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RESEARCH ARTICLE

An Empirical Analysis of Capital Structure on Firms' Performance in Nigeria

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Abstract

This paper examines the optimum level of capital structure through which a firm can increase its financial performance using annual data of ten firms spanning a five-year period. The results from Im, Pesaran & Shine unit root test show that all the variables were non-stationary at level. The study hypothesized negative relationship between capital structure and operational firm performance. However, the results from Panel Least Square (PLS) confirm that asset turnover, size, firm's age and firm's asset tangibility are positively related to firm's performance. Findings provide evidence of a negative and significant relationship between asset tangibility and ROA as a measure of performance in the model. The implication of this is that the sampled firms were not able to utilize the fixed asset composition of their total assets judiciously to impact positively on their firms' performance. Hence, this study recommends that asset tangibility should be a driven factor to capital structure because firms with more tangible assets are less likely to be financially constrained.

Keywords: Capital structure, Corporate finance, Firms, Performance, Regression Nigeria.

Jel Codes: C20; D21; G3; G32; L1; N27

Introduction

Capital structure is defined as the means by which an organization is financed. It is also a company's proportion of short and long term debt and is considered when analyzing capital structure. It is the mix of debt and equity maintained by a firm. The capital structure choice has been an issue of great interest in the corporate finance literature. This is due to the fact the mix of funds (leverage ratio) affects the cost and availability of capital and thus, firms' investment source. To date, much of the empirical research has been applied on companies listed on the stock markets.

The modern theory of the capital structure originated from the path breaking contribution of Modigliani and Miller in [1], under the perfect capital market assumption that if there is no bankrupt $\cos t$ and capital markets frictionless, if without taxes, the firm's value is independent with the structure of the capital. Debt can reduce the tax to pay, so the best capital structure of enterprises should be one hundred percent of the debt. This seems to be unreasonable in the real world. The debate over the significance of a company's choice of capital structure is esoteric. But, in essence, it concerns the impact on the total market value of the

company (i.e.; the combined value of its debt and equity) of splitting the cash flow stream into a debt component and earn equity component. Financial experts traditionally believed that increasing a company's leverage i.e. increasing the proportion of debt in the company's capital structure, would increase value up to a point.

Modigliani and Miller challenged that view in their famous 1958 article. They argued that the market values the earning power of a company's real assets and that if the company's capital investment programme is held fixed and certain other assumptions are satisfied, the combined market value of a company's debt and equity is independent of its choice of capital structure.

Since Modigliani and Miller's [1] capital structure irrelevancy paper, much attention has focused on the reasonableness of these 'other assumptions', which include the absence of taxes, bankruptcy costs and other imperfections that exist in the real world. There are various types of finance each with its individual characteristics. Large firms normally need short term, medium term and long term finances to carry on their business operations. These finances in terms of nature could be internal or external.

The relationship between capital structure and firm performance is one that received considerable attention in the finance literature. How important is the concentration of control for the company performance or the type of investors exerting that control are questions that authors have tried to answer for long time prior studies show that capital structure has relating with corporate governance, which is the key issues of

state owned enterprise. To study the effects of capital structure or firm performance, this will help us to know the potential problems in performance and capital structure.

The theory of the capital structure is an important reference theory in financing policy. Whether or not an optimal capital structure exists is one of the most important and complex issues in corporate finance. How an organization is financed is of paramount importance to both the managers of firms and providers of funds. This is because if a finance is employed; wrong mix ofperformance and survival of the business enterprise may be seriously affected. This study is to find out an optimum level of capital structure through which a firm can increase its financial performance more efficiently and effectively. Hence, the paper seeks to fill the gap in the literature as a result of limited studies that have been conducted so far in this area using Nigerian context. An attempt was made by Akintoye [2] studying 10 Nigerian firm but lacked the empirical analysis. Hence, the call for the study of this nature.

Literature Review

Conceptual Framework

Optimal Capital Structure

The effect of different capital structure and differing business risk are reflected in a firm's income statement. Operating leverage tends to magnify the effect of fluctuating sales and produce a percentage change in operating income (EBIT) larger than the changes in sales [2].

In practice, firms tend to use capital structure, preferred stock and common equity with which the enterprise plans to raise needed funds. Since capital structure policy involves a strategic trade-off between risk and expected return, the optimal capital structure policy must seek a prudent and informed balance between risk and return. The firm must consider its business risk, tax positions, financial flexibility and managerial conservatism

or aggressiveness. While these factors are crucial in determining the target capital structure, operating conditions may cause the actual capital structure to differ from the optimal capital structure.

Capital Structure, Firm Value and Performance

An appropriate capital structure is a critical decision for any business organization. The decision is not only because of the need to maximize returns to various organizational constituencies, but on an organization's ability to deal with its competitive environment. The prevailing argument, originally developed by Modigliani and Miller [1], is that an optimal capital structure exists which balances the risk of bankruptcy with the tax savings of debt. Once established, this capital structure should provide greater returns to stock holders than they would receive from an all-equity firm.

We argue that the use of leverage either to discipline managers or to achieve economic gain is the easy way out, and in many instances, can lead to the demise of the organization. The fact that an optimal capital structure has not been found is an indication of some flaw in the logic.

Modigliani and Miller [1] argued that due to tax deductibility of interest payments. appropriate capital structure for Modigliani a firm is composed entirely of debt. Brigham and Gapenski [3] however assert that the Miller and (MM) model is probably true in theory, but in practice, bankruptcy costs exist and they increase when equity is traded off for debt. Hence, they argue on an optimal capital structure that is reached when the marginal cost of bankruptcy is equal to the marginal benefit from tax-sheltering provided by the increase in the debt ratio. The task of efficient managers is thus to recognise when this optimal capital structure is achieved and to maintain it over time. In doing so, they will be able to minimize the weighted average cost of capital (WACC) and financing costs, and thus they will maximize firm's performance and value.

In theory, modern financial techniques would allow top managers to calculate accurately optimal trade off between equity and debt for each firm, in practice; however, many studies found that most firms do not have an optimal capital structure [4]. This is due to the fact that the managers do not have an incentive to maximize firm's performance because their compensation is not generally linked to it. Moreover, since managers do not share firm's profits with shareholders, they are very likely to increase company's expenditures by purchasing everything they like and surrounding themselves of luxury and amenities. Hence, the main concern of shareholders is ensuring that managers do not waste firm's resources and run the firm in order to maximize its value, which entails finding a way to solve the principal-agent problem.

Theoretical Framework

Trade-off Theory

The trade-off theory refers to the idea that a company chooses how much debt finance and how much equity finance to use by balancing the costs and benefits. Trade-off theory allows bankruptcy cost to exist. It states that there is an advantage to financing with debt (namely, the tax benefit) and that there is a cost of financing with debt (the bankruptcy costs and the financial distress costs of debt). The marginal benefit of further increases in debt declines as debt increases, while the marginal cost increases, so that a firm that is optimizing its overall value will focus on this trade-off when choosing how much debt and equity to use for financing. Empirically, this theory may explain differences in D/E ratios between industries, but it doesn't differences within the same industry.

Pecking Order Theory

In the theory of firm's capital structure and financing decisions, the pecking order was first suggested by Donaldson in 1961 and it was modified by Myers and Majluf [5]. It states that companies prioritize their sources of financing (from internal financing to equity) according to the principle of least effort, or of least resistance, preferring to raise equity as a financing means of last resort. Hence, internal funds are used first, and when that is depleted, debt is issued, and when it is not sensible to issue any more debt, equity is issued. Pecking Order theory tries to capture the costs of asymmetric information. It states that companies prioritize their sources of financing (from internal financing to equity) according to the law of least effort, or of least resistance, preferring to raise equity as a financing means "of last resort". Hence: internal financing is used first; when that is depleted, then debt is issued; and when it is no longer sensible to issue any more debt, equity is issued. This theory maintains that businesses adhere to a hierarchy of financing sources and prefer internal financing when available, and debt is preferred over equity if external financing is required (equity would

mean issuing shares which meant 'bringing external ownership' into the company). Thus, the form of debt a firm chooses can act as a signal of its need for external finance. The pecking order theory is popularized by Myers [6], when he argues that equity is a less preferred means to raise capital because when managers (who are assumed to know better about true condition of the firm than investors) issue new equity, investors believe that managers think that the firm is overvalued and managers are taking advantage of this over-valuation. As a result, investors will place a lower value to the new equity issuance.

Agency Theory

This is a theory concerning the relationship between the principal (shareholders) and the agent of the principal (company's managers). This suggests that the firm can be viewed as a nexus of contracts (loosely defined) between resource holders. An agency relationship arises whenever one or more individual, called principals, hire one or more other individuals, called agents, to perform some service and then delegate decision-making authority to the agents.

The agency theory concept was initially developed by Berle and Means [7], who argued that due to a continuous dilution of equity ownership of large corporations, ownership and control become more separated. This situation gives professional managers an opportunity to pursue their interest instead of that of shareholders Jensen and Runback, [8].

In theory, shareholders are the only owners of a company, and the task of its directors is merely to ensure that shareholders' interests are maximized. More specifically, the duty of directors is to run the company in a way which maximizes the long term return to the shareholders, and thus maximizes the company's profit and cash flow Elliot, [9].

The problem is that the interest of the principal and the agent are never exactly the same, thus the agent, who is the decision-making part, tends always to pursue his own interests instead of those of the principal. It means that the agent will always tend to spend the free cash flow available to fulfil his need for self-aggrandisement and prestige instead of returning it to shareholders [8].

Hence, the main problem faced by shareholders is to ensure that managers will return excess cash flow to them (e.g. through dividend payouts), instead of having it invested in unprofitable projects Jensen, [10]. If the principal wants to make sure that the agent acts in his interests he must undertake some Agency costs (e.g. the cost of monitoring managers). The more the principals want to control manager decisions the higher their agency costs will be.

Nevertheless, recent research has discovered that capital structure can somewhat cope with the principal-agent problem without substantially increasing agency costs, but simply by trading off equity for debt Pinegar and Wilbricht, [11], Lubatkin and Chatterjee [12] argue that firms can discipline managers to run businesses more efficiently by increasing their debt to equity ratio. creation ensures contractually managers will return excess cash flow to investors instead of investing it in projects with negative NPVs. This is due to the fact that high degrees of leverage entail high interest expenses, which force managers to focus only on those activities necessary to ensure that the financial obligations of the firm are met.

Hence, by having less cash flow available, managers of highly leveraged firms see their ability of using the firm's resources for discretionary- and often useless-spending, dramatically reduced.

Therefore, firms which are mostly financed by debt given managers less decision power of those financed mostly by equity, and thus debt can be used as a control mechanism, in which lenders and shareholders becomes the principal parties in the corporate governance structure. Managers that are not able to meet debt obligations can easily and promptly be displaced in favour of new managers that can better do stakeholders' Leveraged firms. therefore. interests. somehow better for shareholders because they ensure them that manager do not have the ability (and the cash) to waste the company's resources in useless expenses. The ultimate outcome of debt creation is thus to transfer wealth from the organization and its managers to the investors Jensen, [8].

This reasoning may lead to the conclusion that debt financed firms are always better for investors than equity financed firms. It is logical, therefore, to wonder why not all the firms are financed by debt. The answer lays in the fact that debt financing increasing the cost of capital and other costs: highly leveraged firms are more likely to face cash problems, which increases their likelihood of bankruptcy, and thus increases also

all the costs related to bankruptcy. Moreover, highly leveraged companies, which are generally considered risky companies, tend to be low-rated by rating agencies. This classification as risky companies increases their overall cost of capital, since they must guarantee higher returns than those guarantee higher returns than those guaranteed by well-rated firms if they want to attract investors.

Empirical Studies

This study analyzes the performance of quoted manufacturing companies on the Nigerian Stock Exchange from 2000-2010. Following the seminar work of Modigliani and Miller [1], a substantial amount of effort has been put forward in corporate finance theory to determine the factors that influence a firm's choice of capital structure. The important question facing companies in need of new finance is whether to raise debt or equity capital. The issue of finance has been identified as an immediate reason for business failing to start or to progress. It is imperative for firms in Nigeria to be able to finance their activities and grow over time if they are ever to play an increasing and predominant role in creating value-added, providing employment as well as income in terms of profits, dividends and wages to households, expanding the size of the directly productive sector in the economy, generating tax revenue for the government and facilitating poverty reduction through fiscal transfers and income from employment and firm ownership. It is important in this regard to understand how firms in Nigeria finance their operations by examining their capital structure decisions.

corporate sector in $_{
m the}$ country characterized by a large number of firms largely deregulated a increasingly competitive environment. Since 1987, financial liberalization has changed the operating environment of firms, by giving more flexibility to the Nigerian financial manager in choosing the capital structure of the firm. Therefore, the managers may exercise three main choices: use retained earnings. borrows through instruments, or issue new shares. Hence, the standard capital structure of a firm includes retained earnings, debt and equity; these three components of capital structure reflect fund ownership structure in the sense that the first and third components reflect ownership by shareholders while the second component represents ownership by debt holders. This is the pattern found in developing and developed

countries [13]. With the information gathered, it is discovered that little has been done on the study of the determinants of capital structure in Nigeria. The broad objective of this study is to investigate the main determinants of capital structure of non-financial quoted firms in Nigeria.

Research Methodology

The data for this study was gathered through reference to the review of different articles, papers and relevant previous studies. In addition, another source of data was through financial statements published by companies for the period of 2006 - 2010.

Variable Description and Hypotheses

The following variables are used in the study: Debt Ratio (DR): The agency cost theory predicts that higher leverage is expected to lower agency costs, reduce inefficiency and thereby lead to improvement in firm's performance. Berger and di Patti [14], argues that increasing the leverage ratio should result in lower agency costs of outside equity and improve firm performance, all else held constant. From the above contributions, we expect an inverse relationship between leverage (DR) and firm performance. The following hypothesis will be tested:

*H*₁: There is a negative relationship between capital structure and firm's performance.

Asset Turnover

The efficiency of the management of a firm can be measured by the way and manner they utilize the assets of the firm to yield positive returns to the firm. Asset turnover ratio is an important financial ratio that can be used to achieve the purpose of measuring management efficiency, hence the introduction of the variable, TURN, as a controlled variable, in this study. It is expected that a positive relationship exists between asset turnover and firm performance. The hypothesis to be tested here is:

H₂: There is a positive relationship between asset turnover and firm performance.

Size

The size of a firm is considered to be an important determinant of firm's profitability, hence the need to introduce in this study, a controlled variable, SIZE, is used as proxy for firm's size. Larger firms, according to Shepherd [15], may also be able to leverage their market power, thus having effect on profitability. We expect a positive

relationship between firm's size and its performance. The hypothesis to be tested here is.

H₃: There exist a positive relationship between firm's size and firm's performance.

Age

The age of a firm may also have an impact on firm's performance; hence AGE is introduced as controlled variable in this study. Stinchcombe [16], argues that older firms can achieve experience- based economies and can avoid the liabilities of newness. Therefore, positive relationship is expected between age and firm's performance. Hence, the hypothesis tested.

H₄: There exist a positive relationship between firm's age and its performance.

Asset Tangibility

Asset tangibility is considered to be one of the major determinants of firm's performance. Akintoye [2], argues that a firm which retains large investments in tangible assets will have smaller costs of financial distress than a firm that relies on intangible assets. Hence, the hypothesis to be tested is:

H₅: A positive relationship should exist between firm's asset tangibility and its performance.

Growth Opportunities

Growth opportunities, in the literatures is considered as an important determinant of firm's performance, hence 'GROW', is used as a proxy for growth opportunities in this study. Zeitun and Tian [17], argue in support of this, that firms with growth opportunities are able to generate profit from investment. Therefore the hypothesis to be tested here is:

H₆: There should be a positive relationship between a firm's growth opportunity and its

Performance.

Model Specification

In order to test the hypotheses presented, this research adopted Onaolapo and Kajola's [18], model. Panel data involving the pooling of observations on a cross-sectional form are adapted and the models are of the form below:

Model (1a & 1b):

 $ROA_{i,t} = \beta_0 + \beta_1 DR_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \mu_{i,t}$

 $\begin{aligned} ROE_{i,t} &= \beta_0 + \beta_1 \ DR_{i,t} + \beta_2 \ TURN_{i,t} + \beta_3 \ SIZE_{i,t} + \beta_4 \ AGE_{i,t} + \beta_5 \ TANG_{i,t} + \beta_6 \ GROW_{i,t} + \mu_{i,t} \end{aligned}$

In these models:

ROAi, t = return on assets of firm i in year t ROEi, t = return on equity of firm i in year t DRi, t = debt ratio of firm i in year t TURNi, t = asset turnover ratio of firm i in year t SIZEi, t = size of firm i in year t AGEi, t = age or number of activity years of firm i in year t

TANGi, t = assets tangibility ratio or assets structure of firm i in year t

GROWi, t = growth opportunities of firm i in year t

 μ =The error of model

Estimation Technique

The co-efficient of the explanatory and controllable variables $(\beta_1, \ldots, \beta_6)$ can be estimated by the use of PLS technique. Thus, there is need to check for the level of stationary of the data. This is done by the use of Im, Pesaran & Shine unit root test.

Presentation of Data and Interpretation of Results

Descriptive Statistics

Below shows the descriptive statistics of all the variables used in the study.

Table 1: Descriptive statistic data

Table 1: Descriptive statistic data								
	ROA	ROE	DR	TURN	SIZE	AGE	TANG	GROW
Mean	0.1015	638.891	0.652	0.7956	13.354	34.15	0.299	0.0987
Std. Dev	0.1173	861.225	0.247	0.42703	1.497	12.395	0.190	0.188
Skewness	0.432	-0.539	1.768	1.469	1.169	-0.281	1.025	0.140
Kurtosis	2.411	5.925	9.998	3.252	2.602	-1.170	1.526	2.942
Range	0.86	7413.35	2.35	2.81	9.71	46.00	1.17	1.61
Minimum	-0.32	-4051.28	0.01	0.03	9.88	9	0.00	-0.67
Maximum	0.54	3362.07	2.36	2.84	19.59	55	1.17	0.94
Sum	37.56	236389.70	241.08	294.39	4940.91	12637	110.76	36.51
No of Obs	50	50	50	50	50	50	50	50

The summary of the statistics used in this empirical study is presented in Table 1 above. As can be observed from the Table, the mean value of Return on Assets is 0.1015, Return on Equity is 638.891, Debt Ratio is 0.652, Turnover is 0.7956, Size is 13.354, Age is 34.15, Tangibility is 0.299 while Grow is 0.0987. It is also observed that *AGE and ROE* are negatively skewed while ROA, DR, TURN, SIZE, TANG and GROW are

positively skewed. The kurtosis value is positively low except the value for AGE that is negative.

Im, Pesaran & Shine Unit Root Test

The study employs E- view 6.0 package to carry out unit root tests in order to determine the stationarity of the variables used. All the variables were stationary at level.

Table 2: Showing the im, pesaran & shine unit root test

Variables	Level	Critical value	Order of integration		
	Im, Pesaran &Shine				
ROA	-2.50099*	-0.44277	I(0)		
DR	-8.23419*	-0.44277	I(0)		
TURN	-27.7833*	-0.44277	I(0)		
SIZE	-2.45244*	-0.44277	I(0)		
AGE	-8.41802*	-0.44277	I(0)		
ROE	-2.6107*	-0.44277	I(0)		
TANG	-9.2347*	-0.44277	I(0)		
GROW	-14.3297*	-0.44277	I(0)		

NOTE: The null Hypothesis is the presence of Unit root in ROA, ROE, DR, TURN, SIZE, AGE, TANG and GROW. IM Pesaran and Shine Test includes a constant, Akaike Information Criterion was used to select lags automatically. * denotes significance at all levels (1%, 5% and 10%).

The unit root test is conducted on the variables used in this study in other to avoid a spurious regression. From the above results, it shows that the datas are all stationary at level. Moreover, considering the low probability value and critical values that are significant at 1%, 5% and 10%

when compare to the IM Pesaran and Shine Test statistics. The above result show that *DR*, *TURN*, *SIZE*, *AGE*, *TANG*, *GROW*, *ROA* and *ROE* are stationary series at level form but became an I(0) series. This implies that the above IM Pesaran and Shine Test suggest that, *DR*, *TURN*, *SIZE*,

AGE, TANG, GROW, ROA and ROE are of the same order of integration.

Panel Least Square Regression Result

This approach involves the estimation of a static PLS regression which captures any possible long-run relationship between *DR*, *TURN*, *SIZE*, *AGE*, *TANG*, *GROW*, *ROA* and *ROE*. The Panel Least Square regression model is specified as follows:

Model (1a & 1b)

 $\begin{aligned} ROA_{i,t} &= \beta_0 + \beta_1 \ DR_{i,t} + \beta_2 \ TURN_{i,t} + \beta_3 \ SIZE_{i,t} + \beta_4 \ AGE_{i,t} + \beta_5 \ TANG_{i,t} + \beta_6 \ GROW_{i,t} + _{\mu i,t} \end{aligned}$

 $\begin{aligned} &ROE_{i,t} = \beta_0 + \beta_1 \ DR_{i,t} + \beta_2 \ TURN_{i,t} + \beta_3 \ SIZE_{i,t} + \beta_4 \ AGE_{i,t} + \beta_5 \ TANG_{i,t} + \beta_6 \ GROW_{i,t} + _{\mu i,t} \end{aligned}$

The Panel Least Square regression model result presented in table 3 & 4.

Table 3: Panel least square regression result (Dpt - ROA)

Indpt variables	Coefficient	t- Statistic	Prob	
$\overline{\mathbf{C}}$	0.7682	[1.368]	{0.001}	
DR	- 0.012	[-3.354]***	{0.001}	
TURN	0.051	[1.769]***	$\{0.000\}$	
SIZE	0.021	[0.247]	$\{0.321\}$	
AGE	0.028	[-0.632]	$\{0.254\}$	
TANG	- 0.235	[-2.502]***	$\{0.001\}$	
GROW	0.032	[0.674]	$\{0.257\}$	
$R^2 = 0.891$				
Adjusted $R^2 = 0.924$				
Durbin Watson: 1.805				

Table 4: Panel least square regression result (Dpt - ROE)

Indpt Variables	Coefficient	t- statistic	Prob
С	0.571	[2.294]	(0.000)
DR	- 0.069	[-4.859]	(0.001)
TURN	2.182	[4.476]	(0.000)
SIZE	0.670	[5.245]	(0.000)
AGE	3.235	[2.756]	(0.009)
TANG	0.149	[0.403]	(0.690)
GROW	0.360	[0.428]	(0.348)
$R^2 = 0.820$			
Adjusted $R^2 = 0.912$			
Durbin Watson: 1.801			

Model 1(a): ROA_{i,t} = β_0 + β_1 DR_{i,t} + β_2 TURN_{i,t} + β_3 SIZE_{i,t} + β_4 AGE_{i,t} + β_5 TANG_{i,t} + β_6 GROW_{i,t} + $\mu_{i,t}$

Interpretation of Result

Model 1(a): ROA = 0.7682 - 0.012 + 0.051 + 0.021 - 0.028 + 0.235 + 0.032

S.D = (1.368) (-3.354) (1.769) (0.247) (-0.632) (-2.502) (0.674)

Model 1 (b): ROE_{i,t} = β_0 + β_1 DR_{i,t} + β_2 TURN_{i,t} + β_3 SIZE_{i,t} + β_4 AGE_{i,t} + β_5 TANG_{i,t} + β_6 GROW_{i,t} + $\mu_{i,t}$

Model 1(b): ROE = 0.571 - 0.069 + 2.182 + 0.670 + 3.235 + 0.149 + 0.360

S.D = (2.294) (-4.859) (4.476) (5.245) (2.756) (0.403) (0.428)

Discussion of the Findings

The analysis on the impact of capital structure on firm performance is presented in the table $4.3a\ \&\ 4.3b$

above. The results obtained from the dynamic models indicate that the overall coefficient of determination (R²) shows that the equation has a good fit with 0.891 for ROA and 0.820 for ROE meaning that 89% and 82% change in the dependent variables (ROA) and (ROE) are caused by the independent variables (DR, TURN, SIZE, AGE, TANG and GROWTH). The higher the R², the higher the goodness of fit the higher the goodness of fit the higher the reliability of the model.

As the adjusted (R^2) tends to purge the influence of the number of included explanatory variables, the (R^2) of 0.924 for ROA and 0.912 for ROE show that having removed the influence of the explanatory variables, the model is still of good fit, hence, in terms of the goodness of fit we can say that the test is fair.

The Durbin Watson (D.W) statistics of 1.96 and 1.91 for both ROA and ROE respectively; as it is significantly within the bench mark, we can conclude that there is no auto- correlation or serial correlation in the model specification.

The results of the regression of the two performance measures are presented in table 4.4a and table 4.4b. The results indicate a negative relationship between ROA and debt ratio at 1% level. It also shows the same

relationship between ROE and debt ratio. This findings is consistent with the result obtained from previous studies such as Akintoye [2], Tzelepis and Skuras [19], Roa, et. al., [20], Pratomo and Ismail [21], Margaritis and Psillaki [22], Zeitun and Tian [17].

The findings in support of agency cost hypothesis confirm negative hypothesis between capital structure and firm performance. This study reveals that the relationship between ROA and asset turnover and that of asset tangibility is positive and negative respectively. Also, they are significant at 1% level. The relationship between ROA and firm's size is positive but not significant. However, the relationship between ROE and asset turnover, firm's age and size of firm is positive and significant at 1% level. This shows that firms with high ratio of tangibility have a lower financial performance ratio.

However, the relationship between ROE and asset tangibility is positive but not significant. It provides

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salient evidence that the sampled firms were not able to utilize their fixed asset composition in the total asset judiciously to impact on their performance. The relationship between the two performance measures (ROA and ROE) and growth opportunity is positive but not significant.

Summary of Findings, Conclusion and Recommendation

This paper examines the impact of capital structure on firm's financial performance using 10 listed nonfinancial firms in Nigeria between 2006 and 2010. The study reveals that asset turnover is an important determinant of financial performance. With ROE as a measure of financial performance, size and age are also considered as major determinants of financial performance in model 1b. The study provides evidence of a negative and significant relationship between asset tangibility and ROA as a measure of performance in the model. The implication of this is that the sampled firms were not able to utilize the fixed asset composition of their total assets judiciously to impact positively on their firms' performance. Hence, this study recommends that asset tangibility should be a driven factor to capital structure because firms with more tangible assets are less likely to be financially constrained.

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