

# PROFITABILITY RATIOS AND MARKET SHARE PRICE OF AGRICULTURAL AND AGRO-ALLIED COMPANIES

NWANGWU, CHIBUIKE EMMANUEL<sup>1</sup>, UGWOKE ROBINSON ONUOHA<sup>2</sup>, UGWOKE OBIOMA V.<sup>3</sup>, NDILI STEPHEN EBILIAM<sup>4</sup>, and OJEIFO, OSWALD ERALE<sup>5</sup>

<sup>1, 2, 3, 5</sup>Department of Accountancy, University of Nigeria, Enugu Campus.

<sup>1</sup>Department of Accountancy, Coal City University, Enugu.

<sup>4</sup>Bursary Department, University of Nigeria, Nsukka.

## Abstract

The study examines the effect of profitability ratios on the market share price of agricultural and agro-allied companies quoted on the Nigerian stock exchange (NSE). Two profitability ratios (Return on capital employed - ROCE and return on equity - ROE) were adopted, while the market share price was proxied by a log of market price per share. Ten agricultural and agro-allied companies listed on the Nigerian Stock Exchange (NSE) with published financial statements between the period 2005-2020 were selected for the study. The study adopted an ex-post-facto design and also adopted secondary data. Regression analysis was applied in testing the study hypotheses with the aid of e-views. The outcome of the tests of hypotheses reveals that Return on capital employed (ROCE) and return on equity (ROE) have a significant effect on the market share price of agricultural and agro-allied companies. It was recommended that the agriculture and agro-allied business entities in Nigeria should endeavour to align their increased financial performance with resourceful activities that can aid to make the market financial performance mirror their internal growth and financial performance. Also, rapt attention should be paid to the business entity's capacity to raise stock prices by managing costs effectively and efficiently in order to increase profits, increase debt capacity, control usage in terms of business expansion, and ensure adequate and efficient working capital.

**Keywords:** Agro-Allied Companies, Profitability Ratios, Market Share Price, Return on Capital Employed, and Return on Equity.

## INTRODUCTION

The Government of Nigeria has at different periods promoted numerous ordinances and laws, which include the 1976 Land Usage Act, National Special Program on Food Security - NSPFS, Agricultural Development Projects - ADP, and so on to guarantee food safety and security and also develop a favourable atmosphere for carrying out agricultural and also agro-allied businesses in Nigeria (Manyong, 2005). The Government of Nigeria has also been providing low interest loans (soft loans) through the ADBs (Agricultural Development banks), improved variety of live stocks, crops and seeds, as well as attracting external (foreign) aid to agricultural and also agro-allied firms in Nigeria. Based on the above assertions, a few of these firms acquired high financial performance (Olaitan, 2006; Oboh & kushwaha, 2009; Okolie, 1995). But many agricultural and agro-allied business entities are still having issues of poor financial performance, and some like Okitipupa Palm Oil Plc and Ferdinand Oil Mill Plc have even been liquidated and delisted. Studies revealed that much financial management as well as various entrepreneurs alike in the Nigerian agricultural and also agro-allied business entities still

do not have a proper overview on how to make proper financial decisions that would promote the continued existence of their entities, most especially at this recent era of economic recession and hardship in Nigeria (Kibet, Tenei & Mutwol, 2011; NSE, 2016).

It was equally noted earlier that some agricultural and agro-allied business entities in Nigeria still maintain low financial performance as a result of their engagement in wrong financial decisions (Igwe, 2017; Ndaghu, Onodugo, Akpan, & Babarinde, 2022). Some of these companies take financial and investment decisions without considering its implications on their companies' performance and hence may only prosper in the short run, but in the long run, they would definitely face considerable difficulties in funding future business operations, and this may lead to their collapse (Aruogu, 2003). In Nigeria, the activities of agricultural and agro-allied business entities based in Nigeria have been faced with challenges relating to the sustainability and growth prospects of the system. In view of such plight, the need to appraise the performance of the industry with the aid of computed ratios using data from their annual financial reports becomes unavoidable.

In Nigeria, there are issues of corporate failures, which include: Cadbury Plc., Lever Brothers (currently known as Unilever Nigeria Plc.), as well as bank failures (Eriki, Modebe, Lawrence & Olayinka, 2017). Some of these companies take financial and investment decisions without considering its implications on their companies' performance and hence may only prosper in the short run, but in the long run, they would definitely face considerable difficulties in funding future business operations, and this may lead to their collapse (Aruogu, 2003). All these are linked to poor usage of accounting ratios, weak corporate governance, and a poor financial disclosure system (Adeyemi & Fagbemi, 2010). Based on the backdrops, this study was carried out to evaluate the effect of profitability ratios on the market price of shares of quoted agricultural and agro-allied companies in Nigeria.

## LITERATURE REVIEW

### Profitability Ratios

Profitability ratios are one of the most renowned measures used in financial statement analysis (Lesáková, 2007). Profitability ratios are very necessary for financial analysis because companies go into businesses with the basic objective of making profits (Gabusiewicz, 2014). The profitability of a firm is measured by ROCE - Return on capital employed, ROA - Return on assets, ROE - Return on equity, and ROS - Return on sales. Therefore, an analysis of the profitability of companies is an integral aspect of financial analysis considered by investors/providers of the fund. Evaluation of the profitability of a company is performed using financial ratio analysis method known as profitability ratios. The profitability ratios examine economic effectiveness of a business entity. In this study, the profitability was evaluated using Return on capital employed - ROCE and return on equity - ROE. ROCE provides data that reveals how effectively an entity's capital is being used to generate returns. An increase in return on capital employed could be acquired if the size and structure of the entity's net assets are used specifically for the entity's

activities. Return on equity - ROE is specifically necessary to shareholders (owners of the company) because it reveals the Return on equity used in an entity (Gabrusiewicz, 2014).

### **Return on Capital Employed (ROCE)**

Adeniyi, (2008) views ROCE as a profitability ratio that evaluates a business entity's earnings and the efficiency with which its capital is used or employed. Return on capital employed - ROCE is calculated thus:

$$\text{ROCE} = \frac{\text{EBIT (Earnings Before Interest and Tax)}}{\text{CE (Capital Employed)}}$$

Akinmolegu (2012) also expresses that capital employed - CE is the aggregate amount of capital that a business entity has actually operated as to earn profits. Furthermore, it is the amount of investors' share and financial debt obligations. It can be simply measured as total assets (TA) less/minus current liabilities (CL). Rather than making use of CE (capital employed) at an approximate point in time, investors and analysts, usually determine ROCE – Return on Capital Employed in line with the average capital employed, which takes into consideration the standard of capital employed at the start of a period and at the end for the time period. The ROCE - Return on Capital Employed ratio, explained as a given percentage (%), enhances the profit after tax (PAT), ROE – Return on Equity ratio by adding a firm's debt obligations to equity capital to show a business entity's "capital employed". This measure enlightens the emphasis to gain a greater knowledge of a company's capability to acquire returns from its available capital structure (Akinmolegu, 2012).

Through measuring of EBIT - Earnings before Interest as well as Tax or NOP - Net Operating Profit to the amount of a business entity's debt obligations and also equity capital, investors/potential investors can obtain a better understanding of the impact of leverage on the entity's profitability. Financial management analysts take into consideration the ROCE determination to be a more comprehensive profitability measure because it evaluates managerial capacity to obtain returns from an entity's aggregate pool of capital (Akinmolegu, 2012).

Alcock, Baum, Colley & Steiner (2013) are of the sight that ROCE - Return on capital employed is an essential determinant of an entity's profitability. Many investors and financial analysts believe that including debt obligations into a firm's aggregate capital offers a much more complete analysis of management's efficiency in making use of the financial debt and equity capital at its disposal. Investors would obviously be well informed by concentrating on ROCE – Return on Capital Employed as a key factor in determining an entity's profitability performance. A general rule of thumb as regards to ROCE ratio is that it should be at or over a company's average borrowing rate.

Uzoagulu (2011) says that Return on capital employed or ROCE alternatively shows investors the number of Naira in profits that emanates from a Naira of capital employed. ROCE – Return on Capital Employed is referred to as a long-term profitability index based on the fact that it demonstrates the efficient performance of assets in line with long-term

financing. This is the essence of preferring ROCE – Return on Capital Employed over profit after tax (PAT) to assess the longevity of a firm (Ugwunta, 2010).

This profitability indicator is based on 2 (two) relevant factors. They are the OP (operating profit) and the CE (capital employed). NOP (Net operating profit) is basically called EBIT (Earnings before Interest and Taxes). EBIT is usually disclosed on the statement of profit or loss because it reveals the company profits earned from their operations. Earnings before interest and taxes (EBIT) can as well be computed by adding finance costs and taxes previously charged for arriving at a profit after interest and tax back into net income if need be. Capital employed is a fairly relative term because it can be explained in different ways. Basically, capital employed expresses the total assets of a company less its current obligation. This could also be known as stockholders' equity less non-current liabilities. Both equal the same figure.

### **ROE (Return on Equity)**

The basic or ordinary, or equity shareholders of an entity are seen as the owners of the company. Hence, they are entitled to the residual profits of the entity. The equity shareholders' dividend received from the distributional profit is not fixed as in the case of the preference shareholders; the distributional profits could be retained in the business as plough back or shared to the shareholders as dividends for a given period. However, net operating profit after tax indicates the returns for the equity holders. A return on shareholder's equity is calculated to obtain the earnings on the amount invested by the equity holders. The equity capital or net worth of an entity will include paid-up share capital, share premium and reserves and surplus less accumulated losses. Net worth can also be computed as total assets minus total liabilities (Osman & Iddrisu, 2015); (Babajide, Lawal, & Somoye 2016).

This ratio is measures as: 
$$\frac{\text{Net Profit after Interest, Taxes, and Preference Dividend:}}{\text{Shareholders' Equity}}$$

This ratio shows the profitability of a business entity at it relates to the value of investment made by the equity holders. In other words, the return to equity holders after settlement of finance charges, taxes and dividends of preference shareholders; net profit here refers to that part of the profit that is only attributable to equity holders. Capital employed is referred to as only equity shares (Ofoegbu, 2003).

### **Theoretical Framework**

This study is based on liquidity premium theory. The theory was propounded in 1979 by Lloyd. It is asserts that investors will be willing to hold non-current investments with long-term maturities when they are offered a premium that will be enough to compensate for future uncertainties and time value of money, which increases as assets maturity increases. Therefore, investors are always interested in the growth of a particular firm before embarking on any investment. Growth could be seen from different view based on the objectives and expectations of the investors and other users of the financial

information obtained. However, it reflects a relationship between input and result (output) with an established objective to be attained. Richard, et al (2009) assert that an entity's growth is being seen from three basic aspects of performance; (i) financial performance (often ascertained by PM - profit margin, ROA - return on assets, ROCE - return on capital employed, ROE - return on equity, and ROI - return on investment). (ii) Product market share performance (sales volume and market share in the industry); and (iii) Shareholders' returns (that is, TSR - total shareholder return and EVA - economic value added). Nworji, Olagunju, and David (2011) are of the view that corporate entity growth is an integral phenomenon that expresses how the financial resources available to an entity are effectively and efficiently used to derive the general corporate objectives of a corporate entity. It ensures the going concern of the entity and generates a larger prospect for future opportunities.

### **Hypotheses Development**

Several studies have been conducted on the profitability ratios and market share price (Sami, 2018; Mashavegh & Montazerhojat, 2016). Specifically, Sami (2018) examined the relationship between financial ratios and market stock returns of 26 Qatari listed firms from 2009 to 2015. The findings of weighted least square (WLS) reveal that earnings per share, earnings yield ratio and dividend yield ratio have a significant and positive relationship with the market stock return, whereas market to book value ratio, return on assets, return on equity, price to earnings ratio, dividends earnings ratio, and net profit margin have an insignificant relationship with market stock returns. The inferences will certainly be for policymakers of Government in selecting as well as deciding their policies. It will certainly also be for investors and managers to make better financial choices.

Moshavegh and Montazerhojat (2016) tested the effects of total debt to earnings before interest and taxes, stock market price to book value, dividends and earnings per share on market stock returns of chemical products industries and non-metallic minerals industry that are listed on Tehran stock exchange. Their findings reveal that the total debt to earnings before interest and taxes ratio has a positive and significant effect on market stock return. Anwaar (2016) examined the relationship between Return on equity, net profit margin, return on assets and earnings per share with market stock return using all firms listed on the London market from 2005 to 2014. Their results of the panel regression model reveal that there is a positive relationship between net profit margin and return on assets with the market stock return, revealing an increase in market stock margin. His results also show that there is a negative relationship between earnings per share with stock returns.

Arkan (2016) investigated the most important financial ratios derived from financial statements in predicting market stock return. The researcher used a data sample of 15 firms distributed on three sectors of the Kuwaiti financial market for a given period from 2005 to 2014. The study shows that some ratios reveal strong significant and positive relationships with market stock return. He also revealed that the most effective ratio in predicting a market stock return in the industrial sector are Return on equity, return on

asset and net profit ratio. The study further states that the most effective ratios in predicting a market stock return in the service sector and the investment sector are return on equity, return on assets, price to earnings ratio and earnings per share ratio.

Allozi and Obeidat (2016) examined the relationship between net profit margin, gross profit margin, return on assets, return on equity, earnings per share and debt to equity ratio with market stock returns using a sample of 65 manufacturing companies that are listed on Amman Stock Exchange over a ten years period from 2001 to 2010. Their findings reveal that a significant relationship exists between gross profit margin, return on assets, return on equity and earnings per share with the market stock return, while there is an insignificant relationship between the debts to equity ratio with market stock return. The study recommends the management of manufacturing companies focus more on financial ratios that have a significant relationship with market stock returns for an increase in profit and a decrease in debts.

Samad (2004) in Alshatti (2015) evaluated the effect of financial ratios in evaluating the performance of Bahrain's commercial banks. Ten financial ratios are adopted for evaluating credit, liquidity and profitability performances. The T-test analysis reveals that commercial banks' liquidity performance is not at par with the banking industry. The study observed that commercial banks are relatively less profitable and less liquid and are exposed to risk as compared to the banking industry. With regard to credit performance, this study finds no unambiguous conclusion. Based on the results of the previous studies, this study proposed that:

H0<sub>1</sub>: There is no significant effect of Return on Capital Employed on the market share price of agricultural and also agro-allied companies quoted in the Nigerian stock market.

H0<sub>2</sub>: There is no significant effect of Return on Equity on the market share price of agricultural and also agro-allied companies quoted in the Nigerian stock market.

## **METHODS AND DATA**

The study adopted an ex-post facto design. This is based on the fact that the researcher made use of already existing data (past data) which were extracted from the audited financial statements of the business entities under study, which the researcher does not have control over. Ex post facto research method, as stated by Onyeizugbe (2013) is a systematic empirical study in which the researcher cannot manipulate independent variables because the events to be studied have already occurred, or they cannot be manipulated.

The population of the study comprised of financial statements of fifteen (15) agricultural and agro-allied companies quoted in the Nigerian Stock Exchange Market for 15 years period from 2005 to 2020. The study adopted a non-probability purposive sampling technique. It entails selecting those elements having particular characteristics of interest to the researcher and is accessible to him (Eboh, 2009). The sample size comprised of

financial statements of 9 selected agricultural and agro-allied companies quoted in the Nigerian Stock Exchange. The selected companies for this study are the following; Okomu Oil Palm Plc, Presco Plc, FTN Cocoa Processors Plc, Flour Mills of Nigeria PLC, Guinness Nigeria PLC, Nestle Nigeria PLC, Unilever Nigeria PLC, Nigeria Breweries PLC, and Dangote Flour Mills Nigeria PLC. These companies were selected because they had complete financial statements in the Nigeria Stock Exchange Market at the time of the study and also indicated their Market Share Price in their financial statements.

### Measures of Variables

From the research topic, which is the assessment of the effect of performance ratios on the market share price of agricultural and agro-allied companies quoted in the Nigeria Stock Market, two variables were used for the purpose of the study. They include the dependent and the independent variable in addition to a control variable. The dependent variable is the market share price of agricultural and agro-allied proxied by the Log of Market price per share (MPS). The independent variable for the study is profitability ratios measured by Return on Capital Employed (ROCE) and Return on Equity (ROE). The control variable for this study was the Age of the companies under study.

### Model Specification

Specifically, this study, effect of profitability ratios on the market share price of agricultural and agro-allied companies quoted on the Nigerian stock market has been modelled using a modified version of Kabajeh, AL Nu'aimat and Dahmash (2012), they carried out a study on the relationship between the ROA, ROE and ROI with 23 Jordanian insurance companies listed in Amman Security Exchange within the period of 2002 and 2007 using a pooled regression analysis technique. Their model is specified as follows;

$$P = f(\text{ROA}, \text{ROE}, \text{ROI}).$$

$$P = \beta_0 + \beta_1\text{ROA}_{it} + \beta_2\text{ROE}_{it} + \beta_3\text{ROI}_{it} + \text{eit } 1$$

Where;

P = Market price per share

$\beta_0$  = Constant

ROA = Return on Assets ratio

ROE = Return on equity ratio

ROI = Return on investment ratio

$\beta_1, \beta_2, \beta_3$  = Coefficients of the variables

eit = Residual

In this study, the independent and dependent variables are modified and estimated using multiple regression analysis techniques.

The model for the study is therefore specified below:

$$\log \text{MPS} = f(\text{ROCE}, \text{ROE}, A)$$

$$\log \text{MPS} = f(\text{ROCE}, \text{ROE}, A)$$

Where;

logMPS = Market Price per Share

ROCE = Return On Capital Employed

ROE = Return on Equity

A = Age of the companies (**Control variable**)

The general formula employed in the study is:

$$\log \text{MPS}_{it} = \beta_0 + \beta_1 + \beta_2 + X_{it} + e_{it}$$

$$\log \text{MPS} = \beta_0 + \beta_1 \text{ROCE}_{it} + \beta_2 \text{ROE}_{it} + \beta_3 A_{it} + e_{it} \quad -1$$

$$\log \text{MPS} = \beta_0 + \beta_1 \text{ROCE}_{it} + \beta_2 \text{ROE}_{it} + \beta_3 A_{it} + e_{it} \quad -2$$

Where;

MPS<sub>it</sub> = Market price per share

β<sub>0</sub> = the intercept of regression line

β = coefficient of independent variables

X<sub>it</sub> = independent variables of firm i, at time t

e<sub>it</sub> = error term.

### **Hypothesis one:**

There is no significant effect of Return on Capital Employed on the market share price of agricultural and agro-allied companies quoted in the Nigerian stock market.

$$\log \text{MPS} = \beta_0 + \beta_1 \text{ROCE}_{it} + \beta_2 A_{it} + e_{it}$$

### **Hypothesis two:**

There is no significant effect of Return on Equity on the market share price of agricultural and agro-allied companies quoted in the Nigerian stock market.

$$\log \text{MPS} = \beta_0 + \beta_1 \text{ROE}_{it} + \beta_2 A_{it} + e_{it}$$

### **Data Analysis Techniques**

In order to estimate the parameters for this study, panel data regression analysis (longitudinal data) is employed because of the estimation of ten firms and the presence of both cross-sectional and time-series components. The Panel Ordinary least square regression analysis was used. Panel data makes it possible to handle the time ordering of variables and monitor the individual trends over time. In addition, complex and



challenging data can be estimated using panel data Berrington, Smith and Sturgis, (2006). This model was employed in the study by Okafor, Onyekwelu and Chukwani (2019); Otekunrin, Nwanji, Olowookere, Egbide, Fakile, Lawal, Ajayi, Falaye and Eluyela (2018).

#### 4. RESULTS

Table 1 below shows the descriptive statistics of the variables for the study, which shows the mean and standard deviation of the different variables of interest in this study. It indicates the measurement of normality of the variables. The table shows the summary statistics of the data used in this study which formed 112 firm-year observations.

**Table 1: Descriptive Statistics Test**

	<b>LOG_MPS</b>	<b>ROCE</b>	<b>ROE</b>	<b>A</b>
Mean	3.566329	0.160125	0.137438	44.50000
Median	3.416086	0.140000	0.140000	42.00000
Maximum	7.349867	0.640000	1.310000	97.00000
Minimum	0.122218	-0.140000	-5.670000	6.000000
Std. Dev.	1.341589	0.118915	0.488408	23.32489
Skewness	0.681700	0.756940	-10.49108	0.410035
Kurtosis	3.900133	4.190996	126.7526	2.267533
Jarque-Bera	17.68278	24.73536	105033.0	8.060143
Probability	0.000145	0.000004	0.000000	0.017773
Sum	567.0463	25.62000	21.99000	7120.000
Sum Sq. Dev.	284.3782	2.248398	37.92825	86504.00
Observations	159	160	160	160

**Source:** Author's Computation using Eviews Statistical Software.

**Where:** logMPS = log of Market price per share, ROCE = Return on Capital Employed, ROE = Return on Equity.

The mean value of the log of market price per share is 3.566329, with a standard deviation of 1.341589, logMPS data were positively skewed at 0.681700, which implies that the distribution of the data tends towards a positive direction. The kurtosis value which was used to measure the degree of steepness of distribution is mesokurtic (3.900133), which means that the logMPS is normally distributed. Furthermore, the probability of the Jacque-Bera statistics is 0.000145. ROCE and ROE have a mean of 0.160125 and 0.137438, respectively. All the variables were positively skewed except ROE which is negatively skewed at 10.49108. All the independent variables are leptokurtic with a Jacque-Bera probability value less than 0.05. The mean for the control variable Age of the company (A) is 44.500000, which indicates that the variable is highly sensitive. The variable is positively skewed at 0.410035 and is platykurtic at a value of 2.267533.

## Panel Unit Root Test

The researcher made use of the augmented Dicky Fuller unit root test. The test is carried out to ensure that the data sets are stationary and will not give a spurious result after estimation.

**Table 2: Augmented Dicky-Fuller unit roots test summary**

Variables	ADF Statistics	Prob. Value	Order of integration @5% level of sig.
	@5% significance level		
LogMPS	35.9111	0.0158	I(0)
ROCE	41.4279	0.0033	I(0)
ROE	127.560	0.0000	I(1)
A	51.9760	0.0001	I(0)

Source: researcher's computation (2021).

The table above shows the results of the augmented Dicky Fuller test which was conducted to test the stationarity of the variables under study and also to determine the model of regression to use for the analyses of the hypotheses. Some of the variables were stationary at levels 1(0) and some at first difference 1(1) which indicates that the data is normally distributed.

**Table 3: Test of Hypothesis One**

Dependent Variable: LOG\_MPS  
Method: Panel EGLS (Cross-section random effects)  
Date: 12/13/21 Time: 21:25  
Sample: 2005 2020  
Periods included: 16  
Cross-sections included: 10  
Total panel (unbalanced) observations: 159  
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROCE	0.583870	0.561433	1.039964	0.3000
A	0.026526	0.008055	3.293309	0.0012
C	2.284409	0.447983	5.099322	0.0000
Effects Specification				
			S.D.	Rho
Cross-section random			0.736341	0.5134
Idiosyncratic random			0.716870	0.4866
Weighted Statistics				
R-squared	0.062195	Mean dependent var		0.844801
Adjusted R-squared	0.050171	S.D. dependent var		0.768466
S.E. of regression	0.750051	Sum squared resid		87.76204
F-statistic	5.172901	Durbin-Watson stat		0.577142
Prob(F-statistic)	0.006680			
Unweighted Statistics				
R-squared	0.042039	Mean dependent var		3.566329
Sum squared resid	272.4233	Durbin-Watson stat		0.185928

Source: Researcher's Computation using -Eviews 9

The table above showed the results of the augmented Dicky Fuller test, which was conducted to test the stationarity of the variables under study and also to determine the model of regression to use for the analyses of the hypotheses. Some of the variables were stationary at levels 1(0) and some at first difference 1(1), which indicates that the data is normally distributed.

The regression result from table 3 above reveals the output of the random effect model, and it clearly shows that Return on capital employed has a coefficient of 0.583870 and a probability of 0.3000, which is greater than the 5% level of significance. This means that a 1% increase in Return on capital employed results in a corresponding 1% increase in market price per share of the agriculture and agro-allied companies quoted in the Nigerian stock market. This result is not in conformity to our economic a priori expectation because an increase in Return on capital employed is expected to have a significant effect on the market price per share.

The Age of the firm, which is the control variable of the study, has a positive and significant effect on the market price per share with a coefficient and probability values of 0.026526 and 0.0012, respectively.

The R-Squared clearly shows that just 6.2% of the variations in market price per share is explained by changes in Return on capital employed in the selected agricultural and agro-allied companies quoted on the Nigeria stock market. This implies that about 93.7% of the changes in market price per share is explained by other variables outside the model—the F-statistics ratio, which yielded 5.17290.

**Decision:** the null hypothesis was accepted, and the alternative hypothesis was rejected because Return on capital employed has a positive and no significant effect on the market price per share.

**Test of hypothesis Two:** Return on equity does not have a significant effect on the market share price of agricultural and agro-allied companies quoted in the Nigerian stock market.

**Table 4: Test of Hypothesis Two**

Dependent Variable: LOG\_MPS  
Method: Panel EGLS (Cross-section random effects)  
Date: 12/13/21 Time: 21:30  
Sample: 2005 2020  
Periods included: 16  
Cross-sections included: 10  
Total panel (unbalanced) observations: 159  
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROE	0.395654	0.118644	3.334797	0.0011
A	0.030693	0.008698	3.528913	0.0005
C	2.139146	0.483126	4.427721	0.0000
Effects Specification				
			S.D.	Rho
Cross-section random			0.893631	0.6248
Idiosyncratic random			0.692519	0.3752
Weighted Statistics				
R-squared	0.119014	Mean dependent var	0.679483	
Adjusted R-squared	0.107720	S.D. dependent var	0.752066	
S.E. of regression	0.711133	Sum squared resid	78.89071	
F-statistic	10.53720	Durbin-Watson stat	0.618276	
Prob(F-statistic)	0.000051			
Unweighted Statistics				
R-squared	0.026580	Mean dependent var	3.566329	
Sum squared resid	276.8193	Durbin-Watson stat	0.176203	

**Source: Researcher's Computation using E-views 9**

Table 4 presents the regression result of the effect of Return on equity on the market price per share. The result clearly shows that Return on capital employed has a coefficient of 0.395654 and a probability of 0.0011, which is less than 0.05 level of significance. This means that a 1% increase in Return on equity results in a corresponding 1% increase in market price per share of the agriculture and agro-allied companies quoted in the Nigerian stock market. This result is consistent with our a priori expectation.

The control variable (Age of the firm), on the other hand, has a positive and significant effect on the market price per share with a coefficient and probability values of 0.030693

and 0.0005, respectively. The R-Squared clearly shows that just 11.9% of the variations in market price per share is explained by changes in Return on equity in the selected agricultural and agro-allied companies quoted on the Nigeria stock market. This implies that about 88.1% of the changes in market price per share is explained by other variables outside the model.

Decision: The null hypothesis was rejected, and the alternative hypothesis was accepted because Return on equity has a positive and significant effect on the market price per share.

## DISCUSSIONS

The outcome of the test of hypothesis one revealed that Return on capital employed has a significant influence on the market share price. This implies that an increase in Return on capital employed leads to a corresponding increase in the market share price of agriculture and agro-allied companies quoted in the Nigerian stock market. The result is inconsonant with the findings of several scholars (Chou, & Lee, 2007; Murtala, Ibrahim, Lawal, & Abdullahi, 2018; Akpan, Ibekwe, Worgu & Nwangwu, 2018). Specifically, Murtala et al. (2018) submit that Return on capital employed boosts the corporate performance of construction firms in Nigeria. Similarly, Chou and Lee (2007) investigated the relationship between Return on equity (ROE) and the capital structure for a sample of 37 non-financial industries in Taiwan from 1987 to 2007 and found that the non-financial industry's capital structure of Taiwan is consistent with trade-off theory and that the corporate performance is a nonlinear function of the capital structure. Likewise, Agbada and Osuji (2003) examined the efficacy of liquidity management and banking performance in Nigeria. Profitability and Return on Capital Employed (ROCE) were adopted as their performance indicators or dependent variables. These findings re-emphasized that efficient liquidity management has important policy implications for developing and rising economies. Regarding the systemic fallouts of liquidity complications, it was endorsed that a more specialist approach should be absorbed in its management.

The regression result of the effect of Return on equity on the market price per share shows that Return on capital employed has a significant effect on the market price per share. This result is consistent with our a priori expectation and implies that Return on equity plays a significant role in the market share price. This finding is consistent with the submission of Anwar and Rahmalia (2019), who found that Return on equity positively affects earnings per share. Similarly, the results of this study are in accordance with previous studies conducted by Tamuntuan (2015), which concluded that earning per share variables have a positive and significant effect on stock prices. The finding also corroborates the submission of Burja and Marginean (2014) who analysed the impact of financial ratio components on ROE and asset turnover in Romanian furniture firms and found that ROE is positively correlated with Return on sales return on assets.

## **CONCLUSION**

Based on the results of the test of the study's hypotheses, it was concluded that; Return on capital employed has a significant effect on the market share price of agricultural and agro-allied companies quoted in the Nigerian stock market for the 2005-2020 period. Also, return on equity significantly affected the market share price of agricultural and agro-allied companies quoted in the Nigerian stock market for the 2005-2020 periods.

## **RECOMMENDATIONS**

In line with the findings of this study, the following recommendations are made:

1. Agriculture and agro-allied firms in Nigeria should endeavour to align their increased market performance with real activities that can aid the market performance to reflect on their internal growth and accounting performance.
2. The agriculture and agro-allied companies should pay more attention to the company's ability to increase stock prices by making reliable as well as efficient use of expenses so in order to boost profits, boost debt, moderate use in terms of growth, as well as increase good and also efficient working capital.

## **CONTRIBUTION TO KNOWLEDGE**

The major contributions made by this study include analyses and extension of the existing study from a new dimension. Firstly, this study made an extension of a significant contribution to liquidity premium theory. Thus, this work was targeted at evaluating the validity of these hypotheses and devoting the effects of Return on capital employed and return on equity to the option of market share price in Nigeria's agriculture and agro-allied firms. Secondly, the findings from this study would a relevant input for Government and its agencies such as the Central Bank of Nigeria (CBN) and Ministries of Finance and Agriculture in establishing and updating policies as well as the ascertainment of a performance ratio framework for a better market share price. Thirdly, for the academics, this study would avail in-depth information by providing important literature materials and sources for subsequent study in the existing knowledge.

## **LIMITATIONS AND SUGGESTIONS FOR FURTHER STUDIES**

This study had some limitations. Firstly, this study focused on agriculture and agro-allied firms listed on the Nigerian Stock Exchange and excluded agriculture and agro-allied firms not listed on the NSE. This generalisation ignores agriculture and agro-allied firms that may have a strong capital base but are not listed on the NSE. Also, the study ignored firms in other sectors of the economy such as telecommunications, transportation and banking. For further and future study, it would be suggested that firms in other sectors be considered. Secondly, this study focused on the time period of 2005 to 2020 without considering the effect of the market when the country's economy was in recession. Therefore, it is suggested that further or future researchers should make a comparative

analysis on the entity's' market share price based on the determined economic conditions, that is, economic boom, crisis, recovery period and such, so that the trend of the firms' market share price could be further improved based on a given economic scenario. This study also suggest that further studies could be carried on other sectors that are high capital intensive, such as transportation, manufacturing, and logistics entities and others and provide a significant GDP – Gross Domestic Product percentage (%) to Nigeria. Thirdly, this study did not recognise the economic factors that affect or impact the market share price of the selected firms, such as GDP - Gross Domestic Product, inflation rates, interest rate and company income tax rate. Hence, it would be of benefits if subsequent study would be capable of including the above mentioned external factors so that the output would be more meaningful and resourceful. Fourthly, the study only focused on the market share price as an indicator of performance without neglecting other performance indicators such as growth opportunities, maturity, sustainability, shareholders' wealth maximisation and profitability. The analysis is restricted only to the accounting performance such as Return on the asset return on equity. Therefore, future studies should include accounting and non-accounting measures of performance. Fifthly, future studies should add other variables, such as liquidity ratios, activity ratios, debt ratios, profitability ratios, GDP growth, and inflation.

## References

- Adeniyi A. A. (2008). An insight into management accounting. 4<sup>th</sup>ed; Ikeja: EL-TODA venture limited.
- Adeyemi, B., & Fagbemi, T. (2010). Audit quality, corporate governance and firm characteristics in Nigeria. *International Journal of Business and Management*, 5(5), 169-177.
- Agbada A. O. & Osuji C. C. (2013). The efficacy of liquidity management and banking performance in Nigeria. *International review of management and business research*, 2(1), 223-233.
- Akpan, E. E., Ibekwe, U., Worgu, S. C. & Nwangwu, C. E. (2018). Social media usage and firm performance: Reflections from the Nigerian telecommunication sector. *International Journal of Management Science and Business Administration*, 4(6), 7-16.
- Akinmolegu S. Q. (2012). The effect of financial leverage on corporate performance of some selected companies in Nigeria. *Canadian Social Sciences* 8(1): 85-91.
- Alcock, J., Baum, A., Colley, N. & Steiner, E. (2013). The role of financial leverage in the performance of private equity real estate funds. *The Journal of Portfolio Management*: 5 (1) 99-110
- Allozi N. M. & Obeidat G. S. (2016). The relationship between the stock return and financial indicators (profitability, leverage): An empirical study on manufacturing companies listed in Amman Stock Exchange. *Journal of Social Sciences (COES & RJ-JSS)*, 55(33), 408 – 424
- Alshatti A. S. (2015). The Effect of the Liquidity Management on Profitability in the Jordanian Commercial Banks. *International Journal of Business and Management*; 10(1).
- Anwaar M. (2016). Impact of firms performance on stock return (Evidence from listed companies of FTSE-100 index London UK). *Global Journal of Management and Business Research: D Accountant and Auditing*, 0975 - 5853
- Anwar, Y., Rahmalia, L. (2019). The effect of return on equity, earning per share and price earning ratio on stock prices. *The Accounting Journal of BINANIAGA*, 4(1), 57-66.

- Arkan T. (2016). The importance of financial ratios in predicting stock price trends: A case study in emerging markets. *Finanse, Rynki Finansowe, ubezpieczenia*, DOI: 10.18276/frfu.2016.79-01. <https://doi.org/10.18276/frfu.2016.79-01>
- Aruogu, C.T. (2003). An Empirical Analysis of the Effect of Capital Structure on Performance of Corporate Organisations in Nigeria. (Unpublished M.Sc Dissertation), University of Calabar, Nigeria.
- Babajide A. A., Lawal A. I. & Somoye R. O. (2016b). Stock market volatility, does our fundamentals matter? *Economic Studies Journal*, 18(3): 33-42.
- Burja V. & Marginean R. (2014). The study of factors that may influence the performance by the dupont analysis in the furniture industry. *Procedia Economics and Finance*, 16, 213-223.
- Chou, S.R., & Lee, C.H. (2007). The research on the effects of capital structure on firm performance and evidence from the non-financial industry of Taiwan, pp.1–9 [online] <http://www.google.com> (accessed 15 October 2013).
- Eboh E. C. (2009). *Special and economic research: Principles and methods*. Enugu: African Institute for Applied Economics.
- Eriki E., Modebe N. J., Okoye L. U. & Erin O. A. (2017). International Financial Reporting Standards (IFRS) Adoption and the Performance of Key Financial Ratios: Evidence from Quoted Deposit Money Banks in Nigeria. *Journal of Policy and Development Studies* 11(3).
- Gabrusiewicz, W. (2014). *Analiza finansowa przedsiębiorstwa. Teoria i zastosowanie*. Warszawa-wa: PWE.
- Igwe M. N. (2017). Effect of Capital Structure on Profitability of Listed Agricultural and Agro-Allied Companies in Nigeria, unpublished M.sc dissertation department of accountancy, University of Nigeria, Enugu Campus.
- Ikpor, I.M. (2015). Internal firm characteristics and disclosure practices of non-financial firms in Nigeria. (Unpublished Ph.D Thesis), Ebonyi State University Abakaliki.
- Kabajeh M. A. M., AL Na. S. M. A. & Dahmash, F. N. (2012). The relationship between the roa, roe and roi ratios with Jordanian insurance public companies market share prices. *International Journal of Humanities and Social Science*, 2(11): 115-20.
- Kibet, B., Kibet, L., Tenai, J. & Mutwol, M. (2011). The Determinants of Leverage at the Nairobi Stock Exchange, Kenya. Paper Presented At The Second Asian Business and Management Conference Osaka, Japan.
- Lesáková, L. (2007). Uses and limitations of profitability ratio analysis in managerial practice. 5th International Conference on Management, Enterprise and Benchmarking, June 1-2, 2007, Budapest, Hungary.
- Manyong, V. M. (2005). *Agriculture in Nigeria: Identifying opportunities for increased commercialization and investment*. IITA.
- Moshavegh S. & Montazerhojat A. (2016). Examining the relationship between financial ratios and stock returns of companies listed on Tehran stock exchange (Chemical, biotechnology products and non-metallic minerals industry). *Bulletin of Environmental, Pharmacology and Life Sciences*, 1, 31 – 34
- Murtala, S., Ibrahim, M., Lawal, S., & Abdullahi, B.B. (2018). Capital structure and return on capital employed of construction companies in Nigeria. *African Journal Accounting, Auditing and Finance*, 6(10), 1–20.
- Ndaghu, J. T., Onodugo, V.A., Akpan, E.E., & Babarinde, G.F. (2022). Financial literacy and business performance among female micro-entrepreneurs. *Investment Management and Financial Innovations*, 19(1), 156-167.



Nigerian Stock Exchange. (2016). Statistical Bulletin.

Nworji, I.D., Olagunju, A., & David, A.O. (2011). Corporate governance and bank failure in Nigeria: Issues, challenges and opportunities. *Research Journal of Finance and Accounting*, 2(2), 1-19.

Oboh, V. U., & Kushwaha, S. (2009). Socio-economic determinants of farmers' loan size in Benue State, Nigeria. *Journal of applied sciences research*, 5(4), 354-358.

Ofoegbu G. N. (2003). *Advanced Financial Accounting*. Enugu: Precision Limited.

Okolie, A. C. (1995). Oil rents, international loans and agrarian policies in Nigeria, 1970–1992. *Review of African Political Economy*, 22(64), 199-212.

Olaitan, M. A. (2006). Finance for small and medium enterprises: Nigeria's agricultural credit guarantee scheme fund. *Journal of International Farm Management*, 3(2), 30-38.

Onyeizugbe, U.C. (2013). *Practical guide to research methodology in management*. Onitsha: Good Success Press.

Osman I. & Iddrisu M. N. (2015). An empirical study of the relationship between profitability ratios and market share prices of publicly traded banking financial institutions in Ghana. *International Journal of Economics, Commerce and Management*, 3(12): 27-42.

Otekunrin, A.O., Nwanji, T.I, Olowookere, J.K., Egbide, B., Fakile, S.A., Lawal, A.I., Ajayi, S.A., Falaye, A.J. & Eluyela, D.F. (2018). Financial ratio analysis and market price of share of selected quoted agriculture and agro-allied firms in Nigeria after adoption of international financial reporting standard. *The Journal of Social Sciences Research*, 4(12), 736-744.

Richard, P. J., Deviney, T. M., Yip, G. S., & Johnson, G. (2009). Measuring organizational performance: Towards methodological best practice. *Journal of Management*, 35(3), 718-804.

Sami R. M. (2018). Exploring the relationship between financial ratios and market stock returns. *Eurasian Journal of Business and Economic* 2018, 11(21), 101-116.

Tamuntuan, U. (2015). Analysing the effect of return on equity, return on assets and earnings per share toward share price: an empirical study of food and beverage companies listed on Indonesia Stock Exchange. *Jurnal Berkala Ilmiah Efisiensi*, 15(05), 446-457.

Ugwunta D. O. (2010). The effect of bank consolidation on bank performance: a case study of the 2005 concluded Nigeria bank consolidation exercise (unpublished M.Sc. Dissertation, Department of Banking and Finance, University of Nigeria, Enugu Campus).

Uzoagulu A. E. (2011). *Practical guide to writing research project reports in tertiary institutions*. New Ed; Enugu: Cheston Ltd.