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THE IMPACT OF CAPITAL STRUCTURE ON FINANCIAL PERFORMANCE OF LISTED FIRMS IN THE NIGERIAN FOOD PRODUCT COMPANIES

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Abstract
This study investigates the impact of Capital Structure on Firms Financial Performance of seven Food Product companies out of the eleven that were listed in the Nigeria Stock Exchange. Data were collected from the Annual Reports and Accounts of sampled companies covering the period of five years ranging from 2008 – 2012. Descriptive statistics, Correlation as well as panel data analysis (Random – effect GLS regression techniques) was used as analytical tools in the study. The result of the study indicates that Debt ratio has a negative impact on the firms' financial measure (ROA and ROE) and this finding indicates consistence with prior empirical studies. It was recommended that firms should set policies that will aid the utilization of their tangible asset because firms with more tangible assets are less likely to be financially constrained.

Keywords: Capital Structure, Performance, Debt Ratio, Return on Asset, Return on Equity.

1.0 Introduction

Capital Structure is a problem area regularly approached by empirical and theoretical studies and it refers to the relativities among the component of financing mix. The term Capital Structure of a firm is actually a combination of equity shares, preference shares and long term. Caution has to be taken on optimum capital structure, if wrong mix of finance is employed, the performance and survival of the firm may be seriously affected.

Capital Structure is referred to as the various financial options on the firms Assets and the business concern can go for different level of the mixture –equity, debt and other financial facilities with equity having emphasis in maximizing the firms' market value.

According to Dare and Sola (2010)the capital structure of a firm can take any of the three forms -100% equity, 100% debt or X% equity and Y% debt. Capital Structure decision is therefore very critical and fundamental in the life of a business; this is not only to maximize profit to the shareholders but also on the impact of decision on the sustainability and its ability to satisfy external objectives.

Capital Structure theory addresses the means of finance available to an enterprise likewise the best mix of such sources that can reduce the overall cost of capital and maximize return on acquisition. Modiglian and Miller (1958) assumes that the capital market is perfect and under certain key assumption the firms' value is unaffected by its capital structure.

The objective of the study is to investigate the impact of Capital Structure on firms' financial performance.

2.0 Literature review and theoretical framework

The literature review will cover conceptual and theoretical framework on which the study leans, and a brief assessment of what other authorities have documented on the subject of research.

2.1. Capital Structure

The capital structure of a firm refers to the relativities among the components of the financing mix. It could be analyzed either from the narrower perspective of only the elements of long-term financing or the broad perspective of only the elements in the financing mix. In relationship to the former, the capital structure would be defined as the ratio of long-term debts of a firm to its equity financing. Traditional financial economists have argued that the financial structure of a firm has an impact on its profit performance (Okafor and Harmon, 2005). The term "capital structure" of an enterprise is actually a combination of equity shares, preference shares and long term debts. A cautious attention has to be paid as far as the optimum capital structure is concerned. With unplanned capital structure, companies may fail to economize the use of their funds. Consequently, it is being increasingly realized that a company should plan its capital structure to maximize the use of funds and to be able to adapt more easily to the changing conditions. (Pandey, 2009) Capital structure, in other words, refers to the various financing options of the asset by a firm. A business concern can go for different levels of the mixture of equity, debt and other financial facilities with equity having the emphasis on maximizing the firm's market value. Capital structure affects the liquidity and profitability of a firm (Rahemen, Zulfiquar and Mustafa, 2007). According to Dare and Sola (2010), capital structure is the debt-equity mix of business finance. It is used to represent the proportionate relationship between debt and equity in corporate firms' finances. Therefore, in this context, the composition of equity and debt in a firms' capital is

what we mean by capital structure. This is in line with the definition Chou (2007) in Chetchet and Olayiwola (2013) as a mixture of debt and equity financing of a firm. An optimal capital structure is the best debt/equity ratio of a firm, which minimizes the cost of financing and maximizes the value of the firm. The capital structure of a firm as opined by Dare and Sola (2010) can take any of the following three alternatives: 100% equity: 0% debt, 0% equity: 100% debt or X% equity: Y% debt. From the above, option one is that of a purely equity financed firm. That is a firm that ignores leverage and its benefits in financing its activities. Option two is that of a firm that finances its affairs solely on debt which may not be realistic in the real world situation because hardly will any provider of fund invest in a business without owners. This is what is referred to as "trading on *equity"*. That is, it is the equity element that is present in capital structure that motivates the debt providers to give their scarce resources to the business. Option three is that of a firm that combines certain proportion of both equity and debt in its capital structure. It will therefore reap the benefits of combined debt and equity. For a purely equity financed firm, the whole of its after-tax cash flows (profit) is a benefit to the shareholders inform of dividends and retained earnings. However, firms with certain percentage of debts in their capital structure shall devote a portion of the profit after tax to servicing such debt. Capital structure decision is therefore very critical and fundamental in the life of a business. This is not only to maximize profit to the shareholders but also on the impact of decision on sustainability and its ability to satisfy external objectives. The capital structure theory is seen as a sinequanon to the administration of a firm wishing to raise fund for finance. It .addresses the means of finance available to an enterprise likewise the best mix of such sources that can reduce the overall cost of capital and maximizes returns on acquisition. The success of any business therefore lies in its management's efforts to identify this optimum capital for smoothness, sustainability and prosperity in line with the overall goals and objectives.

Several studies have been conducted to examine the theory of capital structure. One of these studies was carried out by Modigliani and Miller (1958), ***Modigliani and Miller (MM) Theory*** illustrates that under certain key assumptions, firm's value is unaffected by its capital structure. Capital market is assumed to be perfect in Modigliani and Miller"s world, where insiders and outsiders have free access to information; no transaction cost, bankruptcy cost and no taxation exist; equity and debt choice become irrelevant and internal and external depend on its capital structure. The value of a company should depend on the return and risks of its operation and not on the way it finances those operations, the theory further argued that a firm should have the same market value and the same weighted average cost of capital at all capital structure levels.

If these key assumptions are relaxed, capital structure may become relevant to the firm's value. So, research efforts have been contributed to relaxing the ideal assumptions and describing the consequences. This theory was criticized on the ground that perfect market does not exist in real world. Attempts to relax these assumptions particularly the no bankruptcy cost and no taxation led to the static trade off theory. Over the years, several theories have emerged. Myers (1984) proposed the ***Static Trade-off Theory*** that supports the relevance of capital structure. This theory suggests that firms have optimal capital structure and they move towards the target. It further emphasized that when firms employed debt in their capital structure, they are faced with the challenges of tax benefit and bankruptcy cost, thus the need for trade-off between the two. (*Ogebe*, Ogebe, and Alewi, 2013).

Trade-off Theory

The trade-off theory suggests that there is an optimum capital structure in which the benefits of debt are offset by the cost of debt. This optimal capital structure is achieved when the marginal benefit of an additional unit of debt exactly offset the marginal cost of an additional unit of debt Fama and French, 2005 in (Leon 2013). Unlike the static trade-off theory, which implicitly assumes that firms always stay at target leverage by continuously adjusting leverage to the target, the dynamic version recognizes that financing friction make it sub optimal for firms to continuously adjust their leverage to the target, under the dynamic trade-off theory, firms weigh the benefit of adjusting their capital structures against the adjustment cost and make leverage adjustments only when the benefit outweighs the cost Ovtchinnikov,2010 in (Leon 2013).

Pecking order theory

According to the pecking order theory firm have no well defined target debt/equity ratio and each firm's observing debt ratio simply reflect the firm's cumulative requirement for external finance over an extended period Myers, 1984. The Pecking Order theory concludes that optimum capital is difficult to determine because firms make use of firstly, equity capital then debt and lastly equity in financing new investments. Equity capital appears both at the start and end of the pecking order.(Chetchet and Olayiwola, 2013)

Agency Theory

This theory is concerned with the relationship between the principal (shareholders) and the agent of the principal (company's managers). The 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 (1932), 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, 1983). The Agency Cost theory states that an optimal capital structure is attainable when cost is reduced. Jensen and Meckling (1976) in Muritala (2010) argued that leverage level can be used to monitor the managers to pursue the overall firms' objectives and not theirs. By so doing, cost is reduced leading to efficiency which shall eventually enhance firm performance (Buferna et al., 2005) In finance theory, agency relation plays an important role in the construction of capital structure. Agency relations which affect capital structure are categorized under three groups Ata and Ağ, (2010) in(Toraman et el 2012)

- Relations between stockholders and managers who represent them in business management
- Relations between creditors and stockholders who use their funds in the company
- Relations between current and potential stockholders

Current stockholders have more information on company than potential stockholders and keep this information confidential in order to use it for their own interests. Margaritis and Psillaki (2010) obtained results that support Jensen and Meckling's (1976) hypothesis on agency costs in their studies conducted on manufacturing companies in France using non-parametric data envelopment analysis. The findings of Adekunle and Sunday (2010) also buttress Jensen and Meckling's results.

2.2 Financial Performance

The notion of performance is a controversial issue in finance largely because of its multidimensional meanings (Prahalathan 2011). Financial performance is the strength of the financial position of an organization. The process of financial analysis is used in identifying the financial strengths and weaknesses of the firm by properly establishing relationship between the items of the balance sheet and the profit and loss account. Ratio is used as a benchmark for evaluating the financial position and performance of a firm in financial analysis. It can be defined as "The indicated quotient of two mathematical expression" and as "The relationship between two or more things". They help in summarizing large quantities of financial data in order to make qualitative judgment about the firm's financial performance.

2.3 Review of Related Empirical Literature

Iavorski (2013) research on the impact of capital structure on firms performance: Evidence from Ukraine by examining the annual report of firms from 2001-2010 using regression. Sales size, industry as the dependent variable. It was found that the leverage has a negatively relationship impact on firms accounting performance, Okay and Binaebi (2013) study on capital structure and the operating performance of Quoted firms in Nigeria shows that the short term debt, long term debt and total debt have significant negative relationship with performance using ROA, ROE and tangibility and efficiency have significant positive relationship with performance while no-tax debt and liquidity shows negative relationship with performance on which 30 firms from NSE out of 224 firms, covering 2005-2011were used. They concluded that capital structure effect the performance of firms and recommendations were provided to improve the capital structure and performance architecture of Quoted firms using the optimal capital structure model.

Pouraghajan and Malekian (2012) also studied the relationship between capital structure and firm performance evaluation measures: Evidence from Tehran in order to investigate the impact of capital structure on the performance of company

The effect of capital structure decision on firms performance evidence from Turkey was also studied by Toraman et al (2012) Data used were from the financial statement of the Manufacturing companies covering the period 2005-2011. Regression analysis using financial ratios was employed. Findings were that total assets have a negative relationship with ROA and a positive relationship between income to financial expenditure and financial performance Onaolapo and Kajola(2008) and Chinaemerem and Anthony(2011) also conducted a study on the impact of capital structure on the financial performance of Nigerian firms and this was carried out on non financial firms in Nig. Onaolapo and Kojola period of study was 2001 – 2007, while Chinaemerem and Anthony study was from 2004-2010. They both used panel data for the selection of these firms from NSE and analyzed using ordinary least square method. Their findings were that the Debt ratio has a significant negative impact on the firms' financial measure (ROA, ROE) and this finding is consistent with the prior empirical studies providing evidence of support of Agency theory.

A research carried out by Chetchet and Olayiwola (2010) on capital structure and profitability of Nig Quoted firms from the Agency Cost theory perspective 2000-2009. Using panel data, analyzed using fixed effect, random effect and Hauman chi square estimate of selected companies found that the DR has a negatively related with profit while EQT is directly related with all indicating consistency with prior empirical studies and providing evidence against Agency Cost Theory . Uremadu and Efobi (2008), examine impact of capital structure on corporate profitability in Nigeria of 10 manufacturing companies for 5 years (2002-2006) using Pearson's correlation coefficient and OLS regression model on a pooled time series data. They found that ratio of long-term debt to equity capital (gearing) has a positive and significant impact on return on capital

employed (ROCE). They recommend that company management should properly manage composition of their capital structure more especially as it relates to long-term debts and equities including corporate reserves.

A research carried out by Akintoye (2008) on the sensitivity of performance on capital structure on selected company in Nigeria using EBIT, EPS and DPS as measures of performance and DOL, DFL analysis using OLS to estimate the regression equation showed a positive association between debt ratio, firm size and growth while assets tangibility, risk, corporate tax and profitability regularly relate to debt. listed on Tehran SE from 2006-2010.They found that there was a significant negatively relationship between debt ratio and financial performance of companies and a positively relationship between assets turnover, firm size, assets tangibility ratio and that by reducing debt ratio management can increase profitability of the company and the amount of the firms financial performance measure this can also increase the shareholder wealth.

Olokoyo (2008) also researched on Capital Structure on corporate performance of Nigeria Quoted firms: A panel Data Approach in order to determine the overall effect of capital structure on corporate performance. The research covered the period of 2003 – 2007 on 101 firms. The study employed panel data analysis by using Fixed-effect estimation, Random-effect estimation and Pooled Regression Mode It was found that all the leverage measures have a positive and highly significant relationship with the market performance measure (Tobin's Q). It was also established that the maturity structure of debts affect the performance of firms significantly and the size of the firm has a significant positive effect on the performance of firms in Nigeria The study further revealed a fact that Nigerian firms are either majorly financed by equity capital or a mix of equity capital and short term financing. Recommending Nigerian firms to try matching their high market performance with real activities that can help make the market performance reflect on their internal growth and accounting performance.

Abora (2005) investigated how capital structure influenced the profitability of companies listed in Ghana's stock exchange during five-year period. The results indicate that there is a significant positive correlation between the short-term debt to assets ratio and return on equity, as well as between the debt to assets ratio and return on equity.

In summary, out of the eleven researches under the empirical study, only four researchers found that Debt ratio has a significant positive impact on the financial measures (ROA and ROE) and this constitutes 36%, while the remaining researchers found that there is negative relationship between Debt ratio and financial performance of companies constituting 64%.

This study further revealed that several studies have been carried out on Capital Structure and performance to investigate the relationships that exist between the capital structure and performance in various sectors and economy of the world. Scholars such as Adekunle and Sunday (2010); Uremadu and Efobi (2008); Dara and Sola (2010) Chetchet and Olayiwola (2010) Therefore, on the basis of the reviewed literature, The researcher finds it necessary to carry out further study on Nigeria Food Product Companies listed in the Nigeria Stock Exchange so as to investigate the impact of capital structure on the firms' financial performance as a result of the gap in time coupled with the sector studied and the debate on the negativity or positive relation that exists between debt ratio and the performance measures.

3.0 Research Methodology

This section discusses the variables, the data distribution pattern and the statistical techniques used in investigating the relationship between capital structure and financial performance.

The research design used for this study is the non survey method, as the study entails the use of annual financial reports of Quoted firms from NSE. Therefore the non survey design was adopted in this study in view of its relative importance to the actualization of the research objective which is to investigate the impact of capital structure on financial performance.

3.1 Population and Sample Size

The population of the study is made up of all the Nigerian Food Product Companies Quoted on the Nigerian Stock Exchange, and their years of listing, are as follows:

Table 1: Study Population

S/N	COMPANY NAME	YEAR OF INCORP.	YEAR OF LISTING
1	FLOUR MILLS OF NIGERIA PLC	1960	1979
2	N. N. F. M. PLC	1971	1978
3	DANGOTE SUGAR REFINERY PLC	2005	2007

4	NATIONAL SALT COMPANY PLC	1973	1992
5	UNION DICON PLC	1992	1993
6	MULTI-TREX PLC	1999	2010
7	HONEY WELL FLOUR PLC	2008	2009
8	DANGOTE FLOUR MILLS PLC	2006	2008
9	BIG TREAT PLC	1991	2007
10	PS MANDRIDES	1949	1979
11	UTC NIGERIA PLC	1969	1972

Source: Generated by the researcher from the NSE 2011/2012 Fact book.

Table 1. This is the total population of the study, out of which the working population is drawn and the criteria for choosing the working population are based on year of listing latest 2007 and the availability of data from 2008 – 2012.The companies that met these criteria are listed in table 2. Big Treat did not meet this criterion as it is being blacklist in the Stock Exchange on Regulatory Action

Table 2: Working Population

S/N	COMPANY NAME	YEAR OF INCORP.	YEAR OF LISTING
1	FLOUR MILLS OF NIGERIA PLC	1960	1979
2	N. N. F. M. PLC	1971	1978
3	DANGOTE SUGAR REFINERY PLC	2005	2007
4	NATIONAL SALT COMPANY PLC	1973	1992
5	UNION DICON PLC	1992	1993
6	PS MANDRIDES	1949	1979
7	UTC NIGERIA PLC	1969	1972

Source: Generated by the researcher from table 1.

The method adopted by the researcher is in line with that conducted by Chinaemerem and Anthony (2011) based on their research conducted on non financial firms in Nigeria for the period 2004 - 2010 and Muritala (2011) conducted on Nigerian firms for the period 2006 – 2010.

3.2 Dependent Variables and its Measurement

The performance measure plays crucial role in managing of firms. To identify the general position and the ability of the firm to use capital structure optimally as represented by debt to enhance its performance. The dependent variable in this study is performance and this variables will be used to measure the impact of capital structure on firm performance, using the indicators which expresses performance such as Return on Equity(ROE) and Return on Asset (ROA) as in the work of Chinamerem and Anthony (2011); Muritala (2011); Onoalapo and Kajola(2008) and Pouraghajan (2012).

3.3 Independent variables and its Measurement

Capital Structure which is the independent variable in this study will be measured using only Debt ratio as the indicator which is in line with the study of Chinaemerem and Anthony (2012) even though other researchers such as Toraman et al (2011); Chetchet and Olayiwola (2012); Goyal (2011) Thramila and Arulvel (2011) have used indicators such as LDC (Long term Debt: Capital), DC (Debt: Capital), DCE (Debt: Common Equity).NP (Net Operating Profit); EPS(Earnings per share) etc.

3.4 Control Variables

The researcher included the following control variables: Asset Turnover (TURN), Firm's Size(SIZE), Firm's Age (AGE), Asset Tangibility (TAN), and Growth opportunity (GROW) as used in the works of Okay and Binaebi (2013); Pouraghajan and Malekian (2012);Chinaemerem and Anthony (2012); Iavorski (2013).

3.5 Model Specification

The Model adopted in this research study is in line with that of Chinaermerem and Anthony (2012) and Muritala (2011) Thus, the general model for this study as is mostly found in the extant literature is represented by,

$Y = \beta 0 + \beta 1\ D1 + \beta 2\ Z2 + eit$ …….. (1)

Where; Y is the dependent variable

D1 is the explanatory variable

Z2 is the controllable variable

β1 and β2 are the coefficients of the explanatory and controllable variables, respectively. eit is the error term. It has zero means, constant variance and non-auto correlated specifically, when the above model is adopted here, equation (1) above can be written as:

Model 1

ROA = β0 + β1 DR + β2 AGE + β3 SIZE + β4 TURN + β5 TANG
+β6 GROW + eit …… (2)

Model 2

ROE = β0 + β1 DR + β2 AGE + β3 SIZE + β4 TURN + β5 TANG
+β6 GROW + eit …… (3)

The co-efficient of the explanatory and controllable variables (β1 ……, β6) can be estimated by the use of GLS technique. Panel data methodology is adopted in this study. This combines
Simultaneously cross – section and time series data. The formulas used are as follows:

R.O.A = Profit after tax / Total Asset

R.O.E = Profit after tax / Total number of ordinary shares in issue

Debt ratio = Total Debt / Total Assets

Asset Turnover = Sales / Total Assets

Size = Natural logarithm of total assets

Age = The number of years since the inception of the firm to the observation date

Asset tangibility = Net fixed Assets / Total Assets

Growth = Change in the natural logarithm of total assets

4.0 Results and Discussion

In this section, the results are presented and major findings are discussed. The section commenced with descriptive statistics of the studied variables covering the period of five years from 2008 – 2012, Correlation matrix and panel data (Random – effect GLS Regression) were used.

Table 3: Descriptive Statistics of Variables

Variable |	Obs	Mean	Std. Dev.	Min	Max
ROA	35	.0496546	.7498643	-1.272984	3.759598
ROE	35	1.197077	2.115103	-.8743598	9.920547
DR	35	2.347235	4.848292	.0751801	18.15557
AGE	35	33.42857	15.4049	9	54
SIZE	35	6.582058	1.041101	4.816155	8.236812
TURN	35	1.578909	2.369436	0	13.86728
TANG	35	.5209751	.439727	.0226015	2.514838
GROW	35	.2264936	1.226538	-1.131287	6.483429

Source: Generated by the Researcher from the Annual Reports and Accounts of the sampled companies using Stata (Version 11).

Table 3 presents the descriptive statistics of dependent and independent variables of this research study. The table shows the mean, standard deviation, minimum, and maximum. The mean ROA of the sample firm is 50% , while that of the ROE is 120% this result indicates that for every ₦100 worth of total assets a ₦50 was earned as profit after tax, while ₦120 was earned as after tax profit on every ₦100 equity share issued. The highest average value and standard deviation of the independent variables is the Age of the firms with 33.43 and 15.40 respectively indicating that a firm's age has a positive impact on firms' performance as argued by Stiochcombe (1965) in Chinaemerem and Anthony (2012) that older firms can experience – based economies and avoid the liabilities of new ones. The above analysis further shows the mean Debt Ratio as 2.35 Asset turnovers 1.58 and the size of the firm 6.58. The average age of the firm is about 33 indicating the firms are not relatively young. The mean asset tangibility is 0.52 indicating that the proportion of the firms fixed assets to total assets is 52%. The mean grow opportunity is about 22%.

The correlation matrix, as could be seen in table 4a and 4b, shows the relationship between all pairs of independent variables used in the regression model.

Table 4a: Correlation Matrix of ROA As Dependent Variable

	ROA	DR	AGE	SIZE	TURN	TANG	GROW
ROA	1.0000						
DR	-0.3471	1.0000					
AGE	-0.0912	-0.3092	1.0000				
SIZE	0.3602	-0.6047	0.3365	1.0000			
TURN	0.8791	-0.1228	-0.0635	0.2277	1.0000		
TANG	0.4641	0.4326	-0.1691	-0.2668	0.5641	1.0000	
GROW	-0.1370	-0.1541	0.2083	0.1316	-0.2132	-0.0626	1.0000

S*ource: Generated by the Researcher from the Annual Reports and Accounts of the sampled companies using Stata (Version 11).*

Table 4a reveals that the dependent variable ROA is negatively correlated with Debt ratio and age significant at 10%. It further revealed a positive correlation between ROA and size, asset turnover and asset tangibility all at 10% significance

Table 4b: Correlation Matrix of ROE As Dependent Variable

	ROE	DR	AGE	SIZE	TURN	TANG	GROW
ROE	1.0000						
DR	-0.2493	1.0000					
AGE	0.4618	-0.3092	1.0000				
SIZE	0.6130	-0.6047	0.3365	1.0000			
TURN	0.2323	-0.1228	-0.0635	0.2277	1.0000		
TANG	-0.0722	0.4326	-0.1691	-0.2668	0.5641	1.0000	
GROW	-0.0447	-0.1541	0.2083	0.1316	-0.2132	-0.0626	1.0000

S*ource: Generated by the Researcher from the Annual Reports and Accounts of the sampled companies using Stata (Version 11)*

Table 4b reveals ROE is negatively correlated with debt ratio and also with asset tangibility and growth opportunity, further revealing positive correlation with age size and asset turnover. This findings of ROA and ROE being negatively correlated with debt is consistent with the result obtained from previous studies of Akintoye(2008),Onaolapo and Kajola(2008),Chinaemerem and Anthony(2012), Pouraghajan and Malekian (2012,) Chetchet and Olayiwola(2013),Okay and Bainaebi(2013), Muritala (2013).

Table 5a: Random - effect GLS Regression (ROA)

ROA	COEFFICIENT	STD ERROR	t	P>|t|
DR	-.0552401	.0151549	-3.65	0.001
AGE	-.0074269	.0035898	-2.07	0.048
SIZE	.0860896	.0656236	1.31	0.200
TURN	.2052047	.0332569	6.17	0.000
TANG	.4392685	.1862183	2.36	0.026
GROW	-.0131926	.0449049	-0.29	0.771
-CON	-.688919	.4473998	-1.54	0.135

R-sq: Within = **0.8683** Between = **0.8809** Overall = **0.8734** Probability = **0.0000**

S*ource: Generated by the Researcher from the Annual Reports and Accounts of the sampled companies using Stata (Version 11).*

In evaluating the model based on the regression result. Table 5a shows that as ROA increases, size, asset turnover and asset tangibility increases. This implies that ROA is positively related with size, asset turnover and asset tangibility and this can be justified with their positive "t" value. On the other hand Dr, age and growth opportunities, decreases as ROA increases. The coefficient of determination, "R-square", shows relationship within the values of 86.8% and 88.1% while the overall R^2 is 87.34% indicating that the variables considered in the model accounts for 87.34% change on the dependent variable (DR) while the remaining 12.66% of the change is as a result of the variables not addressed by the model.

Table 5b: Random – effect GLS Regression (ROE)

ROE	COEFFICIENT	STD ERROR.	z	P>|z|	
DR	.1093195	.082843	1.32	0.187	
AGE	.0496283	.0196232	2.53	0.011	.
SIZE	1.254162	587256	3.50	0.000	.
TURN	.1255918	.1817959	0.69	0.490	
TANG	-.2050262	1.017945	-0.20	0.840	
GROW	-.2332858	.2454683	-0.95	0.342	
-CON	-9.012142	2.445671	-3.68	0.000	

R-sq: within = **0.0162** Between = **0.7368** Overall = **0.5247** Probability = **0.0000**

S*ource: Generated by the Researcher from the Annual Reports and Accounts of the sampled companies using Stata (Version 11)*

In table 6b as ROE increases, the debt ratio, age, size and asset turn over increases, implying that it is positively related with these variables and this can be justified with their positive "z" values. On the other hand, asset tangibility and growth opportunities, decreases as ROE increases. The coefficient of determination," R square", shows relationship within the value of 1.6% and 73.78% while the overall R^2 is 52.47% indicating the variables considered in the model accounts for 52.47% change on the dependent variable (DR)In general, the relationship between ROA and ROE (performance proxies) with the only dependent variable (DR) is negative and this is in line with the work of Chinaemerem and Anthony (2012) it can then be concluded that DR has an impact on firms' financial performance.

ROA = -.68892 - .05524 - .00743 + .08609 + .20520 + .43927 - .01319 + ε
ROE = -9.01214 + .10932 + .04962 + 1.25416 + .12559 - .20503 - .23329 + ε

5.0 Conclusion

This paper investigates the impact of capital structure on firms' financial performance using seven (7) Food Product Companies listed in the Nigeria Stock Exchange for the period 2008 – 2012. The paper seeks to fill the gap in the literature as a result of the studies conducted so far in this area using Nigeria data a. An attempt was made by Chinaemerem and Anthony (2012) using sample of 30 non financial firms listed on the NSE from 2004 – 2010, using OLS as a method of estimation found that Dr has a significantly negative impact on the firms financial performance measures (ROA and ROE).Using panel data analysis(Random-effect GLS regression) on the selected samples, the researcher conclude that with these independent variables (dr age size asset turn over and asset tangibility)with ROA as a measure of performance age , size and asset turnover have positive impact on firms financial performance with asset turnover having the highest impact being positively significant at 1%. With ROE, age dr and asset turnover have positive impact on performance with size having the highest positively impact at 1% significant level, these is in line with the result of Chinaemerem and Anthnoy (2012) The negative relationship between asset tangibility and ROE as a measure of performance implies that the sampled firms are no able to utilize the fixed asset composition of their total assets judiciously to impact positively on firms performance. These firms should implement policy that will see to the utilization of their fixed assets because firms with more tangible assets are less likely to be financially constrained.

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