

Conventional Accounting Measures and Shareholders' Value: A Study of Selected Listed Manufacturing Companies in Nigeria

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Abstract

The study assessed the effect of Accounting Measures on Shareholders' Value Creation in manufacturing companies listed on the Nigerian Stock Exchange between 2011 and 2020. Ex-post facto research design was adopted while secondary data were gathered from the annual reports of the companies. The panel data gathered were analytically estimated using the Multiple Ordinary Least Square (MOLS) regression techniques with the aid of E-view 9.0 econometric software. The result revealed that EPS and ROE have significant effect on shareholders' value created. Meanwhile, ROA was not statistically significant leading to the rejection of the hypothesis. The study concluded that both conventional performance metrics are still useful to determine shareholders' value created by a company despite the acclaimed superiority of value-based accounting measures by some scholars. It was therefore recommended that more performance metrics comprises of both conventional should be encouraged among investors for evaluating shareholders' value created by companies so as to forestall investment loss.

Keyword: Shareholders' Value, Conventional Accounting Measures, Market Value Added, Value-Based Accounting Measures.

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I. INTRODUCTION

Every management decision and strategy adopted should be tailored towards ensuring the maximization of shareholders' wealth being the primary financial objective of a firm (Brigham & Houston, 2011). The problem at a point with the management is, however, the approach and manner through which this objective can be achieved. Managers, for this purpose, are saddled with the responsibility of mapping out strategies that will maximize economic returns on investments of shareholders through dividend payments and increase in share prices of companies.

For decades and more recently, the growing demand from shareholders on the need to access the performance of companies for investment purposes enabled the development of many investment measuring tools with which shareholders can determine their investment prowess. With these tools investors may take decision to correlate the financial performance of the organization with the accruing returns especially the change in market price of share (Jorg, Loderer & Roth, 2005). Expectations of shareholders have gone beyond ordinary returns on the capital invested but now hinged on fair returns that commensurate and compensate for the risk they are taking hence, the need to maximize shareholders' value.

Traditional accounting metrics have been invoked by many scholars for the fact that they simply analyze financial performance deployed by the organization (Stewart, 1994; and Young & O'Byrne, 2001). The metrics include earnings or earnings-growth, returns-on-assets (ROA), returns-on-equity (ROE), return-on-investment (ROI), residual-income (RI), earning-per-share (EPS), dividend-yield (DY) and so on (Fabozzi & Grant, 2000; Ahmad, Mehra & Pletcher, 2002). It is often the financial measuring tool which reveals the financial strengths, weaknesses, opportunities and threats associated with companies (Ohlson & Juettner-Nauroth, 2005 and Verweir, 2006).

Shareholders' value is described as the value that a company creates in an effectively regulated market over the initial value of investments of shareholders which is perceived from the perspective of the appreciation of market value of investments hence, the higher the shareholders' value the better the company serves all its stakeholders (Dobbs, 2005). Shareholders' value can then be viewed from the perspective of the appreciation or otherwise of market value of shares of companies over a period of time (Chari & Mohanty, 2009; Rappaport, 2001).

Market value added (MVA) was emerged and popularized to measure shareholders value by Stewart (1991). MVA, therefore, measures the wealth created over the years by a company and also the potential of the company to create future wealth for its shareholders (Chari & Mohanty, 2009; Mohammad, Fakhrol & Rezaur, 2016). Intense pressures are, however, mounted on managers to ensure continuous shareholders' value creation and the ease of measuring it by shareholders. This has led to the emergence of different financial measures of evaluation that claim to evaluate value-creating performance of companies.

Chen and Dodd (2001), Ismail (2011) and Vijayalakshmi (2014) however, hinted on the inefficiency of some traditional tools available to shareholders through which evaluation of returns on their investments has been based and their inability to explain changes in shareholders' wealth. Managers have been variously employing traditional accounting measuring techniques to measure performances of manufacturing companies but these techniques are not without their attendant flaws (Fernandez, 2003; Tortella and Brusco, 2003) while Chen and Dodd (2001) opined that there is no performance metric that does not have its own relevance. Meanwhile, the concerns of Investors are to know which investments or companies create value or destroy it (Narang & Mandeep, 2014). This study, therefore, seeks to examine shareholders' value creation and the accounting measuring tools that shareholders can best engage to evaluate financial performances of manufacturing companies in Nigeria so as to be able to take decisive decisions on their investing activities more so that much has not been researched on it.

II. Review of Related Literature

Conceptual Review

2.1 Market Value Added (MVA)

As EVA is used for internal purpose measurement (Lehn and Makhija, 1996) the MVA is the amount of wealth that a company creates for shareholders taking cognizance of the capital invested and the current market value of the company's stocks. This was confirmed in the seminal works of Vasilescu and Popa (2009), Wibowo and Berasategui, (2008), Brigham and Houston (2011); Khan, Chouhan, Chandra and Goswami (2012) and Damirah, Lukman and Muhammad (2018) which explained that MVA as an external performance best describe the value created by shareholdings of a company. They expressed their opinion on the importance of MVA in assessing external performance of a firm. They maintained that MVA is a measure that does not require analysis of trends or industries before it can be arrived at, rather it helps stakeholders to estimate the performance of a firm easily.

2.1.2 Return on Assets (ROA)

ROA is an internal factor that is primarily engaged to measure how effective the company's assets are utilized to generate profits for the company (Wild, Halsey & Subramanyam, 2005). Consequently, ROA was seen as an indicator that reveals the profit generation of the company vis-à-vis the total assets used to generate it. The studies conducted by Isik and Soykan (2013); Enekwe, Nweze and Agu (2015) revealed the influence of ROA on shares' performances of companies. Impliedly, it measures how efficiently the assets of a company are utilized to generate income. Attaining a higher ROA is presumed to achieving higher returns to shareholders since they are the residual owners of the net profits of the organization (Blaylock, Shevlin & Wilson, 2012; Atidhira & Yustina, 2017).

2.1.3 Return on Equity (ROE)

ROE has been used extensively by many analysts to measure the value created by company for its shareholders (Wet & Toit, 2007). Its wide adoption contributes generously to the presumed reliable results it gives over earnings per share (Reimann, 1989). ROE can be calculated by taking the profit after tax and preference dividends of a given year and dividing it by the book value of equity (ordinary shares) at the beginning of the year. Return on Equity is therefore an indicator of accounting measurement that can be rightly used to value the worth of shareholders. Impliedly, it is one of the major reliable ratios that measure the efficiency of the investments of investors to generate profits for the company (Sibirian & Yohanes, 2018; Correia, Flynn, Uliana & Wormald, 2015 and Firer, Ross, Westerfield & Jordan, 2004).

2.1.4 Earning per Share (EPS)

EPS is one of the evaluating tools used by investors and management to measure the financial health of companies on the long or short term basis. The International Financial Reporting Standard (IFRS) 14 defines EPS as the company's net after-tax earnings that is attributable to equity shareholders divided by the number of outstanding shares in the period. Earnings per share are the part of the net profit accruable to shareholders of a company. It is in this sense that equity shareholders use it to measure the performance and future prospect of a company for them to take decisions on their investments. Higher earnings

per share of a company are pivotal to a better profitability (Olayinka, 2011;Stulz, 2012; Solomon, Memba&Muturi, 2016).

2.2 Empirical Reviews

Omokhudu and Emeni (2004) empirically evaluated the relationship of market value added with internal company characteristics in Nigeria. Twenty-five (25) companies listed on the Nigerian Stock Exchange during 2002 financial year were selected from which data were obtained. The study considered MVA as the dependent variable while the independent variable include the EVA, ROA, ROCE, current ratio (CR), EPS, NOPAT, sales to capital employed (SCE), total assets turnover (TOA) shareholder fund (SHF). Using Ordinary least square estimation, it was obtained that MVA is positively correlated to EVA, CR, ROA and SHF. However, it is negatively correlated to ROCE, EPS and SCE. The study concluded that ROA is a better performance metric being internal performance measure to determine shareholders' value creation.

Palliam (2006) in his research on further evidence on the information content of economic value added in predicting returns on stock, he selected randomly 33 non-EVA in users and 75 EVA users to analyse and draw conclusion. Data were collected through many metrics which include revenues, profits, assets, stockholders' equity, market value, earnings per share, return on investments and percentage reduction over time. Using regression analysis, it was found that traditional accounting techniques outperformed EVA when deploy to predict stocks. Jettisoning traditional accounting metrics as proposed by Stewarts (1994) will amount to holding vital information that investors can deploy in taking decisions on their investments.

Chmelikova (2008) measured the relationship that may exist between EVA, Return on Assets (ROA), Return on Equity (ROE) and created shareholders' value (CSV) in Czech Republic. The researcher looked at the proposition of Stern and Stewarts (1991) that EVA as a measuring tool outshines other traditional measuring tools employed simple regression analysis to test the hypotheses which include knowing if a strong positive linear relationship exists between EVA and other traditional measuring tools and perhaps if it will increase shareholder's wealth. It was revealed that EVA has positive linear relationship with other traditional metrics which include ROA and ROE. The research also has it that ROA and ROE used as performance metrics brought significant positive changes in shareholder's wealth than other metrics.

Arabsalehi and Mahmoodi (2012) in their seminal work titled quest for the superior financial performance measures in the Tehran Stock Exchange observed financial information of 115 Iranian listed companies between 2001 and 2008. They considered four value-based measurements which include the Economic Value Added, Refined Economic Value Added, Market Value Added and Shareholders' Value Added and five accounting – based measures. This includes the Earning per Share, Return on Equity, Return on Assets, Cash flow from operations and Return on Sales. Using the Pooling Panel data method on data gathered for the period involved, it was discovered that there is no provided evidence that support the superiority of value-based measurements over accounting based measurements. It also revealed that stock returns are better predicted using traditional measurements specifically the ROA and ROE than every other performance measuring tools.

This study attempted to identify the superior measure among the traditional and modern measures by establishing relationship with stock market returns in a selected cement companies in India, Ramana-Reddy (2013) observed the selected cement companies by employing the estimated regression model to know the most appropriate financial performance tool(s) among the Return on Assets (ROA), Return on Capital Employed (ROCE), Return on Net worth (RONW), Earnings per share (EPS) and Market Value Added (MVA) that will best measure stock market returns. The study revealed that EVA is the only performance measure that established relationship with Stock Market Returns. It was however, noted that ROA, ROCE, RONW, EPS and MVA do not significantly measure Shareholders' Returns.

A study carried out by Bognárová (2017) was on the analysis of the relationship between Economic Value Added and Market Value Added on Slovak companies for a period of 2010 - 2015 using regression models. It was revealed that EVA explanatory power increased from 35.6% to 40.2% in revealing changes in Market Value Added. Earnings and Earnings per Share also have effect but declining in nature. There was a glaring decrease from 40.6% to 24.9% and from 35.7% to 32.8% of earnings and earnings per share on the Market value added. It was concluded that EVA dominates other traditional accounting measures in explaining shareholders' value. Despite the dominance of Economic Value Added, it is still noteworthy to know that traditional accounting measures play significant role in explaining shareholders' value.

Parrigrahi, (2017) investigated the relationship between performance measurement tools and shareholders' wealth considering Malaysian public listed construction companies with the objective of knowing the potential usefulness of the measurement tools that were used and perhaps the superiority of each over the other. The study employed panel data analysis techniques with particular reference to Error Correction Model (ECM) to test the relationship of error terms and panel Ordinary Least Square (OLS) to test the hypothesis formulated. 280 observations spanning from 2003 to 2012 (10years) were made to know the role of EPS, ROA, ROE, ROCE, NOPAT, EVA and Dividend Payout in determining shareholders' value. The study found a highly

significant positive relationship between EPS, EVA and Dividend Payout Ratio on shareholder wealth creation in Malaysian Construction companies. It therefore concluded that traditional performance measuring tools such as EPS and Dividend payout influence shareholders' value creation.

Furthering on the acclaimed superiority of EVA over other traditional accounting metrics, Pasha and Ramzan (2019) researched on asymmetric impact of economic value added dynamics on market value of stocks in Pakistan Stock Exchange, using Panel Integration, FMOLS and DOLS for the analysis. The data collected on 70 non-financial Pakistan Stock Exchange listed firms from industries for a period of ten (10) year spanning from 2006 to 2015 were tested. Traditional accounting metrics were tested which included Return on Assets (ROA), earnings per share (EPS) and earnings before interest and tax (EBIT), while firm size, liquidity, leverage and economic value added were considered to know their influences on returns on share prices. It was revealed that there is positive association between ROA and stock returns at 100% level of significance. Also the findings of fully modified ordinary least square method (FMOLS) and Dynamic Ordinary least square method (DOLS) tests show that ROA has positive significant effect on stock returns. Traditional accounting metrics can still be used to effectively determine stock returns if properly harnessed and evaluated.

Ogundajo, Enyi and Oyedokun (2019) researched on Shareholders' return and value of manufacturing firms that are listed on the Nigerian Stock Exchange. Seven hundred and twenty (720) firm year observations were made from the 36 selected firms for the period of ten years between 2007 and 2016 under study using multivariate regression analysis (fixed effect). It was revealed from the findings that past dividends, agency cost, debt-equity ratio and size have positive significant effect on market value added, meanwhile the earning per share and sales growth have negative and insignificant influence over value of a firm. It was, therefore, concluded that considerations should be given also to other stakeholders and other extraneous factors which include the growth and expansion of the business, when measuring market value of shares of a company.

The effect of debt to equity and return on equity (ROE) on stock return with dividend policy as intervening variables was studied in subsectors property and real estate in Indonesia between 2014 and 2018. Dina, Isnurhadi and Widiyanti (2020) employed the path analysis method to know the relationship between debt to equity ratio (DER), return on equity (ROE) and dividend payout ratio (DPR) on stock returns. It was discovered that ROE has significant effect on stock returns and dividend payout ratio (DPR) whereas DER does not affect stock returns but has significant effect on DPR. It concluded that higher ROE is an indication that more dividends accrue to shareholders.

2.3 Theoretical Framework

Decision Usefulness Theory

Adequate information is necessary to enable investors take appropriate actions on both their existing and prospective investments. Decision usefulness theory was propounded by Staubus (1999) to resolve the asymmetrical information such as are contained in the financial statements of an organization for the use of investors and other stakeholders for investment decision making in the financial report. Deegan and Unerman (2011) and Eliwa (2015) argued that the theory assigns information usefulness based on the need of users to make individual decisions. Accounting information as a propellant to decision usefulness theory was adopted by accounting conceptual frameworks (2010) to provide useful financial information to its users through its relevance, faithful representation, comparability, verifiability, timeliness and understandability (IFRS Foundation, 2010). The theory is relevant to this study due to its ability to give useful financial information that could be used by investors and analysts to determine the value of firm which invariably measures shareholders' wealth.

III. Methodology

Ex-post facto research design was adopted in carrying out this study. This research design utilized existing data on past events to examine how the independent variables prior to the study affect the dependent variables. The justification for using this design is that the study utilized already existing quantitative data on past events as presented in the financial statements of the respective companies for which the relevant variables cannot be manipulated.

3.2 Area of study

The study covered all the listed manufacturing companies on the Exchange whose financial year end on 31st December every year. The selected manufacturing companies which we assumed to be a good representation were purposively selected looking at the availability of required data for the relevant years under consideration. The selected manufacturing companies consist of Construction/Real Estate Companies (9), Consumer Goods Companies (20), Healthcare Companies (10) and Industrial Goods Companies (13).

3.3 Sources of Data

The data used for the study depended on secondary sources and were based on historical cross-sectional time series panel data analysis covering from 2011 – 2020. The secondary quantitative panel data on the research variables were obtained from the published annual reports/financial statements of the quoted manufacturing companies on the Nigerian Stock Exchange (NSE) using their websites for the data covering a period of 10 years (2011- 2020).

3.4 Model Specification

The regression equation was estimated by adopting the general multiple ordinary least square (MOLS) regression model in line with the specific objectives of the variables for the study. The regression model is as specified by Frances Galton (1886) in the work of Forrest (1974):

Where;

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

Thus; shareholders' wealth value is a function of market value added (MVA) of the heterogeneous companies. We however proxy accounting performance measurement with return on assets (ROA), return on equity (ROE) and earnings per share (EPS).

Therefore, Market Value Added = Accounting measurements (ROA, ROE, EPS).

To empirically express the relationship between shareholders' value creation proxy by market value added and accounting measuring indices of quoted manufacturing companies in Nigeria, the following models are specified thus;

$$MVA = \beta_0 + \beta_1 ROA_{it} + \beta_2 ROE_{it} + \beta_3 EPS_{it} + \dots + \epsilon_{it} \quad (2)$$

Where; (i= 1, 2, N) (t=1, 2, t)

N = Number of companies or cross section

t = Number of time periods

β_0 = the constant term, ROA = Return on Assets of listed manufacturing Companies, ROE = Return on Equity, EPS = Earnings per Share and MVA = Market Value Added, β_{1-3} = Coefficients estimated or the Coefficients of slope parameters. ϵ = Error term.

3.5 Description of Model Variables

From the above specified panel multiple regression equation, we proxy conventional accounting performance measurements with the followings:

- **Return on Assets (ROA)**

It is the quotient of dividing profit after tax by total assets employed. We used return on assets (ROA) as dependent variables, because it is an indicator of managerial efficacy vis-à-vis assets.

$$ROA = \frac{PAT}{\text{Total Assets}}$$

Total Assets

- **Return on Equity (ROE)**

It is the measure of a company's annual return divided by the value of its total shareholders' equity. Livingstone and Grossman (2002) and Palepu, Healy, Bernard, Wright, Bradbury and Lee (2010) however expressed the formula for calculating ROE as shown below:

$$ROE = \frac{\text{Income Available To Common Shareholders}}{\text{Average Common Shareholders' equity}}$$

3.5.1 Earnings per Share (EPS)

It is the calculation of the portion that is attributable to shareholders from a company's profit. In their study, the below formula was used to calculate EPS which was also adapted for this study:

$$EPS = \frac{\text{Net Income Available to Ordinary Shareholders}}{\text{Numbers of Shares Outstanding}}$$

3.5.2 Market Value Added (MVA)

MVA, as considered by Perfect and Wiles (1994), is the product of a firm's share and the number of common share outstanding compared to the capital invested by common shareholders. In other word, Gapenski (1996) described MVA as the difference between the current total market value of shares at the end of a period less the

capital invested by shareholders. Kramer and Peters (2001); and Yook and McCabe (2001) computed MVA as follows:

$$\text{MVA} = \text{Total Market Value of Ordinary Shares} - \text{Total Capital Employed.}$$

3.6 Analytical Techniques.

The panel data gathered were analytically estimated using the Multiple Ordinary Least Square (MOLS) regression techniques with the aid of E-view 9.0 econometric software to test the hypotheses and to establish the effect of conventional accounting metrics on shareholders' value creation in listed manufacturing companies in Nigeria. The descriptive statistical technique was used while statistical tests such as F- statistic and Hausman test were employed to test the overall significance of the regression equation. Hansen test and Jarque-Bera normality test were used for the validity and normality of instruments used. Diagnostic tests such as normality test and homogeneity tests were performed to ascertain the nature of the relationship that exists between the dependent and independent variables.

IV. Results

4.1 Descriptive Statistics Analysis

Table 4.1: Descriptive Statistics

	MVA	EPS	ROA	ROE
Mean	8.204564	5.797550	11.74094	20.96128
Median	3.010000	2.140000	8.940000	14.41000
Maximum	605.0900	123.0000	55.49000	136.2300
Minimum	-357.9200	-7.970000	-1.810000	-66.98000
Std. Dev.	65.24576	13.53917	9.864524	23.34885
Kurtosis	4.840906	5.565574	1.909715	1.884801
Jarque-Bera	19921.56	10410.86	225.4506	433.2882
Probability	0.000000	0.000000	0.000000	0.000000
Obs.	150	150	150	150

Source: Researcher's Computation, 2022

The result of the descriptive statistics from Table 4.1 shows that all the variables have relatively low mean value and standard deviation which indicates little dispersion from the value. This implies that the variables cluster around their respective mean value. The result further indicates that the data sets namely market value added, returns on assets, returns on equity and earnings per share are positively skewed to the right while data series are leptokurtic with Kurtosis value of above 3 which means that the variable may be far from normality. This result is supported by the Jarque-Bera statistic for normality testing. The Jarque Bera normality statistic tests the null hypothesis of normal distribution against the alternative hypothesis of non-normal distribution. If the probability value as presented in Table 4.1 exceeds 5%, then the null hypothesis of normal distribution is accepted, otherwise the null hypothesis of normal distribution is rejected. Hence, from observation of Table 4.1, market value added, returns on assets, returns on equity and earnings per share Jarque-Bera probability values are less than 0.05 which implies that the variable is not normally distributed.

4.2 Correlation Matrix

Table 4.2: Correlation Test on MVA in Relation to the Independent Variables

	MVA	EPS	ROA	ROE
MVA	1.000			
EPS	0.073	1.000		
ROA	0.069	0.228	1.000	
ROE	0.235	-0.102	0.867	1.000

Source: Researcher's Computation, 2022

The correlation result between market value added and the dependent variable (returns on assets, returns on equity and earnings per share) from Table 4.2 which was extracted from "Appendix 3" reveals low correlation values between the independent variables and the dependent variable. This implies that there is low degree of relationship between the independent variables and the dependent variable suggesting the absence of multicollinearity.

The result shows that returns on assets, return on equity and earnings per share have positive correlation with market value added. The implication of this is that increase in returns on assets, returns on equity and earnings per share will lead to increase in market value added.

4.3 Panel Data Analysis where Market Value Added is the Dependent Variable

Table 4.3: Pooled Regression Analysis

Dependent variable: MVA				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
EPS	5.243394	0.473315	11.07803	0.0000**
ROA	-31.17303	62.36324	-0.499862	0.6180
ROE	6.412841	15.34609	0.417881	0.6767
R-squared	0.572081			
Adjusted R-squared	0.550836			
F-statistic	26.92875			
Prob(F-statistic)	0.000000**			

Source: Researcher's Computation, 2022

Table 4.3 indicates that earnings per share (EPS) has positive and significant relationship with market value added which implies that increase in earnings per share will lead to increase market value added. Furthermore, it reveals that return on asset has negative and significant effect on market value added which implies that increase in return on asset will lead to fall in market value of firms. However, positive and significant relationship was established between return on equity and market value meaning that increase in return on assets will lead to fall in market value added of manufacturing companies in Nigeria.

The Adjusted R-squared of 0.550836 indicates that 55% variations in market value added are explained by returns on assets, returns on equity and earnings per share while the remaining 45% are accounted for by unobservable factors in the model. The Durbin Watson value of 1.203332 indicates the presence of autocorrelation in the residuals of the model. The F-statistic value is given as 26.92875 with a probability value of 0.0000 which is statistically significant at 5%, thus indicating that the constant effects model is adequate and that the joint influence of returns on assets, returns on equity and earnings per share significantly influenced market valued added of listed manufacturing companies in Nigeria. However, the overly restrictive nature of the constant effects model can lead to error process that is Heteroscedastic across the firms. Therefore, the fixed effects model was constructed.

Table 4.4: Hausman Test Result

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	18.285785	7	0.0107**

** Significance at 5%

Source: Researcher's Computation, 2022.

From the table, the chi-square (χ^2) with p-value of 0.0107 is statistically significant at 5%, thus leading to the rejection of the null hypothesis. This implies that the fixed effect model produces better and consistent estimates than the random effect model, thus the fixed effect is considered appropriate for this study and reported in table 4.4.

4.5 Fixed Effects Model

Table 4.5: Fixed Effect Regression Result

Dependent variable: MVA				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
EPS	5.775177	0.485555	11.89398	0.0000**
ROA	-15.61960	56.22885	-0.277786	0.7816
ROE	107.3386	36.67322	2.926893	0.0041**
C	-1062.659	410.3382	-2.589716	0.0107**
R-squared	0.713342			
Adjusted R-squared	0.665942			
F-statistic	15.04939			
Prob (F-statistic)	0.000000**			
Durbin-Watson stat	1.614103			
Pesaran CD	1.797100			
Probability	0.0723**			

Source: Researcher's Computation, 2022

The result of the fixed effect regression is reported in table 4.5 to shows the relationship between independent variables namely returns on assets, returns on equity and earnings per share and the dependent variables namely, market value added. The result from the table 4.5 indicates that earnings per share have positive and significant relationship with market value added with a coefficient and probability value of 5.775177 and 0.0000 respectively. This implies that a unit increase in earnings per share will lead to 5.775177 unit increase in market value added of listed manufacturing companies in Nigeria. Furthermore, the result reveals that return on equity has a coefficient of 107.3386 with a probability value of 0.0041 which is an indication that a unit increase in return on equity will lead to 107.3386 increase in market value added of listed manufacturing companies in Nigeria.

4.6 Random Effects Model

Table 4.6: Random Effect Regression Result

Dependent variable: MVA					
Variable	Coefficient	Std. Error	t-Statistic	Prob.	
EPS	5.704999	0.451357	12.63966	0.0000	
ROA	-20.52105	55.52534	-0.369580	0.7122	
ROE	30.60131	21.38926	1.430686	0.1547	
C	-201.4090	237.3986	-0.848400	0.3977	
R-squared	0.713342				
Adjusted R-squared	0.599164				
F-statistic	32.60400				
Prob (F-statistic)	0.000000				
Durbin-Watson stat	1.420061				

Source: Researcher's Computation, 2022

4.11 Testing of Research Hypotheses based on Fixed Effect Model

Based on the result presented in table 4.5, earnings per share has t-statistic value of 11.89398 with a corresponding probability value of 0.0000 which is highly significant at 5% implying that earnings per share has significant effect on market value added of listed manufacturing companies in Nigeria. Thus, the null hypothesis that earning per share has no significant effect on the market value added of listed manufacturing companies in Nigeria is rejected.

However, t-statistic value for return on asset is given as -0.277786 with a corresponding probability value of 0.7816 which is insignificant at 5% leading to the acceptance of the null hypothesis that return on asset has no significant effect on the market value added of listed manufacturing companies in Nigeria.

The result shows further that return on equity has a t-statistic and probability value of 2.926893 and 0.0041 respectively which is significant at 5% suggesting that return on asset has significant effect on market value added; leading to the rejection of the null hypothesis that return on equity has no significant effect on market value added of listed manufacturing companies in Nigeria.

V. Conclusion and Recommendation

The study concluded that EPS and ROE were found to be significant to measure shareholders' value creation, whereas ROA was not found significant. The study also revealed that ROE is a better financial metric than EPS to measure shareholders' value creation. Combination of metrics can, however, be needful for rational decision making.

The study recommends that financial regulatory authorities in Nigeria should issue guidelines to listed firms on the Nigerian Stock Exchange (NSE) and ensure that the regulations issued are strictly adhered to by the firms in the area of disclosure of quality relevant information. Information relating to shareholders' value created should also be made mandatory for all the listed companies on the NSE to aid investors take crucial decisions on their investments. Managers should be enforced by the agency to also ensure that different accounting metrics are deployed to show a clear view of shareholders' value creation since the results from these metrics have different consequence as shown in the study. Management should understand the essence of value creation and learn the rudiment of measuring value created for shareholders.

References

- [1]. Ahmad, A., Mehra, S. & Pletcher, M. (2004).The Perceived Impact of JIT Implementation on Firms' Financial/Growth Performance. *Journal of Manufacturing Technology Management*, 15(2): 118-130. <https://doi.org/10.1108/09576060410513715>.
- [2]. Arabsalehi, M. & Mahmoodi, I. (2012).The Quest for the Superior Financial Performance Measures.*International Journal of Economics and Finance*; 4(2): 116-126. doi:10.5539/ijef.v4n2p116.

- [3]. Atidhira, A. T. & Yustina, A. I. (2017). The Influence of Return on Asset, Debt to Equity Ratio, Earnings per Share and Company Size on Share Returns of Property and Real Estate Companies. *JAAF (Journal of Applied Accounting and Finance)*, 1(2): 128-146.
- [4]. Blaylock, B., Shevlin, T., & Wilson, R. J. (2012). Tax Avoidance, Large Positive Temporary Book-Tax Differences, and Earnings Persistence. *The Accounting Review*, 87(1): 91-120.
- [5]. Bognárová, K. (2017). Analysis of The Relationship Between Economic Value Added and Market Value Added. *Challenges of the Knowledge Society, Finance and Accounting*, 7, 793-796.
- [6]. Brigham, E. F. & Houston, J. F. (2011). *Fundamentals of Financial Management*: Cengage Learning.
- [7]. Chari, L. & Mohanty, R. P. (2009). Understanding Value Creation: The Shareholder Value Perspective. *LBS Journal of Management & Research*, 12 – 26.
- [8]. Chen, S. & Dodd, J. (2001) Operating Income, Residual Income and EVA: Which Metric is More Relevant? *Journal of Managerial Issues*, 13(3): 65-86.
- [9]. Chmelikova, G. (2008). Economic Value Added Versus Traditional Performance Metrics in the Czech Food-Processing Sectors. *The International Food and Agribusiness Management Review*, 11(4): 63.
- [10]. Correia, C., Flynn, D., Uliana, E., Wormald, M. & Dillon, J., (2015). *Financial Management*, 8th edition, Juta & Co., In Chapter 7, pp. 7-26.
- [11]. Damirah, M. M., Lukman, C. & Muhammad, S. (2018). Influence of financial Performance against economic value added and the impact on market reactions on listing manufacturing companies in Indonesia Stock Exchange. *Journal of Research in Business and Management*, 6 (4): 13-20.
- [12]. Deegan, C. & Unerman, J. (2007). *Financial accounting theory*, 2nd ed., McGraw Hill, Australia.
- [13]. Dina, N., Isnurhadi, M. & Widiyanti, Y. (2020). The Effect of Debt to Equity Ratio and Return on Equity on Stock Return with Dividend Policy as Intervening Variables in Subsectors Property and Real Estate on Indonesia Stock Exchange. *International Journal of Multicultural and Multireligious Understanding*, 7(7): 255 – 267.
- [14]. Dobbs, R. (2005). Managing Value and Performance. *McKinsey Quarterly Online*. Retrieved from: www.mckinseyquarterly.com on 02/03/2020.
- [15]. Eliwa, Y. A. M. (2015). The Impact of earnings quality on aspects of capital markets: Evidence from UK listed firms. (Doctoral thesis). Heriot-Watt university school of management and languages http://www.ros.hw.ac.uk/bitstream/handle/10399/3005/Eliwa_Y_0615_sml.pdf?sequence=1. Accessed on 17/09/2022.
- [16]. Enekwe, C. I., Nweze, A. U. & Agu, C. I. (2015). The Effect of Dividend Payout on Performance Evaluation: Evidence of Quoted Cement Companies in Nigeria. *European Journal of Accounting, Auditing and Finance Research* 3(11): 40-59.
- [17]. Fabozzi, F. J. & Grant, J. L. (2000). *Value Based Metrics: Foundations and Practice*. New Hope: Frank J. Fabozzi Associates, 294p.
- [18]. Firer, C., Ross, S. A., Westerfield, R. W., & Jordan, B. D. (2004). *Fundamental of Corporate Finance*, 3rd Edition. McGraw Hill Higher Education: USA, 651.
- [19]. Forrest, D. W. (1974). *The life and work of a victorian genius*. Paul Elek, London, Pp 340.
- [20]. Gapenski, L. C. (1996). Using MVA and EVA to Measure Financial Performance. *Healthcare Financial Management*, 50(3): 56 – 59.
- [21]. IFRS Foundation, (2010). Conceptual framework for financial reporting. <https://www.ifrs.org/content/dam/ifrs/publications/pdfstandards/english/2021/issued/part-a/conceptual-framework-for-financial-reporting.pdf>. Assessed on 17/09/2022.
- [22]. Isik, O. & Soykan, M. E. (2013). Large Shareholders and Firm Performance: Evidence from Turkey. *European Scientific Journal*, 9(25): 23-37.
- [23]. Ismail, I. (2011). Company Performance in Malaysia after the 1997 Economic Crisis: Using Economic Value Added (EVA) as a Predictor. *African Journal of Business Management*; 5(7): 3012 – 3018.
- [24]. Jorg, P., Loderer, C. & Roth, L. (2005). Shareholders Value Maximizing: What Managers say and what they do. *Business and Economic Review*, <https://www.idea.respec.org> retrieved on 39/05/2020.
- [25]. Khan, S., Chouhan, V., Chandra, B. & Goswami, S. (2012). Measurement of Value Creation Vis-à-Vis EVA: Analysis of Select BSE Companies. *Pacific Business Review International*, 5(3): 114 – 131.
- [26]. Kramer, J. K. & Peters, J. R. (2001). An Interindustry Analysis of Economic Value Added as a proxy for Market Value Added. *Journal of Applied Finance*, 11(1): 41 – 49.
- [27]. Lehn, K. & Makhija, A. K. (1996). EVA and MVA as Performance Measures and Signal for Strategic Change. *Strategy & Leadership*, 24(3): 34 – 38. <http://dx.doi.org/10.1108/eb054556>.
- [28]. Livingstone, J. L., & Grossman, T. (2002). *The Portable MBA in Finance and Accounting*. Hoboken, New Jersey: John Wiley & Sons Inc.
- [29]. Nissim, D., Penman, S. (2008). Principles for the Application of Fair Value Accounting. Retrieved from <https://www.sec.gov/comments/4-573/4573-105.pdf>
- [29]. Mohammad, R., Fakhrul, I. & Rezaur, R. (2016). Environmental Accounting Reporting Disclosure and Company Profitability: A Case Study on Listed Manufacturing Companies of Bangladesh. *International Journal of Ethics in Social Sciences*, 4(2): 19 – 34.
- [30]. Narang, S., & Mandeep, K. (2014). Impact of firm specific attributes on shareholder value creation of Indian Companies: An empirical analysis. *Journal of Global Business Review*. 15 (4): 847-866.
- [31]. Ogundajo, G. O., Enyi, P. E. & Oyedokun, G. E. (2019). Shareholders' Return and Value of Manufacturing Firms Listed on the Nigerian Stock Exchange. *African Journal of Business Management*, 13(10): 318-326. Doi:10.5897/AJBM2018.8678.
- [32]. Ohlson, J. A. & Juettner-Nauroth, B. (2005). Expected EPS and EPS Growth as Determinants of Value. *Review of Accounting Studies*, 10(2-3): 349-365.
- [33]. Olayinka, A. (2011). Determinants of Capital Structure: Evidence from Nigerian Panel Data. *African Economic Business Review*, 9 (1).
- [34]. Omokhudo, O. & Emeni, F. K. (2004). An Empirical Evaluation of the Relationship of Market Value Added with Internal Company Characteristics. *Nigerian Journal of Business Administration*, 6(2): 58-72.
- [35]. Palepu, K. G., Healy, P. M., Bernard, V. L., Wright, S., Bradbury, M., & Lee, P. (2010). *Business Analysis & Valuation: Using Financial Statements* (4ed.). Mason: South-Western Cengage Learning.
- [36]. Palliam, R. (2006). Further Evidence on the Information Content of EVA. *Review of Accounting and Finance*, 5(3): 204-215. <http://dx.doi.org/10.1108/14757700610686417>.
- [37]. Pannigrahi, S. K. (2017). Economic Value Added and Traditional Accounting Measures for Shareholders' Wealth Creation. *Asian Journal of Accounting and Governance*, 8: 125 - 136. <https://doi.org/10.17576/AJAG-2017-08-11>.

- [38]. Pasha, A. & Ramzan, M. (2019). Asymmetric Impact of Economic Value Added Dynamics on Market Value of Stocks in Pakistan Stock Exchange, A New Evidence from Panel Co-integration, FMOLS and DOLS. *Cogent Business & Management*, <https://doi.org/10.1080/23311975.2019.1653544>.
- [39]. Perfect, S. B. & Wiles, K. W. (1994). Alternative construction of Tobin's q: an empirical comparison. *Journal of Empirical Finance*, 1, 313 - 341.
- [40]. Ramana-Reddy, N. R. V. (2013). Identify the Superior Measure among the Traditional and Modern Measures by Establishing Relationship with Stock Market Returns: A Study on Selected Cement Companies in India. *Paripex-Indian Journal of Research*, 2(2): 179-180.
- [41]. Rappaport, A. (2001). *Creating Shareholder Value: The New Standard for Business Performance*, New York, USA: The Free Press, (A Division of Simon and Schuster INC.), ed.2.
- [42]. Reimann, B. C. (1989). *Managing for Value: A Guide to Value Based Strategic Management*. Oxford: Basil Blackwell.
- [43]. Siburian, E. & Yohanes, A. (2018). Shareholder Value Creation Measurement Analysis in Healthcare, Materials, and Real Estate Industry in Indonesia. *Advances in Economics, Business and Management Research*, 89: 380-387.
- [44]. Solomon, A. Z., Memba, F. S. & Muturi, W. (2016). Earnings per Share and Equity Share Investment in Companies Listed on Nigerian Stock Exchange. *European Journal of Business, Economics and Accountancy*, 4 (1): 68 – 78.
- [45]. Staubus, G. J. (1999). *The Decision-Usefulness Theory of Accounting: A Limited History*. Garland Publishing, New York. Pp 346.
- [46]. Stewart, G. S. (1994). EVA™: Fact and Fantasy. *Journal of Applied Corporate Finance*, 7(2): 71-84.
- [47]. Stewart, G. S. (1991). *The Quest for Value: The EVA Management Guide*. New York: Harper Business.
- [48]. Stulz, R. (2012). Managerial Discretion and Optimal Financing Policies, *Journal of Financial Economics*, 26, 3-27.
- [49]. Tortella, B. D. & Brusco, S. (2003). The Economic Value Added (EVA): An Analysis of Market Reaction. *Advances in Accounting*, 20, 265–290.
- [50]. Vasilescu, L. G. & Popa, A. (2009). Economic Value Added and Market Value Added – Measure for Financial Performance of Firms. *Bulletin UASVM Horticulture*, 66(2)/2009.
- [51]. Verweir, K. 2006. *Integrated Performance Management: A Guide to Strategy Implementation*. *Strategic Direction* 22 (8).
- [52]. Vijayalakshmi, R. (2014). Shareholders Wealth Creation in Selected BSE 100 Listed Companies. *International Journal of Research in Finance and Marketing*; 4(8): 1 – 10.
- [53]. Wet, J. H. V. H. & Toit, E. D. (2007). Return on Equity: A Popular Flawed Measure of Corporate Financial Performance. *South African Journal of Business and Management*, 38 (1): 59-69.
- [54]. Wibowo, P. P. & Berasategui, R. G. (2008). The Relationship Between Economic Value Added (EVA) and Market Value Added (MVA) with Reported Earnings: An Empirical Research of 40 Listed Companies in Indonesia Stock Exchange for the Year 2004–2007. *Journal of Applied Finance and Accounting*, 1(1), 60-72.
- [55]. Wild, J. J., Halsey, R. F. & Subramanyam, K. R. (2005). *Financial Statement Analysis with S&P insert card* (8thed). McGraw-Hill: Irwin, 832p.
- [56]. Yook, K. C. & McCabe, G. M. (2001). MVA and the Cross-Section of Expected Stock Returns. *The Journal of Portfolio Management*, 27(3): 75 – 87. <http://dx.doi.10.3905/jpm.2001.319803>.
- [57]. Young, S. D. & O'Byrne, S. F. (2001). *EVA and Value-Based Management: A Practical Guide to Implementation*.

SALEMCITY, AYOBAYE. "Conventional Accounting Measures and Shareholders' Value: A Study of Selected Listed Manufacturing Companies in Nigeria." *IOSR Journal of Business and Management (IOSR-JBM)*, 24(10), 2022, pp. 01-10.