THE DETERMINANTS OF PROFITABILITY OF MANUFACTURING FIRMS IN NIGERIA

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Abstract

This study examined the determinants of profitability of manufacturing organizations in Nigeria. Twelve manufacturing firms out of twenty two manufacturing firms in the Nigerian stock market constituted the sample of the study. The main variable used in the study include Return on Equity and Return on Assets used as proxies for profitability and Firms size, leverage, lag profitability, capital base and productivity used as explanatory variables. A panel data regression analysis via the fixed effect, random effect and Hausman test were conducted to analyze the data and the outcome was that all the explanatory variables were important determinants of profitability in the Nigerian manufacturing sector though it emphasized that efficient utilization of assets is more significant than the asset size. This study throw up the opportunities in the Nigerian manufacturing sector where the average return on equity is as high as 27 percent with limited volatility. There is need for the Nigerian government to continue to improve the ease of doing business and improve its support for agro allied industries because that sector portents promising future for Nigerian industrialization efforts, job creation, poverty alleviation and health promotion.

Keywords: Profitability determinants, Manufacturing, Return on Equity, Volatility, Stock market, Panel data

INTRODUCTION

Effectiveness and efficiency of a firm is sometimes measured by its profitability. Profit is very important; more profit reflects more effective management of resources, and low profits can slow the pace at which a firm progresses and certain obligations or targets may not be met. Profitability determinants especially in the manufacturing industry is very essential - as a main strategy for economic growth for any country adopting an export – oriented industrialization policy within an open economic environment. Several Asian countries have been very successful in adopting such a strategy. Since Nigeria has also made significant progress in its industrialization effort in the past three decades, it is important to examine what the profitability determinants are in Nigerian manufacturing industry and see how they compare with its counterpart in a country that has achieved greater development in the manufacturing sector. Most African countries manufacturing sectors are still under 'elementary' stage of growth which makes the sector less productive and ineffective to power the development of the economy of African countries in terms of share of total output, innovation, productivity and employability, as the level of growth in this sector has a crucial impact on a nation's economic growth. The uncommon enthusiasm in manufacturing originates from the conviction that the sector is a potential engine of modernization, a maker of skilled jobs, and a generator of positive net inflows of capital. Since the grant of independence to West African countries, incoherence in governments' policies, policy inconsistencies, inadequate mobilization of human and material resources, ethnicity, pseudo religious proclivity and military intervention in politics have had a negative impact on industrialization of their economies. Industrialization which involves the conversion of an agrarian and commercial society to more mechanized, modernized, research and knowledge led system is considered the most appropriate strategy to adopt. This point of view is ground for this study since profitability is an essential necessity for attraction of investment into the agro- industrial sector both from local and international sources. It is instructive to note that highest priced stocks in the Nigerian capital market are those from the food and beverage industry whose primary and major raw materials are from agriculture. The objective of this study therefore is to examine the determinants of profitability of manufacturing firms most of which are from the food and beverage industry. The aim is to beam a search light on critical success factors in the industry thereby attracting the much desired investment into the sector as the risk factors would have been identified. This study would therefore be of interest to investors both domestic and external. It would also help policy makers identify areas of support to fast track the industrialization of the economy. In order to achieve the objective of this study, it is divided into four parts namely, the introduction, the literature review, the methodology and discussion of findings and finally, the conclusion and policy recommendation.

LITERATURE REVIEW

In perspective, profitability significance on firm's growth and survival is a considerable hypothetical and empirical body of information consisting the main domain of this paper. The major hypothetical development in benefit maximization underlies the relationship between business sector structure and productivity. Previous studies have identified a few determinants of profitability and this literature review will highlight the theoretical and empirical bases of this claim.

Theoretical Framework

The Dynamic Theory of Profit

Prof. J.B. Clark propounded the dynamic theory of profit in the year 1900. To him profit is the difference between the price and the cost of production of the commodity. Profit is the result of progressive change in an organized society. The progressive change is possible only in a dynamic state. According to Clark the whole economic society is divided into organized and unorganized society. The organized society is further divided into static and dynamic state and it is only in a dynamic state that profit arises. In a static state, the five generic changes such as the size of the population, technical knowledge, the amount of capital, method of production of the firms and the size of the industry and the wants of the people do not take place; everything is stagnant and there is no change at all. The element of time is non-existent and there is no uncertainty. The same economic features are repeated year after year and therefore there is no risk of any kind to the entrepreneur. The price of the good would be equal to the cost of production. Hence profit does not arise at all. The entrepreneur would get wages for his labour and interest on his capital. If the price of the commodity is higher than the cost of production, competition would reduce the price again to the level of the cost of production so that profit is eliminated. The presence of perfect competition makes the price equal to the cost of production which eliminates the super normal profit. Thus Knight observes, "Since costs and selling prices are always equal, there can be no profit beyond wages for the routine work of supervision". It is well known that the society has always been dynamic. Several changes are taking place in a dynamic society.

Wage Theory of Profit

This theory was propounded by Taussig, the American economist. According to this theory, profit is also a type of wage which is given to the entrepreneur for the services rendered by him. In the words of Taussig, "profit is the wage of the entrepreneur which accrues to him on account of his ability". Just as a labourer receives wages for his services, the entrepreneur works hard,

gets profit for the part played by him in production. The only difference is that while labourer renders physical services, entrepreneur puts in mental work. Thus an entrepreneur is not different from a doctor, lawyer, teacher, etc., who do mental work. Profit is thus a form of wage.

The main defect of this theory is that it does not make a distinction between wage and profit. Wages are fixed and certain, but profits are uncertain income. The entrepreneurs undergo risk in production but the labourer undertakes no such risk. Entrepreneur bears the entire responsibility to organize the business, but labourer need not do so. Profits tend to vary with price but wages do not vary so. The labourer get his wages if he has put in the required amount of labour, but the entrepreneur may not get profit even if he works hard. Profit may include chance gain while wages do not include such an element.

Rent Theory of Profitability

This theory was first propounded by the American Economist, Walker. It is based on the ideas of Senior and J.S. Mill. According to Mill, "the extra gains which any producer obtains through superior talents for business or superior business arrangements are very much of a kind similar to rent. Walker says that "Profits are of the same genus as rent". His theory of profits states that profit is the rent of superior entrepreneur over marginal of less efficient entrepreneur. According to these economists, there was a good deal of similarity between rent and profit. Rent was the reward for the use of land while a profit was the reward for the ability of the entrepreneur. Just as land differs from one another in fertility, entrepreneurs differ from one another in ability. Rent of superior land is determined by the difference in productivity of the marginal and super marginal land; similarly the profits of the marginal and super marginal entrepreneurs. In short, it is the intra-marginal lands that earn a surplus over marginal lands. So also intra marginal entrepreneurs earn a surplus over marginal entrepreneur. Just as there is the marginal land, there is the marginal entrepreneur. The marginal land yields no rent; so also marginal entrepreneur is a no profit entrepreneur. The marginal entrepreneur sells his produce at cost price and gets no profit. He secures only the wages of management not profit. Thus profit does not enter into cost of production. Like rent, profit also does not enter into price. Profit is thus a surplus.

According to critics there cannot be perfect similarity between rent and profit. Rent is generally positive and in rare cases it may be zero. But rent can never be negative. When entrepreneur suffers losses, profit can be negative. The theory explains profit as the differential surplus rather than a reward for an entrepreneur. Profit is not always the reward for business ability because it can be due to monopoly or it can arise due to favourable chance to the entrepreneur. The system of joint stock enterprise has become more important in the modern

economy. The manner in which dividends are distributed among the shareholders is not at all related to latter's ability. Both dull and intelligent shareholders enjoy the same dividends. In fact, the less able may secure more dividends if they possess more shares.

Determinant of Profitability

Lenz (1981) undertook interdisciplinary review and assessment of empirical studies on the performance of an entire business venture. He outlined and made remarks on determinants of profitability of a firm both internal and external: essentially, human decisions in a firm affect a variety of factors which determine firm's performance. Additionally, environmental changes does not affect every part of the firm uniformly. Hirschey and Wichern (1984) in their findings analyzed the determinant of profitability. They examined the usefulness of accounting and market-value profitability. In their research, they found out that the differences in accounting and market measures provide information on profitability and upheld the validity of cautioning remarks concerning the utilizing of accounting information as it has a basic historical interpretation which is different from that of market-value measures of profitability which are forward looking. Finally, they saw that there was a significant explanatory role for research and development intensity, television advertising, and leverage as factors influencing profitability. Roquebert et al (1996) tackled issues surrounding the degree of variance in Return on Assets (ROA) represented by industry, corporate, and strategic business unit while controlling for the business cycle and relationship between the business cycle and industry. They came to a conclusion and discovered that there is an impact strategic management plays in the profitability of strategic business unit. Kambhampati and Parikh, (2003) analyzed the effects of increased trade exposure on the profitability of firms in Indian industry. The authors revealed that while trade reforms are often expected to decrease profit margins as firms struggle to compete in international markets, there is the possibility that increased competition may improve firm's efficiency and provide a positive impetus to firm's profitability. The authors indicated that their paper is different from many others in this area because it considered both possibilities. The authors developed an efficiency index to directly analyze the impact of changing efficiency levels on firm profit margins. Results indicated that liberalization significantly influenced profit margins. Results from this analysis further indicated that liberalization main effect was through the impact that it had on the other firm variables: market shares, advertising, R&D and exports-all that changed after 1991. The authors of the paper indicated that neither capital nor managerial capabilities (as proxied by remuneration) were particularly effective in increasing profit margins.

Empirical Review of Profitability Determinant

Zingales (1998), in his study on the effect of the de-regulation level of leverage on the survival of trucking firms after the Carter deregulation, he discovered the effect capital market had on the most effective and efficient companies selected for the findings. His findings showed that companies with high leverage will find it difficult to escape the shock coming from deregulation, even after various measures of efficiency have been controlled. He also said that there is a strong effect in the motor industry most especially the imperfectly competitive segment. The results of the study also showed that when debt is high, it seems to affect the survival of the firm, by both reducing investments and the price per mile that a carrier can afford to charge its customers after deregulation.

McDonald (1999) study provided new evidence on the determinants of the profitability of Australian manufacturing firms by analyzing a unique firm-level data set of firm performance over the period 1984-1993. The panel nature of the data permitted the author to estimate the dynamic profitability models over the business cycle, to test both the persistence and cyclicality of firm profitability. Econometric results suggest that lagged profitability is a significant determinant of current profit margins, and that industry concentration is positively related to firm profit margins. Also, profit margins are found to be pro-cyclical in concentrated industries but counter-cyclical in less concentrated industries.

Vijayakumar and Kadirvelu (2004) in their study "Determinants of Profitability: The case of Indian Public Sector Power Industries" the presented a model for this research, multiple regression model was used, return on total assets and profit margin to sales ratio were used as a major indicators of profitability. The study based in India covered from 1981 to 2002. The explanatory variables included Size, represented by total assets, growth by measure of growth rate of assets, leverage, current ratio, and inventory turnover ratio, operating expenses to sales ratio, vertical integration and age.. The study identified that the age had strong significance in relation to the determinant of profitability and was followed by operating expenses to sales ratio, leverage, fixed assets turnover ratio, inventory ratio, size, current ratio, growth rate and vertical integration and further, size, operating expenses to sales ratio and fixed assets ratio had negative significance to the variation of profit in the Indian public sector power industries.

Rasiah (2010) in his research "Determinants of profitability of commercial banks" separated the gainfulness determinants into two fundamental classifications, in particular the inside determinants and the outside determinants. The inside determinants included administration controllable elements, for example, liquidity, interest on securities, interests on backups, credits, non-performing advances, and overhead consumption. The outside determinants incorporate those elements which are outside the control ability of administration

of these organizations, for example, financing costs, swelling rates, market development and market share.

Mittal et al (2010) researched on the trend in the management of working capital, in the cement industry of India. Two firms namely Gujarat Ambuja Cements Ltd (GAC Ltd) and Associated Cement Companies Limited (ACC Ltd) were selected for this research. These two firms were the market leaders in India in the cement industry and also were the major competitors in India. This research was based on a four year period which is from 2006 to 20009. Secondary data was utilised for this research and the financial statement of the firms were the source of data. The study examined the relationship between the working capital size, Sales, total assets and net profit. The mean, standard deviation, coefficient of variation, correlation, multiple regressions and descriptive statistic were used for this study. The findings of the research stated that there was no significant relationship in the size of working capital and profitability of these firms and on the other hand, there was a positive significance relationship between the components of working capital and the profitability of firms in the cement industry of India.

Vijayakumar (2011) study on "The Determinants of Profitability: An Empirical Investigation Using Indian Automobile Industry" The profit of a business might be measured by examining the gainfulness of interest in it. It is the test of effectiveness, intense motivational variable and the measure of control in any business. Profitability is exceedingly delicate financial variable which is influenced by host of components working through an assortment of ways. The goal of this study is to look at the determinants of productivity of chosen Automobile Industry. Determinants of benefit are broken down utilizing the strategies of customary minimum squares. It is clear from the outcomes that size is the most grounded determinants of benefit of Indian Automobile Industry taken after by the variables vertical joining, past gainfulness, development rate of advantages and stock turnover proportion. The study reasoned that industry ought to consider all these conceivable determinants while considering its productivity

Soumadi and Hayajneh (2011) explored consequences on firms' performance regarding capital structure and the financial leverage of Jordan firms that are listed on Amman stock exchange. The model used was multiple regressions for this research. This research explored seventy-six (76) companies which included fifty-three (53) companies in the industrial sector and twenty-three (23) companies in the services sector between 2001 to 2006. Their results showed there was a negative impact of capital structure on the performance of the companies. Moreover, research established that there was no considerable difference between high and low financial leveraged firms.

Nigerian Experience (Empirical Studies on Nigeria)

Ani, Ugwunta, Ezeudu and Ugwuanyi (2012) studied profitability determinants of manufacturing companies in Nigeria. 28 Manufacturing companies were taken into consideration and the time frame of 10 year which is from 2001 to 2010 considered. Pooled ordinary least squared (OLS) regression was applied to analyze the data. The outcome showed that an increase in the firms' size cannot lead to an increase in profits as a result of diseconomies of scale but an increased capital assets ratio, and loans and advances add robustly to the profitability of these firms.

Osuji and Odita (2012) conducted a study on thirty non-finance firms in Nigeria that are on the Nigerian Stock Exchange to examine the effect of capital structure on these firms' financial performance. Panel data analysis was conducted on data from 2004 to 2010. The study indicated that the capital structure of the selected firms for this research was surrogated by debt ratio. The result showed that the debt ratio has an unfavourable impact on profitability measured by Return on Asset (ROA) and Return on Equity (ROE) of the selected firm.

Innocent, Mary & Matthew (2013) in their study on the determinants of profitability came to a conclusion that the determinants of profitability have also been conceptualized by using the financial statement analysis and this financial statement analysis have variables that can be used for such analysis. These variables can be in form of inventory turnover, debtor's turnover, creditor's velocity, total assets turnover, and gross profit margin. Dependent variable of profitability is represented by the gross profit margin and other ratios are independent variables.

METHODOLOGY

Research Design

This study analyses the factors determining profitability of selected manufacturing companies quoted on the Nigerian Stock Exchange. The Nigerian Stock Exchange has 22 manufacturing companies listed on the Nigerian Stock Exchange as at 7th May, 2016. This study considers twelve (12) out of the listed manufacturing firms. This study used 5-year averages. The relevant data was collected from the annual reports of the selected firms for the financial year ended 2011, 2012, 2013, 2014, and 2015 through the link available in the website of the Nigerian Stock Exchange. To ensure results robustness, only certain categories of companies were selected for this sample;

- In order to ensure data reliability, only companies with financial data available for every year from 2011 to 2015 were selected.
- In order to reduce the number of outliers, delisted firms, those in dissolution stage or those registering negative equity values were not included in the sample.

The variables selected for this study are size, growth, leverage, efficiency and productivity which could have impact on profitability. Determinants of profitability are analyzed using the technique of multiple regression.

Model Specification

In this section, we used the panel data regression analysis to analyze the determinant of profitability of manufacturing firms in Nigeria, proxied by Return on Equity and Return on Asset.

Model 1

$$\text{Log ROE}_{it} = \beta_0 + \beta_1 \text{LogPAT}_{it-1} + \beta \text{LogEQT}_{it} + \beta_3 \text{LogASST}_{it} + \beta_4 \text{LogGER}_{it} + Ui_{it} \qquad (1)$$

Model 2

$$\text{Log ROA}_{it} = \beta_0 + \beta_1 \text{LogPAT}_{it-1} + \beta_2 \text{LogEQT}_{it} + \beta_3 \text{LogASST}_{it} + \beta_4 \text{LogGER}_{it} + Ui_{it} \qquad (2)$$

Where,

ROA = Net Profit After Tax/Total Assets

ROE = Net Profit After Tax/Share holder's funds

PAT = Profit After of Previous Year

EQT= Owner's Equity

ASST= Total Assets Proxy for Size

GER = Leverage

Bo = Constant

B1-B4 = Co-efficient

ei = error term, representing factors other than those specified in the model

i = number of firms showing the cross sectional dimension of the data

t = number of time periods showing that it involves time series data.

A priori Specification: the expected signs of the coefficients of the explanatory variables are:

b$1> 0,$ b$2> 0,$ b$3> 0,$ b$4 > 0$.

ANALYSIS AND DISCUSSION OF RESULT

Descriptive Analysis

Table 1: Descriptive Statistics

	ROE	ROA	PAT	EQT	ASS	GER
Mean	0.273656	0.126632	8999013.	38046609	64977595	0.557202
Median	0.193945	0.101355	3471530.	20177595	45624689	0.506290
Maximum	1.583060	0.494190	43080349	1.92E+08	4.53E+08	1.504470

Minimum	-0.899470	-0.258190	-1825759.	5032.000	26167.00	0.173660
Std. Dev.	0.325274	0.116048	12357746	48874784	79447438	0.263901
Observations	60	60	60	60	60	60

Source: computed by researcher using data extracted from annual reports

Generally, from the 60 observations as seen in table 1, ROE has a minimum figure of -0.8994 recorded by Champion brewery in 2015 while the maximum value is 1.583060 reported by INT'L brewery in 2012. The mean of ROE is 27.36% with standard deviation of 0.325274.

The table further revealed that on average, the companies included in our sample generates Return on Aquity (ROA) of about 12.66% and a standard deviation of 0.116048. This means that the value of the ROA can deviate from mean to both sides by 11.60%. The minimum and maximum values of ROA are -0.258190 and 0.494190 respectively.

Pearson's Correlation Coefficient Analysis

In this section, we measured the degree of association between our Profitability variables (ROE and ROA) and various profitability determinants variables i.e. Total Assets, Gearing, Equity and Profit After Tax. From the a priori stated in the previous chapter, a positive relationship is expected between the measures of Profitability variable (ROE and ROA) and the various profitability determinants. Table 2 presents the correlation coefficients for all the variables considered in this study.

Table 2: Pearson's Correlation Coefficients Matrix

	ROE	ROA	PAT	EQT	ASS	DBR
ROE	1.000000					
ROA	0.468263	1.000000				
PAT	0.103659	0.629428	1.000000			
EQT	-0.100220	0.375541	0.872638	1.000000		
ASS	-0.095784	0.085013	0.679513	0.851317	1.000000	
GER	0.492744	0.115004	-0.236632	-0.389241	-0.426327	1.000000

Source: computed by researcher using data extracted from annual reports

From the correlation result in table 2, ROE has weak correlation coefficients with the profitability determinants included in the research model. It has weak negative coefficient with equity and total assets while it shows a weak positive correlation with profit after tax and gearing.

Different trend was observed from the correlation result for ROA. From the correlation result, it was observed that ROA have a positive correlation with all the profitability determinants included in the model. The result shows relatively strong positive relationship between ROA and PAT. Furthermore, the result shows that ROA has weak positive relation with other profitability determinants included in the model.

Regression Analysis

Fixed Effects model is applied for firms to control all characteristics that are stable within the time frame of this study. This model delivers results that are statistically better by eliminating biasness from data and describes within sample differences only (Gujarati, 1988). Random Effect model is used when the sample has different characteristics. Because companies are not same in characteristics such as Return on Assets, firm size, firm growth, number of shareholders, etc, random effect model is more appropriate to describe deviations between determinants of profitability.

Hausman Test

Panel data is used in this study to determine whether the data should be analyzed through random effect or fixed effect. For this purpose, I use the Hausman test criteria to check which model is more appropriate in this study.

H_0: Random Effects model is consistent and efficient.

H_1: Random Effects model is inconsistent.

Table 3a. Hausman Test Results Model 1

Correlated Random Effects - Hausman Test			
Equation: Untitled	Test period random effects		
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.000000	4	1.0000
Period random	0.000000	4	1.0000

* Cross-section test variance is invalid. Hausman statistic set to zero.

* Period test variance is invalid. Hausman statistic set to zero.

** WARNING: estimated period random effects variance is zero.

Table 3b.Hausman Test Results Model 2

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test period random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	0.000000	4	1.0000

* Period test variance is invalid. Hausman statistic set to zero.

** WARNING: estimated period random effects variance is zero.

Table 3a and 3b describe that the p value is not significant. So null hypothesis is accepted and alternative hypothesis is rejected in the case of the two models. According to the Hausman test, random effect model is appropriate in this study.

Two-way random effects estimated regression results for Panel Data

The brain behind this regression analysis is to show the relationship between the dependent variable and that of independent variables. The tables below show the effect of all the independent variables on return on assets (ROA) and return of equity (ROE) differently.

Model 1

$$ROE = -0.276971 + 1.90PAT - 3.87EQT + 9.88ASST + 0.830603GER$$

Table 4a: Two-way random effects estimated regression results for Model 1

Dependent Variable: ROE				
Method: Panel EGLS (Two-way random effects)				
Sample: 2011 2015				
Periods included: 5				
Cross-sections included: 12				
Total panel (balanced) observations: 60				
Swamy and Arora estimator of component variances				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.276971	0.122986	-2.252050	0.0283
PAT	1.90E-08	6.83E-09	2.782826	0.0074
EQT	-3.87E-09	1.91E-09	-2.032829	0.0469
ASST	9.88E-10	8.78E-10	1.124868	0.2655
GER	0.830603	0.149018	5.573842	0.0000

R-squared	0.454903	Mean dependent var	0.112473	Table 4a...
Adjusted R-squared	0.415259	S.D. dependent var	0.270597	
S.E. of regression	0.206921	Sum squared resid	2.354898	
F-statistic	11.47486	Durbin-Watson stat	1.731810	
Prob(F-statistic)	0.000001			

Model 2

$$ROA = 0.059308 + 1.01PAT - 6.23EQT - 8.49ASST + 0.061573GER$$

Table 4b: Two-way random effects estimated regression results for Model 2

Dependent Variable: ROA

Method: Panel EGLS (Two-way random effects)

Sample: 2011 2015

Periods included: 5

Cross-sections included: 12

Total panel (balanced) observations: 60

Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.059308	0.030222	1.962436	0.0548
PAT	1.01E-08	1.72E-09	5.865736	0.0000
EQT	-6.23E-11	5.92E-10	-0.105289	0.9165
ASST	-8.49E-10	2.45E-10	-3.458423	0.0011
GER	0.061573	0.042033	1.464872	0.1486

R-squared	0.597434	Mean dependent var	0.113196
Adjusted R-squared	0.568156	S.D. dependent var	0.109244
S.E. of regression	0.071789	Sum squared resid	0.283453
F-statistic	20.40585	Durbin-Watson stat	1.763453
Prob(F-statistic)	0.000000		

The result from the regression equations are shown in table 4a and 4b. The equation employs return on equity and return on asset as its dependent variables while Profit before Tax, Equity, Total Assets and gearing are the independent variables. For the two models, the F-values which are significant at 1% level indicate that our models do not suffer from specification bias. However, from model 1, the coefficient of determination (R^2) indicates that about 45.49% of

change in return on equity is accounted for by the explanatory variables while the adjusted R-squared of 41.45% further justifies this effect. Also for the second model, 59.74% of change in ROA is accounted for by the independent variables.

The estimated multiple linear regressions show that the parameters of profit after tax, equity and gearing are all statistically significant on return on asset (ROE) at 5% level of significance except the total assets which is not statistically significant. Also, the parameters of profit after tax, and total assets are both statistically significant on return on asset (ROA) at 5% level of significance but equity and gearing are not statistically significant.

The regression result for the two models further revealed that the relationship between the shareholders' equity and the performance proxies are not in line with our stated expected result. The Total Assets also shows a contrary result with the priori in the second model (β_1EQT$_{t;}$ β_2EQT<0; β_2ASST < 0). This invariably means that the return on equity and return on asset goes down as the shareholders' equity increase. In addition, the return on asset decreases as firms' assets increases which implies inefficient utilization of firms' assets to generate sales. Additionally, it was observed that the more the debt (gearing) the firms employ to finance its operation, the better their return on equity and return on assets. Likewise, the more the profit after tax, the higher the ROE and ROA. These last two results conform to the a priori result (β_3GER$_t$ and β_4PAT$_t > 0$).

CONCLUSION

Given the fact that manufacturing sector occupies a larger portion of the Industrial sector of the Economy compared with other sectors, its financial performance directly affects the stability of the countries' economic systems in today's capitalist world. It can be said that there are lots of determinants of a Manufacturing firm's profitability, among these determinants; size, lagged profitability, productivity and financial leverage have been considered as important determinants. Profitability of this sector is very much important not only in the view of the objective of shareholders, but also in growing the Nigerian Economy as a whole. The issue of profitability determinants of manufacturing firms remains to date a debated topic. The researcher made an effort in adding to the growing body of literature on the issue of profitability determinant in firms by empirically examining the relationship with the economy of Nigeria. Some of the findings are in line with research conducted elsewhere, others seem to conflict with existing literature on the issue.

While this research is limited to the sample of selected manufacturing companies quoted on the Nigerian Stock Exchange, the findings from this research could be generalized to the companies similar to this category.

RECOMMENDATIONS

Firms should grow the size of their companies to grow profit. This growth in size will constantly have a positive effect on their capital structure. Manufacturing firms should also have a proper balancing of debt-equity mix that is optimization of debt equity mix.

This study throw up the opportunities in the Nigerian manufacturing sector where the average return on equity is as high as 27 percent with limited volatility. This beckons on both domestic and foreign investors to take advantage of the profit making opportunities in that sector

This study is a further encouragement to the Nigerian government to continue to improve the ease of doing business and improve its support for agro allied industries because that sector portents promising future for Nigerian industrialization efforts, job creation, poverty alleviation and health promotion.

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