

## **EFFECT OF PROFITABILITY ON FIRM VALUE OF MANUFACTURING FIRMS IN NIGERIA**

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### **Abstract**

The study examined the effect of profitability on firm value of manufacturing firms in Nigeria. The predictive variables of the study and measures of firm profitability are Net Profit Margin, and Earnings Per Share, while the dependent variable and proxy for firm value is Net Assets Per Share. Time series data were extracted from the annual reports and financial statements of the selected firms and analyzed using Panel Data Regression (Fixed Effect Model). Research findings suggest that Net Profit Margin positively and significantly affects Net Assets Per Share {NPM Coefficient = 10.18733: (P-value: 0.0000<0.05)}, While Earnings Per Share has positively and significantly affected Net Assets Per Share {EPS Coefficient = 0.265168: (P-value: 0.0016<0.05)}. We concluded that profitability has a significant positive effect on firm value of manufacturing firms in Nigeria. The study recommended that manufacturing firms in Nigeria should increase their

products' quality and firm sales and reduce cost and wastage to increase firm value. The firms should also increase their earnings per share by increasing their firms' profitability or by reducing the number of shares outstanding through repurchasing of shares from the stock market. The firms should also increase their return on equity by using more debt financing than equity financing. Debt financing strengthens owners' stake in the firms and increases return on equity especially if the debts are properly utilized.

**Keywords:** Effect, Firm, Manufacturing, Profitability Value

## 1. Introduction

Raising firm value and returns for shareholders, businesses seek to maximize earnings and increase wealth for their owners. But to accomplish this primary objective of the company, managers must be aggressive and creative due to the intense rivalry that globalization and technical growth have produced among businesses (Inne Tantra, et al 2021). Investors choose companies that will provide them with sufficient returns on their capital; they do not simply invest in any company. Before investing, investors look for information in advance about a company's profitability and other financial circumstances. Consequently, the factors that entice investors to place their money in any company are profitability and return on investment. To guarantee that substantial profits are made to draw in investors, company management should be able to overcome any obstacles. Reduced costs and increased business activity, which are frequently reflected in company sales, are the keys to profitability (Ha & Minh 2018). Profitability was defined by Nawaf (2010) as a company's earnings or the regularity of its cash inflows. It is the assurance that a business will continue to operate in the marketplace. One useful indicator of a company's performance is its profit margin. It is affected by several variables, including age, fixed asset growth, company size, exports of firm products, and sales growth. As to Johnson's (2019) assertion, a business's capacity to generate profits consistently determines its level of success. A company's profit is calculated as sales less expenses. A business needs to make a profit to be profitable to attract investors, obtain bank funding, expand, and satisfy other requirements. Without making a profit, businesses are unable to stay in operation. Business managers need to know how important profitability is to their industry and create plans that will maximize the company's chances of continuing to be successful.

Additionally, Kathuri (2014) asserted that companies with higher profitability are presumed to expand, whilst companies with lower profitability are thought to lose market share. Successful businesses can find ways to save costs through innovation or by copying industry best practices, giving them a competitive advantage. A company that achieves above-average profitability eventually experiences growth. All things considered, it is hard to envision continued expansion without profitability. If retained earnings aren't sufficient to finance growth, the company will have to turn to other sources of capital (either debt or equity financing). Earlier research has identified several company profitability metrics. While the majority of these metrics are

profitability ratios, some of them are absolute values. For example, return on equity and return on assets were recognized by Sabrin et al. (2016) as some of the primary profitability metrics.

Return on assets is a metric used to assess how profitable a company can be made of all of its available assets. Return on equity is a metric used to assess how profitable a business can make use of the money that it uses. Profit after tax, net profit margin, return on equity, return on assets, and return on sales were the profit metrics cited by Kouser et al. (2012). The body of research in this field indicates that little is known about how profitability affects business value in Nigeria. The majority of research to date has been conducted in Asia, mostly in Indonesia. Equal attention is not paid to Africa's developing economy, particularly Nigeria. Thus, research in these and related fields has not yet adequately covered Nigeria. Furthermore, it was noted from the literature that is now accessible that there hasn't been a lot of research done in this field in the manufacturing industry. These, coupled with other literature gaps instigated the present study to examine the effect of profitability on firm value of manufacturing firms in Nigeria.

## 1.2 Statement of the Problem

Two of the most crucial factors in the analysis of firms are company value and profitability. The ability of a business to make enough money from its operations to support both its short- and long-term goals is known as profitability. A company's profitability is influenced by several factors, including market rivalry, product quality, packaging, efficient service delivery, and regulatory environment. Firms gain from profitability in a variety of ways. Increased earnings, for example, enable businesses to spend more on R&D, resulting in superior and cutting-edge goods and services.

However, there is a severe absence of these supportive business environments in Nigeria. For example, a lot of Nigerian manufacturing companies still struggle to achieve the crucial corporate objective of maximizing profits and building wealth for shareholders. It is common knowledge that Nigeria's industrial industry has had extremely difficult operating conditions, particularly during the past ten years. A number of factors contribute to the adverse economic environment, including rising inflation, unpredictable foreign exchange rates, deteriorating infrastructure, and insufficient access to financing.

The manufacturing sector in Nigeria experiences low net profit margin, little to no dividend payment, bad return on assets, and poor return on equity as a result of these severe and ongoing operating conditions. As a result, over 270 manufacturing companies closed their doors in 2016, and some of them used employee layoffs and output reductions as survival tactics. This gave rise to the current study's investigation of the connection between Nigerian manufacturing enterprises' profitability and firm value.

## 1.3 Objectives of the Study

The main objective of this study is to examine the effect of profitability on firm value of manufacturing firms in Nigeria. Specifically, the study seeks to:

1. Evaluate the effect of net profit margin on net assets per share of manufacturing firms in Nigeria.
2. Investigate the effect of earnings per share on net assets per share of manufacturing firms in Nigeria.

### 3. 1.4 Statement of the Hypotheses

4. The following null hypotheses were formulated to address the research questions:
5. Net profit margin does not significantly affect net assets per share of manufacturing firms in Nigeria
6. Earnings per share does not significantly affect net assets per share of manufacturing firms in Nigeria.

## Review of Related Literature

### 2.1 Conceptual Review

#### Firm Profitability

Profitability was defined by Ali, et al. (2021) as a company's capacity to turn a profit within a given time frame by managing equity, assets, and sales. The company will not be able to sustain business continuity if it cannot turn a profit that is high enough. Profitability is one of the financial ratios used to assess a company's success, according to Radja and Artin (2020). Consequently, it is a gauge of a company's capacity to turn a profit on sales, investments, and firm capital. According to Koller (2011), profitability is the most significant and trustworthy metric since it provides a comprehensive indication of a company's capacity to increase its income level. Executives typically define profits as the difference between total revenue from all assets that generate income and total expenses incurred in the management of the portfolios of assets and liabilities. It acts as a buffer against unfavorable circumstances like loan losses or losses brought on by unforeseen interest rate fluctuations. Chandler (2009) asserted that a company's profitability is influenced by market rivalry.

Additionally, Kathuri (2014) pointed out that it is expected that more profitable businesses will expand, while less successful or profitable businesses will lose market share. Businesses that are profitable can obtain a competitive edge by following industry best practices or by discovering innovations that lower costs. A company that achieves above-average profitability eventually experiences growth. According to Brigham and Daves (2018), profitability ratios are comparisons between the different parts of the financial statements, particularly the profit and loss statement and the statement of financial position. Gross profit margin, net profit margin, return on investment, return on equity, return on common stock equity, earning per share, and basic earning power are some of the metrics that can be used to gauge profitability.

#### Net Profit Margin

Net profit margin is a profitability ratio that represents a company's net profit to its sales revenue, according to Ditaa and Murtaqi (2014). It is the percentage of a company's revenue that is left over after all operational costs, taxes, interest, and preferred stock distributions are subtracted from the total revenue of the company. The percentage of earnings to sales is used to express net profit margins. A company can more easily compare the profitability of other companies by reporting margins as a percentage. According to Anton (2016), one of the financial metrics that is most frequently watched is net profit margin. The net profit margin is a metric that investors pay great attention to since it indicates how well a company converts revenue into earnings that are distributed to shareholders.

Net profit margins, according to Ditaa and Murtaqi (2014), also give investors the ability to assess management's capacity to control costs and expenses and turn a profit over time. If management permits costs and expenses to increase at an unsustainable rate, then even strong sales growth is useless. According to Husna and Desiyanti (2016), a company's ability to turn sales into profits is represented by its margin ratios, which can be measured in different ways. Because it accounts for everything, the net profit margin is a useful metric for determining profitability. The formula for calculating net profit margin is net income after taxes  $\div$  sales. According to Peavler (2018), a company's capacity to cut costs has an impact on the numerator of net profit margin (net income), whilst a rise in sales revenue has an impact on the denominator (net sales). The net profit margin ratio will rise as a result of these measures. The net profit margin serves as a gauge for productivity and general company health. Businesses that make more money per naira of sales are more productive. Jatoi et al. (2014) pointed out that a number of issues, such as diminishing sales, subpar customer service, or insufficient spending management, could be to blame when a company's net profit margin is dropping over time.

### **Firm Value**

According to Silvia (2019), firm value is the measure of investors' satisfaction with the degree of resource management proficiency attained by company managers, which is frequently reflected in the stock market values of the firms. The firm's value is significant because it raises the price of its stock on the stock market, which eventually raises shareholder prosperity. According to Khasawneh and Staytieh (2017), company value is defined as the amount a buyer is willing to pay to purchase the business if it is sold. A company's worth may be reflected in its share price. A high stock price suggests a better value for the company. Price Book Value, a comparison of the market and book values of stocks, is a method that may be used to assess a company's value. According to Hasnawati (2005), one of the most significant ratios for determining a firm's worth is the Tobin Q ratio. The market price of the company's equity plus debt divided by the value of its corporate assets yields the Tobin Q ratio, which is the market to book value ratio. Price to book value has been recognized by Brigham and Houston (2011) as one of the key ratios for assessing business value. A comparison of the stock price and book value per share is known as price to book value. This may show how much work the company puts into building firm value in relation to the amount of money invested. A firm's firm value may be impacted by several things. Sudiani and

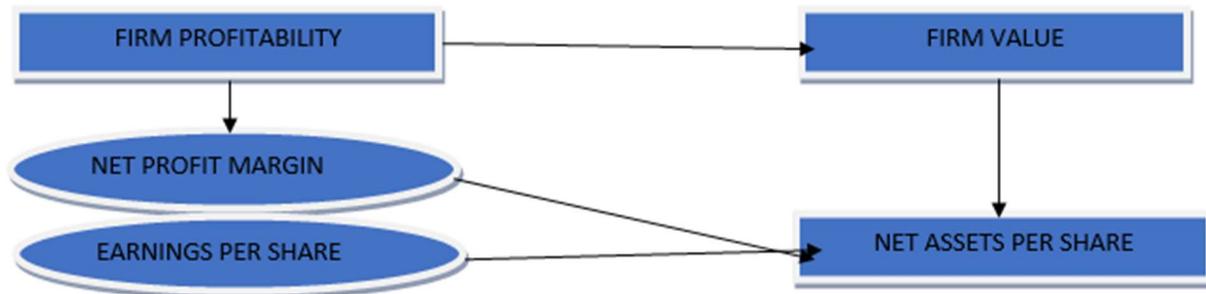
Wiksuana (2018), for example, claimed that profitability is the primary factor influencing firm value. Profitability is a metric used to assess a company's capacity to generate profits and serves as an indicator of its efficacy. Additionally, Ikpesu and Eboiyehi (2018) pointed out that one of the elements influencing business value is capital structure. The percentage of debt in a company's capital is known as its capital structure. It shows how much debt and how much equity a company is funded with. According to Hasnawati (2005), other elements that impact a company's value include its dividend policy, financing decisions, and external factors like inflation, foreign exchange rates, economic development, and market and political psychology. The company's ability to operate effectively and efficiently, leading to high profitability, is made possible by firm policies, business ethics, and working environment circumstances, as identified by Sudiyatno et al. (2020). This will have an effect on the increase in stock prices above their book value.

### **Net Assets Per Share**

According to Katara and Vaidya (2021), net assets are an entity's total assets less its liabilities. Net assets are all of a company's assets less all of the liabilities it has against other entities or individuals.  $\text{entire assets} - \text{entire liabilities} = \text{net assets}$ . They have more debt than they can afford if the difference is negative. A positive number typically means that there are no significant financial issues facing the organization. A company's stockholders' equity is equal to the whole amount of its net assets. Net assets are significant because their calculation helps businesses assess their overall financial health. According to Business Dictionary (2016), a company's net assets are equal to all of its assets less all of its liabilities. This is sometimes referred to as net asset value and represents shareholders' equity. Consequently, a company's net asset value is equal to its equity, or the shareholders' fund.

According to O'Sullivan and Steven (2003), terms like assets, liabilities, and net assets are used in the finance industry. It is crucial to comprehend their makeup as well as how they work together as a result. Assets are financial resources with potential earnings for a company in the future. What the company owns and/or controls are its assets. Liabilities are "outsider claims" that are made up of debts or other financial commitments owed to third parties. Net assets, commonly referred to as owners' equity or net value, are claims that are held by the company's owners. Because they made an investment in the company, an owner is entitled to the assets of the entity. According to Kenton (2021), net assets—which are calculated by dividing the difference between assets and liabilities by the total number of shares or units held by investors—have also grown in prominence in regard to fund valuation and pricing. It is simpler to utilize the fund's net assets value for share valuation and transactions because it provides a "per-share" value for the fund.

**Fig 2.1:** Conceptual Framework



Source: Authors' Compilation 2024

## 2.2 Theoretical Framework

### Shareholders' Wealth Maximization Theory

Milton Friedman created this theory in 1970. The shareholder idea was first put forth by Friedman in a 1970 paper titled "Capitalism and Freedom." According to Friedman's (1970) theory, a corporation has one and only one social responsibility: using its resources and participating in profitable ventures as long as it plays by the rules, that is, without lying or cheating. In his essay "Social Responsibility of Business is to Increase its Profits," Friedman presents the notion in a slightly different way: In a private property, free-enterprise economy, a corporate CEO works for the company's owners. His bosses are the ones he must answer to directly. They have an obligation to run the firm in accordance with their goals, which are often to maximize profits while abiding by the fundamental laws and moral standards of society.

### Growth of the Fitter Theory

Alchian (1950) proposed the Fitter idea and it grew from there. According to the hypothesis put forth by Alchian (1950), firm profit serves as a proxy for fitness, with profitable firms continuing to develop and thrive in the market while other firms fold as a result of subpar performance (Kouser et al., 2012). Fitter firms develop and thrive, while less robust firms lose market share and go out of business as a result of the evolutionary selection mechanism, according to Alchian's (1950) theoretical analysis. Profitable enterprises are therefore expected to expand if profit rates accurately represent the level of fitness (Jang and Park, 2011). Since profitable businesses may finance future competitive efforts with their own cash flow and have previously demonstrated a greater fit with the environment, they may have a bigger potential for growth. While profitability reduces the risk associated with obtaining and depending on outside funding sources, it also signifies a high enough degree of market demand. According to Mukhopadhyay and AmirKhalkhali (2010), growth is financed by profit. A company can expand internally in a number of ways by funding development initiatives. It can grow through research and development, resulting in new product and process innovations, by leveraging technology potential.

## 2.3 Empirical Review

Pasaribu and Thomas (2022) examined the influence of net profit margin, book value, and firm size on the stock price of the manufacturing company sector consumer goods industry listed on

the Indonesia Stock Exchange during the 2015-2017 periods. Twenty-four manufacturing companies that were listed during the time on the Indonesia Stock Exchange comprise the sample. Multiple regression study results indicate that the following factors influence stock price: business size, book value, and net profit margin. Stock prices are influenced by book value, business size, and net profit margin.

Mulyadi; et al (2020) analyzed the effect of current ratio, net profit margin, and good corporate governance on company value in Infrastructure, Utilities, and Transportation Companies Listed on the Indonesia Stock Exchange. Five businesses from the Infrastructure, Utilities, and Transportation sectors that were listed on the Indonesia Stock Exchange between 2010 and 2013 were selected for the study. Based on the results of the regression analysis, the firm value was positively but not significantly impacted by the current ratio, positively but not significantly by net profit margin, and positively but not significantly by good corporate governance.

Steven, et al (2022) studied the effect of Earning Per Share and Company Size on Stock Prices with Dividend Policy as Moderating Variables in Trade, Services, and Investment Sector Companies listed on the Indonesia Stock Exchange during 2016-2020 periods. The Energy Information Administration (EIA), the Indonesia Stock Exchange, and Bank Indonesia's annual statements were the sources of the data. Path Analysis was used to analyze the data. The results indicate that the stock prices of trade, service, and investment companies listed on the Indonesia Stock Exchange (IDX) are influenced by earnings per share.

Khurshid et al (2022) investigated the impact of Earnings Per Share on the stock prices and Price to Earnings Ratio of Banking, Pharmaceutical, Information Technology and Cement and Cement Products industry in United Arab Emirates from 2011 to 2019. Results show that there is a positive relationship between EPS and market price of shares, but that EPS does not significantly influence price-to-earnings ratio because the relationship between the two variables is statistically quite low. Sixteen firms in these economic sectors were sampled for the study. Regression analysis and correlation analysis were used to analyze the data from the selected firms.

### 3. Methodology

This study adopted an ex-post facto researcher design. Historical financial data were collected data from the published annual reports and accounts of selected manufacturing firms listed on the Nigeria Exchange Group during the period from 2013 to 2022. This study was conducted in Nigeria and specifically on the manufacturing firms listed on the Nigeria Exchange Group during the period from 2013 to 2022. A total of thirty-four (34) manufacturing firms listed on the Nigeria Exchange Group during the period constituted the population of the study. A purposive sampling technique was used to select thirteen (13) firms out of the thirty-four (34) manufacturing firms. Descriptive Statistics and Panel Data Regression Analysis were used to analyze the data collected for the study. Adjusted Coefficient of Determination ( $R^2$ ) and F-Statistics were used to test the predictive power of the model, Jacque-Bera Statistics was used to test the data distribution while Durbin Watson Statistics was used to test for the presence of autocorrelation in the model of the

study. Net Profit Margin and Earnings Per Share are the predictive variables of the study and measures of profitability while the Net Assets Per Share is the dependent variable and proxy of firm value.

### Model Specification

The model below was developed by the researcher based on the variables used for the study:

$$\text{NAPS} = f(\beta_1\text{NPM} + \beta_2\text{EPS}) + \varepsilon$$

Where:

f = Function of

NAPS= Net Assets Per Share

NPM = Net Profit Margin

EPS = Earnings per Share

$\beta$  = Beta

$\varepsilon$  = error margin

## 4. Data Analysis and Result

### 4.1 Data Analysis

The data collected from the thirteen selected manufacturing firms were analyzed using various statistical analyses including, Descriptive Statistics, Unit Root Test, Hausmann Test, and Panel Date Regression Analysis. Descriptive Statistics was used to test the distribution of the data set, while the Unit Root Test was used to test for the presence of unit roots in the model of the study. Hausmann Test was used to determine the appropriate model between the Random Effect Model and the Fixed Effect Model. The results of this statistical analysis are presented in tables 4.2.1 to 4.2.4 of the study.

**Table 4:1.1: Descriptive Statistics**

	NAPS	NPM	EPS
Mean	18.91492	0.115308	5.937538
Median	15.16500	0.080000	1.785000
Maximum	63.36000	3.530000	61.77000
Minimum	0.100000	-0.140000	-6.370000
Std. Dev.	15.76335	0.355474	12.80103
Skewness	0.599984	8.079926	2.910893
Kurtosis	2.318920	72.97226	10.78648
Jarque-Bera Probability	10.31222	27935.15	511.9966
	0.005764	0.000000	0.000000
Sum	2458.940	14.99000	771.8800
Sum Sq. Dev.	32054.32	16.30064	21138.77

Observations	130	130	130
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Source: Eview11.0 Output.

The Descriptive Statistics of the study are presented in Table 4.1.4. The results provided some useful insights into the nature of the profitability and firm value ratios used in this study. Some of the components of Descriptive Statistics like Jarque-Bera Statistics, Skewness, and Kurtosis are used to test the data for normal distribution. The distribution of the data set is important because of its relevance in regression analysis. The table shows that Net Assets Per Share, Net Profit Margin, and Earnings Per Share recorded an average value of 18.91492, 0.115308, and 5.937538 while the Standard Deviations are: 15.76335, 0.355474, and 12.80103. These results show that NAPS and NPM recorded averages which are higher than their Standard Deviations. On the other hand, EPS recorded Standard Deviation which is greater than their averages. These results imply that EPS recorded faster growth while NAPS and NPM recorded lesser growth during the period. The data set was also subjected to normal distribution test using, Skewness, Kurtosis, and Jarque-Bera Statistics. The table suggest that the Skewness Coefficient of the variables are greater than the benchmark rate of one (1) except NAPS, which is less than one. The table further shows that the Kurtosis Coefficient are all greater than three (3) except NAPS, which is less than three. These two results provided enough evidence to conclude that the data set used for the study are normally distributed. The two tests are collaborated by Jarque-Bera Statistics with p-values less than 0.05 (P-value<0.05). This further confirmed that the data set are normally distributed and could be further analyzed using regression model.

#### Table 4:1.2: Unit Root Test

Null Hypothesis: Unit root (common unit root process)

Series: D(NAPS)

Date: 04/08/24 Time: 08:12

Sample: 2013 2022

Exogenous variables: Individual effects

User-specified lags: 1

Newey-West automatic bandwidth selection and Bartlett kernel

Total (balanced) observations: 91

Cross-sections included: 13

Method	Statistic	Prob.*
	-	
	3.857	0.000
Levin, Lin & Chu t*	68	1

\*\* Probabilities are computed assuming asymptotic normality

Intermediate results on D(NAPS)

Cross section	Variance		HAC of	Max Lag	Band-Width	Obs
	2nd Stage e Coefficient	of Reg				
1	-1.94725	11.733	10.973	1	6.0	7
2	-1.90273	0.5453	7.9257	1	3.0	7
3	-1.29609	129.40	114.36	1	3.0	7
4	-1.48869	30.660	8.0719	1	7.0	7
5	-2.11260	0.8028	0.6781	1	4.0	7
6	-0.65824	0.1290	0.1553	1	1.0	7
7	-1.14410	13.881	4.7536	1	7.0	7
8	-0.39278	0.4159	0.5930	1	1.0	7
9	-1.28746	4.2448	1.8857	1	7.0	7
10	-1.50700	0.7987	0.2953	1	7.0	7
11	-1.34317	41.171	41.156	1	2.0	7
12	-1.36425	0.0742	0.0191	1	7.0	7
13	-1.24315	7.1847	2.2029	1	7.0	7

	Coefficient		SE Reg	mu*	sig*	Obs
	nt	t-Stat				
Pooled	-1.22574	-9.179	1.108	-0.554	0.919	91

Source: Eview11.0 Output.

Table 4.1.2 presents the results of the Levin, Lin & Chu  $t^*$ Common Unit Root test of all the variables of the study. The relevance of a Unit Root test is its importance in detecting the presence of unit root in a data set, which could lead to spurious regression in a time series data. Results of the test suggest that the variables used for the study are integration of order 1(1) with p-value = 0.0001. In other words, all the variables have unit root, but attained stationary at first difference. The variables are all integrated in the same order, signifying a co-integration among the variables under study as opine by Engle and Granger (1985). Engle and Granger (1985) argued that when time series data are integrated of the same order I(1), the data series tend to co-integrate. This implies that their short run relationship is sustainable in the long run.

**Table 4.1.3: Hausmann Test**

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.11295	12	0.0121

\*\* WARNING: estimated cross-section random effects variance is zero.

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
NPM	10.18733	10.02642	0.160910	0.0000
EPS	0.265168	0.282825	-0.017657	0.0140

**Source:** E-View 11.0 Output

Panel Data Regression produces two models, namely, Random Effect Model and Fixed Effect Model. The usefulness of Hausmann test is its importance in helping to choose the appropriate model between these two models. A test of hypothesis is conduct to select the appropriate model between the two models.

$H_0$ : Random Effect Model is the appropriate model

$H_1$ : Random Effect Model is the appropriate model

Results from table 4.1.3 shows that the p-value of the Hausmann test is 0.0121, which is less than 0.05. Hence, we reject the null hypothesis and accept the alternative, which states that Fixed Effect Model is the appropriate model of the study.

#### **Table 4:1.4: Panel Data (Fixed Effect Model)**

Dependent Variable: NAPS

Method: Panel Least Squares

Date: 04/08/24 Time: 08:07

Sample: 2013 2022

Periods included: 10

Cross-sections included: 13

Total panel (balanced) observations: 130

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NPM	10.18733	2.228987	4.570387	0.0000
EPS	0.265168	0.081935	3.236320	0.0016
C	18.66225	0.699036	26.69711	0.0000

Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.893786	Mean dependent var	18.91492
Adjusted R-squared	0.879811	S.D. dependent var	15.76335
S.E. of regression	5.464881	Akaike info criterion	6.349380
Sum squared resid	3404.601	Schwarz criterion	6.702307
Log likelihood	-396.7097	Hannan-Quinn criter.	6.492786
F-statistic	63.95399	Durbin-Watson stat	1.932193
Prob(F-statistic)	0.000000		

**Source:** Eview11.0 Output.

Table 4.1.4 presents the Panel Data Regression Analysis (Fixed Effect Model) of the thirteen (13) selected manufacturing firms in Nigeria. It was observed from the table that the  $R^2$  of the model is 0.879811, suggesting that about 88% of the variations in the Net Assets of the manufacturing firms is explained by the three predictive variables (Net Profit Margin, and Earnings Per Share) while the remaining 12% is explained by other error terms and other factors not captured in the model of the study. Durbin Watson Statistics in the model was used to test for the presence of autocorrelation in the model of the study. Durbin Watson Statistics has a range of 2-4. A Durbin Watson Coefficient falling into this range suggest no autocorrelation in the model. Table 4.1.4 shows that Durbin Watson Coefficient is 1.932193, which is close to 2. Hence, we approximated the result to 2 and used it as the basis to assert that there is no autocorrelation in the model. Thus, the variables in the model are not auto correlated and, therefore, reliable for predications.

### 4.3 Test of Hypotheses

#### 3.9 Decision Criteria

Level of significance ( $\alpha$ ) = 0.05. Reject the null hypothesis if the significant value of the regression coefficient is less than the level of significance (0.05), otherwise accept the null hypothesis.

#### Hypothesis One

Restating of the Hypothesis in Null and Alternate Forms

**H0:** Net profit margin does not significantly affect net assets per share of manufacturing firms in Nigeria

**H1:** Net profit margin significantly affect net assets per share of manufacturing firms in Nigeria.

**Decision:** The Regression Model in table 4.2.4 indicates that the regression coefficient of Net Profit Margin is 0.0000, which less than 0.05 ( $0.0000 < 0.05$ ). Hence, we reject the null hypothesis

and accept the alternative, which states that Net Profit Margin significantly affect Net Assets Per Share of manufacturing firms in Nigeria.

### Hypothesis Two

Restating of the Hypothesis in Null and Alternate Forms

H<sub>0</sub>: Earnings per share does not significantly affect net assets per share of manufacturing firms in Nigeria.

H<sub>1</sub>: Earnings per share significantly affect net assets per share of manufacturing firms in Nigeria.

**Decision:** The model also reveals that the regression coefficient of Earnings Per Share is 0.0016, which is less than 0.05 ( $0.0016 < 0.05$ ). Thus, we reject the null hypothesis and accept the alternative, which states that Earnings Per Share significantly affect Net Assets Per Share of manufacturing firms in Nigeria.

## 4.4 Discussion of Findings

### 4.4.1 Net Profit Margin and Firm Value

Test of hypothesis one indicates that the null hypothesis was rejected while the alternative was accepted ( $0.0000 < 0.05$ ). The regression model also indicates that the regression coefficient of Net Profit Margin is 10.18733, which is positive. Based on these results, we conclude that the Net Profit Margin positively and significantly affect Net Assets Per Share of manufacturing firms in Nigeria. {NPM Coefficient= 10.18733: (P-value:  $0.0000 < 0.05$ )}. The result is consistent with Shareholders' Wealth Maximization Theory, which was propounded by Milton Friedman in 1970. Friedman (1970) argue that there is one and only one social responsibility of business- to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, that is, without deception or fraud. The result is consistent with: Hastuti and Carolina (2021) who observed that Return on Assets and Net Profit Margin have significant effect on Firm Value.

### 4.4.2 Earnings Per Share and Firm Value

Test of hypothesis two shows that the null hypothesis was rejected while the alternative was accepted ( $0.0016 < 0.05$ ). The Regression Model also reveals that the regression coefficient of Earnings Per Share is positive at 0.265168. Based on these results, we state that Earnings Per Share positively and significantly affect Net Assets Per Share of manufacturing firms in Nigeria {EPS Coefficient = 0.265168: (P-value:  $0.0016 < 0.05$ )}. This result is consistent with Growth of the Fitter Theory, developed by Alchin in 1950. Alchin (1950) argued that fitness is depicted by firm profitability, and only profitable firms grow and survive in the market place while unprofitable firms die off and exit the market due to poor performance. The result is also consistent with: Steven, et al (2022) who observed that Earnings Per Share has an effect on Stock Prices of Trade, Service, and Investment Companies listed in Indonesia. Khurshid, et al (2022) found that there exists a positive relationship between Earnings Per Share and the Market Price of Shares.

Arsal (2021) found that firm value is affected simultaneously by Earnings Per Share and Dividend Per Share.

## 5 Conclusion

The study examined the effect of profitability on firm value of manufacturing firms in Nigeria. Based on the results of the data analysis, the Net Profit Margin and Earnings Per Share positively and significantly affect the Net Assets Per share of manufacturing firms in Nigeria. At 0.05 level of significance, the two predictive variables (NPM, and EPS) explained 88% variations in Net Assets Per share of the manufacturing firms during the period. We conclude that profitability has a significant positive effect on firm value of manufacturing firms in Nigeria.

## Recommendations

Based on the findings of the study, we suggest the following recommendations to firm managers of manufacturing firms in Nigeria:

1. The manufacturing firms in Nigeria should increase their net profit margin to increase their firm value. This can be achieved through an increase in product quality and product promotion, such as advertising, sales promotion, personal selling, or publicity. Net profit margin can also be increased through cost reduction. These will increase firm sales and net profit margin and thus firm value.
2. The firm should also increase its earnings per share to boost its firm value. Earnings per share can be increased by increasing firm profitability and or reducing the number of shares outstanding. The number of shares outstanding can be reduced by the companies repurchasing their shares floating around the Nigeria Stock Market. The repurchased shares are called treasury shares, which have the effect of increasing earnings per share and firm value.

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7. Chandler (2009) posits that profitability is the company's ability to produce a profit that would sustain long-term and short-term growth. Competition in the markets has a role in determining a company's profitability.
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