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## THE INFLUENCE OF ECONOMIC VALUE ADDED (EVA) AND MARKET VALUE ADDED (MVA) ON STOCK RETURNS IN FOOD AND BEVERAGE COMPANIES LISTED ON THE INDONESIAN STOCK EXCHANGE IN 2017-2020

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### Abstract

*This study analyze the factors that affect stock returns in food and beverages companies listed on the Indonesia Stock Exchange (IDX) for the 2017-2020 period. The variables in this study are Economic Value Added (EVA) and Market Value Added (MVA).*

*This research was conducted using multiple linear regression analysis. The data collection tools used are literature study and documentation with purposive sampling method. The sample used in this study were 12 companies from a total population of 30 companies.*

*The results of this study indicate that Market Value Added (MVA) variables have a negative but not significant effect on stock returns. If the EVA and MVA values increase, stock returns will decrease with an insignificant value in food and beverages sub-sector companies listed on the Indonesia Stock Exchange (BEI) for the 2017-2020 period and vice versa.*

**Keywords:** *Economic Value Added (EVA), Market Value Added (MVA), stock returns*

## 1. INTRODUCTION

### 1.1. Background

In general, every company certainly wants to expand its business with the aim of expanding its business. To carry out this expansion, of course, requires quite a large amount of additional capital. To meet these capital needs, companies often look for sources of funds from outside the company because the funds that can be taken from the company are not enough to meet the additional capital needs, funds from outside the company can come from the capital market by expanding the market (Sitompul, 2000) .

The main reason investors invest in the capital market is of course profit. Before an investor decides to invest, of course the investor must first know the financial condition of the company. To

determine the company's financial condition, an analysis of the company's financial reports is required. In a company's financial report, the thing that needs to be paid attention to and is what investors want is of course profit or what is usually called return. According to Ang (1997) in Astuti (2006) states that the income desired by shareholders (return) is dividend income (dividend yield) and capital gains. Dividend yield is used to measure the amount of dividends per share against the share price in percentage form." The greater the dividend yield produced, the more interested investors will be in buying these shares.

According to Hartono (2010) Total return is the overall return from investment in a certain period. Total return is also the rate of return on investment (Return) which is the sum of dividend yield and capital gains. Dividend yield is the rate of return that investors receive in cash at the end of each accounting period. On the other hand, the higher the market price means that the shares are also in great demand by investors because the higher the share price will of course result in greater capital gains. Capital gain itself is the difference between the market price in the current period and the price in the previous period. Returns can of course be a reference that must be considered when investing, because investors can use returns to compare actual profits and expected profits according to those provided by various shares at various desired levels of return. Stock returns themselves are influenced by several factors, namely macro and micro factors. Macro factors that influence stock returns are inflation, foreign exchange rates, the international economy, political conditions in a country and environmental conditions. Meanwhile, micro factors that influence stock returns are the company's net profit, book value per share, debt to equity ratio and other financial ratios. To ensure the level of return on the investment made, potential investors should first study information about the relevant company through financial performance analysis.

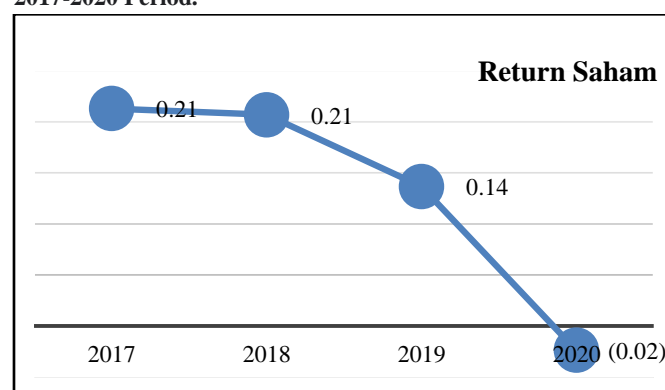
The analysis usually used by companies to analyze the performance of a company is financial ratio analysis. According to Horne (2005) "Financial ratios are a tool used to analyze the financial condition and performance of a company". Although financial ratio analysis is often used by many investors as a conventional measuring tool, this analysis has the weakness that it tends to ignore the cost of capital so it is quite difficult to know whether a company has succeeded in creating added value or not. Therefore, in 1989, the consultant Stern Steward Management Service in the United States introduced the concept of Economic Value Added (EVA) and Market Value Added (MVA) as a tool for measuring company financial and market performance to overcome the weaknesses of these financial ratios (Setyarini, 2010).

Economic Value Added (EVA) shows a good measure of the extent to which a company has provided additional value to company owners. In other words, if management decides on Economic Value Added (EVA), then they will make financial decisions that will provide additional value for the company owner or, in short, make the company owner richer. This added value is created if the company produces a return on capital that exceeds

the cost of capital. The higher the profits the company earns, the higher the dividends the company gets, which also causes capital gains to be higher, which has an impact on the company's high returns.

o measure financial performance, apart from Economic Value Added (EVA), investors can also use Market Value Added (MVA). Market Value Added MVA is the difference between the market value of shares and the own capital paid in by shareholders. The greater the MVA value generated, the greater the management's success in managing the company. If a company wants to multiply shareholder wealth, then the MVA used to assess the company's performance should be directly related to the return obtained by the company's shareholders. The advantage of MVA is that it is a single measure that can stand alone without requiring trend analysis, so of course it will be easier for management and fund providers to assess company performance.

**Figure 1.1 Graph of Average Share Returns for Food and Beverages Sub-Sector Companies Listed on the IDX for the 2017-2020 Period.**



Source: Processed from the Indonesia Stock Exchange (IDX)

Based on Graph 1, the average stock return of food and beverage sub-sector companies listed on the Indonesia Stock Exchange (BEI) over a period of 4 years (2017-2020). The average return generated by companies each year tends to decrease from an average return of 0.21 percent (2017) to minus 0.02 percent (2020). The company with the highest average return is Sekar Laut Tbk. (SKLT) with an average return of 76 percent. while the company with the lowest average return is Ultra Jaya Milk Industry Tbk. (ULTJ) with an average return of -10.2 percent.

**Table 1 Average Operating Profit, Taxes, Long-Term Debt, Short-Term Debt, Own Capital, Share Price, and Number of Outstanding Shares of Food and Beverages Sub-Sector Companies for the 2017-2020 Period.**

No	Variabel	Tahun				Rata-Rata
		2017	2018	2019	2020	
1	Laba Usaha (Rp juta)	1.808.650	1.978.261	2.183.594	2.456.564	2.106.767
2	Pajak (Rp juta)	499.955	510.083	577.158	631.010	554.552
3	Utang Jk. Panjang (Rp juta)	2.886.874	2.877.646	3.147.624	9.727.419	4.659.891
4	Utang Jk. Pendek (Rp juta)	3.552.713	4.294.733	3.707.399	4.335.237	3.972.520
5	Modal Sendiri (Rp juta)	7.595.563	8.266.600	9.224.527	13.394.277	9.620.242
6	Harga Saham (Rp)	3.619	4.095	4.310	3.465	3.872
7	Saham Beredar (000)	6.410.462	6.412.532	6.412.829	6.416.249	6.413.018

Souer: Indonesia Stock Exchange (IDX).

Based on Table 1, it is explained that the average operating profits, taxes, long-term debt, short-term debt and own capital tend to increase, with the highest average values occurring in 2020. On the other hand, share prices tend to decrease. The 2020 period was the peak of the Covid-19 pandemic, there was a tendency during Covid-19 for people to buy up food and beverage products, which had an impact on increasing the income of food and beverage companies.

As a good benchmark, Economic Value Added (EVA) and Market Value Added (MVA) should have an influence on stock returns. Hidayat (2014) states that only EVA has an effect on stock returns, while MVA has no effect on stock returns. Apart from that, other research by Ansori (2015) in his thesis states that EVA and MVA have a positive and significant effect on company stock returns and finally research by Widiyarsi and Hanifah (2018) which states that EVA and MVA do not have a significant effect on stock returns.

## 1.2. Formulation of the problem

- How does Economic Value Added (EVA) influence the stock returns of Food and Beverages companies listed on the Indonesia Stock Exchange (BEI) for the 2017-2020 period?
- How does Market Value Added (MVA) influence the share returns of Food and Beverages companies listed on the Indonesia Stock Exchange (BEI) for the 2017-2020 period?

## 2. LITERATURE REVIEW

### 2.1. Signal Theory

Signal theory was first put forward by Spence (1973) who explained that the sender (owner of information) provides a signal or signal in the form of information that reflects the condition of a company which is beneficial for the recipient. According to (Brigham & Joel F, 2011) signal theory is an action taken by the management of a company to provide instructions to investors regarding how management can assess the company's prospects. The information contained in the financial reports itself is able to influence and serve as a signal for shareholders in decision making. The better the company's financial reports will certainly increase investors' interest in investing their funds in the company.

### 2.2. Stock returns

Return is the profit obtained by investors from investment. Return also describes the condition of a financial investment, whether it can produce profits or losses (Brigham, 1999: 192).

Returns can be realized returns or expected returns (Jogiyanto, 2003:109). Realized return is a return that has occurred which is calculated based on historical data. Meanwhile, expected return is the return that investors hope to obtain in the future or has not yet occurred. According to Ansori (2015), the components that make up stock returns are:

- Capital Gain/Loss. This is the profit or loss obtained by investors from the difference between the selling price and the buying price of an investment.
- Yield. This is income in the form of dividends or interest that investors receive periodically.

According to (Samsul, 2006), stock returns are influenced by micro and macro factors. Macro factors are factors that influence the company from outside, such as inflation rates, foreign exchange rates and international economic conditions as well as non-

economic factors that follow political events both at home and abroad, wars, mass demonstrations and environmental cases. Micro factors are factors that influence the company from within, such as the company's net profit, book value per share, debt to equity ratio and other financial ratios.

### 2.3. Economic Value Added (EVA)

Economic Value Added (EVA) or economic added value is a financial management system for measuring economic profit in a company, which states that prosperity can only be created if the company is able to meet all operating costs (Operating Costs) and capital costs (Cost of Capital).

According to Mizan (2017), Arnova (2016), Economic Value Added (EVA) is an estimate of the actual economic profit of a business for the year in question, and is very different from accounting profit which is used as an internal indicator used to measure shareholder wealth. company shares for a certain period of time. According to Widarsi and Hanifah (2018) Economic Value Added (EVA) is an estimate of the real economic profit obtained from a business after deducting all capital costs. Economic Value Added (EVA) describes the increase or decrease in value that actually occurs in the company.

The capital that forms EVA is composed of two components, namely Debt and Equity (own capital). The returns obtained by equity owners are in the form of dividends and capital gains. Each source of funds certainly has its own cost of capital so that the total cost of capital shows the amount of return received by investors on funds that have been invested in the company concerned.

According to Rudianto (2006) the results of company performance assessment using EVA can be grouped into:

- EVA value  $> 0$  or positive, meaning there is added economic value.
- EVA value  $= 0$ , meaning it is in break-even condition.
- EVA value  $< 0$  or negative, meaning there is no added economic value.

According to Rudianto (2013:222) the benefits that can be obtained from implementing the Economic Value Added (EVA) concept are:

- Relates theoretically and empirically to shareholder wealth creation, if EVA is higher it will have an impact on high share prices.
- EVA is able to increase shareholder confidence so that the EVA concept becomes the only matrix that is widely used.
- A comprehensive framework for corporate financial management that guides all decisions, from the annual operational budget to capital budgeting, strategic planning, acquisitions and investments.
- A method that is easy and effective to teach even to inexperienced novice workers.
- Unite the interests of managers with the interests of shareholders, and cause managers to think and act like shareholders.

### 2.4. Market Value Added (MVA)

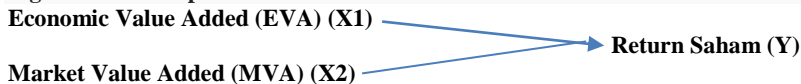
According to Nainggolan (2016), "Market Value Added (MVA) is the accumulation of company performance from various investments with appropriate resource allocation". So MVA is the difference between the market value of shares and the own capital

paid in by shareholders. The greater the MVA value generated, the greater the management's success in managing the company.

According to Young and O'Byrne (2001), there are indicators used to measure the level of MVA value produced, namely:

- 1) MVA value > 0 or positive means that company management has succeeded in increasing the value of capital invested by funders.
- 2) MVA value < 0 or negative means that company management has failed to increase the value of capital invested by funders.

**Figure 2.1. Conceptual framework**



### Hypothesis

H1: The higher the Economic Value Added (EVA), the higher the stock return.

H2: The higher the Market Value Added (MVA), the higher the stock return.

## 2. RESEARCH METHODS

This research method is a quantitative approach. This research is causal associative, namely research that aims to determine the relationship between two or more variables (Sugiyono, 2017:9). This research was carried out by accessing data via www.idx.co.id. The data collection method in this research was the sample survey method.

The population in this research is all manufacturing companies in the consumer goods industry sector, food and beverages sub-sector listed on the Indonesia Stock Exchange (BEI) in 2017-2020 with a population of 30 companies. We took this sample ourselves using a purposive sampling method with the following criteria:

**Table 3.1. Research Sample Criteria**

No	Kriteria Sampel	Jumlah
1	Perusahaan manufaktur sub sektor <i>food and beverages</i> yang terdaftar di BEI periode 2017-2020	30 Perusahaan
2	Perusahaan tidak konsisten berada di BEI sub sektor <i>food and beverages</i> selama periode 2017-2020.	(6 Perusahaan)
3	Perusahaan yang tidak membagikan dividen selama periode 2017-2020.	(12) Perusahaan)
<b>Jumlah Sampel yang Akan Digunakan</b>		12 Perusahaan

Source ;Indonesia Stock Exchange (IDX) dan IDN Financials

The data collection technique in this research is the documentation method. The data we use is secondary data and the type of data used is pooling data. We will later obtain this secondary data through the annual report from the Indonesia Stock Exchange (IDX) for the 2017-2020 period.

The Dependent Variable (Y) in this research is Stock Return. Return is the result obtained from stock investment. The Stock

The advantage of MVA itself, according to Baridwan and Legowo (2002), is that it is a single measure and can stand alone without requiring trend analysis, so it will be easier for management and fund providers to assess company performance. Meanwhile, the weakness of MVA itself is that it can only be used to assess the performance of companies that have gone public.

### 3.1. Conceptual framework

The variables in this research include independent variables consisting of Economic Value Added (EVA) and Market Value Added (MVA). Meanwhile, the dependent variable is stock returns.

Return Formula according to Jogiyanto (2017) is: Stock Return =  $(Pt - Pt-1 + Dt) / Pt-1$

Independent Variables (X) in this research there are two independent variables, namely Economic Value Added (X1) and Market Value Added (X2).

### 3.2. Economic Value Added (EVA)

Economic Value Added (EVA) is the difference between adjusted NOPAT for a financial year and capital charge, which is based on the cost of capital multiplied by adjusted net operating assets. The EVA unit itself uses Rupiah per share. The formula for EVA according to Ghozali and Irwansyah (2002) is:

EVA = NOPAT – Capital Chargers

Information :

- NOPAT = Laba (Rugi) Operasi – Pajak atau EBIT (1-T)
- *Capital Chargers* = WACC x *Invested Capital*
- $WACC = WD \times Ki (1-T) + WE \times Ke$
- $WD = \frac{Total\ Hutang\ Jk.Panjang}{Total\ Hutang\ dan\ Ekuitas} \times 100\%$
- $Ki = \frac{Biaya\ Bunga}{Total\ Hutang} \times 100\%$
- $T = \frac{Beban\ Pajak}{Earning\ Before\ Tax\ (EBT)} \times 100\%$
- $WE = \frac{Total\ Ekuitas}{Total\ Hutang\ dan\ Ekuitas} \times 100\%$
- $Ke = \frac{EAT\ yang\ ditargetkan}{Total\ Ekuitas} \times 100\%$
- *Invested Capital* = (Total Liabilitas + Ekuitas) – Liabilitas Jk. Pendek
- 2. Market Value Added (MVA)
- Market Value Added (MVA) is the difference between the market value and the company's book value. The formula for Market Value Added (MVA) according to Brigham (2006) is:
- $MVA = (\text{Number of outstanding shares}) (\text{Share price}) - \text{Total equity}$
- Data analysis method
- The data analysis method used in this research is descriptive analysis which is panel data regression analysis by combining Cross Section and Time Series data. The data processing tools in this research used Microsoft Excel 2016 and Eviews 9 & 10.
- The panel data regression model in this research is:
- $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + e$
- Keterangan:
- Y : Return Saham
- $\alpha$  : Konstanta
- $\beta$  : Koefisien

- $X_1$  : Economic Value Added
- $X_2$  : Market Value Added
- $e$  : error term (tingkat kesalahan penduga dalam penelitian)
- This method of estimating regression models with panel data can use three approaches (Dedi, 2012), namely:
  - 1. Common Effects Model
  - The Common Effect Model used to describe this panel data is:
    - $Y_{it} = X_{it}\beta_{it} + e_{it}$
  - 2. Fixed Effect Model
  - The Fixed Effect Model used is:
    - $Y_{it} = X_{it}\beta + C_i + e_{it}$

Information:

Ci: Dummy Variable

### 3.3. Random Effect Model

The Random Effect Model is familiar with the Generalized Least Square (GLS) technique. The equation of the Random Effect Model:

$$Y_{it} = X_{it}\beta + Vit$$

$$Vit = Ci + Di + e_{it}$$

There are three specification tests in determining the appropriate model to use to describe the data. The three tests are (Widarjono, 2007):

1. Chow test, is a test to determine whether the fixed effect or common effect model is the most appropriate to use, provided that:
  - a. The probability value is  $F < 0.05$ , so the correct test to use is the fixed effect.
  - b. The probability value  $F \geq 0.05$ , then the appropriate test to use is the common effect.
2. Hausman test, is a test to determine whether the fixed effect or random effect model is most appropriate to use provided that:
  - a. The calculated Chi Squares value  $<$  Chi Squares table ( $\geq 0.05$ ), then the appropriate test to use is random effect.
  - b. The calculated Chi Squares value  $>$  Table Chi Squares ( $< 0.05$ ), then the correct test to use is fixed effect.
3. Lagrange Multiplier (LM) test, is a test to determine whether the random effect or common effect model is the most appropriate, provided that:
  - a. The p value is  $< 0.05$ , so the appropriate test to use is random effect.
  - b. The p value is  $> 0.05$ , the appropriate test to use is the common effect.

To determine whether or not there is an influence of the independent variables on the dependent variable, the t test and f

**Table 4.2. Calculation Results of Stock Returns for Food and Beverages Companies for the 2017-2020 Period.**

No	Code Company	Stock Return				Average Return
		2017	2018	2019	2020	
1	DLTA	(0,030)	0,302	0,307	(0,316)	0,066
2	ICBP	0,057	0,190	0,088	(0,122)	0,053
3	INDF	(0,008)	(0,001)	0,101	(0,101)	(0,002)
4	MYOR	0,244	0,311	(0,206)	0,347	0,174
5	BUDI	0,126	0,074	0,135	0,019	0,089

test are carried out. The t test shows the significance of the influence of the independent variable on the dependent variable. Meanwhile, the f test is used to determine the suitability of the model (goodness of fit) or the accuracy of the sample regression function in estimating the actual value statistically. Some of the test criteria are as follows:

- P Value  $< 0.05$  means that the independent variable has a significant effect on the dependent variable.
- P Value  $> 0.05$  means that the independent variable has no significant effect on the dependent variable.

Next, analysis of the coefficient of determination is used to measure how far the model's ability to explain variations in the dependent variable. The coefficient of determination value is 0 to 1 ( $0 < R^2 < 1$ ), meaning that the greater the value of the coefficient of determination, the greater the ability of the independent variable to explain variations in the dependent variable or vice versa (Gujarati, 2012).

## 4. RESULTS AND DISCUSSION

### 4.1. Research result

Sample selection based on the Purposive Sampling method produces the following samples:

**Tabel 4. Company Sample Data**

No	Company Name	Code share
1	Delta Djakarta Tbk	DLTA
2	Indofood CBP Sukses Makmur Tbk.	ICBP
3	Indofood Sukses Makmur Tbk.	INDF
4	Mayora Indah Tbk	MYOR
5	PT. Budi Starch & Sweetener Tbk	BUDI
6	PT. Buyung Poetra Sembada Tbk.	HOKI
7	PT. Multi Bintang Indonesia Tbk.	MLBI
8	PT. Nippon Indosari Corpindo Tbk.	ROTI
9	PT. Wilmar Cahaya Indonesia Tbk.	CEKA
10	Sekar Laut Tbk.	SKLT
11	Tunas Baru Lampung Tbk.	TBLA
12	Ultra Jaya Milk Industry Tbk.	ULTJ

Source : Bursa efek Indonesia

### 4.2. Research Data Analysis

#### 1) Stock Returns

Return is the profit obtained by investors from stock investments. The results of calculating the average stock return are as follows:

6	HOKI	0,023	1,154	0,304	0,070	0,388
7	MLBI	0,205	0,209	0,002	(0,344)	0,018
8	ROTI	(0,199)	(0,051)	0,105	0,083	(0,016)
9	CEKA	(0,011)	0,143	0,287	0,129	0,137
10	SKLT	2,594	0,372	0,083	(0,019)	0,758
11	TBLA	0,268	(0,273)	0,179	(0,035)	0,035
12	ULTJ	(0,714)	0,052	0,253	0,003	(0,102)
<b>Average</b>		0,297	0,221	0,126	(0,026)	0,155
$\Delta$		0,297	(0,076)	(0,095)	0,1	

Source: *Indonesia Stock Exchange (IDX)*,

Based on the table above, the share return value of Food and Beverages companies listed on the Indonesia Stock Exchange (BEI) for the 2017-2020 period tends to decrease with an average of 0.155 times, which means that Food and Beverages sub-sector companies are able to generate profits from stock investments of 0.155 times. or 15.5% over a period of 4 years. In this data there are also 3 companies that have stock return values above the average, namely MYOR, HOKI, and SKLT. However, there are 9 other companies that have stock return values below the average. The company with the highest average stock return is SKLT with a value of 0.758 or 75.8%. The difference in return value is of course caused by the company's performance in the market, which causes share prices to be unstable and affects the dividends distributed, which of course has an impact on the returns generated by the company.

#### 1) Economic Value Added (EVA)

Economic Value Added (EVA) is the difference between adjusted NOPAT for a financial year and capital charge, which is based on the cost of capital multiplied by adjusted net operating assets. The results of the Economic Value Added (EVA) calculation for the sample companies are as follows:

**Table 4.3 EVA Calculation Table**

<i>Economic Value Added</i> (in millions of IDR)					
No	Perusahaan	2017	2018	2019	2020
1	DLTA	(17.509)	237.618	32.250	(142.193)
2	ICBP	(586.688)	470.216	922.415	1.503.587
3	INDF	1.161.451	2.174.968	2.034.440	3.365.831
4	MYOR	502.322	506.036	873.227	556.397
5	BUDI	106.755	122.599	153.055	133.126
6	HOKI	(3.546)	44.645	62.260	(2.007)
7	MLBI	627.198	747.256	766.708	(225.129)
8	ROTI	55.860	(44.037)	108.423	48.590
9	CEKA	22.674	(24.577)	79.428	33.047
10	SKLT	10.022	22.360	43.945	34.183
11	TBLA	812.058	517.464	329.591	774.879
12	ULTJ	(98.694)	(144.583)	146.188	390.024
Rata-rata		215.992	385.830	462.661	539.195

Source: *Indonesia Stock Exchange (IDX)*, Diolah.

Based on the table above, the average Economic Value Added (EVA) from 2017 to 2020 for food and beverage companies tends to increase. The highest EVA value was obtained by the INDF company in 2020 with a value of 3,365,831 million rupiah. This shows that the INDF company is able to create economic added value which tends to increase. This is of course very good so that it attracts many investors' interest in investing. Meanwhile, the lowest EVA value was obtained by the ICBP Company in 2017, amounting to 586,688 million rupiah.

#### 1) Market Value Added (EVA)

Market Value Added (MVA) is the difference between the market value and the company's book value. The results of the Market Value Added (MVA) calculation for the sample companies are as follows:

**Table 4.4 MVA Calculation Table**

<i>Market Value Added</i> (in millions of IDR)					
No	Perusahaan	2017	2018	2019	2020
1	DLTA	2.530.380	3.119.461	4.230.918	2.503.001
2	ICBP	83.466.651	99.159.789	103.359.170	61.344.716
3	INDF	19.847.986	15.497.377	15.382.392	(18.992.122)
4	MYOR	37.810.227	50.037.249	35.923.394	49.320.608
5	BUDI	(771.794)	(794.580)	(821.921)	(876.755)
6	HOKI	332.419	1.170.462	1.594.134	1.768.974
7	MLBI	27.748.320	32.544.464	31.512.493	19.004.494
8	ROTI	5.067.668	4.506.886	4.949.838	5.185.954
9	CEKA	(135.494)	(158.523)	(137.645)	(198.640)
10	SKLT	452.245	696.875	731.710	674.054
11	TBLA	2.287.417	(162.700)	(47.536)	(893.793)
12	ULTJ	10.764.108	10.822.307	13.754.788	13.703.908
Rata-rata		15.783.344	18.036.589	17.535.978	11.045.367

Source: *Indonesia Stock Exchange (IDX)*, Diolah.

Based on the table above, it appears that during the 2017 to 2020 period the average Market Value Added (MVA) for food and beverage companies tended to decrease from 15,783,344 million rupiah (2017) to 11,045,367 million rupiah (2020). The highest MVA value was obtained by the ICBP company in 2019 with an MVA value of 103,359,170 million rupiah. This shows that MVA is positive, which means that company management has succeeded in increasing the value of capital invested by investors. Meanwhile, the lowest MVA value occurred for the INDF Company in 2020 with a value of minus 18,992,122 million rupiah.

### 4.3. Descriptive Analysis

**Table 4.5. Descriptive Test Results**

Date: 12/09/21	Time: 20:48		
Sample: 2017 2020			
	RETURN	EVA	MVA
Mean	0,133	400.919	15.600.319
Median	0,083	115.511	3.675.189
Maximum	2,594	3.365.831	103.359.170
Minimum	-0,714	-586.688	-18.992.122
Std. Dev.	0,445	695.011	26.255.825
Skewness	3,653	2,277	1,959
Kurtosis	21,2388	9,132	6,386
Observations	48	48	48

Sumber: *Indonesia Stock Exchange (IDX)*, Diolah.

Based on the table above, it can be seen that the EVA variable has a standard deviation value of 695,011 which is greater than the average value (mean) of 400,919. This indicates a lot of variation in the EVA data. The maximum EVA value of 3,365,831 was obtained by the company Indofood Sukses Makmur Tbk. (INDF) in 2020 and a minimum EVA value of -586,687 was obtained by the company Indofood CBP Sukses Makmur Tbk. (ICBP) in 2017.

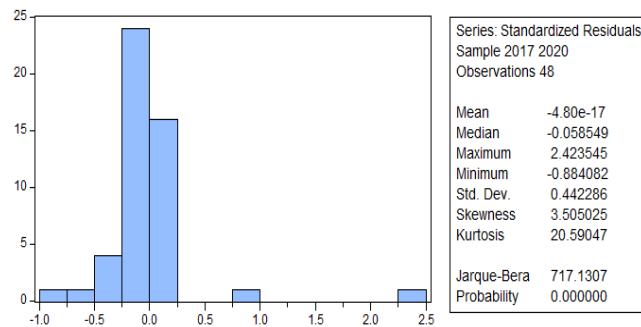
Furthermore, the MVA variable has a standard deviation value of 26,255,825 which is greater than the average (mean) value of 15,600,319. This indicates a lot of variation in the MVA data. The maximum MVA value of 103,359,170 was obtained by the company Indofood CBP Sukses Makmur Tbk. (ICBP) in 2019 and a minimum value of -18,992,122 was obtained by the company Indofood Sukses Makmur Tbk. (INDF) in 2020.

Meanwhile, the Stock Return Variable (Y) has a standard deviation value of 0.445, which is greater than the average (mean) value of 0.133. This shows that the Stock Return variable is heterogeneous. This indicates that there are many variations in stock return data. The maximum stock return value was 2,594 obtained by the company Sekar Laut Tbk. (SKLT) in 2017 and a minimum value of -0.714 was obtained by the company Ultra Jaya Milk Industry Tbk. (ULTJ) in 2017.

#### 4.4. Normality test

The normality test aims to test whether in a linear regression model the dependent variable and independent variable both have a normal distribution or not. The method used is the Jarque-Bera test.

Figure 4.1 Normality Test Results.



Based on the picture above, the Jarque-Bera probability value in the normality test results is smaller than the significance level, which is 0.000000, which is smaller than 0.05. So the residual data is not normally distributed. However, in this research we refer to the central limit theory which states that the sampling distribution curve (for a sample size of 30 or more) will be centered on the population parameter value and will have all the characteristics of a normal distribution. Because the number of research samples was 48 ( $48 > 30$ ), the data was assumed to be normally distributed.

#### 4.5. Classic assumption test

##### a) Autocorrelation Test

The autocorrelation test arises because there are residuals that are not independent from one observation to another (Kuncoro, 2011). Autocorrelation detection in panel data can be done using the Durbin-Watson (DW) test. The test results show that the Durbin-Watson value is 1.845131, while the du value is 1.6231, and the dl value is 1.4500. Based on these three values, it can be concluded that ( $du < d < (4 - dl)$ ) with a value of ( $1.6231 < 1.845131 < 2.55$ ), which means that there is no autocorrelation.

##### b) Multicollinearity Test

The multicollinearity test is used to determine whether there is a significant relationship between each independent variable in the regression model. Based on the test results, the VIF for EVA was  $1.008956 < 10.00$  and for MVA it was  $1.008956 < 10.00$ , so it can be concluded that multicollinearity did not occur.

Table 4.8. Model Terpilih Common Effect Model (CEM)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.171460	0.083553	2.052110	0.0460
EVA	-6.68E-14	9.53E-14	-0.701462	0.4866

##### c) Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residuals of one observation to another observation. Based on the test results, the Obs\*R-squared value is  $2.308861 > 0.05$ , so it can be concluded that there are no symptoms of heteroscedasticity.

#### 4.6. Model Testing

According to (Widarjono, 2007) there are three specification tests in determining the appropriate model to use to describe the data. The three tests are:

##### a) Chow test

The Chow test is a test to determine whether the fixed effect or common effect model is most appropriate to use for estimating panel data. Based on the test results in the table above, the cross-section chi square probability value is  $0.1754 \geq 0.05$ , so the appropriate model to use is the Common Effect Model (CEM).

##### a) Lagrange Multiplier (LM) Test

The Lagrange Multiplier (LM) test is a test to determine whether the random effect or common effect model is most appropriate to use for estimating panel data.

Table 4.6 Chow Test Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.147838	(11,34)	0.3576
Cross-section Chi-square	15.158520	11	0.1754

Based on the test results in the table above, the cross-section chi square probability value is  $0.1754 \geq 0.05$ , so the appropriate model to use is the Common Effect Model (CEM).

##### a) Lagrange Multiplier (LM) Test

The Lagrange Multiplier (LM) test is a test to determine whether the random effect or common effect model is most appropriate to use for estimating panel data.

#### 4.7. Hypothesis test

After carrying out various model tests, it was decided that the selected model was the Common Effect Model (CEM) and it was confirmed that the model did not have classical assumption problems.

Test Hypothesis			
	Cross-section	Time	Both
Breusch-Pagan	0.035244	0.508487	0.543732
	(0.8511)	(0.4758)	(0.4609)

Based on the test results between the common effect model and the random effect model, the Breusch-Pagan value was 0.4609. The both value is greater than the critical limit value of 5% or 0.05 ( $0.4609 > 0.05$ ) so the appropriate model to use is the Common Effect Model (CEM).



MVA	-7.41E-16	2.52E-15	-0.293711	0.7703
R-squared	0.013648	Mean dependent var		0.133104
Adjusted R-squared	-0.030190	S.D. dependent var		0.445335
S.E. of regression	0.452007	Akaike info criterion		1.310225
Sum squared resid	9.193983	Schwarz criterion		1.427175
Log likelihood	-28.44541	Hannan-Quinn criter.		1.354421
F-statistic	0.311332	Durbin-Watson stat		1.394809
Prob(F-statistic)	0.734035			

Based on the table above, the regression analysis model is as follows:

$$\text{Stock return} = 0.171460 - 6.68E-14 \text{ EVA} - 7.41E-16 \text{ MVA}$$

From the results of the regression equation above, it can be concluded that:

- 1) A constant with a value of 0.171460 indicates that if all independent variables (EVA & MVA) are equal to zero (0) then the stock return (Y) has a value of 0.171460.
  - 2) The EVA coefficient with a value of -6.68E-14 shows that if EVA increases by 1 rupiah, the company's share return value decreases by 6.68E-14 percent.
  - 3) The MVA coefficient with a value of -7.41E-16 shows that if MVA increases by 1 rupiah, the company's share return value decreases by -7.41E-16 percent.
- a) Statistical Test t

The t statistical test basically shows how much influence an independent variable has on the dependent variable. If the sig value. < 0.05, then the independent

variables (EVA & MVA) partially influence the dependent variable (share returns).

**Tabel 4.9. Hasil Uji t Common Effect Model (CEM)**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.171460	0.083553	2.052110	0.0460
EVA	-6.68E-14	9.53E-14	-0.701462	0.4866
MVA	-7.41E-16	2.52E-15	-0.293711	0.7703
R-squared	0.013648	Mean dependent var		0.133104
Adjusted R-squared	-0.030190	S.D. dependent var		0.445335
S.E. of regression	0.452007	Akaike info criterion		1.310225
Sum squared resid	9.193983	Schwarz criterion		1.427175
Log likelihood	-28.44541	Hannan-Quinn criter.		1.354421
F-statistic	0.311332	Durbin-Watson stat		1.394809
Prob(F-statistic)	0.734035			

Based on the calculation table above, the t test results for each variable are as follows:

- EVA significance value 0.4866 > 0.05. So it can be concluded that Economic Value Added (EVA) has a negative but not significant effect on stock returns.
  - MVA significance value 0.7703 > 0.05. So it can be concluded that Market Value Added (MVA) has a negative but not significant effect on stock returns.
- b) F Statistical Test

The F statistical test is used for the goodness of fit test (Model Feasibility Test). The F Test probability value of 0.734035 > 0.05) is not suitable as a model.

c) Determinant Coefficient Analysis (R<sup>2</sup>)

This coefficient of determination test is used to measure how far the ability of the independent variable is to explain variations in the dependent variable or the contribution of the independent variable to the dependent variable. Based on the calculation table above, the resulting R-squared value is 0.013648 or 1.36 percent, which means that the variation in the dependent variable (share returns) can be explained by the independent variables (EVA & MVA) of

1.36 percent, while the remaining 98.64 % explained by lan variables outside the model.

## 4.8. Discussion

This research discusses the influence of Economic Value Added (EVA) and Market Value Added (MVA) on stock returns in food and beverages sub-sector companies listed on the Indonesia Stock Exchange (BEI) for the 2017-2020 period. The results of this research are as follows:

2.1. The Effect of Economic Value Added (EVA) on Stock Returns.

The Economic Value Added (EVA) variable has a negative but not significant effect on stock returns. If the value of Economic Value Added (EVA) increases, then stock returns will decrease with an insignificant value in food and beverages sub-sector companies listed on the Indonesia Stock Exchange (BEI) for the 2017-2020 period and vice versa if Economic Value Added (EVA) decreases , this will not affect the movement of stock return values.

Economic Value Added (EVA) is an alternative concept that can be used to measure actual operating profitability. Debt capital costs or interest expenses are deducted when calculating net income, but they are not deducted when calculating the cost of equity capital. Therefore, economically net profit is set too high compared to actual profit. So EVA is able to solve conventional accounting problems (Brigham and Houston, 2001:52)

The results of this research are directly proportional or in line with research conducted by Widiyari and Hanifah (2018) which concluded that Economic Value Added (EVA) has no significant effect on stock returns. This is because the EVA calculation uses profit and capital costs. If the resulting EVA value is positive, it means that company management has succeeded in creating added economic value for the company. However, positive EVA cannot always affect stock returns.

## 4.9. The Effect of Market Value Added (MVA) on Stock Returns.

Market Value Added (MVA) has a negative but not significant effect on stock returns. If the Market Value Added (MVA) value increases, stock returns will decrease by an insignificant value in food and beverages sub-sector companies listed on the Indonesia Stock Exchange (BEI) for the 2017-2020 period and vice versa if Market Value Added (MVA) decreases. , this will not affect the movement of stock return values.

## 5. CLOSING

### 5.1. Conclusion

Based on the research conducted, several things can be concluded as follows:

1. The Economic Value Added (EVA) variable has a negative but not significant effect on stock returns in food and beverages sub-sector companies listed on the Indonesia Stock Exchange (BEI) for the 2017-2020 period.
2. Market Value Added (MVA) has a negative but not significant effect on stock returns in food and beverages sub-sector companies listed on the Indonesia Stock Exchange (BEI) for the 2017-2020 period.

## 5.2. Suggestion

The suggestions that can be recommended based on the results of this research are as follows:

1. Further research is an important thing to do in order to support the development of stock returns in companies in Indonesia.
2. For further research, it is hoped that researchers can expand the research by increasing the number of years of research, expanding the scope of research objects in the company sectors on the Indonesia Stock Exchange (BEI) to adding research variables such as ROI, ROE, EPS, and so on, in order to increase the ability to explain the dependent variable in this case, namely Stock Returns and to increase the accuracy of the research results that will be obtained.

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