapo & Kajola, 2010; Akintoye, 2009, Ebimobowei, Okay & Binaebi, 2013; Adesina, Nwidobie & Adesina, 2015; Yinusa, Ismail, Yulia & Olawale, 2019). More also, the few available studies failed to beam search light on the dynamic relationship between capital structure and firm performance. Most past investigations in the literature carried out static analyses of the effect of capital structure on firm performance inside the trade-off and pecking order hypothetical framework. Findings from the previous studies have been mixed and inconclusive. There are two fundamental strands of findings in the empirical literatures. Some study, for example, Berger, Mester (1997), John and Senbet (1998), Safieddine and Titman (1999), Harvey, Lins and Roper (2004), Abor (2008), Zeitun and Tian (2007), Majumdar and Sen (2010), San and Heng (2011), Salim and Yadav (2012) recorded positive relationship between leverage and firm performance. However, a few different studies report negative relationship. These studies include Armen, Gayane and Hassan (2004), Zeitun and Tian (2007), King and Santor (2008), Ebaid (2009), Asimakopoulos, Samitas and Papadogonas (2009), Majumdar and Sen (2010), Salim and Yadav (2012). Due to these empirical inconsistencies, the present studies adds to the capital structure literature by giving evidence from a developing business sector setting (Nigeria) and by inspecting the dynamic effect of capital structure on firm performance of listed conglomerates in Nigeria.

The significant contribution of this research work come from the utilization of panel data regression technique to analyse the relationship between capital structure and firm performance inside the agency cost theoretical model in an emerging nations describe with a few markets defects for example, information asymmetries, poor lenders and investors' protection and poor contract requirements contrasted with those in the surviving literature. The em-

pirical discoveries demonstrate that a moderate utilization of debt financing has a noteworthy beneficial outcome on firm performance, while inordinate utilization has a negative noteworthy impact on firm performance.

Literature review

Modigliani and Miller (1958) research work on the irrelevance of capital structure on firm value (consequently performance) and its later refinement on the relevance of capital structure (see Modigliani & Miller, 1963) established the frameworks for other contrasting theoretical forecasts. The trade-off theory loosened up the perfect market assumptions of Modigliani and Miller (1958) and foresee that capital structure is relevance for firm performance for reasons, for example, tax deductibility of debt interest and agency costs (Fosu, 2013). The agency cost theoretical model that is an augmentation of the dynamic trade-off theory by Jensen and Meckling (1976) proposes that there are two sorts of conflict of interest at the firm level. One is the conflict of interest among investors and managers and the other is the contention among managers and debtholders. They set that debt financing is utilized to determine the conflict of interest among managers and investors to alleviate manager's opportunistic conduct and other agency related issues. This tends to diminish the free cashflow that managers can use for advantages and perquisites by firm since it realizes debt responsibility that must be reimbursed to get together with debt commitments to counteract bankruptcy of the firm. Going bankrupt might be in all respects exorbitant for the administrators particularly when they have managerial shareholding in the organization. To hinder this sort of occasion, managers regularly endeavor to guarantee they get together with the debt taxes of the organization. Likewise, the managers would likewise work to maximize firm value through improve performance.

On the order hand, is the conflict between the investors and debt holders (see Harris and Raviv, 1991; Manos, 2001). The contention that emerges between these parties is more often than not because of risk of default (Margaritis & Psillaki, 2010). The risk of default regularly prompts an underinvestment (Myers, 1977). Stulz (1990) sets that debt financing by the firm exacerbates the underinvestment issue of the firm. The conflict between the debt holders and equity investors because of underinvestment is viewed as an tax of utilizing debt instead of advantage along these lines agency cost theory conjectures negative relationship between capital structure and firm performance. By and

large, the agency cost theory places monotonic relationship among leverage and firm performance.

The irrelevance of capital structure to firm performance theoretical recommendation was first tried empirically in the pioneering and research work by Modigliani and Miller (1958) allude later as (M&M). They tried the relationship between capital structure and firm value under the perfect market assumptions in the United States Petroleum, oil and power enterprises utilizing stage instrumental variable methodology. They observed value of firms not to be impact by their capital structure. After five years, Modigliani and Miller (1963) amended their past assumption of no taxes under the perfect market old style suspicion by joining corporate personal taxes into their model, on account of the tax deductibility of interest installment at the corporate level, capital structure was found to increasingly affect the estimation of firm. They noticed this is on the grounds that interest payment were deducted in touching base at the earning figure on which taxes is charged. They contended that these payments decrease the corporate tax liabilities. This corporate tax model declared that the estimation of firm will be at the highest with 100 percent utilization of leverage financing. Neither of these forecasts reflects reality of the world (Ismail, 2006). Once in a while would firms utilize 100 percent debt in their capital structure.

After fourteen years, Miller (1977) exhibited another model that fused personal income taxes to the existing corporate tax model. Their investigation affirmed that the corporate tax break of debt might be offset by the tax inconvenience of interest payment at the individual level. Miller (1977) conjectured that if individual tax rates on interest income are generally higher than the individual tax rates on equity, at that point the increases to corporate leverage can to a great extent be limited or even disposed of completely, subsequently returning to the irrelevance consequences of capital structure prior detailed in the MM (1958) work. Since Modigliani and Miller have held this position, a few empirical investigations have been led in the capital structure literature both in the energed and emerging economies to test the validity of the recommendation of relevant or irrelevance of capital structure to firm financial performance.

There is broad literature on the effect of capital structure on firm performance. The empirical findings of these investigations in the extant literature that have utilized datasets and tests of firms from emerged and emerging economies have listed mixed and inconclusive findings. For the purpose of this work, we center around the significant and relevant ones after the M&M empir-

ical investigations that test the agency cost theory of capital structure. We additionally reviewed research work that found empirical backings for different theories of capital structure especially studies that utilized datasets and sample of firms from emerging economies.

Berger and Bonaccorsi di Patti (2006) analyzed the relevance of the agency cost theory in the United States banking Industry the study revealed that higher leverage or a lower equity capital ratio is related with higher profit efficiency over nearly the whole range of the observed data of the study. Additional proof on the effect of capital structure on firm performance by Margaritis and Psillaki (2007) departed to a great extent from past studies that have researched the relationship between capital structure and firm performance including the novel work of Berger and Bonacorssi di Patti (2006). The study utilized the non-parametric efficiency measure that catch the companies' best practice production outskirts utilizing data envelopment strategy (DEA) and quantile regression technique to analyses the manner in which capital structure affect the performance crosswise over ranges of firms and contrasted the findings with OLS. These findings bolster the agency cost hypothesis that higher leverage lead to upgrade performance estimated by efficiency. Another fascinating and related investigation by Margaritis and Psillaki (2010) gives better understanding and empirical proof on how contending hypothesis may act at various fragments of the relevance data distribution and cautioning against the standard routine with regards to drawing derivations by capital structure considers that have used conditional mean (OLS) estimate. The investigation found support for the expectation of the Jensen and Meckling (1976) agency cost hypothesis. Higher leverage was found to prompt improved performance efficiency over the whole scope of the dataset.

In opposition to Berger and Bonaccorsi di Patti (2006) that utilized profit efficiency and Margaritis and Psillaki (2010) that measure efficiency utilizing X efficiency as measure of firm performance, Yeh (2011) utilized the double of X-efficiency to proxies performance of Banks in Taiwan in the investigation of capital structure and firm performance of Taiwanese firms. The stochastic frontier approach was utilized to decide cost efficiency as pointer of firm performance. The study contended that this technique is better than the information envelopment technique used by past studies to gauge profit efficiency since it considers maker explicit arbitrary stuns to create a moderately steady efficiency file for each firm. The investigation bolsters the agency cost theory of capital structure as the entries of other comparable studies that have utilized

efficiency as ratio of performance instead of financial performance (Berger & Bonaccorsi di Patti, 2006; Margaritis & Psillaki, 2007, 2010). The findings of the study demonstrated that lessening managerial shareholdings will diminish agency cost and increase firm value. To represent the effect of ownership structure on firm performance and how it communicates with capital structure. King and Santor (2008) inspect the relationship between possession structure, performance and capital structure. The assessed outcomes demonstrated that leverage is contrarily identified with performance of Canadian firms. Oppositely, positive relationship was accounted for among leverage and firm performance by Kim, Almas, Dany (2005) for Japanese huge business group.

Different studies in the extant literatures carried out from the viewpoint of emerging economies similarly revealed mixed findings. One of the remarkable studies was by Abor (2008). The study analyzes the relationship between capital structure and profit of listed firms in Ghana from 1998 to 2002. The findings of this study shows that significance positive relationship exist between short term debt ratio and profit for equity. Comparative positive outcome was accounted for between total debt to total equity capital and return equity. The findings of this investigation bolster the tradeoff theory. Notwithstanding, the findings similarly demonstrates that negative relationship exist between long term debt to total capital and the return on equity which supports the pecking order theory of capital structure.

Zeitun and Tian (2007) revealed significant negative outcome between capital structure and performance of Jordanian firms when accounting and markets measures were considered as proxies of performance. This finding is in congruence with the findings of Abor (2008) for Ghana and South Africa. They however, revealed statically significant positive relationship between capital structure and selected firm financial performance when capital structure was estimated short-term debt to total assets and the market measure (Tobin's Q) was used to proxy performance. Bandyopadyay (2005) also reports positive relationship among leverage and deals performance of India firms. But, the investigation by Onaolapo and Kajola (2010) reported signicant negative relationship among performance and debt ratio which they battled upheld the agency cost theory of capital structure.

Fosu (2013) examine the impact of capital structure on firm performance with focus on the level of product strategy of South African firms. The findings uncover that financial leverage has a positive and huge impact on firm performance and product market strategy helps in improving the performance

impact of leverage of South African firms. Later studies by Oino and Ukaegbu (2015) on Nigeria firms showed that profitability is adversely related with leverage. however, a present report by Bandyopadhyay and Barua (2016) on capital structure and firm performance in India showed that macroeconomic cycle fundamentally impact capital structure selection of firms which thus leverage their performance. In Morocco, Amraoui, Ye, Shinta and Hapzi (2017) studied the impact of capital structure of the 53 selected Moroccan companies from 2014–2016 using panel data regression technique. The study revealed a significance negative relation between capital structure and the selected Moroccan companies.

Recent evidence from Nigeria, Yinusa, Ismail, Yulia and Olawale (2019) investigated the impact of capital structure on firm performance in Nigeria as well as testing the possibility of non-monotonic relationship between capital structure and firm performance based on the prediction of the agency cost theory of capital structure. The study used 115 selected listed non-financial firms in Nigeria. Specifically, the paper employed the two step generalized method of moments (GMM) estimation method their findings shows that statistical significant relationship exist between capital structure and firm performance particularly when debt financing is moderately employed.

Scanty empirical evidence from Nigeria in this regard, especially on Nigerian conglomerate firms, portends the need for further research.

The research methodology and the course of the research process

1. Methodology

The study covers a period ten years (2008 to 2017) for six (6) conglomerates listed on the Nigerian Stock Exchange. The decision of the degree is based on information accessibility and to upgrade legitimacy. Financial administrations and speculation firms were prohibited with regards to the style in past investigations and in light of the fact that these companies have diverse announcing necessities and are all the more vigorously directed. As a result, this study employs secondary data available in the annual reports of listed conglomerates in Nigeria and the facts books published by the Nigerian Stock Exchange (NSE). As at the time of this study, only six conglomerates were listed on the floor of the Nigeria Stock Exchange and all of them were involved in the study.

Panel data estimation technique was adopted as it takes care of heterogeneity associated with individual company by allowing for individual specific variables. In order to achieve the research objective, researcher adapted the model of Onaolapo and Kajola (2010) which was specified base on the agency theory adopted as theoretical frameworks by researcher.

The model to be estimated becomes:

$$ROA_{i,t} = \beta_0 + \beta_1 TDTA_{i,t} + \beta_2 SDTA_{i,t} + \beta_3 LDTA_{i,t} + \beta_4 DER_{i,t} + \beta_1 GRWOP_{i,t} + SZE_{i,t} + \mu_{i,t} \ldots . \quad (1)$$

$\beta 0, \beta 1, \beta 2, \beta 3$ and $\beta 4$ parameters of estimation

Where*:*

$ROA_{i,t}$ = return on assets of firm i in year t
$TDTA_{i,t}$ = total leverage of firm i in year t
$SDTA_{i,t}$ = short term leverage of firm i in year t
$LDTA_{i,t}$ = long term leverage for firm i in year t
$DER_{i,t}$ = debt to equity ratio for firm I in year t
$SZE_{i,t}$ = Size (natural log of total assets) of the firm i in year t
$GRWOP_{i,t}$ = growth opportunities of firm i in year t
u_{it} = the error term

This can be expressed using mathematical notation as: $\beta 1, \beta 2, \beta 3$ & $\beta 4 < 0$ and $\beta 5$, & $\beta 6 > 0$

Variables Description

Table 1. Variables Measurement and *a priori* expectations

Variable	Determinants	Proxies	Measures	Notations	Expected sign
DEPENDENT	**PROFITABILITY**	**Return on assets**	**Profit after tax / Total Assets**	**ROA**	
INDEPENDENT VARIABLES	LEVERAGE RATIOS	Total leverage ratio (ratio of total debt to total assets)	Total Debt/Total Assets	TDTA	Negative(-)
		Short term leverage (ratio of short term debt to total asset)	short term debt / total assets	SDTA	Negative(-)

Table 1. Variables Measurement (cd.)

Variable	Determinants	Proxies	Measures	Notations	Expected sign
DEPENDENT	PROFITABILITY	Return on assets	Profit after tax / Total Assets	ROA	
INDEPENDENT VARIABLES	LEVERAGE RATIOS	Long Term leverage (ratio of long term debt to total asset)	long term debt / total assets	LDTA	Negative(-)
		Debt to Equity ratio	Total debt/total equity	DER	Negative(-)
	FIRM SIZE	Log of Total assets	Natural log of Total Assets	SZE	Positive(+)
	FIRMS GROWTH	Growth Opportunity	Change in log of total assets	GRWOP	Positive(+)

S o u r c e : authors' computation (2019).

2. Estimation and analyses

The results of the estimated model and findings are discussed in the context of outcomes from previous studies and the predictions of the agency cost theory of capital structure. We started by providing the statistical properties of the variables included in our model. Table 1 above defines the variables and their expected signs. Table 2 below presents the descriptive statistics.

Table 2. Descriptive Statistics of the Variables

Variable	Obs	Mean	Std. Dev.	Min	Max
roa	60	.018353	.0249304	-.016476	.15546
tdta	60	.6091837	.2000917	.121342	.967756
sdta	60	.1839378	.2116392	0	1.406169
ldta	60	.1928564	.2159786	.1033318	.8241141
der	60	.0106185	.0178668	-.020533	.1034181
grwop	60	.0319025	.0461828	-.0242415	.0879047
sze	60	1.024853	2.609783	.304372	3.286561

S o u r c e : authors' computation (2019).

The above table presents the descriptive statistics for the dependent variable (Return on assets) and explanatory variables (total debt to total assets ratio, short term debt to total assets ratio, long term debt to total assets ratio, debt to equity ratio, growth opportunity and size of selected conglomerate firms). From the table, return on assets has minimum and maximum values of -0.016476 and 0.15546 respectively and the mean value of 0.018353 as well as the standard deviation value of 0.0249304. The standard deviation of 0.0249304 signifies that the data deviate from the mean value from both sides by 0.0249304 implying that there is a wide dispersion of the data from the mean because standard deviation is higher than the mean value.

The table also shows that the mean of the total debt and total assets ratio (TDTA) of the selected firms is 0.6091837 with standard deviation of 0.7000917, and minimum and maximum values of 0.121342 and 0.967756 respectively. This implies that the performance of the firms in terms of total debt to total assets ratio is on average 0.6091837, and the standard deviation value indicates that total debt to total assets ratio of the sampled firms deviates from the mean value from both sides by 0.7000917, implying that there is significant dispersion of the data from the mean because the standard deviation is higher.

Short term debt to total assets ratio (SDTA) of the selected firms is 0.1839378 with standard deviation of 0.2116392. The minimum and maximum values are 0.0000 and 1.406169 respectively. This implies that Short term debt to total assets ratio of the sampled firms is on average 0.1839378, and the standard deviation value indicates that the value deviates from the mean from both sides by 0.2116392, implying that there is significant dispersion of the data from the mean because the standard deviation is larger than the mean.

Furthermore, the table shows that the mean of the long term debt to total assets ratio (LDTA) of the firms is 1.928564 with standard deviation of 2.159786. The minimum and maximum values are 1.033318 and 8.241141 respectively. This implies that long term leverage of the firms is on average 1.928564. The standard deviation indicates that the value of the firms long term debt to total assets ratio deviates from the mean value from both sides by 2.159786. This implies that there is significant dispersion of the data from the mean because the standard deviation is higher than the mean. Debt to Equity Ratio (DER) recorded a mean value of 0.0106185 with standard deviation of 0.0178668. The minimum and maximum values are -0.20533 and 0.1034181 respectively. The standard deviation indicates that the value of debt to equity ratio of the firms deviates from the mean value from both sides by 0.0178668. This further im-

plies that there is widely dispersed data from the mean because the standard deviation is large.

Growth opportunity (GRWOP) of the selected firms reported a mean value of 0.319025 with standard deviation of .04618283. The minimum and maximum values are -0.0242415 and 0.0879047 respectively. This implies that growth opportunity of the sampled firms is on average 0.0319025, and the standard deviation value indicates that the value deviates from the mean from both sides by 0.0461828, implying that there is significant dispersion of the data from the mean because the standard deviation is larger than the mean.

Finally, the table portrays that the selected conglomerate firms size (SZE)' has a mean value of 1.024853 with standard deviation of 2.6097831. The minimum and maximum values are -0.8004 and 6.481673 respectively. The standard deviation indicates that the value of size of the firms deviates from the mean value from both sides by 2.6097831 implying that there is a significant dispersion of the data from the mean because the standard deviation is larger than the mean.

Pairwise correlation

Table 3 summarizes the results of correlation analyses among the variables. This exercise served two important purposes. First is to determine whether there are bivariate relationship between each pair of the dependent and independent variables. The second is to ensure that the correlations among the explanatory variables are not so high to the extent of posing multi-collinearity problems.

Table 3. Pairwise Correlation

Variables	Roa	Tdta	Sdta	ldta	der	grwop	size
roa	1.0000						
tdta	-0.0360	1.0000					
sdta	0.7793	0.0188	1.0000				
ldta	-0.1597	-0.7718	-0.0192	1.0000			
der	-0.1214	-0.1376	-0.0304	0.0432	1.0000		
grwop	-0.2885	0.2151	-0.1682	-0.2798	-0.0217	1.0000	
size	0.4198	0.1972	0.2671	-0.2189	-0.0455	-0.0455	1.0000

S o u r c e : authors' computation (2019).

Total debt to total assets ratio (TDTA) representing capital structure negatively associated with return on assets with coefficient -0.036. Another capital structure variable "short term debt to total asset ratio (SDTA)" have a strong positive relationship with return on assets with coefficient 0.779 and significant at 5% level. Long term debt to total assets (LDTA) negatively correlated with return on assets with coefficient of -0.159 while debt to equity ratio (DER) has a negative but weak correlation with return on assets with coefficient of -0.1214.

Furthermore, firm growth opportunity has negative but weak correlation with return on assets with -0.2885 coefficient. Finally, size (SZE) is positively correlated with return on assets with coefficient of 0.4198. Also from the result in Table 3 none of the independent variables have correlation coefficients above 0.7 with one another and this confirmed the problem of multi-colinearity among the variables adopted in the model is not severe (Kenedy, 2008).

Regression Analysis

Table 4. Panel data regression results (Random Effect)

pvol	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
tdla	-.0612608	.0152453	-4.02	0.000	-.0911411	-.0313805
sdta	.0939753	.0096497	9.74	0.000	.0750622	.1128883
ldta	-.1111136	.0277512	-4.00	0.000	-.165505	-.0567222
der	-.2054922	.1076593	-1.91	0.056	-.4165004	.0055161
grwop	-.1939592	.1373737	-1.41	0.158	-.4632067	.0752884
sze	.0927878	.0114206	8.12	0.000	.0695525	.1160231
_cons	.0619974	.0152083	4.08	0.000	.0321897	.0918052
R-sq:	0.7914					
F-Stat	130.97 (0.0000)					
obs	60					
Hausman test	chi2(6) = 0.09 Prob>chi2 = 0.9990					

S o u r c e : authors' computation (2019).

The results of regression analysis as shown in table 4 depict the impact of corporate capital structure on the financial of performance Nigerian listed conglomerates. We assume different constant for each company and performed both fixed and random effect regressions. Comparison between fixed and random effect was done via the Hausman test. The Hausman test value of 0.999 (P>0.05) accepts the null hypothesis that difference in coefficients are not systematic, therefore we accept and interpret the random effect model.

The random effect output also shows that the coefficient of determination (R-squared) has a value of 0.7914 which implies that explanatory variables (total debt to total assets ratio, short term debt to total assets ratio, long term debt to total assets ratio and debt to equity ratio) were able to explain 0.79% of the total variation in ROA which is a portrayal that the explanatory variables constitute about 21% of the elements that predict the dependent variable (ROA), implying that the stochastic (unobserved) features in the model constitute about 21% which also showcase a strong goodness of fit of the model. The F-statistics was significant at 1% evidenced by its probability of 0.0000 which implies that all independent variables were jointly significant in explaining return on assets.

With respect to the coefficients, the constant (C) has a value of 0.0619974, whose implication is that if all the explanatory variables are held constant or pegged at zero (0), the explained variable – return on assets will surge by 0.0619974units. This shows that regardless of change on the explanatory variables, firms' profitability will be elevated.

A consideration of the magnitude of relationships, considering the t-statistic shows that only debt to equity ratio whose z-statistics is -1.84 relates insignificantly with return on assets given its 0.056 probability which is above the 0.0500 significant margin, while other explanatory variables show statistically significant at 1% level with the explained variable (return on assets).

Total debt to total assets ratio (TDTA)" shows a negative coefficient of 0.0612608 in return on assets (ROA), and significant at 1% level implying that where other predictor variables are held constant, a unit change in the total leverage will precipitate 0.61units decline of Return on assets. This is in tandem with the work of Abdul (2010), Onaolapo and Kajola (2010) and Khalaf (2013) who found a significance negative relationship between long term debt to total assets ratio on the firm performance measured by Return on Assets (ROA) of engineering firms in Pakistani market listed on the Karachi Stock Exchange (KSE) during the period 2003–2009. This contrasts with the findings

of Akinyomi (2013), who found a positive significant relationship between total debt to total assets ratio and Nigerian manufacturing firm return on assets. Perhaps the findings agreed with a-priori Expectation which predicted a bidirectional relationship between total assets to total debt ratio and the profitability of selected firms.

Long-term debt to total assets ratio (LDTA) shows a negative coefficient of 0.1111136 in ROA and significant at 1%, implying that where other predictor variables are held constant, a unit change in the Long-term debt to total assets ratio will precipitate a 0.11unit decline of Return on assets. This study is in tandem with Onaolapo and Kajola (2010) who reported a negative relationship between long-term debt to total assets ratio and firm performance proxy.

Debt to equity ratio (DER) shows an insignificant negative direction as it shows a coefficients of 0.2054922 indicating that where other variables are held at zero, a unit increase in debt to equity ratio (DER) will result to 0.21units decline in firms performance, this is in contrary to the work of Alshatti (2015) who found a positive relationship debt to equity ratio and bank profitability but it is consistent with the work of Wiwattanakantang (1999), De Miguel and Pindado (2001), Schargrodsky (2002), and Zabri (2012) who reported negatives relationship between debt to equity ratio and firm profitability. Growth Opportunity (GROW) has a negative coefficient of 0.1939592 in explaining ROA reporting that a unit increase in growth opportunity will result to about 0.19 units decline in return on assets of selected conglomerate firms this in support of Rajan and Zingales (1995) but contrary to findings, of some studies (see Fatouh, Harris and Scaramozzino, 2002; Schargrodsky, 2002).

On the other hand, the ratio of short-term debt to total assets (SDTA) reveals a positive coefficient of 0.0939753, and significant at 1% implying a unit increase in short term to total assets ratio will result to about 0.093 rise in return on assets this is in tandem with the work of Abdul (2010) but it disagreed with a priori expectation. Firms' size (SIZ) shows a positive coefficient of .0927878 in ROA and significant at 1%, implying that where other predictor variables are held constant, a unit change in the firms' size will bring about 0.093 units increase in Return on assets. This is consistent to theoretical expectation, the finding is also in tandem with the studies of Sheikh and Wang (2010), Khrawish and Khraiwesh (2010), Dawood, Moustafa and El-Hennawi (2011), Akinlo (2011), Levent and Ersan (2012), Kumar, Dhanasekaran, Sandhya and Saravanan (2012), Mahvish and Qaisar (2012), Maxwell and Kehinde

(2012), Tomak (2013), Wahab and Ramli (2014) and Abdeljawad, Mat-Nor, Ibrahim and Abdul-Rahim (2014) who reported a positive relationship.

Conclusion and recommendations

Agency cost theorists have argued that capital structure can have both direct and inverse effect on firm performance. This depends on how debt is used to erase conflict of interest among shareholders and managers then between debt holders and shareholders on the other hand. The study shows evidence that revealed capital structure (total leverage ratios and Short term leverage) are directly associated to organization financial performance (return on assets).The evolvement being that the more short term leverage is adopted by conglomerate firms in Nigeria the better the returns to be enjoyed by shareholders. The adoption of debt may encourage many shareholders to get more supervision and monitoring to ensure those they have employed to manage the company on daily strive to achieve better value to meet up with debt repayment liabilities and employ debt to finance positive net present value projects such that they can get robust earning on their equity. The practical evolvement of this in declining agency menace in a setting where the majority shareholders overwhelmed the minority shareholders is that larger use of both short term and long term debt obligations may mean better protection of financial interest of minority shareholders in Nigeria firms. The findings still confirm the validity of the agency cost theory to explain relationship between capital structure and firm performance in the Nigerian settings. It is against this backdrop that this study comes to conclusion that capital structure is importance for firm performance.

Also evolving from the study, it is recommended that managers of firms should be mindful when seeking credit advances from the money market. This is more important when considering the appropriate capital mix that optimize firm networth. A wrong combination may significantly give impetus for rising in their level of operational and financial risks. The regulators and supervisory agency of the money and capital markets should gear up in their efforts toward the emergence of the capital and security market; especially the bond unit of the Nigerian Stock Exchange. It is through this that firms can source truly long term funds that significantly diminish cost of capital, give opportunities for companies to take advantage of expanding markets and improve firm value.

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