

Effect of Capital Structure on Profitability of Selected Quoted Agricultural Companies in Nigeria

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Abstract: - This study investigated the effect of capital structure on profitability of selected quoted agricultural companies in Nigeria. The study specifically ascertained the extent to which capital structure ratios; debt, equity, debt-to-equity and capitalization ratios influence profitability of selected quoted agricultural Companies in Nigeria within the time frame of 12 years; (2006-2017). An ex-post facto research design was adopted involving time series panel data sourced from the annual financial statements of four selected quoted agricultural companies in Nigeria. The formulated hypotheses were tested considering the fixed effect model (FEM) multiple regression approach using ordinary least square (OLS) equation to estimate the influence of explanatory variables on explained variable with a control variable; assets tangibility to moderate the differences in the companies' assets with the aid of E-view 9.0 version. The study found that debt and debt-to-equity ratios exert negative and significant influence on profitability of quoted agricultural companies in Nigeria, while, equity and capitalization ratios have positive and significant effect on profitability of quoted agricultural companies in Nigeria. The implication of the findings is that quoted agricultural companies in Nigeria will be profitably sound with increased level of equity and capitalization ratios in their capital base vi-sa-vis their business operations. The study, therefore recommends that there is need for the quoted agricultural companies in Nigeria to increase their equity funding and capitalization ratio while they should reduce their debts and debt-to-equity mix in their capital structure base.

Keywords: Capital Structure, Profitability, Nigeria, Return on Asset, Capitalization ratio, Agricultural Companies.

I. INTRODUCTION

The relationship between capital structure and profitability performance in any company has been a focus of incredible milestone over the past decades. One of the main objectives of every business concern is profit maximization. But to attain such objective, companies' capital structure/mix is a factor not to be jettisoned with. This argument was supported by Mwangi (2014) who argued that most company managers lack adequate knowledge on the dynamics of capital structure as it relates to company's profit performance.

The term capital structure is generally described as the combination of debt and equity that make up the total assets of companies (San and Heng, 2011). It is all about how companies finance their overall operations and growth by using different accessible sources of funds. Thus, it is the relative mix of various sources of capital utilized by the company and is a key consideration across the business world.

The capital mix of a company can take many forms, but the most realistic is that which combines both a certain percentage of debt and equity in the structure and thus, the advantages of leverage (if any) are exploited (Ezeoha, 2011).

The term profitability is a subjective measure of how well a company can use its assets from its primary mode of business to generate revenues. It is also used as an overall measure of a company's financial health over a particular period of time (Oditia, 2012). Measures of profitability include the operating income, return on equity (ROE), return on investment (ROI), return on capital employed (ROCE), return on asset (ROA) amongst others that serve as important tools to the stakeholders to access the present position and the precedent performance of the company. This is consistent with the goal of the maximizing objective of the wealth or value of the firm (Abor and Biekpe, 2015). However, investors mainly consider profitability in the agricultural industry based on the analysis of profitability measure of ROA which has to do with the return on assets utilization of the companies (Olekule and Oni, 2014). Return on assets (ROA) as a profitability measure is one of the tools which indicates the financial strength, Weakness, opportunity and threat of a firm (Zeitun and Tian, 2008).

The existence of the link between a firm's capital structure and its profitability has been a seriously debated and researched area for several decades in finance, accounting and business management research. Some researchers are for more equity than debt while others are for more debt than equity. Many researchers have come up with different perspectives in their studies; while some revealed positive relationship, others revealed negative relationship between capital structure and profitability and some others discovered no relationship between the variables while some other got mixed results, hence, the findings are still contestable. This study fills the gap and adds to the body of existing knowledge by analyzing such kind of relationship here in Nigeria.

The difficulty facing quoted agricultural companies in Nigeria has to do more with the financing sources; whether to raise debt or equity capital, what would be the volume of debt-to-equity and their capitalization ratios in relation to their business operations and the level of their mixtures. The issue of finance is so important that it has been identified as an immediate reason for business failing to start in the first place or to progress. This is so because the rate at which capital is

borrowed has serious implication on the profitability capacities of business concerns (Pandey, 2010).

Another issue of serious concern is that quoted agricultural companies in Nigeria are fragile and underperforming (NSE, 2015). This is because they engage in series of unrelated business activities prone to financial and business risk with low asset tangibility which is the book value of property, plants and equipment -total net (PPENT) scaled by total assets (Owolobi and Inyang, 2013). And as such, most money deposit banks find it uninteresting lending to them because of the high risk nature of their businesses. Unfortunately, most quoted agricultural companies in Nigeria face hurdles in sourcing funds and this has left many of them with poor capital structure which makes it difficult to achieve the ever increasing and differing stakeholders' objectives (Nassar, 2016). This constitute a serious concern because a company considered too highly-leveraged (too much debt versus equity) finds its freedom of operations restricted by its creditors and/or may have its profitability hurt as a result of paying high interest costs. Of course, the worst case scenario would be having trouble meeting operating and debt liabilities during periods of adverse economic conditions. Similarly, a company in a highly-competitive business environment, if hobbled by high debt and low equity, may find its competitors taking advantage of its problems to grab more market share.

The link between capital structure and profitability of quoted agricultural companies in Nigeria has been the subject of national debate as government attention is always on food security not minding the earnings/returns of the companies in that industry.

From the foregoing, there are challenges based on the available empirical literature, hence, this study investigates the influence of capital structure on the profitability of quoted agricultural companies in Nigeria.

A. Conceptual Review

1) *Capital Structure*: Capital structure is one of the most sensitive issues of any organization, because it directly relates to competitive environment (Pandey, 2010). Capital structure is basically viewed by Appa (2013) as a company's financial framework. Primarily, it is a mix of debt and equity capital maintained by a company. It consists mainly of a combination of debt and equity as well as all other sources of finance such as retained earnings among others available to the company (Margaritis and Psillaki, 2007). Pandey, (2010) views capital structure as how a firm finances its overall operations and growth by using different sources of funds.

. The term capital structure is generally described as the combination of debt and equity that make up the total asset of a company (San and Heng, 2011). It is all about how companies finance their overall operations and growth by using different sources of funds. These different sources of

capital are measured in ratios such as debt, equity, debt/equity and capitalization ratios. Capital structure ratios as represented by leverage ratios indicate the proportion of debt and equity in financing the firm's assets, Pandey (2010).

2) *Profitability*: Profitability is the level of performance of a firm over a specified period of times, expressed in terms of overall profit or losses during that time (Tian and Zeitun, 2007). It is measuring the results of a firm's policies and operation in monetary terms. These results are reflected in the firm's return on investment, return on assets and valued added (Abor, 2008). For a long time, profitability has been perceived only through its ability to obtain profits. Analysis of the determinants of profitability is essential for all the stakeholders, but especially for investors. This principle provides a conceptual and operational framework for evaluating business performance.

A company's profitability performance is directly influenced by its market position. It is often the measuring tool which indicates the financial strengths, weaknesses, opportunities and threats. Those measurements are return on assets (ROA), return on investment (ROI), residual income (RI), earning per share (EPS), dividend yield, price earnings ratio, growth in sales, market capitalization etc. According to the Business Dictionary profitability is the ability of a firm to generate net income on a consistent basis.

Ratio is used as a benchmark for evaluating the profit performance of a firm. Ratios help to summarize large quantities of financial data and to make qualitative judgment about the firm's profitability.

3) *Capital Structure and Profitability*: The relationship between firm profitability and capital structure can be explained by the pecking order theory (POT), which holds that firms prefer internal sources of finance to external sources. The order of the preference is from the one that is least sensitive (and least risky) to the one that is most sensitive (and most risky) that arise because of asymmetric information between corporate insiders and less well informed market participants (Abor, 2007). Profitable firms with access to retained profits can rely on them as opposed to depending on outside sources (debt).

Titman and Wessels (2008) agree that firms with high profit rates, all things being equal, would maintain relatively lower debt ratios since they are able to generate such funds from internal sources. As Myers (1984) explained, firms with the ability to generate acceptable amount of profit and earnings are tend to use their own internal source of funds to finance their project.

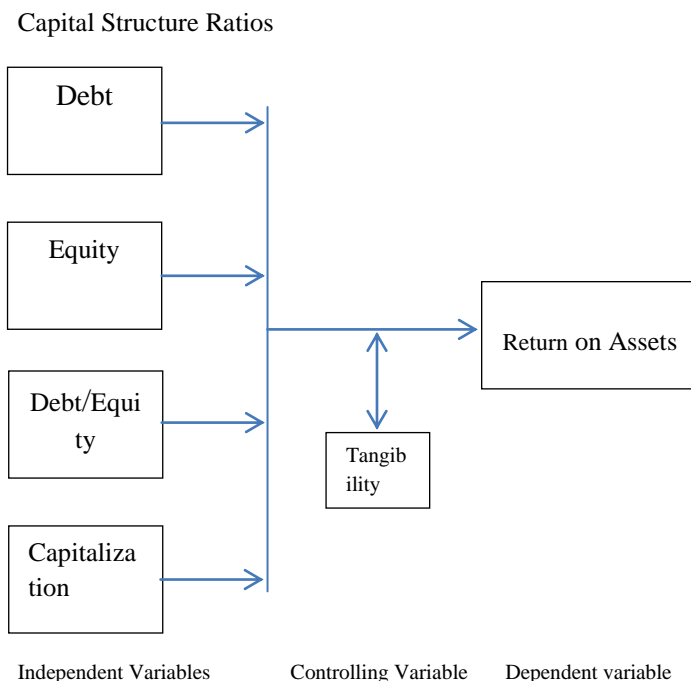


Fig. 1. Conceptual framework of capital structure ratios and return on assets

From the above conceptual framework figure, debt ratio, equity ratio, debt-to-equity ratio and capitalization ratio on the left hand side represent the independent variables (capital structure), the tangibility of the companies' assets as control variable, while corporate profitability proxied with return on assets (ROA) on the right hand represents the dependent variable. The figure 1 above shows how the regression model; the relationship between capital structure and profitability proxied with ROA involving tangibility as control variable was specified in next section. The essence of introducing control variable is to make the study's result more comparable to those of previous studies. Thus, the study controlled for the effect of debt ratio, equity ratio, debt-to-equity ratio, capitalization ratio and the level of profitability.

4) *Quoted Agricultural Companies at Nigerian Stock Exchange (NSE)* Agricultural stocks are projected to continue lagging in performance at the NSE with most investors expected to continue going after liquid companies, whose business is not affected by uncontrollable factors like the weather. External factors such as the fluctuation of the local currency, economic downturns in export markets, and high costs of inputs affect the profits of agricultural companies and by extension the dividends they pay out. The five quoted agricultural companies in the Nigerian Stock Exchange (NSE) are covered. They are; Ellah Lakes Plc, FTN Cocoa Processors Plc, Livestock Feeds Plc, Okomu Oil Palm Plc and Presco Plc. But in the course of this study, we studied only four leaving Ellah Lakes Plc because of non availability financial reports.

The choice of quoted agriculture companies for the study among others is because companies in this sector have the potentials and capabilities of easily diversifying the

Nigerian economy and boost the country's GDP as it has the human, social, land and market capital to drive the economy.

B. Empirical Review

Numerous studies have been conducted to explore the type of the relationships between a company's capital structure and profitability amongst of them are;

A study had been done by Abor and Biekpe (2015) on the influence of capital structure on profitability of listed companies on the Ghana Stock Exchange using a five-year period. The regression output showed that there is positive relationship between DR and ROE which measure the relationship between total debt and profitability. This indicates that companies which earn a lot are depending on debt as their key financing option. He also found out that there is significant positively interrelation between SDA and ROE and shows that companies which earn a lot use more short-term debt to finance their business.

Onaolapo and Kajola (2010) studied the effect of capital structure on profitability of firms listed on the Nigerian Stock Exchange. Using the general OLS regression to analyze collected data, the results indicated that financial leverage had a significant negative relationship on profitability, Return on Assets and Return on Equity of tested companies..

San and Heng (2011) conduct investigation on the relationship between capital structure and performance of Malaysian Construction sector. Ordinary least square model was used to estimate the regression equation and the results of the regression analyses carried revealed a mixed relationship between the variables investigated. While for the big companies, the result showed a positive relationship between ROCE and DR on one hand; and EPS and LDR on the other hand. However, a negative relationship was reported between EPS and DR in small size companies.

Uwalomwa and Uadiale (2012) did a study to basically investigate the relationship between capital structure and the profitability of listed firms in Nigeria. The annual reports for the period 2005-2009 were analyzed using the Ordinary Least Squares (OLS) model estimation to test the research propositions stated in the study. The study observed that two of the explanatory variables in the study (i.e. short-term debt and shareholders' funds) have a significant positive impact on the profitability of listed firms in Nigeria. The study concludes that employing high proportion of long-term debt in firms' capital structure will invariably result in a low profitability of a firm.

Another study was done by Abiodun (2012) on the effect of optimal capital structure on manufacturing firms performance in Nigeria, used a sample of 10 firms from 2000 to 2009. The researcher used debt ratio as capital structure variable against company performance, and found that there is a relationship between the distribution of debt ratio and corporate profitability and their main conclusion was that the manufacturing industries was consistent with trade off theory.

That means debt ratio has positive relation with corporate profitability.

Odita (2012) used regression and Pearson correlation to analyze the impact of capital structure on firm performance in Nigeria. He used performance measures of return on assets and return on equity while capital structure measures were debt ratios and controlling variables of asset turnover, firm size, age, asset tangibility and firm growth opportunity. His study results indicated a negative and significant relationship between profitability measures of return on assets and return on equity against debt ratio..

Nasreem, *et al.* (2013) also tested the relationship between firm's capital structure and profitability in Pakistan using a sample of 83 companies listed in Karachi stock exchange. Researcher used debt to equity ratio as a measure of capital structure while other ratios like earning per share, price earnings ratio; operating profit margin, return on asset and return on equity were used as proxies for firm performance. After analyzing data using regression model, the study found that profitability of a company was significantly affected by their capital structure and their relationship was negative in nature.

Appah, (2013) investigated the impact of capital structure on operating performance of thirty two firms quoted on the Nigerian Stock Exchange from 2005 to 2011 in a total of 224 observations by analyzing relationship between operating performance measures and capital structure variables. Total assets efficiency was used as control variable. The result revealed that capital structure variables have significant negative relationship with operating performance after the regression analysis. They recommended that performance of quoted firms can be improved using the optimal capital structure model.

Ogebe, Patrick, Joseph, Alewi and Kemi (2013), examined the Impact of Capital Structure on Firms' Performance in Nigeria. The study seeks to investigate the impact of capital structure on firm performance in Nigeria from 2000 to 2010. Using fixed effect regression estimation model, a relationship was established between performance and leverage of the firms over a period of ten years. The results provide strong evidence in support of the traditional theory of capital structure which asserts that leverage is a significant determinant of firms' profitability. A significant negative relationship is established between leverage and performance.

Masavi, Kiweu and Kinyili (2017) studied capital structure and profitability of agricultural companies listed in Nairobi securities exchange, Kenya. The study adopted longitudinal research design with targeted population being the six agricultural companies listed in NSE. The findings of the study showed that an increment in debt ratio will lead to an increment in profitability, and debt-equity combinations increase will lead to a significant reduction in after tax profits of the companies and capital structure affects profitability.

C. Theoretical Framework

Since the Modigliani and Miller theory (1958) argue that under the perfect capital market condition, the company's profitability/value is independent from its capital structure. Since then, many theories such as Irrelevance Theory, Trade-Off Theory, Pecking Order Theory, and agency cost theory, market timing theory among others have been developed to explain the dynamics of capital structure of companies vis-a-vis their profitability. However, for the purpose this study, we underpinned the study with the Pecking Order Theory (POT)

The Pecking order theory was propounded by Myers and Najfuf in the year 1984. This theory advocates that companies should use the cheapest form of finance to run their operations first. In most cases, businesses adhere to hierarchy of financing sources and mostly prefer internal sources first and debt is preferred over equity due to information asymmetry between the firm and outsiders. Internal sources may not be efficient to meet certain financial decisions therefore the firm may consider external borrowing. Too much external borrowing affects financial decision. According to Goyal, (2003) Pecking order theory states that companies prefer internal funds, if available, and use debt or issue equity last. In line with Myers (1984), companies prefer internal sources to external finance due to asymmetric information.

The utilization of external financing sources are signals to information that a firm is not profitable, which can decrease stock prices. When external financing sources are obligatory, firms choose debts to equity because of lower information costs relate with debt. Issuing new stock, instead of acquiring new debt, signals the news that directors think firms' stocks are overpriced. Goyal, (2003) posited that the management of a company usually knows more about its company's business and financial information than average outside investors do and the company administration don't expect to issue new stock when they think the stock price is undervalued in the market. When the market is fairly priced or overpriced management tend to issue shares. Thus, outside investors may interpret the declaration of a stock issue as a negative signal for the current stock price.

This theory is relevant to this study since agricultural firms operate in a financial environment that fits the Pecking order. If the agricultural firms must use outside financing, preference capital is to be used in the subsequent command of funding sources: convertible securities, debt, preferred stock, and common stock. An appropriate debt to equity ratio and current ration needs to be maintained.

II. METHODOLOGY

The study adopted *ex-post facto* research design. This is because this design is employed when events or variables of the study are already in place (not manipulated or manufactured by the researcher) and are being studied retrospectively by comparing measures or scores obtained from the independent variables in order to find out the impact

or effect of their independent variables on the dependent variable (Nwankwo, 2011). Thus, we conducted this study based time series panel data analysis covering the periods from 2006 – 2017.

The study focused on the influence of capital structure on profitability of quoted agricultural companies using four out of the five quoted Agricultural companies at the Nigerian Stock Exchange. The quoted Agricultural companies are; Livestock Feeds PLC, Okomu Oil Processors PLC, Presco Oil PLC and FTN Cocoa Processors PLC. The period of twelve years (2006-2017) covered in the study; we assume are adequate to uncover the effect of dynamics in capital structure mix and profitability of quoted agricultural companies in Nigeria.

The data used for the study depended on secondary sources and were based on historical cross-sectional time series panel data analysis covering from 2006 - 2017. The secondary quantitative panel data on the research variables were obtained from the published annual reports/financial statements of the quoted agricultural companies at the Nigerian Stock Exchange (NSE) using their websites for the data covering a period of 12 years (2006 - 2017). The period of 2006-2017 covered in the study adequately uncover the effect of changes in capital structure dynamics and profitability of quoted agricultural companies in Nigeria.

A. Analytical Technique

The panel data gathered were analytically estimated using the Multiple Ordinary Least Square (MOLS) regression techniques with the aid of E-view 9.0 econometric software to test the hypotheses and establish the effect of capital structure on corporate profitability. The descriptive statistical technique was used to examine and analyze the characteristics of the collected time series panel data (the dependent and independent variables). Correlation test was used to ascertain the strength and magnitude of the relationship between the dependent and independent variables, Diagnostic tests such as normality test and homogeneity tests were performed to ascertain the nature of the relationship that exists between the dependent and independent variables. While statistical tests such as F- statistic and Hausman test were carried out to test the overall significance of the regression equation and to select the model (fixed effect or random effect) that mostly suite/appropriate for estimation respectively. Hansen test and Jarque-Bera normality test were used for the validity and normality of instruments used.

B. Model Specification

To estimate the regression equation, the study adopted the general multiple ordinary least square (MOLS) regression model base in line with the specific objectives variables of the study. The regression model is specified thus;

$$Y=a+bx\dots \quad (1)$$

Profitability is a function of capital structure. However, in this study, we proxied Profitability with return on assets (ROA) and capital structure measured with capital structure ratios.

Therefore;

Return on Assets = Capital structure ratios (Debt ratio, Equity ratio, Debt/Equity ratio and Capitalization ratio).

To empirically express the relationship between return on assets and capital structure ratios of quoted agricultural companies, the base line model equation is specified thus;

$$ROA = \beta_0 + \beta_1DBTR + \beta_2EQR + \beta_3D/ER + \beta_4CAPR + \varepsilon \dots \quad (2)$$

Where;

ROA = Return on Assets of quoted Agricultural Companies. DBTR = Debt Ratio; EQR = Equity Ratio; D/EQR = Debt to Equity Ratio; CAPR = Capitalization Ratio and ε = Error term.

However, a model based on a panel structure provides the ability to analyse a dataset involving both time series (different periods) and cross sections (different entities) each with a dependent and possible multiple independent variables. The study involved observations of dataset from the four quoted agricultural companies in Nigeria between 2006 and 2017 ($4 \times 12 = 48$) such that the study consists of 48 observations.

Thus, equation 2 above was restated to form a panel regression model as shown below;

$$Y_{it}=\beta_0+\beta X_{it}+\varepsilon_{it} \dots \quad (3)$$

Where;

Y_{it} is the Corporate Profitability, i over a given period of time, X_{it} representing the variables which can have effect on corporate profitability of the period of time.

To practically linearize equation (2) with (3), the functional equation (3) was expressed in multiple regression equation form and to control or moderate the effect of independent variables and make the equation robust, control variable; asset tangibility was introduced to control and neutralize the differences in the assets of the companies. Thus, the robust base line multiple regression equation becomes;

$$ROA_{it} = \beta_0 + \beta_1DBTR_{it} + \beta_2EQR_{it} + \beta_3D/ER_{it} + \beta_4CAPR_{it} + \beta_5TANG_{it} + \mu_i + \varepsilon_{it} \dots \quad (4)$$

Where;

β_0 is the constant term, μ is the panel specific error and ε_{it} is the error term, while it is the coefficients which measure the impact of each variable over the period.

Where;

ROA = Return on Assets, DBTR = Debt Ratio; EQR = Equity Ratio; D/EQR = Debt to Equity Ratio; CAPR = Capitalization

Ratio, TANG = Company’s Assets Tangibility, β_{1-5} = Coefficients estimated or the Coefficients of slope parameters.

C. Hypotheses

1. Ascertain the extent to which debt ratio affects profitability of selected quoted agricultural companies in Nigeria.
2. Establish the extent to which equity ratio affects profitability of selected quoted agricultural companies in Nigeria.
3. Examine the extent to which debt-to-equity ratio affects profitability of selected quoted agricultural companies in Nigeria.
4. Determine the extent to which capitalization ratio affect profitability of selected quoted agricultural companies in Nigeria.

3. The level of debt/equity ratio has negative and significant influence on profitability proxied with return on assets (ROA) of quoted Agricultural Companies in Nigeria. The coefficient of D/EQR (-0.13309) and p-value (0.0667) evidenced the finding at 5% level of significance.
4. The level of capitalization ratio has positive and significant effect on profitability represented by return on assets (ROA) of quoted Agricultural Companies in Nigeria. The coefficient of capitalization ratio of (0.18164) and p-value of (0.0048) evidenced the finding at 5% level of significance.

III. FINDINGS AND DISCUSSIONS

TABLE I
ROBUST PANEL REGRESSION RESULTS

Series	Pooled OLS (1)	FE OLS (2)	Random E. OLS (3)
C	0.42647 [0.0000]**	0.40425 [0.0000]**	0.42529 [0.0000]**
DBTR	-0.13097 [0.1976]	-0.16400 [0.6362]	-0.13686 [0.2036]
EQR	0.15770 [0.0001]**	0.14717 [0.0030]**	0.05711 [0.0001]**
D/EQR	-0.12158 [0.0659]**	-0.13309 [0.0667]	-0.11968 [0.1869]**
CAPR	0.17649 [0.0059]	0.18164 [0.0048]	0.17723 [0.0064]
TANG	0.25262 [0.0023]**	0.28281 [0.0321]	0.26281 [0.0010]**
Observations	48	48	48
R-Squared	0.559	0.675	0.494
F-Value	6.3730 [0.0001]	2.7187 [0.0008]	6.1193 [0.0001]
Hausman Test	0.273842	P-Value =	[0.0685]

Sources: Researcher’s computation from E-view (version 9.0)

** indicates 5% level of significance.

From the four formulated and tested hypotheses of the study, the following are the summarized findings;

1. Debt ratio has negative and significant effect on profitability represented by return on assets (ROA) of quoted Agricultural Companies in Nigeria. This because the p-value of 0.6362 is greater than the 0.05 at 5% level of significance.
2. Equity ratio has positive and significant impact on profitability proxied with return on assets (ROA) of quoted Agricultural Companies in Nigeria. This is

From the test of hypothesis one, the result shows that the effect of debt ratio volume on profitability proxied with ROA of quoted Agricultural companies in Nigeria is – 0.16400 or – 16.4% indicating a negative significant effect or relationship. Also, F –Statistic computed value of 2.7187 is less than the theoretical table value of 8.57 at 5% degree of freedom. And at 0.05 or 5% level of significance, p - value is 0.6362 which is greater than 0.05, hence null hypothesis (H_0) one which states that debt ratio has negative significant effect on return on assets (ROA) of quoted Agricultural companies in Nigeria is accepted.

In testing hypothesis two, the computed/estimated value of F- Statistic is 2.7187 at 5% degree of freedom is less than the theoretical table value of 8.57. while at 5% level of significance, the p –value is 0.0030 which is less than 0.05, thus, the second alternative hypothesis (H_1) which states that equity ratio has significant effect on return on assets (ROA) of quoted Agricultural companies in Nigeria is accepted by the study.

In hypothesis three testing, the estimated r^2 is 0.275, while the computed F- Statistic value is 2.7187 which is less than theoretical table value of 8.57 at 5% degree of freedom. Also, at 5% or 0.05 level of significance, the p- value 0.0667 which is also greater than 0.05 hence, null hypothesis (H_0) three which states that debt-to-equity ratio has no significant effect on return on assets (ROA) of quoted agricultural companies in Nigeria is hereby accepted by the study.

In testing hypothesis four, the F- Statistic computed value is 2.7187 which is less than the theoretical value of 8.57 at 5% degree of freedom. Again, the p – value of 0.0048 is less than 0.05 at 5% level of significance, thus, the fourth hypothesis alternative hypothesis (H_1) which states that capitalization ratio has significant effect on return on return on assets (ROA) of quoted agricultural companies in Nigeria is accepted by the study.

IV. CONCLUSION

This study investigated the influence of capital structure on the profitability of quoted agricultural companies in Nigeria. The findings show that debt ratio has negative significant

effect on return on assets (ROA) of quoted Agricultural companies in Nigeria; that equity ratio has significant effect on return on assets (ROA) of quoted Agricultural companies in Nigeria; that debt-to-equity ratio has no significant effect on return on assets (ROA) of quoted agricultural companies in Nigeria; and that capitalization ratio has significant effect on return on return on assets (ROA) of quoted agricultural companies in Nigeria.

Based on the forgoing findings, the study therefore recommends the following;

- a) That quoted agricultural companies in Nigeria should reduce the level of debts mixture in their capital structure since it has negative and significant effect on the companies' profitability.
- b) That quoted agricultural companies in Nigeria should increase the level of the equity funding to a reasonable extent in their capital base so as to have full control and diversify the business operations of their companies in order to net reasonable financial returns in their business.
- c) The study also recommends that debt-to-equity level of quoted agricultural companies in Nigeria should be reduced so that much of their financial resources will not be used in servicing loans since high debt-to-equity has negative and significant influence on corporate profitability of the companies.
- d) More so, the study recommends an increase in the capitalization ratio of quoted agricultural companies in Nigeria.

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