# ANALYSIS OF THE INFLUENCES OF ECONOMIC BASED MEASUREMENT AND ACCOUNTING BASED MEASUREMENT ON SHAREHOLDERS VALUE (Study on ASEAN Country Manufacturing Companies 2012-2016)

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#### **ABSTRACT**

Maximizing shareholders value is the company's long term objective. The company's internal financial performance can be a signal for assessing shareholder value. This study aims to analyze Economic Based Added, Net Income, and Earnings Per Share and Accounting Based Measured on Shareholders Value as Measured by Market Value Added with Dummy countries as a control variable.

The population used in this study is manufacturing companies in 5 ASEAN countries (Indonesia, Malaysia, Singapore, Philippines, and Thailand) in 2012-2016. Research data is balance panel data and the sample is selected by using purposive sampling, so there are 225 samples of companies selected to be tested by using panel least square.

Based on t test, variables that has significant results are EVA, NOPAT, NI, ROA, and dummy Philippine. While on EPS, ROE, Dummy Indonesia, Dummy Malaysia, Dummy Singapore and Dummy Thailand do not have significant results. The variable of EVA has significant positive level on MVA at 1% significance level, NI has significant positive effect on MVA at 1% significance level and ROA has significant positive effect on MVA at 1% significance level and ROA has significant positive effect on MVA at 5% significance level. Then, Dummy Philippine as a control variable has significant positive effect on MVA at 1% significance level, meaning that Philippine is different from the reference category which is Dummy Malaysia. While Indonesia, Singapore, and Thailand do not have differences with Malaysia.

Keywords: Shareholders value, Market Value Added, economic based measured, accounting based measured, dummy variable, panel data, manufactured, ASEAN.

#### 1. INTRODUCTION

The countries of the world have been cooperating to increase business competition in order to maximize the firm value. One form of regional cooperation that is ASEAN (Association of South East Asian Nation) established in 1967 by the countries of Indonesia, Thailand, Singapore, Malaysia and the Philippines. Then, ASEAN produces an agreement in the economic field of Asean Economic Community (AEC). Capital markets are programs produced by the AEC in finance. As the development of market modal in countries are ASEAN

countries, hence the desire of shareholders (shareholders) to prosper higher. MVA is a method of measuring instruments to calculate the company's success in increasing shareholder wealth (shareholders value).

Market Value Added can be measured with economic measured and traditional accounting based measured. Included in this study are economic value added (EVA), net operating profit after tax (NOPAT), net income (NI), and earnings share (EPS). While accounting per measured are return on assets (ROA) and return on equity (ROE). Studies by Kumar and Sharma (2011), Hall (2013) provide information on measurement for the welfare of shareholders (shareholder value). The study used independent variable Ecomonic Value Added (EVA), as an economic based indicator, then Earnings Before Extraordinary Items (EBEI), Net Operating Profit After Tax (NOPAT) Net Income (NI), Return On Assets (ROA), Earnings Per Share (EPS), Return On Equity (ROE), as Accounting Based Indicators to owner's welfare as measured by Market Value Added (MVA).

This study aims to expand the research on the value of companies that have previously been done by other researchers. The study also includes the dummy of ASEAN countries (Indonesia, Malaysia, Singapore, Philippines, Thailand) as control variables, aiming to reduce the influence caused by outside factors from this study. The control variables here are used to indicate differences. Differences in political situations, government policies, economic growth and others can have an effect on observed differences. Dummy variables can show the average MVA values directly for the five countries namely Indonesia, Malaysia, Singapore, Philippines, Thailand.

# 2. THEORETICAL BASI C

### 2.1 THEORY

# 2.1.1 Shareholder Theory

According to Friedman (1970) this theory said the importance of increasing the value of shareholders is the most fundamental responsibility of the directors. Therefore, management act must be exercise discretion to ensure the health of the company in the long term.

# 2.1.2 Signal Theory (Signaling Theory)

All information about the management to realize the wishes of shareholders is called signal. While the actions of the company to provide guidance to investors about how management sees the prospect of the company is the so-called Signal Theory (Brigham and Houston, 2006).

# 2.1.3 Shareholders Value

The objective of maximizing shareholder value is a long time objective. Shareholder value is a function of all future benefits to shareholders wealth or welfare of the owner (shareholders) will increase if the MVA is also increased (Mirza & Imbuh, 1999). This MVA measurement method was

developed by Sern, Stewart & Co. which introduced it as a measure of the company's success rate in increasing shareholder value.

# 2.1.4 Economic Value Added (EVA)

EVA is a net operating profit after tax which is reduced by the product of weighted average cost capital with invested capital or it could be EVA as a residual income measurement that explains cost of capital to operating profit (Ardial, 2014).

# 2.1.5 Net Operating After Tax (NOPAT)

NOPAT is profit derived from post-tax change operations but before financing costs and non cash book keeping entries such as depreciation expenses. Therefore, NOPAT can also be interpreted as the amount of profit available to provide cash return / return to all providers of funds for corporate capital.

# 2.1.6 Net Income (NI)

Islahuzzaman (2012) explains that net income is profit earned after tax. The excess of total revenue over all expenses for a certain period after deducting the income tax presented in the form of profit / loss is called net income.

# 2.1.7 Return On Assets (ROA)

Return On Assets (ROA) is known to show how efficient the company in utilizing assets in its operations to generate profit / profit. ROA is a measure of the company's overall ability to generate profits with the total amount of assets available within the firm (Syamsuddin, 2000).

# 2.1.8 Earnings Per Share (EPS)

Darmadji and Fakhruddin (2001) explain: "the ratio indicates how much profit (return) obtained by investors or shareholders is EPS." Meanwhile, according to Halim (2003) states that: "Earnings Per Share is the ratio between net profit after taxes obtained by issuers with the number of shares outstanding."

#### **2.1.9 Equity (ROE)**

Return On Equity (ROE) is the ratio to measure net income after tax compared to equity .Company's operational efficiency becomes the focus of this ratio because that would be an advantage for the owners of the company. Kasmir (2008) said that return on equity / ROE is the ratio to measure net income after tax with own capital.

#### 2.2 PREVIOUS RESEARCH

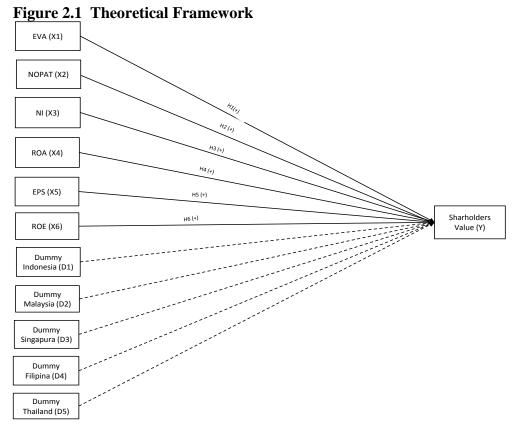
Research by Sharma and Kumar (2011) on 97 observations from the Indian market in 2000-2008 and applying it to OLS regression panel data. They used independent variables NOPAT, EVA, ROCE, RONW, OCF and

EPS found that EVA can explain its effect on market value added (MVA) in firms in India.

Hall (2016), which uses MVA and MAR as a shareholders value measure, found that MVA is better as an indicator of shareholder wealth. While the independent variables are EVA, EVA growth, REVA, EBEI, NOPAT, NI, ROA, EPS, ROE, ROCE, and spread. The sample of research on companies listing on the Johannesburg Stock Exchange in 2001 - 2011 were 192 companies. The conclusion of the study, the measurement of accounting variables (EBEI, NOPAT, NI, ROA, EPS, ROE) has more impact than economic variables (EVA and ROCE).

Joaquim (2017) calculates new regression estimates of the relationship between trade openness and inflows of Foreign Investment to Bangladesh, China, India, Malaysia, Nepal, New Zealand, Pakistan, Philippines, Sri Lanka and Thailand over the period 1982-2013 using country dummy variables. Fixed effects and OLS Pooled techniques are used to analyze panel data. The results show that higher levels of trade openness (TRD) have a significant positive impact on FDI inflows. The results also investigate that FDI inflows are likely to be significantly affected by conventional determinants such as exchange rate (ER) and GDP per capita (GDPPC) and so on.

#### 2.3. THEORETICAL FRAMEWORK



Source: data processed by the authors, 2017

#### 3. RESEARCH METHODOLOGY

# 3.1 Types and Sources of Data

The type of data used is secondary data of annual financial statements taken from bloomberg database. The data includes market value added (MVA), Economic Value Added (EVA), Net Operating Profit After Tax (NOPAT) Net Income (NI), Return on Assets (ROA), Earnings Per Share (EPS), Return on Equity (ROE) to the five manufacturing companies of ASEAN countries (Indonesia, Malaysia, Singapore, Philippines, and Thailand)

# 3.2 Population and Sample Research

The population of this research is a manufacturing company listing on the Securities Exchange of each ASEAN country in 2012-2016. The sampling sample was selected using the Purposive sampling method, that is, random / random sample selection method whose information obtained with some consideration that is adjusted to the purpose and problem of this research.

# 3.3 Operational Definition of Variables

The operational definition of the variables to be used in this study can be described as follows:

# 1. Dependent variable

MVA is the difference of the market value of the company with the total capital invested or invested in the company. The indicators for measuring MVA by Stewart (1991) are as follows:

$$MVA = MV - TC$$

Information:

MVA: Market Value Added

MV: multiplication of the outstanding share (total paid-up share capital) with stock price (stock price at the end of the book year).

TC: Tottal Capital; longterm liabilities, plus tottal equity is the capital invested by the company owner (assets less other obligations and losses)

#### 2. Independent Variables

#### a. Economic Value Added (EVA)

EVA counting cost of equity on investments made. EVA Measures by Stern Stewart and Co can be expressed by the following formula:

$$EVA = \left(\frac{NOPAT}{WACC} - WACC\right) X Capital$$

Where:

EVA: Economic Value Added

NOPAT : Net Operating After Tax; Earnings Before Extraordinary Items + an after tax interest adjustment

Capital: longterm liabilities, plus tottal equity is the capital invested by the company owner (assets less other liabilities and losses)

WACC: Weighted Average Cost of Capital

# b. Net Operating Profit After Tax (NOPAT)

Gained from post-tax change operations but before financing the costs and non-cahs bookkeeping entries such as depreciation expenses as a definition of NOPAT (Sole, 2008 ). The NOPAT formula can be calculated as follows:

# c. Net Income (NI)

Net income here is the net income of the top income seluru seluru h h fee for a specific period. The formula can be obtained as follows:

$$Net\ Income = Total\ Pendapatan\ - Total\ Biaya$$

#### d. Return On Assets (ROA)

ROA is the ratio between net profit after interest and taxes with total assets used to generate profit (cashmere, 2010), then the formulation as follows:

$$ROA = \frac{laba \ bersih \ setelah \ bunga \ dan \ pajak}{total \ aktiva} \times 100\%$$

#### e. Earnings Per Share (EPS)

Tandelilin (2001) states that Information from a large EPS of a company reflects a company's net profit that is ready to be shared for all owners or shareholders of the company. EPS formula is as follows:

$$\label{eq:eps} \text{EPS} = \frac{\text{laba bersih setelah bunga dan pajak}}{\text{jumlah saham yang beredar}}$$

#### f. Return On Equity (ROE)

The calculated ratio for knowing the capability of a firm in managing the existing capital to obtain net income is called the ROE ratio (cashmere, 2010). The amount of ROE will be calculated by the formulation as follows:

$$ROE = \frac{laba\ bersih\ setelah\ bunga\ dan\ pajak}{jumlah\ ekuitas} \times 100\%$$

Type:

ROE : Return On Equity

Total equity: total net assets / net worth of the company obligations

#### 3.4 Classical Assumption Testing

The occurrence of deviations of the classical assumptions in the hypothesis of hypothesis is very likely to occur. In this study there is no multicollinearity between independent variables, no heteroscedasticity or variant of constant confounding variables (homoscedasticity) and no autocorrelation between residuals of each independent variable (Ghozali, 2001).

# 3.5 Data Analytical Techniques

The research regression model can be formulated as follows:

$$Y = a + X1.b1 + X2.b2 + X3.b3 + X4.b4 + X5.b5 + X6.b6 + D1.b7 + D2.b8 + D3.b9 + D4.b10 + e$$

#### Where:

Y = Shareholders Value

a = Constants / category of reference, ie dummy Malaysia

X1 = Economic Value Added

X2 = Net Operating Profit After Tax

X3 = Net Income

X4 = Return On Asset

X5 = Earnings Per Share

X6 = Return On Equity

D1 = Dummy Indonesia (1 if the company is located in Indonesia, 0 otherwise), magnitude

D2 = Dummy Singapore (1 if the company is located in Singapore, 0 otherwise)

D3 = Dummy Philippines (1 if company located in Philippines, 0 otherwise)

D4 = Dummy Thailand (1 if the company is located in Thailand, 0 otherwise)

e = error

#### 3.5.1 Estimation of Panel Data Regression Model

According Widarjono (2013), in general the method to generate intercepts and slope coefficients are different on each company or individual and every period of time so that is using using panel data. Estimulation of the equation will be affected by the assumptions made about slope coefficients, intercepts, and disturbance variables. M uncullah various possible models / data panel regression techniques. The common methods used to estimate the regression meodel with the panel data are Common Effect method, Fixed Effect method, and Random Effect method.

# 3.5.2 Selection of the Best Model Test Lagrange Multiplier (LM)

The purpose of the LM test is to be known which is better between the random effect model compared to the common effect model . Breus ch-Pagan introduced a random model based on residual values with OLS method . This test based on the chisquares distribution with degrees of freedom of the total indpendence variables . The hypothesis used in this test is:

- 1. If p-value is smaller < alpha 5% then the null hypothesis is rejected. That is, the random effect is better than the common effect.
- 2. If the p-value is greater> alpha 5% then the null hypothesis is accepted. Thus, random effect estimation can not be used for panel data regression, but with OLS method.

#### 3.5.3 F -test (Goodness of Fit)

This test is used to find out if the modeling built meets the fit criteria or not. The F-count value can be found by the formula of (1-R) / (N-k) R / (k-1) F: 2 2 count. If F- count > F-table (a, k-1, nl), then H0 is rejected; and If F-count < F-table (a, kl, nk), then H0 is accepted. At the regression output, the F - test can also be seen by comparing the probability values to the predetermined  $\alpha$ , Thus if the comparison results show that the probability value  $(0.000) < \alpha (0.05)$ , it can be argued that the built models meets the fit criteria.

#### 3.5.4 T-statistical test

The significance test of coefficient (bi) is done by t-statistic. The Standard Error b Regression coefficient (b): calculate t If t-count> t-table ( $\alpha$ , nkl), then H0 is rejected; and If t-count <t-table ( $\alpha$ , nkl), then H0 is accepted. At regression output, partial test can also be done at probability value, if probability value (0.000) < $\alpha$  (0.05) hence hypothesis is accepted.

# 3.5.5 Coefficient of Determina tion (R <sup>2</sup>)

Coefficient of determination (R  $^2$ ) is intended to know how far the ability of the model in explaining the variation of dependent variables (Ghozali, 2011). The value of the coefficient of determination (R  $^2$ ) is between 0 (zero) and 1 (one). The value of R  $^2$  approaching one means that the independent variables provide almost all of the information needed to predict the variation of the dependent variables .

#### 4 FINDINGS AND DISCUSSION

#### **4.1 Descriptive Statistics**

Based on the data inputted from the financial report of ASEAN manufacturing companies in 2012-2016 research can be seen in table 4.1 below:

**Table 4.1 Descriptive statistics** 

|            | MVA     | EVA     | <b>NOPAT</b> | NI      | ROA     | EPS     | ROE     |
|------------|---------|---------|--------------|---------|---------|---------|---------|
|            | 2146720 | 6.67E + | 1330158      | 1476699 | 15.4492 | 2151.55 | 27.1948 |
| Mean       | 0       | 12      |              |         | 1       | 6       | 3       |
|            | 4486150 | 1.38E + | 385615.      | 398223. | 12.7408 | 675.653 | 18.3134 |
| Median     |         | 11      | 9            | 1       | 5       | 8       | 5       |
|            | 4.11E + | 2.85E + | 1698970      | 1942100 | 73.0662 | 33191.7 | 174.727 |
| Maximum    | 08      | 14      | 4            | 0       | 0       | 1       | 2       |
|            | 22906.8 | 4218211 | 1073.63      |         | 2.56880 | 13.7778 | 4.02640 |
| Minimum    | 3       | 6       | 0            | 2960544 | 0       | 0       | 0       |
|            | 5279435 | 3.35E + | 2772056      | 3136428 | 10.5668 | 4477.82 | 27.8828 |
| Std. Dev.  | 8       | 13      |              |         | 2       | 7       | 0       |
|            | 5.03549 | 6.71986 | 3.62710      | 3.95611 | 2.30766 | 4.67799 | 3.26022 |
| Skewness   | 0       | 8       | 8            | 6       | 6       | 1       | 2       |
|            | 32.4571 | 48.6205 | 16.8664      | 20.2350 | 10.2410 | 28.0748 | 15.6750 |
| Kurtosis   | 6       | 3       | 7            | 7       | 6       | 7       | 2       |
| Observatio |         |         |              |         |         |         | •       |
| ns         | 225     | 225     | 225          | 225     | 225     | 225     | 225     |

Source: Secondary data processed, 2017.

# **4.2 Selection of the Best Model**

The test is done on the common effect model with Langrange Multiplier test (LM test) to determine whether this model is better than a random effect contained in Table 4.2 shows the results of the election test research model.

Table 4.2
Test Langrange Multiplier test ( LM test )

| Information           | Value     |  |
|-----------------------|-----------|--|
| Breusch-Pagan         | 46.45360  |  |
| Dieusch-Fagan         | (0.0000)  |  |
| Honda                 | 3.604866  |  |
| Поша                  | (0.0002)  |  |
| King-Wu               | 0.441055  |  |
| King-wu               | (0.3296)  |  |
| Standardized Honda    | -0.496439 |  |
| Standardized Honda    | 1         |  |
| Standardized Vina Wu  | -2.311756 |  |
| Standardized King-Wu  | -         |  |
| Gourierioux, et al. * | 44.07855  |  |
| Gourieroux, et al.    | (<0.01)   |  |

Source: LM Test Output, Eviews 9, 2017

The table above shows the Breusch-Pagan value (Both) 0.000> alpha 5%. With these results then a more appropriate model to estimate panel data regression is a random effect that can be seen in table 4.3.

Table 4.3 Random Effect Model Test Result

| Information | Coefficient | Probability | Conclusion      |
|-------------|-------------|-------------|-----------------|
| log EVA     | 0.236324    | 0.0003      | Significant     |
| log NOPAT   | 0.017083    | 0.0865      | Significant     |
| log NI      | 0.566079    | 0.0001      | Significant     |
| log ROA     | 0.387075    | 0.0194      | Significant     |
| EPS logs    | 0.358107    | 0.9895      | Not significant |
| log ROE     | 0.145835    | 0.5577      | Not significant |
| INDONESIA   | -0.084      | 0.7154      | Not significant |
| MALAYSIA    | 0.034229    | 0.9753      | Not significant |
| SINGAPORE   | -0,057      | 0.7716      | Not significant |
| PHILIPPINES | 1,381       | 0.0001      | Significant     |
| THAILAND    | 0.419       | 0.1189      | Not significant |

Source: secondary data processed, 2017

Obtained regression model as follows:

Y = a + X1.b1 + X2.b2 + X3.b3 + X4.b4 + X5.b5 + X6.b6 + D1.b7 + D2.b8 + D4.b9 + D5.b10 + e

MVA = 0.034 + 0,236 EVA + 0,017 NOPAT + 0,566 NI + 0,387 ROA + 0,358 EPS + 0,145 ROE - 0,118 INDONESIA - 0,091 SINGAPURA + 1,347 PHILIPPINES + 0,385 THAILAND

#### 4.3 F-statistical Test

The regression results show that the proportion of prob (F-statistic) is 0.0000 < from  $\alpha = 0.05$  refuses H0. Therefore, in this regression equation the research model may or may be appropriate to use .Supported with the degree of freedom for numerator (dfn) obtained by = 5 (k-1 = 6 - 1) and degree of freedom for denominator (dfd) as much as = 119 (nk = 225 - 6), so obtained F table equal to 2.29. Furthermore on the model obtained the value of F statistics of 44.52. Then the value can be concluded that H0 is rejected that this research model can or feasible to use because F statistic> F table.

#### 4.4 T-statistical Test

The t test is to test the effect of the independent variable to the dependent. That is contained in table 4.4 below.

Table 4.4 Summary of Test Results t

| Hypothesis                             | Test result                        | Conclusion |  |
|--|------------------------------------|------------|--|
| H1: EVA has a positive effect on MVA   | EVA has a positive effect on MVA   | Accepted   |  |
| H2: NOPAT has a positive effect on MVA | NOPAT has a positive effect on MVA | Accepted   |  |
| H3: NI has a positive effect on MVA    | NI has a positive effect on MVA    | Accepted   |  |
| H4: ROA has a positive effect on MVA   | ROA has a positive effect on MVA   | Accepted   |  |
| H5: EPS has a positive effect on MVA   | EPS has no effect on MVA           | Rejected   |  |
| H6: ROE has a positive effect on MVA   | ROE has no effect on MVA           | Rejected   |  |

Source: data processed, 2017

#### 4.5 Coefficient of Determination

The coefficient of determination will explain the ability of the regression line to explain the variations of independence variables (in percent) which can be explained by the dependence variable. R $^2$  or (Adjusted R $^2$ ) has a value between 0 to 1. If the value reached close to the number one reflects that the better the regression line sebaba more able to explain the actual data.

# 4.6 DISCUSSION

# 4.6.1 The Effect of Economic Value Added (EVA) on Market Value Added (MVA)

Hypothesis 1 states that Economic Value Added (EVA) has a positive effect on Market Value Added (MVA). From the results of t test summary in the table 4.3 got significance value that is 0.0003 and has direction positive with significance 0,01. The results of this study also have the greatest influence shown in Table 4.3. Based on the data, H1 is accepted so that there is positive effect between Economic Value Added (EVA) variable with Market Value Added (MVA).

The foundation of signal theory means that a company's positive signal, such as a financial statement, will make a good performance appraisal in the eyes of investors. Economic Value Added (EVA) is an economic value added of a company that takes into account the capital cost of investments made to be more efficient or in other words Economic Value Added (EVA) is a measurement of residual income that explains the capital cost of operating profit. The higher the

operating profit the higher the efficiency and the higher the economic value-added of a company. While Market Value Added (MVA) is the market value reduced by tottal capital that is hinted at market value of company. The higher EVA will affect the increase of market value.

In line with the results of research by Sharma and Kumar (2011), Kaur and Narang (2008), Hall (2016) found that Economic Value Added(EVA) Market Value Added (MVA).

# **4.6.2** The Effect of Net Operating Profit After Tax (NOPAT) on Market Value Added (MVA)

Hypothesis 2 states that Net Operating Profit After Tax (NOPAT) has a positive effect on MVA. From result of calculation in table 4.3 got significance value that is 0,08 and have positive direction. The results of this study is smaller than the significance of 0.1. Table 4.3 shows that NOPAT value is the highest influence on MVA after EVA. Based on the data, H2 is accepted so that there is a significant positive influence between Net Operating Profit After Tax (NOPAT) with Market Value Added (MVA).

Net Operating Profit After Tax (NOPAT) is the operating profit after tax, in line with the signal theory that a good signal will indicate good per company performance as well. Increased Net Operating Profit After Tax (NOPAT) which will affect the increase Market Value Added (MVA) as a measure of well-being of shareholders (shareholder value).

Sharma and Kumar (2011) proved at a significantly 5% level of Net Operating Profit After Tax (NOPAT) positively affect shareholders value with market value as its size. Setay

# 4.6.3 The Effect of Net Income (NI) on Market Value Added (MVA)

Hypothesis 3 states that Net Income (NI) has a positive effect on Market Value Added (MVA). From result of calculation in table 4.3 got significance value that is 0.0001 and have positive direction. The results of this study is smaller than the significance of 00.1. Table 4.3 shows that NI has the greatest effect on MVA after EVA and NOPAT. Based on this data, H3 is accepted so that there is a significant positive influence between Net Income (NI) variable with Market Value Added (MVA).

As net income grows higher, it will be followed by an increase in investors to better entrust their capital and potential investors will also be interested to invest in related companies. So that the stock price as a key indicator of market value will be higher which leads to shareholders will be more prosperous.

Santos and Pinto (2011) also found that net income is the best independent variable that can measure market value added. Further research from Nakhaei et al (2013) and Nakhaei et al (2016) found a strong positive relationship between Net Income (NI) to shareholders value.

#### 4.6.4 The Effect of Return On Assets (ROA) on Market Value Added (MVA)

Hypothesis 4 states that the Return On Asset (ROA) has a positive effect on Market Value Added (MVA). From result of calculation table 4.3 got

significance value that is 0,01 and have negative direction. The results of this study is smaller than the significance of 0.05. In table 4.3 the value of ROA is the least influence on MVA. Based on this data, H3 is accepted so that there is no significant positive effect between Return On Asset (ROA) with Market Value Added (MVA).

The calculation of ROA uses net income against the total assets of the company. The higher the value of Return On Assets (ROA) proves that the company's performance is good and can use its assets to generate profit. The higher the profit, the investor will willingly invest more capital, as well as potential investors interested to invest, so that followed increase in stock prices and also shareholders' welfare (shareholders value) will be created higher.

Supported by previous research by Hall (2016) reveals accounting measurements by Return On Assets (ROA) can explain the effect on market value added.

# 4.6.5 The Effect of Earnings Per Share (EPS) on Market Value Added (MVA)

Hipot esis 5 states that Earnings Per Share (EPS) has a positive effect on MVA. From the result of table 4.3 calculation got significance value that is 0,989 and have positive direction. The results of this study is greater than the significance of 0.05. Based on this data, then H5 is rejected because Earnings Per Share (EPS) has no effect on MVA.

Earnings per share are net profit that is ready to be distributed to all ordinary shareholders. The higher the value, can not increase or decrease the return on investment of shareholders. Returns may indicate the welfare of its shareholders from the ups and downs of stock prices, but not due to an increase or decrease in the value of Earnings Per Share (EPS). Because basically earnings per share is not a determinant factor of shareholder welfare.

Earlier research states that Earnings Per Share (EPS) does not affect shareholder wealth, research from Kaur & Narang (2008) and Hall (2016) proves that Earnings Per Share (EPS) can not be a variable affecting shareholders value, in any industry found a company that put more emphasis on the accounting side of the company to create the welfare of its shareholders so earning per share is not considered as a determinant of the amount of market value obtained by the company. Alsoboa (2017) proves that Earnings Per Share (EPS) has no effect on Market Value Added (MVA).

# 4.6.6 The Effect of Return On Equity (ROE) against Market Value Added (MVA)

Hypothesis 6 states that Return On Equity (ROE) has a positive effect on Market Value Added (MVA). From result of calculation in table 4.6 got significance value that is 0,557 and have positive direction. The results of this study is greater than the significance of 0.05. Based on this data, H6 is rejected so that there is no significant influence between Return on Equity (ROE) with Market Value Added (MVA).

The higher proportion of earnings with corporate equity (ROE) indicates that the company's profitability is high. However, profitability can not yet fully determine the shareholder value (shareholders value). Income versus higher equity, can not increase or decrease its market value.

Same with previous studies stating that ROE Return On Equity (ROE) does not affect shareholder value is the Hall (2016). Hall (2016) states every industry use different options for creating shareholders value optimally. No effect on MVA ROE can be due to the manufacturing industry that is not much use other ways to improve the MVA as improving accounting measurement ROA. Previous studies from Hall (2013) that the Return On Equity (ROE) had no significant effect on the Market Value Added (MVA) as a parameter shareholders value

# 4.6.7 Comparative Welfare Shareholders (Shareholders Value) Variable Dummy Negara Malaysia, Indonesia, Singapore, Philippines, Thailand.

Table 4.3 shows that variabel dummy Malaysia as reference category regression intercepts are 0,034 and 0.975 significance. This proves that the Malaysian manufacturing companies in the state can not affect it either shareholders value in the ASEAN region. In case this is contributing to the welfare of shareholders (shareholders value) are reflected in the Market Value Added (MVA).

However, Market Value Added (MVA) of dummy Indonesia is lower (0.118) than dummy Malaysia with 0.715 significance. This means that Indonesia is no different from the reference category, namely Malaysia and Indonesia state can not affect the value of market value added in the ASEAN region in the manufacturing industry.

Singapore dummy variable has a positive effect but insignificant coefficient of 0.056 with 0.771 significance. The manufacturing company of Singapore is not different from the country of Malaysia in its effect to the well-being of its shareholders Philippine state can not affect the value of market value added in the ASEAN region in the manufacturing industry.

Differences manufacturing company in the Philippines, among others, is shown on the dummy Philippines amounted to 1.34 to the significance of 0.0001. This means that differences in the welfare of shareholders (shareholders value) Philippines by Malaysia is higher. So it can be said the Philippines is a country that most affect the value of market value added in the ASEAN region in the manufacturing industry.

Thailand has an average MVA higher than Malaysia that is equal to 0.419 with 0.118 significance. That is, the Singapore state manufacturing companies do not have a strong influence on the well-being of its shareholders in the ASEAN region in the manufacturing industry.

The difference occurs because of differences in culture, beliefs, macroeconomic, and others in the five countries. Differences can be an overview of the comparison between the five countries. So as to obtain a picture of the level of shareholders value of each country.

Level of welfare of shareholders (shareholders value) the higher will increasingly attract investors to invest. Investor confidence will grow if the capital is invested in companies that have a value Market Value Added (MVA) are higher, which in turn will lead to increased prosperity for the next shareholders. While in the macro economics, investment activity is one component of national income later if the company manages its capital well, then in the end can contribute to the economy of a country.

# **4.5 Coefficient of Determination**

Value adjusted R <sup>2</sup> is getting closer to one shows the ability of independent variables in explaining the dependent variables is very large. The results adjusted R <sup>2</sup> equation in this study amounted to 0.66, or 66 %, which means independent variables in this study were able to explain the capital structure of 66 %, and sebsar 34 % were able to be explained by variables outside the research.

#### 5. CONCLUSIONS AND IMPLICATIONS OF THE POLICY

#### 5.1 Conclusions

Based on the results of data analysis and discussion, some conclusions can be drawn as follows:

- 1. Effect of economic measurement based on the shareholders value from highest to lowest as follows:
  - Econonomic Value Added (EVA) have a positive influence on the Market Value Added (MVA) with a 1% significance so that the first hypothesis is accepted.
  - Net Income (NI) has a positive influence on the Market Value Added (MVA) with a 1% significance so hypothesis 3 is accepted.
  - Net Operating Profit After Tax (NOPAT) has a positive influence on the Market Value Added (MVA) with a significance of 10% so that the second hypothesis is accepted.
- 2. Accounting-based measurement of the shareholders value only Return On Asset (ROA) has a positive influence on the Market Value Added (MVA) with a 5% significance that hypothesis 4 is accepted.
- 3. Earning Per Share (EPS) has no effect on Market Value Added (MVA) that Hypothesis 5 is rejected.
- 4. Return On Equity (ROE) has a positive influence on the Market Value Added (MVA) so that 6 hypothesis is rejected.

### **5.2 Implications of The Policy**

- 1. Economic Value Added (EVA) positive effect on the market value added, and therefore companies should further improve operating profit compared with the costs incurred for funding.
- 2. Net Operating Profit After Tax (NOPAT) significant positive effect on the market added value. Therefore, companies should improve earnings compared costs such as depreciation, amortization, and taxes.

- 3. Net Income (NI) significant positive effect on the market added value. Dariitu then management needs to increase revenue and minimize the total cost incurred for the operation.
- 4. Return on Assets (ROA) significant positive effect on the market added value. Therefore, management should better manage their assets in order to generate a return that is optimal over the company's assets.

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