

Firm Growth and Profitability: An Empirical Study of Listed Agricultural and Agro Allied Companies in Nigeria

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Abstract: This study empirically examines the effects of firm growth on the profitability of listed agricultural and agro allied firms in Nigeria. The population of the study consists of twenty four (24) listed agricultural and agro allied firms in Nigeria as at 31st December 2016. The sample size of the study is (20) twenty for the period of nine years (2008-2016). The judgmental sample technique was applied. The panel data was extracted from the annual report and accounts of the study firms. A multiple regression was used to analysis the data through STATA₁₃ to test the null hypotheses of the study. The Hausman test conducted indicated that the model is fixed effect. The result of findings showed that sales growth has a positive and significant effect on return on asset, also asset growth shows a insignificant negative effect on return on asset, while firm age revealed a significant negative effect on return on asset of the listed agricultural and agro allied firms in Nigeria. It is recommended among others that the management of agricultural and agro allied firms in Nigeria should maintained a level of sales level through market strategies. The firm managers should strike a balance between asset investment and profitability and always maintain reasonable level of profitability has company grow older to prevent liquidation of companies.

Keywords: sales growth, asset growth, firm age, returns on asset, agricultural and agro allied companies and Nigeria.

INTRODUCTION

Agricultural and agro allied industries are the most important sector in Nigeria. This is due to its contribution to labour force and GDP in the country [1]. According to African development bank [2], agricultural productivity with linkages to agro-based industries will propel economic growth, generate employment, reduce poverty and ensure the nation's food security. Firm's profitability is the ability to generate new resources from day-to-day operation over a given period of time and it is gauged by net income and cash from operation [3]. According to Yahaya and Lamidi [4], pofitability is used to measure firm's overall financial health over a given period of time. Therefore, the company growth is considered such as important measure of performance [5]. Firm growth which recognizes that causes of growth of a firm can be both external and internal to the firm and is based on the premise that firms have no determinant long run or optimum size [6].

Firm growths is said to have significant role in explaining firm level of profitability [7]. The variable ranges from asset growth, sales growth, premium growth, firm age, firm size [8-12]. Therefore, this study

focuses on firm growth in terms of sales growth, asset growth, and firm age. Sales growth is defined as the annual percentage growth in sales that is consistent with the firm's financial policies [13]. Sales growth is considered positive for a company's survival and profitability. Asset growth is defined as the increase in firm asset over time. Firm age refers to the number of years of the firm's existence in business [14].

With the advent of oil some decades ago in Nigeria, the agricultural sector has been experiencing poor investment performance [14]. For instance, agriculture sectors contribution to GDP dropped from 61% in 1960 to 24.18% in 2015 [50,1]. This tremendous reduction in the sector growth may be as a result of low productivity in the agricultural industries due to corruption, weak institutional capacity, the infrastructure deficit, and weak business environment with poor linkages to agro-based industries [15]. This reflects a number of challenges faced by this sector in 2016, such as higher costs of imported inputs as a result of the exchange rate, and higher energy costs as a result of a fall in electricity generation, and more expensive fuel. This indicates underutilization of resources and

falling productivity [15]. This reflected in fluctuating firms profit after tax [14].

The mixed findings and divergent views in prior literatures as to whether firm growth have influence on profitability; this create vacuum for further research. Based on the review of several empirical studies accessible and available to the researcher, no study of this nature has been conducted on the agricultural and Agro- allied companies together in Nigeria despite their strategic importance to the Nigerian economy. For instance, studies such as Ali, Mohammed & Amer [7], focus on financial institution, Adesiyani [16], used only agro allied industries in Nigeria, Samuel, George, & Amos [17] used only agricultural firms and company size as the only proxed used. In addition, the study time frame cover the most recent part of 2016. In addition to the aforementioned gap, most of the studies on company growth particularly in Nigeria did not include asset growth and firm age as a proxy of company growth.

This study therefore attempts to fill these pertinent gaps. Furthermore, the following research question is answered in the study: does firm growth affect profitability. It is against this background that the study examines the effect of firm growth on profitability of listed agricultural and agro allied firms in Nigeria. In order to achieve the objective of the study, we hypothesized that;

- Ho₁: sales growth has no significant effect on financial performance
- Ho₂: asset growth has no significant effect on financial performance
- Ho₃: firm age has no significant effect on financial performance

LITERATURE REVIEW

Profitability

Profitability of corporate organizations has been one of the major concerns to management, experts, investors and as well as researchers. In view of this, profitability is the most important and reliable indicator as it gives a broad indicator of the ability of companies to raise their income level [18]. A company that has good performance can generate more profits which can lead to future investment that can provide employment opportunities, increase the income of people and provide corporate social responsibility to its immediate environment. According to Gugong and Hussaini [19], view profitability of a firm as the major criterion in determining its financial performance, and further explain that investors are mainly concern on the profitability of the firm.

Andrew [20], are of the view that profitability is important in assessing the health of organisations. However, profitability of the corporate entities is particularly crucial as the soundness of the companies is

closely related to the soundness of the entire economy. This study therefore, explained that financial measures are typically based on profit and return on capital employed. Some of the most popular and most commonly used accounting based performance measures are: income statement line items such as revenues, operating income, earnings before interest and tax (EBIT), net income, earnings per share (EPS), or ratios such as return on investment (ROI), return on equity (ROE), return on assets (ROA) and return on sales (ROS) which are designed to improve the usefulness of performance indicators because absolute line item amounts from the income statement line may not be sufficient for meaningful comparison [21].

Researchers in their respective previous study's used Accounting based measurement of performance because is the most popularly variables. Returns on Assets (ROA) was widely used and was found in the following studies such as Pathirawasam and Adriana [22], Ali, Mohammed & Amer [7], Yahaya & Lamidi [4], Nawaf [23], Moses & John [24] Samuel, George & Amos [10]. For this, ROA would be used to measure profitability of the study companies. This variable is most sustainable because its measure of efficiency, by revealing how effectively and efficiently a firm utilizes the resources (assets) at its disposal, in revenue generation.

Determinant of Profitability

Firm growths are referred to as those variables that determine the profitability of a corporate entity. Few studies such as [17, 7, 23, 25, 22] have shown that numbers of factors are responsible for firm performance. Among these factors are firm Size, firm age, and growth. This study therefore focused on three of these variables as follows; sales growth, asset growth and firm age. The justification for the use of the three variables profitability measure is because they offer the most logical set of growth indicators to various stakeholders in agriculture and agro allied industry, this stakeholder includes; investors, managers, employees, creditors, shareholders, competitors and also the variables are stated in the financial statement of the study firms.

Sales Growth

Sales growth refers to the increase in sales over a specific period of time. Sustainable growth is defined as the annual percentage growth in sales that is consistent with the firm's financial policies [23]. Sales growth is considered positive for a company's survival and profitability [26]. Sale growth rate is expected to have an influence on firm financial performance through increase in sales of firm product or service. Several studies such as [27, 22, 28] as measure sales growth as the current year sales minus prior year sales and the whole divided by prior year sales. This change

in demand of product or service of the company also changes the sales of that company [29, 27].

Asset Growth

Asset growth and profitability both are of great concern for the organization but there is still no generalized relationship between them. Lot of research has been conducted to find that relationship but there is no mutual agreement among them. Different studies showed the different results, the work of Jang and Park [30], find out relationship between firm profitability and growth. They argued that increasing profit also increases growth, but the profitability is impeded by an increase in growth. Glancy [31], opined that when firms do not diversify and reduce margins to earn the profit from existing market then growth achieved may have a negative relationship with profitability. The high growth does not always mean that company is performing well. Similarly the low growth also does not mean that the company is performing poorly [32].

Firm Age

Firm age is one of the main variables of interest. Majumdar and Chhibber [33] report that older industrial companies are more experienced and have enjoyed benefits of learning and can enjoy superior performance compared to new companies. Shumway [34], explain that firm age is the number of years (plus one) elapsed since the year of the company's IPO. We refer to this variable as the firm's listing age. We add one year to avoid ages of zero.

Firm age and performance could also be induced by the age and tenure of the managers within the organization. Finkelstein and Hambrick [35] mention three reasons why older managers could be responsible for organizational inertia. Firstly "as individuals spend time in an organization, and particularly as they succeed and climb the organization's hierarchy, they become convinced of the wisdom of the organization's ways". Second, longer tenure may increase managers' risk aversion. Third, organizational tenure tends to restrict information processing. Managers rely more and more on past experience than on new signals Katz [36], a habit that makes it more difficult to design, accept, and implement policy changes. Firm age also is an important variable in determining the performance variation of firms [22]. Therefore, the study will use firm age as one of the company growth variables to ascertain the effect on profitability.

Theoretical Review

This study is informed by the theory of the firm growth which recognizes that causes of growth of a firm can be both external and internal to the firm and is based on the premise that firms have no determinant long run or optimum size, but only a constraint on current period growth rates [6]. Penrose suggests that

external causes, for example raising capital, demand condition and sales increment while of interest 'cannot be fully understood without an examination of the nature of the firm itself. This theory is relevant to this study since it explains sales growth.

The theory has been used to study growth of the firm; for instance Hermelo and Vassolo [13] used it to establish the determinants of firm's growth and Pervan, and Višić [37] used it to study the influence of firm size on its success. The firms with growth opportunities have moderately more development projects, new product lines, acquisitions of other companies and repair and replacement of existing assets. Moreover, growth opportunities, firm age are positively related to profitability. Those firms with low growth opportunities lean towards high profitability and firms in the middle of the growth opportunities incline to confirm small profitability [11]. Consistently with the cited empirical studies, the present study is underpinned on the firm growth theory where growth is proxied using sales growth.

Empirical Literature Review of Firm growth and Profitability

Empirical studies were conducted on the relationship between company growth and performance using different growth rate measure by various researchers in the field of accounting and finance. Notable among them are; Reid [38] claimed that growth had a negative impact on profitability. Dobson and Gerrard [39] used an alternative OLS method to research the same and found a significant negative relationship between growth and profitability. Lazăr [40] finds a statistically significant positive effect between sales growth and financial performance Romanian listed companies. On the other hand Lasisi [49] revealed that premium growth has positive and insignificant effect on firm performance of listed insurance companies in Nigeria.

Samuel, Amos, and George [41], investigated the effect of sales growth and ROA, ROE and EPS as a measure of financial performance of listed agricultural Companies at Nairobi Securities Exchange in Kenya from 2003 to 2013, pooled OLS regression model was used to incorporate the time and space movements and affirms that sales growth has a positive significant effect on financial performance. Additionally, Irene, Qian- Long and Yee-Chuann [42], examined the impact of organizational growth on the profitability of Malaysian public listed companies for the period of 2001-2010. The sample consists of a balanced panel data of 240 companies. They develop multiple regression models to test the impact of organizational growth on firm performance. The result shows that sales growth (SG) has a positive relationship with ROA but the coefficient is insignificant. The result further revealed that total assets growth and fixed assets

growth, are found to be significantly affecting the performance of our sample firms. These findings may reveal that Malaysian public listed firms should particularly focus on total assets growth and fixed assets growth to maximize their returns.

Another study by Mohamed [43], empirically analyzed the factors effecting financial performance. A sample of 100 top non-financial American firms listed on Fortune 500 for a period of five years from 2009 – 2013 was considered. Secondary data were collected from financial statements. Return on assets (ROA) was used as a proxy for financial performance. Multiple regressions were used to analysis the data. Results from this study showed that multicollinearity did not exist among all independent variables. Findings also presented that sales growth has a negative significant effect on ROA. Furthermore, Nousheen & Arshad, [44], explored the impact of firm specific factors on profitability of firms in food Sector listed on Karachi stock exchange market in Pakistan over the period of 2002 – 2006. Multivariate regression analysis in common effect setting was adopted. Findings of study revealed that growth (asset growth) of the firm is insignificantly positively related to profitability.

Pathirawasam and Adriana [22] examined the impact of firm specific factors on company financial performance of 974 firms in Czech Republic over the period 2005 to 2008, data was analyzed using pool and panel cross sectional time series. Finding showed that sales growth has significant positive impact on financial performance of firms. Also, Rehana, Tahira, Muhammad and Masood [27], investigated the relationship between growth (sustainable growth rate for firm = Retained earnings / Net income) and profitability (return on assets) of (70) seventy non-financial companies listed at Karachi stock exchange in Pakistan, the use of Panel data techniques were employed using 700 observations of the variables for a period of ten years (2001-2010), and reveals that all the profitability has strong positive relationship with the growth of the firm. Studies conducted by Samuel, Amos and George [41], Pathirawasam and Adriana [22] and Rehana, Tahira, Muhammad and Masood, [27], reported that there exists positive and significant relationship between sales growth and the performance of companies. Nousheen and Arshad [44], reported a positive and insignificant relationship between asset growth and financial performance of food companies in Pakistan. Mohamed [45], Reid [38] claimed that growth had a negative impact on profitability.

Emine [46] examined the effects of firm-specific factors on the Profitability of 24 Non-life insurance companies in Turkey from the period 2006–2013. 192 observed panel data set was obtained. The results of the study demonstrated that age of the company is statistically significant and negatively

related to profitability of the company. Also, Muhammed, Ali, Faiq and Humera [45] examined the performance of textile sector of Pakistan. The unbalanced panel data of 100 textile firms for the period of 2006 to 2011 was used. Generalized least square estimation technique was used for the study. Firm age has significant positive impact on performance of textile sector of Pakistan. Although, Mohamed, [45] empirically analyzed the factors effecting financial performance. A sample of 100 top non-financial American firms listed on Fortune 500 for a period of five years from 2009 – 2013 was considered. Secondary data were collected from financial statements which were analyzed using multiple regressions. Results of the findings revealed that company age have a negative significant impact on ROA. Furthermore, Maleya and Willy [25], reported that company age has positive significant effect on ROA of 29 listed companies (excluding banks and insurance companies) on Nairobi Securities Exchange in Kenya over a period 2006 – 2012.

METHODOLOGY

The population for the study is the agricultural and the agro allied firms listed on the Nigeria Stock Exchange. The study covered the period from 2008 to 2016; total of (24) twenty four firms appear on Nigeria stock exchange. In view of the overall objective of the study a filter were employed in arriving at the sample size of twenty (20). The filter applied was that, all the firms to be selected must fall within the period 2008 of the study in order not to delist most of the study firms. A purposive sampling technique is adopted. The data were obtained from secondary sources through the firm's audited annual reports and accounts. Multiple regressions were considered. In bid to ascertain the effect of company growth on profitability of listed agricultural and agro allied companies in Nigeria, a Multiple linear model is built. Which include sales growth, asset growth, and firm age on profitability given as;

$$ROA_{it} = \beta_{0it} + \beta_1 SG_{it} + \beta_2 AG_{it} + \beta_3 FA_{it} + \epsilon_{it}$$

Where: ROA= Return on asset, SG= sales growth, AG= asset growth, and FA= firm age, ϵ =is the error component for company i at time t assumed to have mean zero $E[\epsilon_{it}] = 0$, β_0 = Constant, $\beta = 1, 2, \dots, 4$ are parameters to be estimate; i = Firms, $i = 1 \dots 20$; and t = the index of time periods and $t = 1 \dots 5$. Where:

Dependent variable

Return on Equity (ROA) = Profit before tax/Total asset

Independent Variables

Sales growth (SG) = Current sales – Previous sales / Previous sales
 Asset Growth (AG) = Current Asset – Previous Asset / Previous Asset

Firm age (FA)
was incorporated = Number years company

RESULTS AND DISCUSSIONS

The section presents the empirical findings and analysis of the data. The descriptive statistics, correlation analysis and the summary of fixed effect regression result are presented.

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1. (/v# option or -set maxvar-) 5000 maximum variables
 2. New update available; type -update all-

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host not found
http://www.stata.com did not respond or is not a valid update site
unable to check for update; verify Internet settings are correct.

```

```
. *(6 variables, 180 observations pasted into data editor)
```

```
. summarize roa sg ag fa
```

Variable	Obs	Mean	Std. Dev.	Min	Max
roa	180	.1040778	.1323152	-.3063	.5183
sg	180	.1817172	.4942489	-.9983	4.531
ag	180	.1846728	.369857	-1	2.383
fa	180	3.615547	.7214213	.6931	4.5326

```
. pwcorr roa sg ag fa, sig star(5)
```

	roa	sg	ag	fa
roa	1.0000			
sg	0.0430 0.5667	1.0000		
ag	0.0067 0.9290	0.0591 0.4303	1.0000	
fa	0.0597 0.4262	-0.0805 0.2827	0.0021 0.9781	1.0000

```
. regress roa sg ag fa
```

Source	SS	df	MS	
Model	.018403305	3	.006134435	
Residual	3.11540512	176	.017701165	
Total	3.13380843	179	.01750731	

Number of obs = 180
 F(3, 176) = 0.35
 Prob > F = 0.7917
 R-squared = 0.0059
 Adj R-squared = -0.0111
 Root MSE = .13305

	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
roa						
sg	.0128171	.0202214	0.63	0.527	-.0270905	.0527247
ag	.0013315	.0269347	0.05	0.961	-.051825	.054488
fa	.011649	.0138295	0.84	0.401	-.015644	.0389421
_cons	.0593851	.0515831	1.15	0.251	-.0424158	.1611861

```
. estat viff
```

```
. xtset firm year
      panel variable:  firm (strongly balanced)
      time variable:  year, 2008 to 2016
      delta: 1 unit

. xtreg roa sg ag fa, fe

Fixed-effects (within) regression              Number of obs   =    180
Group variable: firm                          Number of groups =    20

R-sq:  within = 0.1584                        Obs per group:  min =    9
      between = 0.0236                          avg   =    9.0
      overall  = 0.0028                          max   =    9

                                         F(3,157)       =    9.85
corr(u_i, Xb) = -0.7862                      Prob > F       =    0.0000
```

roa	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
sg	.0354889	.0129485	2.74	0.007	.0099132	.0610646
ag	-.0137351	.0174943	-0.79	0.434	-.0482897	.0208194
fa	-.1772373	.0381308	-4.65	0.000	-.2525529	-.1019218
_cons	.7409752	.13802	5.37	0.000	.4683597	1.013591
sigma_u	.17897131					
sigma_e	.08112311					
rho	.82956044	(fraction of variance due to u_i)				

F test that all u_i=0: F(19, 157) = 16.65 Prob > F = 0.0000

```
. estimates store fixed

. xtset firm year
      panel variable:  firm (strongly balanced)
      time variable:  year, 2008 to 2016
      delta: 1 unit
```

```
. xtreg roa sg ag fa, re

Random-effects GLS regression              Number of obs   =    180
Group variable: firm                          Number of groups =    20

R-sq:  within = 0.1277                        Obs per group:  min =    9
      between = 0.0301                          avg   =    9.0
      overall  = 0.0017                          max   =    9

                                         Wald chi2(3)    =   12.60
corr(u_i, X)   = 0 (assumed)                 Prob > chi2     =    0.0056
```

roa	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
sg	.0329925	.0134768	2.45	0.014	.0065784	.0594067
ag	-.0129377	.0181919	-0.71	0.477	-.0485932	.0227178
fa	-.0643104	.0262609	-2.45	0.014	-.1157809	-.0128399
_cons	.332989	.0981623	3.39	0.001	.1405945	.5253835
sigma_u	.10137049					
sigma_e	.08112311					
rho	.60959932	(fraction of variance due to u_i)				

```
. estimates store random

. hausman fixed random
```

	Coefficients			
	(b) fixed	(B) random	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
sg	.0354889	.0329925	.0024963	.
ag	-.0137351	-.0129377	-.0007974	.
fa	-.1772373	-.0643104	-.1129269	.0276464

b = consistent under Ho and Ha; obtained from xtreg
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$$\begin{aligned} \text{chi2}(3) &= (b-B)'[(V_b-V_B)^{-1}](b-B) \\ &= 16.51 \\ \text{Prob}>\text{chi2} &= 0.0009 \\ (V_b-V_B &\text{ is not positive definite}) \end{aligned}$$

```
. estat vif

Variable |          VIF      1/VIF
-----|-----
      sg |          1.01      0.990001
      fa |          1.01      0.993472
      ag |          1.00      0.996455
-----|-----
Mean VIF |          1.01

. estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of roa

chi2(1)      =          7.84
Prob > chi2   =          0.0051
```

DESCRIPTIVE ANALYSIS

Table-4.1 below presents the descriptive statistics summary to get clear picture of the data

Variable	Mean	Std. Dev	Minimum	Maximum
ROA	0.1040778	0.1323152	-0.3063	0.5183
SG	0.1817172	0.4942489	-0.9982	4.531
AG	0.1846728	0.369857	-1	2.383
FA	3.615547	0.7214213	0.6931	4.5326

Source: Stata13.0 output

For ROA, its minimum and maximum value was -0.3063 and 0.5183 respectively. This implies that, the least company among the sampled firms incurred 30.63 percent loss for each of the single Naira investment in the assets of the firm. This loss may be due to lack of high cost capital investment. On the other hand, the profitability of some company among the sampled firms earned 51 percent of single Naira invested in the asset of the firm. The mean of the ROA is 0.10408 and the standard deviation is 0.13231. For sales growth, the minimum and maximum value of sales growth is -0.9983 and 4.531 respectively. The average sales growth is 0.18171. This means that for the firms to perform averagely, they must maintain an

average sales position of 18.17%. Moreover, the standard deviation of 0.49425 shows that there was a higher variation among the sampled firms in their turnover.

Furthermore, the age of the firm is measured by the natural logarithm of firm age from the date of incorporation to the year 2016; its average value shows 3.61555 with a standard deviation of 0.72142. The result shows that firm age has a minimum value of 0.6931, explaining the minimum age of the firms in the industry and a maximum value of 4.5326.

Correlation analysis

Table-4.2: below shows the relationship between the dependent and explanatory variables

Variable	ROA	SG	AG	FA
ROA	1.0000			
SG	0.0430 0.5667	1.000		
AG	0.0067 0.9290	0.0591 0.4303	1.000	
FA	0.0597 0.4262	-0.0805 0.2827	0.0021 0.9781	1.000

Source: Stata13.0 output

Table 4.2 above; indicate that ROA reveal positive and insignificant correlation with sales growth, asset growth and firm age. Furthermore, the table shows a correlation matrix of all independent variables in the study, Sales growth reported an insignificant positive relationship with asset growth with a coefficient value of (0.0591) and (p=0.4303) at 5%. Also, the sales

growth also revealed an insignificant negative relationship with firm age with a coefficient value of (-0.0805) and (p=0.2827). Asset growth is positive and insignificant related to firm age.

FIXED EFFECT REGRESSION RESULT

Table 4.3 below show that Hausman specification test proved that fixed effects model is more appropriate for this study. This is because the chi2 value of this test is 0.0009 which is significant at 1%. Furthermore, the R² is 0.1584 which explained that 16% of the variations in the dependent variables (return on asset) are attributable to the explanatory variables selected by the model and include sales growth, asset growth and firm age. This high goodness of fit is further

supported by the significant F-statistics of 0.0000. The VIF of the variables are within the acceptable range of higher than 1 but less than 10 that is, an indication of absence of multicollinearity problem among all the variables which is further confirmed by the overall mean VIF of 1.01. Similarly, the Tolerance Values is within the accepted range of less than 1 but closer to 1, evidence that a variable is not collinear with the other regressors. This shows that the three independent variables are appropriate and fit well into the model.

Table-4.3: Summary of the Fixed Effect Regression Result

Variables	Coef.	t-value	P-value	VIF	1/VIF
Sales growth	0.0354889	2.74	0.007	1.01	0.9900010
Asset growth	-0.0137351	-0.79	0.434	1.00	0.996455
Firm age	-0.1772373	-4.65	0.000	1.01	0.993472
Constant	0.7409752	5.37	0.000		
Hausman test	16.51		0.0009		
R ²	0.1584				
F-statistics	9.85		0.0000		
Hetttest. test	7.84		0.0051		

Source: stata 13 output

$$ROA = 0.7409752 + 0.0354889SG - 0.0137351AG - 0.1772373FA$$

Ho₁, Sales growth has no significant effect on return on asset (ROA)

As shown in Table 4.3, the coefficient value of sales growth is 0.0354889 and p-value of 0.007. This means that an increase in sales by 1% will increase the return on asset by 3%. This signifies that the sales growth has a significant positive influence on the profitability of the study firms in Nigeria. This can be concluded that agricultural and agro allied companies increasing their sales and growing very rapidly at significant level. The study is supported by theory of firm growth. The finding is in line with the reported of Nousheen & Arshad [44] but negate the study of Mohamed [43], who presented that sales growth has a negative significant effect on ROA. Therefore, the study has enough evidence to reject the null hypothesis; sales growth has no significant effect on return on assets.

Ho₂: Asset growth has no significant effect on profitability.

Table 4.3 above indicated that asset growth has a coef. value of -0.0137351 and the p-value of 0.434. This shows that asset growth has insignificant negative effect on the firm profitability (ROA) of the study listed firms in Nigeria. This signifies that an increase in asset growth by 1% will drastically reduce the profitability of the sample firms in Nigeria by 43%. This implies that high investment in capital asset will reduce the earnings to the company and probably reduce stakeholder funds and may be at risk in losing their capital. These findings are in line with the results obtained by Tailab [47], but contract the study of Pathirawasam & Adriana

[22]; who find a significant positive relationship between growth and the firms' profitability.

Ho₃, Firm age has no significant effect on the return on asset:

The age of the study firm is measured by the natural logarithm of difference between observation year and incorporation year. Table above revealed a coefficient value of -0.7409751 with p-value of 0.000 which is statistically significant. It implies that every 1% increase in firm age leads to a 74% decrease in return on asset. This show that age of the study firms have negative coefficient and significant in explaining and predicting the profitability of study firms in Nigeria within the study period. This implies that older firms are more prone to the liabilities, due to high operational cost, management bureaucracy and can therefore result in inferior performance. Liagoras and Skandal [48] explain that older firms are prone to inertia and bureaucratic ossification that goes along with age, they might have developed routines which are out of touch with in market condition. Therefore, it can be concluded that the age of study firms is negatively and significantly influencing performance of listed agricultural and agro allied firms in Nigeria. The finding is in line with the studies of Emine [46], Mohamed [43]. Based on the findings of this study, age is considered as a powerful explanatory variable in determining the financial performance of agricultural and agro allied companies in Nigeria. The result provides a basis for rejecting the hypothesis which states that firm age has no significant effect on financial performance (ROA) of listed agricultural and agro allied firms in Nigeria.

CONCLUSION AND RECOMMENDATIONS

This study examine the effects of company growths on the profitability of listed agricultural and agro allied firms in Nigeria over the period of 2008 to 2016 using the data drawn from study firms annual financial reports. The main results of the study demonstrate that the sales growth is statistically significant and positive impacted to the profitability, whereas the asset growth is found to statistically insignificant and negative influence on profitability, while, firm age is statistically significant and negatively impacted to the profitability of the study firms. The results of the study have several implications for the Nigeria agricultural and agro allied firms.

First, sales growth has positive and significant effect on the return on asset. This implies that the sales growth highly impacted on the return on asset of the study firms in Nigeria. It can be concluded that the study firms sales is high and growing very rapidly and their growth do produce a better outcome to the agricultural and agro allied firms in Nigeria. Also, the results obtained for the asset growth variable indicates that with higher or increase in asset will have low profitability. These results also support the notion that effective and efficiency management of asset growth plays an important role in the profitability. Hence, management of the study firms should strike a balance between asset investment and profitability. Finally, firm age has a significant negative effect on ROA, this implies that the older the firms the more the firm run at loss on its total asset. Therefore, the firms should embark on market strategies and restructuring to be able to enjoy larger economic of scales.

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STUDY COMPANIES

1. Ftn coco
2. Livestock feeds plc
3. Okomu oil palm company plc
4. Presco plc
5. 7-up bottling comp. Plc
6. Cadbury Nigeria plc
7. Champion breweries plc
8. Dangote flour mills plc
9. Dangote sugar refinery plc
10. Flour mills nig plc
11. Guinness nig plc
12. International breweries plc
13. Northern Nig. Flour mills plc
14. NASCON allied industries plc
15. Nestle nigeria plc
16. Nigerian brew. Plc
17. Nigerian enamelware plc
18. P z cussons nigeria plc
19. Unilever nigeria plc
20. Vita form plc