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CAPITAL STRUCTURE DECISIONS AND FINANCIAL VIABILITY OF FIRMS QUOTED ON THE PREMIUM BOARD SEGMENT OF THE NIGERIA STOCK EXCHANGE

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ABSTRACT

We investigate how corporate capital structure decisions affect financial viability of listed companies on the Premium Board segment of the Nigerian stock market 2010 – 2018. The objectives were to ascertain (1) the extent the proportion of debt in relation to equity influence return on assets, (2) determine the effect of non-current liabilities to net worth ratio on return on assets and (3) to examine the relationship between total liabilities to total assets and return on assets. "Panel data analysis" was used to analyze the data. The "Fixed effects model" as well as the "Random effects model" were estimated. The "Haussmann test" suggested the Fixed effects model for interpretation of results. The empirical analysis revealed mixed relationships between capital structure decisions and financial viability of firms. It is recommended that quoted Companies on the Premium Board should target achieving optimal combination of debt and equity to enhance returns on capital employed as well as sustain their Long-term debt profile to continue to improve the level of return on assets. Finally, listed companies on Premium Board should re-examine their working capital policy to minimize the negative effect of short-term debt on return on total assets; given that long-term liability to total assets ratio exhibit a positive and significant association with return on assets while total liability (current plus non-current) to total assets ratio suggests a negative and significant effect on return on assets.

Contribution/ Originality: This study documents and isolates for the first time the relationship between capital structure decisions and financial viability of firms listed on the *premium board* segment of the Nigerian stock exchange.

1. INTRODUCTION

The literature on "capital structure decisions" and "firm performance" is very rich. Beginning from the controversial but corrected (Modigliani & Miller, 1958) "capital structure irrelevance theory" to "Trade-off theory" (Kraus & Litzenberger, 1973) "Agency Cost Theory" (Jensen & Meckling, 1976) the "Pecking Order Theory" (Myers & Majluf, 1984; Myers, 1984) as well as (Adesina, Nwidobie, & Adesina, 2015) "Market Timing Theory" among others. These propositions or theories argue that the choice of the ratio of debt and equity that make up the capital composition of a firm is a critical issue for the firm's financial decision makers bearing in mind their cost components and their effect on earnings before interest and taxes (EBIT) which result to changes in the market and

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share value of the firm. The tradeoff theory, agency cost theory, the pecking order theory as well as the Market Timing Theory suggest different correlations between "capital structure and performance of firms". This idea has spurred researchers to investigate how the use of debt and equity affect the performance of firms.

The quest to investigate how the use of debenture and equity affect the financial viability of firms in Nigeria have however dwelled on the Main Board quoted companies examining the different sectors as classified by the Nigerian stock exchange (NSE). Akintoye (2008) study on "sensitivity of performance to capital structure" concentrated on the foodstuffs and beverage industries in Nigeria. Olokoyo (2012) investigated "capital structure and corporate performance of non-financial quoted firms in Nigeria". Akinyomi (2013) dwelt on the manufacturing sector in his study on the "effect of capital structure on firm performance". Adesina et al. (2015) studied the "impact of post-consolidation capital structure on the performance of banks quoted on the Nigeria stock exchange". Abata and Migiro (2016) "Capital Structure and Firm Performance in Nigerian-Listed Companies" studied 30 (non-categorized) companies. Bashiru and Bukar (2016) investigated "the impact of capital structure on financial performance of listed firms in the Nigerian oil and gas industry". Jeleel and Olayiwola (2017) also chose a sector as their study "effect of leverage on firm performance in Nigeria" concentrated on "listed chemicals and paints firms" in Nigeria while Iyoha and Umoru (2017) explored the connection between "capital structure and performance" of seventy-five (75) listed firms on the Nigerian Stock Exchange.

We observe that results and findings from these previous studies do not agree on the extent capital structure decisions affect firm financial performance. Furthermore, review of related literature shows that studies that have isolated firms based on the classification of Premium Board Quoted Firms are scarce to find. Premium Board Quoted Firms are firms that are adjudged to have met the most stringent corporate governance standards and international best practice listing requirements. These companies are standard bearers and leaders in their respective industries. Could it be that their secret to success and international acclaim lies in their capital structure decisions? Therefore, we investigate the effect of structure of capital on performance of Premium Board Quoted companies in Nigeria. Following the introduction above, the remainder of this study is divided as follows: in section two we review related literature, the study methodology occupies section three while section cover the analysis of data. The paper concludes in section five.

2. SYNOPSIS OF REVIEWED RELATED LITERATURE

2.1. The Concept of Capital Structure/Capital Structure Decisions

Literature on capital structure document a number of scholarly definitions of the concept "capital structure". Weston and Brigham (1977) defined capital structure as "the permanent financing of the firm represented by long-term debt, preferred stock and net worth". Titman and Wessels (1988), Hampton (1996); Myers (2000); Watson and Head (2007); Pandey (2010); Ong and Heng (2011); Mishra (2011); Dadson and Jamil (2012) as well as Easynotes (2018) all agree that capital structure is the combination of debt, equity and hybrid securities which a firms uses to finance its assets. The capital structure decision of a company includes its preference for a target capital structure (optimal capital structure), the mix of debt, equity and hybrid securities it adopts at any period time. According to Ehrhardt and Brigham (2011) "managers should make capital structure decisions that are designed to maximize the firm's intrinsic value".

2.1.1. Debt to Equity Ratio

The Nigerian Securities and Exchange Commission (2016) in its sidebar search page defines debt-to-equity ratio as "a ratio of ordinary shareholders' equity and the stake of creditors in a company". For Gallo (2015) "The ratio tells you, for every dollar you have of equity, how much debt you have". Jacinta, Mahfuzur, and Selvam (2017) assert that "debt to equity ratio is a long-term solvency ratio that indicates the soundness of long-term financial policies of a company". According to Hayes (2020) "debt-equity ratio indicates how much debt a company is using to

finance its assets relative to the value of shareholders' equity". It also indicates how far shareholders' capital can compensate creditors if the firm is liquidated. The value of Debt is measured either as historical or current value of all interest-bearing financial obligations. These include: loans, finance lease obligations, debentures, bank overdrafts and redeemable preference shares. Currently, Short-term debt - all current liabilities - are increasingly being considered in the calculation of debt and is frequently accounted for in decisions of financing structure of firms.

On the other hand, common (equity) shares confer ownership rights on the holder in a company. It is also referred to as "founders shares" which is very important for the formation of a company. Legally, equity shareholders own the company. Equity shares are irredeemable, have no maturity date and provides much of the capital invested in fixed assets.

Preference shares capital is another constituent part of a firm's capital. It has both the features of debt and equity making it a "hybrid form of financing". "Perpetual preference shares" are not redeemable like equity shares. But unlike debentures, delay in the payment of preferred dividends or redemption of "redeemable preference shares" do not pose much financial risk to the firm. Holders of Preference shares receive a stated percentage of income as dividend and ranks in priority over common shares if the firm is liquidated.

2.1.2 Return on Assets (ROA) as a Company Performance Indicator

The return on assets can be defined as the ratio of net income divided by total assets in a given period of time. "ROA simply shows how effective a company is at using its assets to generate profit." According to Jayiddin, Jamil, and Roni (2016), "ROA is widely known as the most useful measure to determine the firms' performance". Jewell and Mankin (2011) attributes trace the origin of the use of ROA as A measure of financial performance to DuPont company back in 1919. Gibson (1987) in his survey (Chartered Financial Analyst) investigated the "importance of financial ratios". Gibson, reported that at least 90% of the respondents chose ROA as the "main measure of profitability". According to Derayat (2012) and supported by Singh (2013) "ROA is an appropriate measure for firm performance" and is "frequently used in capital structure literature".

2.2. Theoretical Issues

Over time, theories of capital structure which diverge from the assumption of equilibrium capital markets which underline the "Modigliani and Miller's irrelevance model" have emerged. Beginning with the "Trade-Off Theory" attributed to Kraus and Litzenberger (1973) assumes that firms consider the returns and risks associated with leverage and equity financing as well as market imperfections (taxes, bankruptcy costs and agency costs) to arrive at an "optimal" capital structure. Another theory that differ from the "Modigliani and Miller's irrelevance model", the "Pecking Order Theory" (Myers & Majluf, 1984) show that companies prioritize financing sources to minimize the risk of "information asymmetry" between managers of firms, investors and equity holders. Also, Baker and Wurgler (2002) developed the "Market Timing Theory of capital structure" which show that "firms issue new shares when they perceive they are overvalued and repurchase own shares when they consider these to be undervalued". Fourthly, Jensen and Meckling (1976) in their "Agency theory" explain that organizational managers "may not necessarily always act as to maximize shareholder's wealth". "The problem here is the separation of ownership and control which gives rise to agency conflicts" (Jensen & Meckling, 1976). Agency theory affects capital structure decisions based on Jensen (1986) which show that striped of excess free funds from retained earnings through generous dividend payouts, firms resort to debt as a source of finance. Thus, agency problem leads to greater reliance on debt by organizations. However, the presence of institutional investors in firms and their role in monitoring managers' activities with growth objective in mind may lead firms to rely more on retained earnings (Moh'd, Perry, & Rimbey, 1995).

2.3. Review of Related Empirical Studies

We review some earlier empirical studies that dwelt on how capital structure decisions affect the profitability of firms in Nigeria.

Iyoha and Umoru (2017) investigated the "relationship between capital structure and firm performance". They used panel research design involving seventy-five (75) companies quoted on the Nigerian Stock Exchange for the period 2010-2014. To avoid endogeneity problem, they estimated and analyzed their data using two stage least squares (2SLS). The result of their study revealed that neither the ratio of noncurrent liability-to-equity nor "financial performance" proxy by ROA affect each other. However, their findings indicate a bidirectional relationship between short-term debt-to-equity ratio and return on assets. Further, Iyoha and Umoru (2017) indicate a bidirectional causality between the proportion of equity to total assets and ROA. They concluded that capital structure decisions affect firm performance (ROA) and that firm "financial performance" also influence capital structure decisions in Nigeria.

Patrick, Freeman, and Ellis (2017) investigated the "effects of capital structure choice on profitability of oil marketing companies in Ghana". Patrick et al. (2017) used current liability-to-total capital, long-term debt-to-total capital as well as total debt-to-total capital to measure capital structure. On the other hand, return on assets, return on equity and net profit margin were adopted as measures of performance. They utilized the multiple regression method to analyze their data. The estimated results of the three models in their study revealed a mixed relationships between their measures of capital structure decisions and performance (ROA and ROE) of "Oil Marketing Companies".

Herciu and Ogrean (2017) examined whether how the capital of a firm is composed affects the company's profitability. They measured profitability with return on assets and return on equity while debt-to-equity ratio was used as a measure of capital structure. Their samples were drawn from "the most profitable non-financial companies ranked in Fortune Global 500" as at 2016. Results of their study were mixed. They found a positive correlation between ROA and debt-to-equity ratio but a very weak association between debt-to-equity and ROE.

Matthew and Stephen (2016) empirically investigated the "relationship between capital structure and firm performance" of listed firms in the Nigerian stock exchange. The drew a sample of 30 firms from the 173 stocks quoted on the Nigerian stock market. Their study covered the period from 2005 to 2014. Matthew and Stephen (2016) applied an "econometric panel data technique" to analyze their data. They report an insignificant negative correlation between financial leverage and ROA. Their study also indicate that debt/equity mix has a negative and significant relationship with ROE.

On the other hand, EL-Maude, Abdul-Rahman, and Ahmad (2016) examined the "impact of capital structure on financial performance of firms in the Nigerian cement industry". They used annual data from 2010 to 2014 with a total of 20 observations drawn from 4 listed cement companies and apply "panel data analysis" to investigate the extent non-current liabilities and current liabilities affect return on assets and return on equity respectively. EL-Maude et al. (2016) show that non-current liabilities have a positive and significant relationship with return on assets and return on equity respectively. Similarly, current liability significantly affects both return on assets and return on equity.

Ubesie (2016) analyzed how the mixture of capital components affect financial "performance of conglomerates quoted on the Nigerian stock exchange" for the period 2011 to 2015. Ubesie (2016) used four variables to measure financial performance. These include "return on assets", "return on equity", "assets turnover ratio" and "earnings per share". On the other hand, "capital structure" was proxy by "financial leverage". Methodologically, Ubesie (2016) used the "pooled ordinary least square regression" for data analysis and report that capital structure affects return on assets and asset turnover ratio but show no effect on ROE and earnings per share of the conglomerates. Ubesie (2016) stated that the outcome of the study agreed with earlier similar studies' results that "capital structure" has a

mixed effect on financial performance. Ubesie (2016) therefore advised firms to discover the best combination of debt and equity that is profitable for their company.

Mahmud and Musa (2016) examines the "impact of capital structure on financial performance of listed firms in the Nigerian Oil and Gas industry" and used panel data sourced from the sampled firms' annual reports for the period 2005 to 2014. They used panel data regression technique to analyze the extent Debt components affected performance variables. Their results indicate that capital structure proxy by current liabilities, non- current liabilities and Total liabilities has a negative and significant relationship with "financial performance" measured by return on assets and earnings per share of listed petroleum marketing companies in Nigeria. Their result also showed that firm size as well as "tangibility" significantly affected ROA and earnings per share positively.

Nwude, Itiri, Agbadua, and Udeh (2016) provide "an empirical investigation of the impact of debt structure on the performance of Nigerian quoted firms". Nwude, Itiri, Agbadua and Udeh used annual data from 2001-2012 collected on 43 firms across different sectors of the Nigerian stock market. The study estimated the "Pooled OLS, Fixed effects and Random effects models" and the results show that debt significantly influence the performance of quoted firms albeit negatively for the period covered in their study. Thus, Nwude et al. (2016) in conclusion assert that "debt contributes negatively to performance of Nigerian quoted firms".

3. METHODOLOGY

The longitudinal research design for panel data, a type of quasi-experimental research design was adopted. We used the following metrics; debt-to-equity ratio (DER), long-term debt-to-total assets ratio (LTDTA), total debt-to-total assets ratio (TDTA) and short-term debt-to-total assets ratio (STDTA) to measure capital structure decisions. For performance of firms, ROA was used. Size, measured as the "natural log of total assets", was introduced as a control variable (see Frank and Goyal (2003)).

3.1. Data

The first set of data (equity, total market value, book value, long-term debt, total assets, total debt, short-term debt, and net income values) were collected from the annual reports of the individual firms that featured in this study. The second set of data (the capital structure and performance ratios) were derived from the first set of data. The published annual reports of firms several years were complimented by data sourced from the Nigerian stock exchange and the security and exchange commission who maintain data banks for quoted firms in Nigeria. Also, we sourced data from the Cashcraft Asset Management Limited, a registered dealer and broker with the Nigerian stock exchange through their website especially data on stock price movements of firms. Annual data for the years 2010 through 2018 were collected on the variables of interest across the Premium Board companies that entered into the analysis. As at the end of December 2018, there were seven (7) firms quoted on the Premium Board of the Nigerian stock exchange. It is important to point out that "in keeping with its commitment to promoting Africa's biggest companies, as well as influencing the economic growth and development of Nigeria", the Nigerian stock exchange launched the "Premium Board and the associated Premium Board Index on Tuesday, August 25, 2015". Thus, on the time range covered by this study, the above information show that Premium Board were not operationally in existence as at 2010. However, the researchers bent backwards to 2010 in order to capture the 5year pre-qualifying condition of the companies before their listing in the Premium Board. Thus, we used a balanced panel data from seven firms covering a period of 9 years.

3.3. Model Specification

This study used panel regression method. The fixed and Random effects models were estimated in this study and the Haussmann test was used to select the best model for interpretation of the results.

We specified the estimated functional model as follows:

$$ROA = f(\text{ TDTA}, \text{LTDTA}, \text{DER}, \text{Size})$$
(1)

Equation 1 show return on assets (dependent variable) as a function of total debt to assets ratio, long-term debt to total assets ratio, debt to equity ratio and size.

The above functional relationship Equation 1 in its estimated form (see Equation 2 below) becomes:

$$ROA_{it} = \beta_0 + \beta_1 \text{TDTA}_{it} + \beta_2 \text{LTDTA}_{it} + \beta_3 \text{DER}_{it} + \beta_4 Size_{it} + vi + \epsilon_{it}$$
(2)

The variables in Equation 2 above are further explain as:

$ROA_{it,}$ = return on assets; i = company 1, 2, ..., n and t = year 1, 2, ..., n

$\text{TDTA}_{it}, \text{LTDTA}_{it}, \text{DER}_{it}, Size_{it}$ = are the independent variables as previously defined

$\beta_{k,}$ = are the coefficient for the explanatory variables; k = 1, 2, ..., n

$\epsilon_{it,}$ = the error term

$\beta_{0,}$ = intercept term

vi = "is the unknown intercept for each firm" under the Fixed effects method

4. ANALYSIS AND RESULTS

Table-1. Composition of premium board companies.

S/N	Company	Symbol	Sector	Status in study
1	Seplat Petroleum Development Company Plc	SEPLAT	Oil and Gas (Exploration and Production)	Used
2	Zenith Bank Plc	ZENITH	Financial Services (Banking)	Used
3	Access Bank Plc	ACCESS	Financial Services (Banking)	Used
4	United Bank for Africa Plc	UBA	Financial Services (Banking)	Used
5	Lafarge Africa Plc. (Wapco)	LARFWAPCO	Industrial Goods (Building Materials)	Used
6	FBN Holdings Plc	FBNH	Financial Services (Banking/Other Financial Institutions)	Used
7	Dangote Cement Plc	DANGCEM	Industrial Goods (Building Materials)	Used

Table 1 above presents the companies listed on the Premium Board segment of the Nigerian stock exchange within the period covered by this study. It also shows their symbols (ticker) and their respective sectors (type of business). All the companies listed formed part of this study as indicated in the column labeled 'status in the study'.

4.1. Panel Unit Root Test

From Table 2 above, all the statistics indicate that the series are stationary at level. This result lead to the rejection of the null hypothesis that the series have unit root. We therefore accept the alternative hypothesis that the variables have no unit root.

Table-2. Panel unit root test results.

Sample: 2010 2018
Exogenous variables: Individual effects
Automatic selection of maximum lags
Automatic lag length selection based on SIC: 0 to 1
Newey-West automatic bandwidth selection and Bartlett kernel

Method	Statistic	Prob.**	Cross- sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-12.1233	0.0000	88	588
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-4.59188	0.0000	88	588
ADF - Fisher Chi-square	305.720	0.0000	88	588
PP - Fisher Chi-square	347.110	0.0000	88	616

Note: ** Probabilities for Fisher tests are computed using an asymptotic Chi.
-square distribution. All other tests assume asymptotic normality.

4.2. Empirical Results: Random Effects Cross – Section Effects Model

The results Table 3 below using the Random effects cross – section effects model, R-squared (R^2) indicate that 51% of changes in ROA of companies listed on the premium board were accounted for by TDTA, LTDTA, DER and Size. The t-test results show that except TDTA, the other variables - LTDTA, DER and Size - were statistically significant at the 5% level of significance. However, DER and SIZE exhibit negative relationships with return on assets. The standard error of the model is very small at 2.3% while the F-statistical probability is 0.0000. Therefore, we "reject the null hypothesis that all of the regression coefficients are zero" and conclude that the model can be relied upon.

Table-3. Random effects model.

Model	$ROA_{it} = \beta_0 + \beta_1 TDTA_{it} + \beta_2 LTDTA_{it} + \beta_3 DER_{it} + \beta_4 Size_{it} + vi + \epsilon_{it}$			
Type of analysis: Pooled EGLS (Cross-section Random effects)				
	Coefficients	Stand. Error	T-Stat	Prob
C	0.081629	0.036869	2.214053	0.0313
DER?	-0.001910	0.000888	-2.150940	0.0362
LTDTA?	0.209956	0.067581	3.106738	0.0031
TDTA?	0.003088	0.034154	0.090409	0.9283
SIZE?	-0.005498	0.002733	-2.011635	0.0496
R-squared	0.512934			
Adjusted R-squared	0.474732			
S.E. of regression	0.022816			
F-statistic	13.42714			
Prob(F-statistic)	0.000000			
EGLS	Estimated Generalized Least Square			

Next, we estimate the Fixed effects model.

Table 4 show the results of the Fixed effects model. Except DER, others (TDTA, LTDTA and Size) were statistically significant at the 5% level of significance. The explanatory power of the Fixed effects model was 72.56% and 66.46% for R^2 and R^2-adjusted respectively compared to 51.3% for R^2 and 47.47% for R^2-adjusted using the Random effects model. Nevertheless, the coefficient of DER and SIZE maintained their negative sign just as every variable in the model maintained their previous signs as in the Random effects model.

4.3. Hausman Test

We estimated Hausman Test (Hausman, 1978) to decide which model is better between the Random and Fixed effects models. This statistic compares coefficients from the Random effects model with those from the Fixed effects model. A significant difference would indicate that Fixed effects model out performs Random effects method. If

Fixed effects model out performs Random effects method, Fixed effects model results are then used for interpretation otherwise, the Random effects model is used.

Table-4. Fixed effects model.

Model	$ROA_{it} = \beta_0 + \beta_1 TDTA_{it} + \beta_2 LTDTA_{it} + \beta_3 DER_{it} + \beta_4 Size_{it} + vi + \epsilon_{it}$			
Method	Pooled Least Squares (Cross-section Fixed effects)			
Variable	**Coefficient**	**Std error**	**T. Stat.**	**Prob (t- stat)**
Constant	0.332399	0.148775	2.234243	0.0305
DER?	0.000351	0.001614	0.217187	0.829
LTDTA?	0.210252	0.068246	3.080784	0.0035
TDTA?	-0.21288	0.050747	-4.19494	0.0001
SIZE?	-0.02518	0.011862	-2.12297	0.0393
R²	0.725575			
R²-adj.	0.664591			
F-statistic	11.89791			
Prob(F-statistic)	0.000000			
Durbin-Watson stat	1.936907			

The full test result is presented below.

Table-5. Correlated Random effects – Hausman Test.

Pool: PREMIUM Board				
Test cross-section Random effects				
Test Summary		**Chi-Sq. Statistic**	**Chi-Sq. d.f.**	**Prob.**
Cross-section random		34.868677	4	0.0000
** WARNING: estimated cross-section Random effects variance is zero.				
Cross-section Random effects test comparisons:				
Variable	**Fixed**	**Random**	**Var(Diff.)**	**Prob.**
DEBTR?	0.000351	-0.001910	0.000002	0.0934
LTDTAR?	0.210252	0.209956	0.000090	0.9752
TDTAR?	-0.212882	0.003088	0.001409	0.0000
SIZE?	-0.025183	-0.005498	0.000133	0.0881

From the results shown in Table 5, the Hausman statistic reports show that Random effects specification differ significantly from Fixed effects specification with a chi-square value of 34.868677 at 4 degrees of freedom and practically zero (0.0000) probability. Looking at the Cross-section Random effects test comparisons table, the variation between the coefficients of the two specifications show statistically insignificant differences in the specifications for the variables except for TDTAR which accepts the hypothesis that there is significant difference in the specification by both random and Fixed effects. Overall, the Fixed effects specification going by the test summary is superior to the Random effects specification and so we reject the Random effects model as inconsistent and adopt the Fixed effects model instead. Having adopted Fixed effects specification, and given the results in table 4 above, we summarize the effect of capital structure decisions on firms listed on the premium board of Nigerian stock market as follows.

1. Measures of capital structure used in this study explain 72.6% of the variations in return on assets (ROA) of companies registered on the premium board of the Nigerian stock exchange.

2. Debt/equity ratio share a positive but insignificant association with ROA.

3. Long-term debt affect ROA positively and significantly

4. Total debt to total asset ratio has negative and significant relationship with ROA.

5. Size affects ROA negatively and significantly at 5% level of significance.

Furthermore, we conducted the redundant Fixed effects test which examined the importance of cross-section effects in our specification. The tests, "Cross-section F" and "Cross-section Chi-square" evaluate the "joint significance of the cross-section effects using sums-of-squares (F-test) and the likelihood function (Chi-square test)". From test results, sums-of-squares (F-test) value 5.811446 and likelihood function (Chi-square test) 32.128391 and their associated p-values 0.0002 and 0.0000 respectively lead to the rejection of the null hypothesis that "the cross-section effects are redundant". This implies firms entertain different intercepts and thus supports the Fixed effects model.

4.4. Discussion of Findings

The positive relationship between debt to equity ratio suggested by this study agree with Abdul and Zubair (2017) who investigated "Debt to Equity ratio and firm performance of Pakistani companies" to the extent that decisions on capital mix affect corporate performance. However, the results differ on grounds of the significance. This positive relationship is insignificant for firms in Nigeria while significant for Pakistani companies. Similarly, Jean (2017) on Rwandan firms found "a strong positive relationship between debt level and profitability" (ROA). EL-Maude et al. (2016) as well as Abdulkadir and Ozlem (2015) all agree capital structure decisions affect ROA of firms. On the other hand, our results disagree with Tim (2017) study on Dutch firms who found a negative and significant relationship between measures of "capital structure" and ROA. Mauwa, Namusonge, and Onyango (2016); Matthew and Stephen (2016); Nassar (2016); Mahmud and Musa (2016); Nwude et al. (2016) findings all indicate that 'return on asset' relates negatively with 'capital structure decisions' which is in agreement with the 'Pecking Order Theory'. Iyoha and Umoru (2017) revealed that the ratio of noncurrent liability to equity does not affect ROA. The mixed relationship found among capital structure decision measures in this study supports (Patrick et al., 2017) who investigated the "effects of capital structure choice on profitability of companies in Ghana". Patrick et al. (2017) study indicates that 'long-term-debt to total capital', 'total debt to total capital' and 'firm size', affect return on asset differently. These varying relationships among capital structure decisions' variables and ROA finds support in Herciu and Ogrean (2017) and Ubesie (2016) whose results were mixed as some measures show positive correlations between ROA and 'debt-to-equity ratio' while others show very weak correlation.

5. CONCLUSION

We examined the financing decisions of firms and the extent such decisions (the proportion of debt in relation to equity as well as total assets) affect the financial performance of firms listed on the premium board segment of the Nigerian stock exchange. The objectives were to provide insight on the relationships between "debt-to-equity ratio", "long-term-debt to total assets", "total debt to total assets" on one side and return on assets. The research design was quasi experimental and utilized "cross-sectional time series data". Panel regression methods were used to analyze the data. Fixed and Random effects models were estimated. Haussmann test was used to decide the best model for interpretation of the results. The Fixed effects model was adopted. The results indicate mixed relationships between measures of capital structure decisions and performance (ROA) of firms quoted on the premium board of the Nigerian stock exchange. It is recommended that quoted Companies on the Premium board in Nigeria should target achieving optimal combination of their capital components to leverage on positive effects of debt-to-equity ratio on return on assets. Further, firms quoted on the premium board of the Nigerian stock exchange should sustain their Long-term debt profiles to continue to improve their level of return on assets. Finally, Premium Board quoted companies should re-examine their working capital policy to minimize the negative impact of current liabilities on return on asset given that "long-term debt to total assets ratio" affects ROA positively and significantly.

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