
**ANALYSIS OF ECONOMIC VALUE ADDED (EVA) AND MARKET VALUE ADDED (MVA) OF
NON BUILDING CONSTRUCTION COMPANIES LISTED ON THE INDONESIA STOCK
EXCHANGE PERIOD 2011-2015**

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ABSTRACT

The purpose of this research is to know the the financial performance using Economic Value Added (EVA) and Market Value Added (MVA). The population in this research is Non Building Construction Company. The sampling technique that is used in this research is purposive sampling with the total sample is 4 Non Building Construction Companies listed on Indonesia Stock Exchange period 2011-2015. This research using non hypothesis testing. The result of this research is Economic Value Added (EVA) of Non Building Construction Company listed on Indonesia Stock Exchange period 2011-2015 can not be calculated due to incomplete data because some of companies's cost of equity (K_e) is less than cost of debt (K_d). Meanwhile, Market Value Added (MVA) of Non Building Construction Company listed on Indonesia Stock Exchange period 2011-2015 has a positive market value added (MVA) every year. The highest average of market value added was in 2014 which was Rp 22.259.817.000.000.

Keywords: *Economic Value Added, Market Value Added.*

1. INTRODUCTION

The global economic crisis of its own economic crisis began in America on 2008 that then spread to other countries around the world, one of them is Indonesia. But, economic growth in Indonesia after the global economic crisis in 2008 showed positive growth. After the end of 2008, IHSG touching figures at 1.355 in 2009 increased 86.9% thus becoming 2.534. It also happen because the willingnes of local and foreign investors to invest in Indonesia Stock Exchange [1]. Indonesia Stock Exchange is parties that organize and provides system for bringing together buyers and sellers to trading.

Based on the sectoral price index growth, Infrastructure, Utilities and Transportation sectoral's movement in 2012 and 2014 experienced positive growth which leads to the second highest and third highest compared to other sectoral stock price index. Infrastructure, Utilities and Transportation sectoral divided into five subsectors which one of them is non building construction. On the other hand, the performance of average stock price index growth of non building construction company has been doing well and there occurred an increasing in its investment. It shows us there is growth opportunity that widely open for this industry to more develop and achieve the significant number in the future.

Most of the non building construction company's main business is carry on the business of telecommunications support services including maintenance and lease of base transceiver stations (BTS) or tower sites to telecommunication or other companies. Since the growth of human needs in telecommunication are increasing rapidly, non building construction company is a promising investment.

However, the purpose of any business or company is maximizing shareholder wealth or generating profits for the shareholders and to maximize the wealth can be defined as a search for profit. Financial performance become important in every companies because it is the measured stockholders wealth and to see whether the company achieved their purposes or not. Investors who invest their money hoping to obtain as much return as possible. Thus, investors need a good information about the company's financial performance in order to know if their money will be worth it to be invested.

Financial performance of a company can be assessed using some financial analysis tools, such as : financial ratios, profitability ratios, liquidity ratios, the ratio leverage and others. Besides that there is a new concept by Stewart on 1991 in assessing the financial performance of a company's right to take fully into account the interests and expectations of fund providers that return on capital invested in the company. The tools are known as Economic Value Added (EVA) and Market Value Added (MVA) which initiated by Joen Stern and Bennett Stewart, co-founders of the consulting firm Stern Stewart & Company [2]. One of the limitations in using earning-based performance metrics to meausre the company's financial performance is that they only illustrated the company's interest expense which means that the cost of capital is ignored. In addition, one of several

advantages in using Economic Value Added is it can ensure that management runs the operation is consistent with the objective on maximizing shareholders wealth [2].

MVA is obviously has a goal to benefit the shareholder, and also ensure that the scarce resources are allocated efficiently, which benefits the company. Shareholder wealth is maximized by maximizing the difference between the market value of the firm's stock and the amount of equity capital that was supplied by the shareholders [2].

In this research, the author wants to analyze the performance of Non-building Construction Companies listed on Indonesia Stock Exchange. Therefore, this research is given the title "The Analysis of Economic Value Added (EVA) and Market Value Added (MVA) of Non Building Companies Listed on The Indonesia Stock Exchange Period 2011-2015".

2. THEORETICAL REVIEW

2.1. Economic Value Added

EVA is based on the notion of economic profit, also known as residual income, which states that wealth can be created when a company covers the cost of operating and capital costs [3]. If the EVA is positive, then the value has been created in that period, and if the EVA is negative, then the value of the company was destroyed [8]. EVA can be measured by following formula [2] :

$$EVA = NOPAT - (WACC \times \text{Invested Capital}) \quad (1)$$

The step on calculate Economic Value Added is as follows :

1. Calculate NOPAT based on financial report of the company [2].

$$NOPAT = EBIT (1 - \text{Tax Rate}) \quad (2)$$

2. Calculate Invested Capital [6].

$$\text{Invested Capital} = \text{Total Debt and Equity} - \text{Short term Loan (which do not bear interest)} \quad (3)$$

3. Calculate WACC (Weighted Average Cost of Capital) [7].

$$WACC = wdkd(1 - Tax) + wckc \quad (4)$$

Where,

WACC: Weighted average cost of capital

kd : Cost of debt

wd : Proportion of debt financing

kc : Cost of common equity

wc : Proportion of common equity financing

$$wd = \text{Total debt} \div \text{Total Assets} \quad (5)$$

$$wc = \text{Total equity} \div \text{Total Assets} \quad (6)$$

4. Calculate Cost of Debt (Kd) [8]

The cost of debt or Kd that is being used is the annual prime lending rate of Bank Mandiri from year 2010 until 2015.

5. Calculate Cost of Equity (Kc) [7].

This research using CAPM (Capital Asset Pricing Model) because not all of the companies pay dividends all year.

$$\text{Cost of Equity or } kc = krf + \beta (km - krf) \quad (7)$$

Where,

krf : The risk-free return. In this study, the risk free is Central Bank Rate

km : The rate of return on the stock market (usually was measured with IHSG).

$$km \text{ can be measured by the formula : } km = \{(1 + krf)(1 + \text{Inflation rate}) - 1\} \quad (8)$$

6. Calculate Economic Value Added [2].

$$EVA = NOPAT - (WACC \times \text{Invested Capital}) \quad (9)$$

2.2. Market Value Added

MVA is obviously has a goal to benefit the shareholder, and also ensure that the scarce resources are allocated efficiently, which benefits the company. Shareholder wealth is maximized by maximizing the difference between the market value of the firm's stock and the amount of equity capital that was supplied by the shareholders [2]. If the company's market value is greater than the capital of the company, then it has a positive MVA, which means that the manager of the company has successfully created value. If the MVA value is negative, where the capital is greater than the value of the company means that the manager is not able to carry out their duties properly. MVA can be measured by following formula [2]:

$$MVA = \text{Market value stock} - \text{Equity capital supplied by shareholders} \quad (10)$$

$$MVA = (\text{Shares outstanding})(\text{Stock price}) - \text{Total common equity} \quad (11)$$

2.3. Research Framework

The framework in this study aimed to find out how much the value of EVA (Economic Value Added) and MVA (Market Value Added) of Non-building Construction Companies. The data obtained from the company's existing in Indonesia Stock Exchange in the form of financial statements of the company for the year 2011-2015.

The framework of this research is as follows :

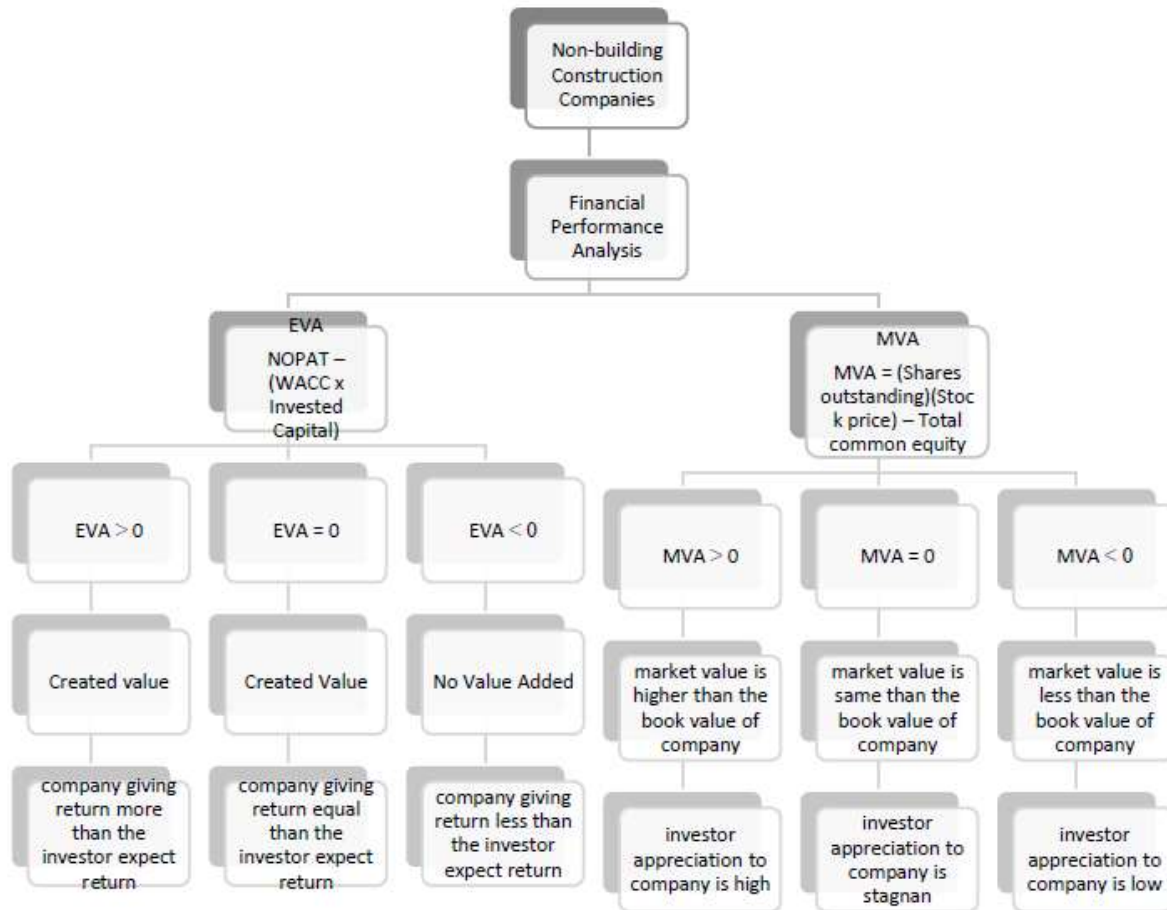


Figure 1. Theoretical Framework

2.4. Research Methodology

Research method used in this research is descriptive. This method aim to give a brief description, image, or information with systematically, factual dan accurate based on facts, and based on data availability [4]. Descriptive study is undertaken in order to ascertain and be able to describe the characteristic of the variables of interest in a situation. In this case, which is analyzing financial performance of Non-building Construction Companies using Economic Value Added and Market Value Added, so that can be resulted factual and accurate for finding problem and deciding the conclusion.

Table 1. Research Characteristics

No	Research Characteristic	Type
1	Based on Method Used	Quantitative
2	Based on Purpose	Descriptive
3	Based on Inquiry Type	Non-Hypothesis Testing
4	Based on The Involvement of The Researcher	No intervention
5	Based on Analysis Unit	Non-building Construction
6	Based on Time Period	Pooled-Data

The author used quantitative method as the basic foundation for doing this research. Quantitative research can be defined as research that addresses research objectives through empirical assessments that involve numerical measurement and analysis approaches [5].

3. RESULT AND DISCUSSION

3.1. Economic Value Added

Economic Value Added (EVA) is measure to asses corporate performance and contribution of company's operating for the value of the company in a period of time. If economic value added is greater than zero ($EVA > 0$) indicates that there has been an value added process in that period. If economic value added is less than zero ($EVA < 0$) indicates that there has not been an value added process in that period. While, if economic value added is equal to zero ($EVA = 0$) indicates that company give the return equal than the investor expected [2].

The result of Economic Value Added (EVA) Calculation of non building construction company 2011-2015 showed in Table 2, as follows :

Table 2.
 Economic Value Added (EVA) Calculation of Non Building Construction Company 2011-2015 (in millions rupiah)

Code	Year	EVA	Code	Year	EVA
INDY	2011	-251.806,43	TBIG	2011	-356.745,16
	2012	-868.114,11		2012	-717.302,98
	2013	-3.547.989,49		2013	-1.265.813,74
	2014	-3.250.979,08		2014	-399.339,25
	2015	-2.980.628,68		2015	-449.948,12
TOWR	2011	-303.457,75	TRUB	2011	N/A
	2012	-767.743,57		2012	N/A
	2013	-1.421.699,49		2013	N/A
	2014	-1.031.849,00		2014	N/A
	2015	930.988,63		2015	N/A

Source: Reproduced Data, 2017

Table 2 shows Economic Value Added (EVA) Calculation of 4 non building construction companies listed on The Indonesia Stock Exchange period 2011-2015. Some of the company experienced increasing and decreasing growth in terms of EVA and has a not available or N/A data. If the company has positive value of EVA means that they have successfully created value to their shareholders. While, if the company has negative value of EVA means that they have not successfully created value to their shareholders. However, positive value of EVA also means that net operating profit after tax (NOPAT) can cover all of company's cost.

3.2. Market Value Added

Market Value Added (MVA) as the difference between the market value of the firm's stock and the amount of equity capital that was supplied by shareholders. Market value added calculation starts with subtracting market value stock which is shares outstanding times stock price with equity capital supplied by shareholders or total common equity. The result of market value added (MVA) calculation of non building construction company 2011-2015 showed in Table 3, as follows :

Table 3.
 Market Value Added (MVA) Calculation of Non Building Construction Company 2011-2015 (in millions rupiah)

Code	Year	MVA
INDY	2011	10.811.149
	2012	6.851.600
	2013	2.378.962
	2014	1.950.597
	2015	-214.551

TBIG	2011	10.366.492
	2012	26.860.546
	2013	27.340.199
	2014	46.046.651
	2015	27.699.938
TOWR	2011	510.146
	2012	1.805.918
	2013	27.547.898
	2014	41.831.993
	2015	47.953.748
TRUB	2011	-789.973
	2012	-789.973
	2013	-789.973
	2014	-789.973
	2015	-789.973

Source: Reproduced Data, 2017

Table 3 shows Market Value Added (MVA) Calculation of 4 non building construction companies listed on The Indonesia Stock Exchange period 2011-2015. Some of the company experienced increasing and decreasing growth in terms of MVA. PT. Truba Alam Manunggal Engineering Tbk. (TRUB) has the smallest value of economic value added (MVA) in 2011 to 2015 which was Rp -789.973.000.000 which means that PT. Truba Alam Manunggal Engineering Tbk. (TRUB) has not successfully increased the wealth for their shareholders and their company. Meanwhile, PT. Sarana Menara Nusantara Tbk. (TOWR) has the highest value of market value added (MVA) in 2015 which was Rp 47.953.748.000.000 which means that PT. Sarana Menara Nusantara Tbk. (TOWR) has successfully increased the wealth for their shareholders and their company and also their market value is higher than the book value of the company. So, investors or shareholders appreciation will be high too.

4. CONCLUSION AND SUGGESTION

4.1. Conclusion

1. Economic Value Added (EVA) Calculation of 4 non building construction companies listed on The Indonesia Stock Exchange period 2011-2015 can not be calculate due to incomplete data because some of the company has not available or N/A data. The reason behind the company whose have N/A data because the cost of equity (Kc) less than the cost of debt (Kd). Actually, the cost of equity (Kc) should be higher than the cost of debt (Kd). It is because of greater uncertainty of receiving dividends and repayment of principal at the end. Moreover, dividend received by shareholders maybe uncertain while debtholders received fix interest at the end of certain period of time. If the cost of equity < cost of debt, it is contradicting with the theory. Thus, the company whose have a cost of equity (Kc) less than cost of debt (Kd), the data will be written as not available or N/A.
2. The average performance of non building construction company listed on Indonesia Stock Exchange (IDX) period 2011-2015 has a positive market value added (MVA) every year. The positive MVA means that the company has successfully gaining more wealth to the shareholder. The highest average of market value added was in 2014. The non building construction company listed on IDX 2011-2015 has successfully increased the wealth for their shareholders and their company. It means that non building construction company's market value is higher than the bok value of company. The result is investors or shareholders appreciation will be high too.

4.2. Suggestion

4.2.1. Theoretical Aspects

1. Future studies may use other method in value added (value based) other than Economic Value Added (EVA) and Market Value Added (MVA), such as Refined Economic Value Added (REVA) and Financial Value Added (FVA).

4.2.2. Practical Aspects

1. The period should be longer, such as 10 years or more in order to get valid results.

2. The sample should be more, not only non building construction company but also other company that listed on Indonesia Stock Exchange to get clearer view of the stock market in Indonesia.
3. The company should manage the company's cost of capital, because the higher company's cost of capital, the lowest company's economic value added (EVA). The company also need to increase and gain more net operating profit after tax. If the net operating profit after tax can overcome the company's cost, the economic value added (EVA) will be positive. Then, the company has successfully created value to their shareholder's and company. From the investors and shareholders's point of view, positive economic value added is a good for business because they get return higher than they expected.
4. To gain positive market value added (MVA), the company should maintain the movement of stock price in a positive trends and tolerance intervals. The company also should strive to create a positive profitability and competitive dividend level for the shareholders and investors. Companies with a high MVA are attractive to investors and shareholders not only because of the greater likelihood they will produce positive returns but also because it is a good indication they have strong leadership and sound governance.

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