

The Impact of Economic Value Added (EVATM) on Stock Returns in Nigeria

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Abstract: The purpose of this paper is to investigate the impact of economic value added (EVATM) on stock returns in Nigeria. This research has been performed using a sample of 60 companies quoted on the Nigeria Stock Exchange (NSE) from 2004 to 2015. The relationship EVA and stock returns was observed. The results of the OLS regression analysis were statistically significant at 0.05 level. The F Statistics of 1.036 also shows that the result typically explained the model. The correlation coefficient also shows a significant positive relationship between EVA and stock returns in Nigeria. The findings of the study confirmed that EVA increases stock returns in Nigeria.

Keywords: Performance Measurement, Shareholders Wealth, Profitability, Nigeria Stock Exchange

INTRODUCTION

The maximization of shareholders wealth has now become a new paradigm shift in corporate organisations [1]. Corporate organisations which gave lowest preference to shareholders are now bestowing utmost preference to them [1]. Shareholders wealth is measured in relation to return on their investments. The returns can either be in form of dividend or capital gains or both. Capital gain depends on the changes in market value of a stock.

The market value of a stock depends on a number of factors ranging from company specific to market specific. Financial information is used by stakeholders to measure the current and future performance of a company.

Various traditional measures such as net operating profit after tax (NOPAT), earnings per share (EPS), return on investment (ROI), return on equity (ROE), absolute divisional profit etc have been criticized due to their inability to incorporate full cost of capital of the company. Value-based measures have gained prominence in the last two decades. One of such measures is economic value added (EVA).

EVA was developed by Stern Stewart and Company [2] to measure the profitability of firms. It is a measure of incremental return that an investor earns over the market rate of return. In other words, EVA is an estimate of true economic profit or an amount by which the earnings exceed or fall short of the cost of capital of a company. Stewart [3] argued that accounting earnings such as earnings per share and earnings growth are misleading measures of corporate performance because they fail to recognize the cost of

capital and riskiness of a firm's operation. He argued further that economic value added should be used instead of earnings or cashflow from operations to measure both internal and external performance of a company. Traditional accounting measures are usually influenced by the subjective opinion of the accountant. As a consequence, managers can manipulate such performance measures [4-8].

EVA is widely used as a guide for investment decisions because it helps to improve firms' performance, operating profits, cashflow measures, cost of capital and firms' investment activity [3, 9].

Stewart [10] argued that EVA stands out from the crowd as a single best measure of wealth creation on contemporary basis and it is almost 50% better than its closest accounting-based competitors (including EPS, ROE and ROI) in explaining increase in shareholders' wealth.

McClenahan [11] asserted that traditional corporate performance measures are being relegated to second-class status as EVA becomes a primary management tool for performance evaluation.

This study investigates the impact of economic value added (EVA) on stock returns in Nigeria.

LITERATURE REVIEW

A great deal of research has been undertaken on economic value added (EVA), its contribution towards the creation of value for shareholders and also on its suitability for different economic sectors [12].

Worthington and West [13] examined the information content of EVA based on Australian evidence. The findings of the study revealed that stock returns are more closely associated with EVA than residual income, earnings and net cashflow.

Ismail [14] investigated EVA and its association with stock returns. The evidence of the study revealed that net operating profit after taxes and net income outperform EVA in explaining stock returns.

Lehn and makhija [15] measured how well EVA and market value added (MVA) relate to share price performance and the impact of chief executive officer (CEO) turnover on EVA and MVA. They used a sample of 241 large US companies and computed six performance measures for each company for 4 years (1990-1993). These performance measures are three accounting rates of return (return on asset (ROA), return on equity (ROE) and return on sales (ROS)) and three share returns (dividend per share (DPS), earnings per share (EPS) and changes in share price). These measures are now related to economic value added and market value added. The evidence of the findings showed a significant positive relationship between the performance measures and share price returns. Economic value added correlated slightly better than other measures.

Kramer and Peters [26] investigated the relationship among market value added, shareholder value and economic value added using cross-sectional time series data. The research evidence reveals that there is no advantage of using EVA instead of net operating profits after tax to explain market value added.

Bao and Bao [17] examined the usefulness of EVA and abnormal economic earnings of US firms and the empirical evidence indicated that EVA is a significant factor in market returns and its explanatory power is higher than that of accounting earnings.

Grant [18] conducted a survey on the relationship between EVA and firms' value. The empirical evidence suggests that EVA significantly impacts on firms' value.

Chmelikova [19] investigated the relationship between economic value added and profitability measures such as return on assets and return on equity. He adopted the use of ordinary least square (OLS) regression using a sample of food processing companies in Czech Republic. The research evidence suggests that there is a significant positive relationship between EVA and overall performance of the companies.

Taufil *et al* [20] examined superiority of EVA to other traditional performance measurement accounting tools. The findings of the study revealed that EVA is superior to return on equity and return on assets in banks stock returns.

Sharma and Kumar [1] reviewed 112 literatures on EVA through the use of descriptive statistics. The result of the findings revealed that EVA is a strategy used in measuring managerial performance.

Grant [18] tested the relationship between EVA and Firms' value. The result of the study confirms that EVA significantly impacts on firms' value.

Wallace [21] investigated the resultant performance of firm based on EVA and other residual income techniques. His findings revealed that EVA adopters dispose off more assets and make fewer new investments.

The study also revealed that performance is greater in the areas that are reinforced by the EVA bonus plan. Stewart [3] examined the relationship between EVA and MVA of US companies. He found a strong positive correlation between EVA and MVA.

Kramer and Pushner [16] studied the strength of relationship between EVA and MVA. The research evidence found that MVA and NOPAT were positive on average but the average EVA over the period was negative.

Ghanbari and More [22] measured the relationship between EVA and MVA of automobile companies in India. The empirical evidence reveals that there is strong evidence to support Stern Stewart's claim.

Fernandez [23] investigated the correlation between EVA and MVA of 582 American companies for the period of 1983 to 1997. It was revealed that for 296 firms in the sample, the changes in net operating profit after tax (NOPAT) had higher correlation with changes in MVA than EVA.

The research evidence for 210 samples of firms shows a negative correlation between economic value added and market value added.

Desai and Ferri [24] examined the concept of EVA and its practical applications as a performance measure. The research evidence only supports the application of EVA in developed countries.

RESEARCH METHODOLOGY

The broad objective of this study is to investigate the impact of economic value added (EVA) on stock returns in Nigeria. Data were obtained from annual reports of 50 quoted companies and daily official listing of Nigeria Stock Exchange (NSE) for a period of 12 years (2004-2015).

Regression and correlation method of data analysis were employed in this study. The model is:

$$E(R_i) = \alpha + \beta_{EVA} + \mu$$

Where

$E(R_i)$ = Expected return of selected firms

α = Constant

EVA = Economic Value Added

μ = Stochastic error term

In this study, EVA is computed based on Cordeiro and Kent Jr study [25], which is as follows:

$$EVA = \text{Net operating profit after tax (NOPAT)} - (\text{WACC} * \text{Invested Capital})$$

$$\text{NOPAT} = \text{Profit or loss before tax} + \text{Interest expense} - \text{Income tax expense} - \text{Tax shield on interest}$$

$$\text{Invested Capital} = \text{Equity} + \text{Short-term debt} + \text{Long-term debt} + \text{Non-controlling interest}$$

$$\text{WACC} = K_e (E/V) + K_d (D/V)$$

Where

K_e = Cost of equity

E = Market value of equity

K_d = Cost of debt

D = Market value of debt

V = Market value of the company

RESULTS

Table 4.01 Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.8748	1.6995	1.2442	.24125	12
Residual	-.44095	.74341	.00000	.36142	12
Std. Predicted Value	-1.531	1.887	.000	1.000	12
Std. Residual	-1.163	1.961	.000	.953	12

Dependent Variable: Stock Returns
Source: Authors' Computation, 2016

The average value of the stock return during the period of 2004 to 2015 is 1.2442 represented by mean. The maximum and minimum values of stock

returns are 1.6995 and 0.8748 respectively. The standard deviation of the stock returns is 0.24125.

Table 4.0.2 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.555 ^a	.308	.239	.37906

a. Predictors: (Constant), EVA

Source: Authors' Computation, 2016

Table 4.0.3 Coefficients

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1	.188	.512		.366	.722
	3.436	1.628	.555	2.111	.061

Source: Authors' Computation, 2016

The ordinary least square (OLS) regression has been used to test the relationship between economic value added and stock returns in Nigeria. The coefficient of determination (R^2) of 0.308 and the adjusted R^2 of 0.209 explained the relationship between EVA and stock return in Nigeria.

The R^2 indicates that 30.8% variation in stock return in Nigeria is explained by EVA. This shows that the result is a good fit of the model.

The result of the OLS regression revealed a significant positive relationship between EVA and stock returns in Nigeria.

Table 4.04 Anova^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.640	1	.640	4.456	.061 ^b
	Residual	1.437	10	.144		
	Total	2.077	11			

a. Dependent Variable: Stock Returns

b. Predictors: (Constant), EVA

Source: Authors' Computation, 2016

The F Statistics of 4.456 shows that the result typically explained the model. The F Statistics shows

that a simultaneous change in stock return is caused by EVA.

Table 4.0.5 Correlation

		EVA	STOCK RETURNS
EVA	Pearson Correlation	1	.555
	Sig. (2-tailed)		.041
	N	12	12
Stock Return	Pearson Correlation	.555	1
	Sig. (2-tailed)	.041	
	N	12	12

Source: Authors' Computation, 2016

Significant at 0.05 Level

The correlation result revealed that there is a strong positive relationship between EVA and stock return in Nigeria. This was evidenced by a correlation coefficient of 0.555, which is statistically significant at 0.05 level.

CONCLUSION

This paper investigates the impact of economic value added (EVATM) on stock returns in Nigeria. Performance evaluation is one of the most important criteria used by stakeholders to assess the well-being of a company. Currently, EVA is an important tool of performance evaluation all over the world. Firms in advanced economies adopt EVA as a corporate strategy due to its high success rate. Although, there are mixed evidence on the superiority of EVA over traditional performance management tools, it is still considered as the best performance measurement criterion.

This is based on the fact that EVA measures an incremental return that an investor earns over and above the market rate of return.

The evidence of this study revealed that there is a significant positive relationship between EVA and stock returns in Nigeria.

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