Journal of Reseacrh in Business, Economics, and Education Volume 1
E-ISSN 2686-6056 Issue 2
25 December 2019

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CEMENT SUB SECTOR STOCK RETURNS BASED ON ECONOMIC VALUE ADDED AND MARKET VALUE ADDED

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Abstract

The main goal of a company is not to make profit, but to cash. One of the main indicators in generating cash is to maximize the value of the company's shares as a form of giving satisfaction to the company's shareholders. In an effort to achieve this, the company will try to increase cash flow and profits to be obtained. This research is a quantitative and causal associative study that measures the effect of EVA and MVA on stock price returns using panel data regression analysis. The sample in this study is 4 (four) cement companies that have gone public with a time period of 9 (nine) years from 2010 to 2018. The results of this study indicate that the effect of EVA and MVA on stock returns is 11.7% while 88, The remaining 3% is influenced by other variables not mentioned in the model. Based on partial tests, EVA has a negative and not significant effect on stock returns. While MVA has a positive and not significant effect on stock returns.

Keywords: Economic Value Added (EVA), Market Value Added (MVA), and Stock Return.

1. Introduction

The company's goal is to maximize shareholder wealth through the value of the company's shares. The company will try to maximize cash flow and profits in the future. Assessment of company performance is very important in relation to evaluations based on the company's financial statements (Keown, 2004). With the development of infrastructure development in the era of President Jokowi, it will certainly drag the development of other economic sectors, one of which is the cement industry. The temporary guess is that the cement industry will lead to positive growth from the past 5 years to the next 5 years.

Investment in the cement sub-sector must still be analyzed, although at present physical infrastructure development is booming. Investors must assess whether investments in the cement sub-sector are effective and worth maintaining. One measure to evaluate it is the analysis of company performance through the calculation of financial ratios. However, because financial ratios are very dependent on the value of profits based on accounting calculations alone, so it is not yet certain whether the invested capital has provided the expected level of return. Therefore, to answer this, EVA and MVA concepts have emerged to accommodate these challenges (Hariani, 2010).

Research on the effect of EVA on stock returns varies. Hariani (2010) states that EVA has a negative and significant effect. In this case it shows that in a good company fundamental condition is not always followed by a positive stock return. While in research (Awan et al, 2015) (Novitasari and Erari, 2017) that EVA

conditions have a positive and significant effect. While some studies explain that EVA is not a consideration in measuring stock returns (Bastian et al, 2018) (Kartini and Hermawan, 2008) (Willem et al, 2014) (Wulandani, 2017) (Kusuma and Topowijono, 2018) (Puspita et al , 2015) (Janitra and Kesuma, 2015) (Jazai et al, 2018).

Meanwhile, some research on the relationship between MVA and stock returns is as follows. Novitasari and Erari (2017) Kusuma and Topowijono (2018), Puspita et al (2015) Parmitasari (2015), stated that MVA had a positive and significant effect. As for Heroes (2014), another opinion is that MVA has a negative influence. While other studies explain that MVA is not a consideration in measuring stock returns (Kartini and Hermawan, 2008) (Willem et al, 2014) (Wulandani, 2017).

2. Literature Review

Economic Value Added (EVA)

Economic Value Added (EVA) is a measure of economic value added generated by a company as a result of management activities or strategies. A positive EVA indicates that the company has succeeded in creating value for the capital owner because the company is able to produce an income level that exceeds the level of capital costs. This is in line with the goal of maximizing company value. Conversely, a negative EVA indicates that the firm's value decreases because the rate of return is lower than the cost of capital. The existence of EVA becomes relevant for measuring performance based on economic value generated by a company.

Market Value Added (MVA)

Market Value Added (MVA) is the difference between the market value of a company's stock and the amount of equity capital the investor has provided (Brigham Houston, 2006). The creation of a value for shareholders is in accordance with the MVA concept of maximizing the welfare of shareholders by maximizing the difference between market value of equity and the amount invested by investors into the company. This difference is known as MVA. MVA was chosen because this concept is a measure of financial performance externally, so it is not the market value of the company which is the product of the number of shares outstanding and the market price. Because the company's market value has a weakness that is for companies that have gone public, the market value will change when there is a sale of new shares, even though the addition of the market in this way is not a real business company, so it cannot be recognized as an achievement of the company's financial performance.

Framework

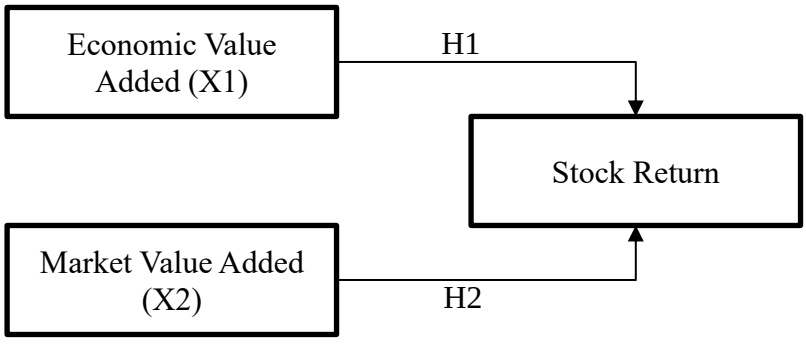

Figure 1. Framework

Source: Data processed, 2019.

3. Methods

This research is a quantitative and causal associative research that measures the effect of EVA and MVA on stock price returns. The sample in this study were 4 cement companies that have gone public with a period of nine years from 2010 to 2018. Researchers used panel data regression analysis with the following equation model:

$$\mathbf{Yit = \alpha 1 + \alpha 1X1it + \alpha 2X2it + \mu it}$$

Where :
Yit = Stock return, year t, company i
α1 - α2 = Regression coefficients of each variable
X1 = EVA
X2 = MVA
μ = distrubance error

4. Results and Discussion

Determination of Panel Data Regression Model

In determining the model, Panel Data Regression can be classified into three models, namely Common Effect, Fixed Effect, and Random Effect. The first step that can be done is to choose the most appropriate regression model from the three models, namely to regress using the Common Effect and Fixed Effect which can be seen in the following table:

Table 1. Common Effect

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.466273	0.070746	6.590799	0.0000
X1	-5.37E-14	4.14E-14	-1.298609	0.2031
X2	9.08E-15	5.42E-15	1.674291	0.1035
R-squared	0.168132	Mean dependent var		0.321380
Adjusted R-squared	0.117715	S.D. dependent var		0.252881

Source: Data processed, 2019.

Table 2. Fixed Effect

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.051696	0.182796	0.282804	0.7793
X1	1.24E-13	8.62E-14	1.438020	0.1608
X2	-1.52E-14	1.11E-14	-1.371391	0.1804
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.313524	Mean dependent var		0.321380
Adjusted R-squared	0.199111	S.D. dependent var		0.252881

Source: Data processed, 2019.

After getting the Common Effect and Fixed Effect models, a Chow Test can be done to choose the best model between the Common Effect and Fixed Effect models.

Table 3. Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	2.117954	(3,30)	0.1188
Cross-section Chi-square	6.915710	3	0.0746

Source: Data processed, 2019.

Table 3 shows the probability value of 0.0746 and exceeds the significance level of 0.05, which means the Common Effect model is accepted and rejects the Fixed Effect model. Then do panel data regression with the Random Effect model.

Table 4. Random Effect

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.466273	0.067404	6.917615	0.0000
X1	-5.37E-14	3.94E-14	-1.363003	0.1821
X2	9.08E-15	5.17E-15	1.757313	0.0881
Effects Specification				
			S.D.	Rho
Cross-section random			0.000000	0.0000
Idiosyncratic random			0.226310	1.0000
Weighted Statistics				
R-squared	0.168132	Mean dependent var		0.321380
Adjusted R-squared	0.117715	S.D. dependent var		0.252881
S.E. of regression	0.237531	Sum squared resid		1.861899
F-statistic	3.334871	Durbin-Watson stat		2.627452
Prob(F-statistic)	0.047962			
Unweighted Statistics				
R-squared	0.168132	Mean dependent var		0.321380
Sum squared resid	1.861899	Durbin-Watson stat		2.627452

Source: Data processed, 2019.

After obtaining the results of the estimation of the Fixed Effect and Random Effect regression models, then perform the Hausman Test. The Hausman test was carried out to select the most appropriate model between the Fixed Effect and Random Effect models. Following the Hausman Test results in the following table:

Table 5. Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	6.259699	2	0.0437

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

Cross-section random effects test comparisons:

Source: Data processed, 2019.

Table 5 shows the probability value of 0.0437 and exceeds the significance value of 0.05, which means that the Fixed Effect model is more appropriate than the Random Effect model. Then do the Lagrange Multiplier Test to choose the most appropriate model between the Random Effect and Common Effect models.

Table 6. Lagrange Multiplier Test

Null (no rand. effect) Alternative	Cross-section One-sided	Period One-sided	Both
Breusch-Pagan	1.298962 (0.2544)	0.366823 (0.5447)	1.665786 (0.1968)
Honda	-1.139720 (0.8728)	0.605659 (0.2724)	-0.377638 (0.6472)
King-Wu	-1.139720 (0.8728)	0.605659 (0.2724)	-0.655662 (0.7440)
GHM	-- --	-- --	0.366823 (0.4805)

Source: Data processed, 2019.

The results above, shows the Breusch-Pagan probability value of 0.2544 and exceeds the significance value of 0.05 which means the Common Effect model is more appropriate than the Random Effect model.

F Test

To find out whether the regression model can explain that stock returns are influenced by economic value added and market value added, then the f test is conducted. Based on the common effect model produces a simultaneous hypothesis test or f test in the table below:

Table 7. F-Test

F-statistic	3.334871
Prob(F-statistic)	0.047962

Source: Data processed, 2019.

F test results show a probability value of 0.047962, which is less than the significance value of 0.05, which means the regression model can explain that stock returns can be influenced by economic value added and market value added.

T-Test

T test was conducted to determine whether EVA and MVA variables partially had a significant effect on the stock return dependent variable.

Table 8. T-Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.466273	0.070746	6.590799	0.0000
X1	-5.37E-14	4.14E-14	-1.298609	0.2031
X2	9.08E-15	5.42E-15	1.674291	0.1035

Source: Data processed, 2019.

Partial t test on the EVA independent variable, obtained a probability value of 0.2031 which exceeds the significance value of 0.05 which means that the EVA variable has a negative and not significant effect on stock returns. T test on the MVA independent variable, obtained a probability value of 0.1035 which exceeds the significance value of 0.05 which means that MVA has a positive but not significant effect on stock returns.

Coefficient of Determination

The coefficient of determination measures the magnitude of the percentage of the effect of the independent variable on the dependent variable. Here are the results of the calculation of the coefficient of determination:

Table 9. Result of Calculation of Determination Coefficient

R-Squared	0.168132
Adjusted R-Squared	0.117715

Source: Data processed, 2019.

The above results show the coefficient of determination (Adjusted R-squared) of 0.117 which means that 11.7% of stock returns can be influenced by EVA and MVA. While the remaining 88.3% that stock returns are influenced by other factors not mentioned in the research model.

5. Conclusion

Based on the results of data analysis that has been explained about the effect of EVA and MVA on stock returns of cement sub-sector companies listed on the Indonesia Stock Exchange in 2010 - 2018, the following conclusions are obtained: (1) EVA has a negative and not significant effect on stock returns. (2) MVA has a positive but not significant effect on stock returns. Based on the conclusions above, suggestions from researchers that are expected to be useful input are that it is necessary to add additional variables because there are still 88.7% of other variables that are not examined and outside the research model that are thought to influence stock returns.

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