

## Measuring Financial Performance Using Economic Value Added On Food And Beverage Companies In The Indonesia Stock Exchange (Idx) Index 2020-2022

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### Abstract

*This study aims: To find out, analyze, discuss and explain financial performance appraisal using the Economic Value Added method for food and beverage companies listed on the Indonesia Stock Exchange for the 2020-2022 period. This research uses a quantitative descriptive analysis method. The samples used were six food and beverage companies listed on the Indonesia Stock Exchange. Calculation results of Economic Value Added for food and beverage companies, there are three companies that produce Economic Value Added or (EVA > 0) during 2020 to 2022, it is stated positive, meaning that there has been additional economic value for the company so that financial performance is declared good. used is secondary data obtained from [www.idnfinancial.co.id](http://www.idnfinancial.co.id). The data analysis method used in this study is the panel regression model. Data processing uses the SPSS 22 application. From this study, the results show that the Economic Value Adeed Method has a positive effect on the company's financial performance.*

**Keywords:** Financial Performance, Economic Added Value

## INTRODUCTION

The goal of a company is to maximize wealth or value for the company as well as for its shareholders. (Paledung et al., 2021) argues that there are several things that must be considered by companies to attract investor interest, one of which is good financial performance. For companies, the measurement of financial performance is an important factor because it gives an idea of the level of achievement of the company. A common Parameter used to assess the financial performance of a company is financial ratio analysis. Some financial ratios that can be used as a benchmark such as the level of profitability, solvency and liquidity. (Paledung et al., 2021) argues that financial statements are a key requirement in the economic decision-making process for companies.

Financial performance measurement using financial ratio benchmarks in recent years is considered less effective. This is because its use has been 227 Marannu Paledung, Herman Karamoy, Victorina Z. Tirayoh too long so that the calculation results are less accurate. Amali, (Paledung et al., 2021) argues that measurements using financial ratios have the disadvantage of not taking into account the presence of capital costs in them. Another disadvantage of other financial ratio analysis is that it cannot measure and determine the added value created by the company. To improve the weaknesses of financial ratio analysis, then the experts developed another method that can be used as an alternative to be able to show all the components of profit expectations measured in the cost of capital (Paledung et al., 2021). This is called Economic Value Added (EVA). The method not only assesses in terms of financial performance or profitability level, but also how far the company can create added value

economically. In this study the object is the food and beverage companies in the index Kompas100 Indonesia Stock Exchange. With a percentage of 16.1% of consumer goods sector became the second largest sector with the largest market capitalization value in Indonesia's capital market ([www.idx.co.id](http://www.idx.co.id)). the products of food and beverage companies are very close to people's daily lives. Based on the above descriptions in the background, the problem raised in this study is " want to know the role of EVA in measuring the financial performance of food and beverage companies listed on the Indonesia Stock Exchange .with the aim to find out how the role of EVA in measuring the financial performance of food and beverage companies listed on the Indonesia Stock Exchange . As for the benefits we offer to companies, the results of this study are expected to help provide information for companies about measuring financial performance using EVA, so that companies can be considered in the future. For readers, the results of this study are expected to serve as reference material in conducting the same field of research on financial performance measurement .

## RESEARCH METHODS

This study uses quantitative research methods. According to (Harys, 2020) explained that quantitative research is a type of research that produces discoveries that can be achieved (obtained) using statistical procedures or other means of quantification (measurement).

### Location and time of research

The location of this study was obtained from the link site at the Indonesia Stock Exchange index company (IDX) and the research time was 1 month.

### Population And Sample

The number of population in this study is as many as 30 food and beverage companies listed on the Indonesia Stock Exchange and for the number of samples taken as many as 6 companies during the last 3 periods .

### Data Collection Techniques

The Data collected in this study is secondary data derived from the financial statements of food and beverage companies listed on the Indonesia Stock Exchange <https://www.idnfinancials.com/id/>

## VARIABLES AND OPERATIONAL DEFINITION OF VARIABLES

The independent variable used in this study is the Economic Value Added formula used in calculating EV

A Is As Follows :

### The Economic Value Added (EVA)formula

|                                                        |
|--------------------------------------------------------|
| Calculation Net Operating After Tax (NOPAT)            |
| $\text{NOPAT} = \text{EBIT} (1 - \text{Tax Rate})$     |
| Description:                                           |
| $\text{NOPAT} = \text{Net Operating Profit After Tax}$ |
| $\text{EBIT} = \text{Earning Before Interest Tax}$     |

|                                                   |
|---------------------------------------------------|
| Calculating the Invested Capital (IC)             |
| 2). IC= Total Long-Term Debt + Equitas            |
| 3). Count Weighted Average Cost of Capital (WACC) |
| $WACC = (W_d \times K_i) + (W_e \times K_e)$      |

## Data Analysis Techniques

In this study, the data were tested using SPSS 22 data analysis techniques.

### Descriptive Statistical Analysis

In order to solve the problem, this study uses descriptive statistics which is used as a tool to analyze data by describing or describing the sample data that has been collected as it is without intending to make conclusions that apply to the general (generalization).

Classical Assumption Test

### Normality Test

Normality test aims to test whether the independent variables and dependent variables have a normal distribution or not in the regression model. A good regression Model is to have a normal or near normal distribution of data. Normality test can be selected by looking at the spread of data (points) on the diagonal axis of the graph. This test is called the P-P plot graph or the Kolmogorov-Smirnov table.

### Multicollinearity Test

The purpose of this multicollinearity test is to determine whether there is a correlation between independent variables in the regression model. A good regression Model should not have problems or correlations between independent variables. To determine the presence or absence of multicollinearity in the regression model can be known from the value of tolerance and the value of variance inflation factor (VIF). Generally, the cutoff value that is often used is the tolerance value of 0.10 or the value of VIF 10.

### Autocorrelation Test

One of the conditions for the use of multiple linear regression analysis model is the fulfillment of the assumption of non-autocorrelation. This test is done to see if there is a correlation between the error of pengganngu in period t, with the error in the previous period (t1). To detect the autocorrelation, Durbin Watson statistical test is done between -2 to +2 there is no autocorrelation.

### Heteroscedasticity Test

Heteroscedasticity test has the purpose of testing whether in the regression model from one observation to another there are residual inequalities. If one observation has a fixed residual, it is called homoscedasticity, and if it is different, it is called heteroscedasticity. In detecting the presence or absence of heteroscedasticity, can use the method of Scatterplot graph between the predictive value of the dependent variable (ZPRED) with the residual (SRESID).

### Multiple Regression Analysis

Multiple linear regression analysis is a linear regression analysis of the magnitude of the relationship and the influence of independent variables that number more than one. The regression Model used in this study is the model of Moderated Regression analysis (MRA). The multiple linear regression equation in this study is :

First Equation:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + e$$

**Keterangan:**

Y = Company

Value  $\alpha$  = Constants

$\beta_1, \beta_2, \beta_3$  = Koefisien Regresi

$X_1$  = Profitabilitas

$X_2$  = Likuiditas

M = Corporate Social Responsibility

e = Error

**Hypothesis Testing Test****Coefficient Of Determination (R<sup>2</sup>)**

Analysis of the coefficient of determination is used to predict how much the contribution of the influence of the independent variable on the dependent variable. The value of the coefficient of determination is between zero and one. A value close to one indicates that the dependent variable gets almost all the information needed in predicting from the independent variables. Conversely, if the value of the coefficient of determination is close to zero, the ability of the model to explain the dependent variable is very limited.

**F-test (simultaneous significance)**

F test (simultaneous test) is to see whether the independent variables together have a significant effect on the dependent variable. The criteria used in this study is that if  $F < 0.05$  means the regression model fit or feasible to use.

**Partial Test (t test)**

Partial Test (t test) aims to determine the significance of each independent variable in affecting the dependent variable is a one-way Test. To test the formulation of the hypothesis as for the test criteria, if the probability (significance) is greater than 0.05 then the independent variables individually does not affect if it is smaller than 0.05 then the independent variables individually influential.

**RESULTS AND DISCUSSION****Test Results Of Descriptive Statistical Analysis**

In descriptive analysis in this study can be seen from the minimum value, maximum value, mean, and standard deviation. Description of each data variable can be seen in the following table:

**Table 1 Descriptive Analysis Test Results**

|                       | Descriptive Statistics |         |         |        | Std.<br>Deviation |
|-----------------------|------------------------|---------|---------|--------|-------------------|
|                       | N                      | Minimum | Maximum | Mean   |                   |
| EVA                   | 18                     | -.28    | 27.42   | 4.3928 | 7.21147           |
| ROA                   | 18                     | .00     | .13     | .0617  | .03666            |
| Valid N<br>(listwise) | 18                     |         |         |        |                   |

**Source: secondary data processed, 2023.**

Based on the table above, it can be explained that the minimum value of EVA is -0.28 and the maximum value is 27.42. This shows that the magnitude of EVA in this company ranges from -0.28 to 27.42 with an average of 4.3928 at a standard deviation of 7.21147. The average value is smaller than the standard deviation of  $4.3928 < 7.21147$ .

The profitability ratios in the table use Return on assets (ROA) which describes the company's ability to generate profits from assets owned. Based on descriptive statistics in the table above can be seen mean (average value) ROA is equal to 0.0617. The profitability variable (X) has a minimum value of 0.00 that occurs in the company of PT. Buyung Poetra Sembada Tbk, the maximum value of 0.13 that occurs in the company PT. Sarguna Primatirta Tbk with a standard deviation of 0.03666.

## Classical Assumption Testing Results

### Normality Test

Normality test is used to test whether in a regression model, the dependent variable and the independent variable or both have a normal distribution or not. Normality test of data in this study using Kolmogorov-Smirnov test. Research Data is considered normal or meet the normality test if the significance value is more than 0.05 or 5%. Conversely, if the value is significantly less than 0.05 or 5%, then the data is abnormal or does not meet the normality test. The following are the results of the Kolmogorov-Smirnov calculation normality test with SPSS:

**Table 2 Result Of The Normality Test**

| Understandardized Residual | Description          |
|----------------------------|----------------------|
| Asymp. Sig 0,200           | Normally Distributed |

**Source: secondary data processed, 2023.**

Based on the table above, it can be seen that the results of the normality test using the Kolmogorov-Smirnov test showed a significance value of 0.200 which means greater than the significant value of 0.05. So it can be concluded that the normal distribution.

### Multicollinearity Test

Aims to detect the problem of multicollinearity, it can be done by looking at the value of Tolerance and Variance Inflation Factor (VIF). Multicollinearity does not occur when Tolerance value  $> 0.1$  and VIF value  $< 10$ . The results of multicollinearity testing are shown in the following table 3:

**Tabel 3 Multicollinearity Test Results**

| Variable | Collinearity Statistics |       | Keterangan                    |
|----------|-------------------------|-------|-------------------------------|
|          | Tolerance               | VIF   |                               |
| EVA      | 1,000                   | 1,000 | There is no multicollinearity |

**Source: secondary data processed, 2023.**

Based on Table 3 above shows that all independent variables have Tolerance values greater than 0.1 and VIF values less than 10, so it is concluded that all independent variables in this study did not occur multicollinearity.

### Autocorrelation Test

Autocorrelation test aims to determine whether there is a residual correlation in the linear regression model in the period T with the period t-1. Autocorrelation arises because successive observations are all the time related to each other. To detect autocorrelation in regression models can be done by using the Durbin-Watson Test (DW) by comparing the D-W count with D-W table. Here are the results of autocorrelation test using Durbin-Watson:

If DW is between -2 and +2, there is no autocorrelation..

**Table 4 Autocorrelation Test Results**

| DL     | 2-du   | Nilai DW | Kesimpulan       |
|--------|--------|----------|------------------|
| 1,5507 | 1,6697 | 1,032    | Non Autokorelasi |

**Source: secondary data processed, 2023.**

Based on Table 4, it can be seen that in the regression model there is no autocorrelation, which is shown by the Durbin Watson value of 1.065 and this value is D between -2 and 2.

### Heteroscedasticity Test

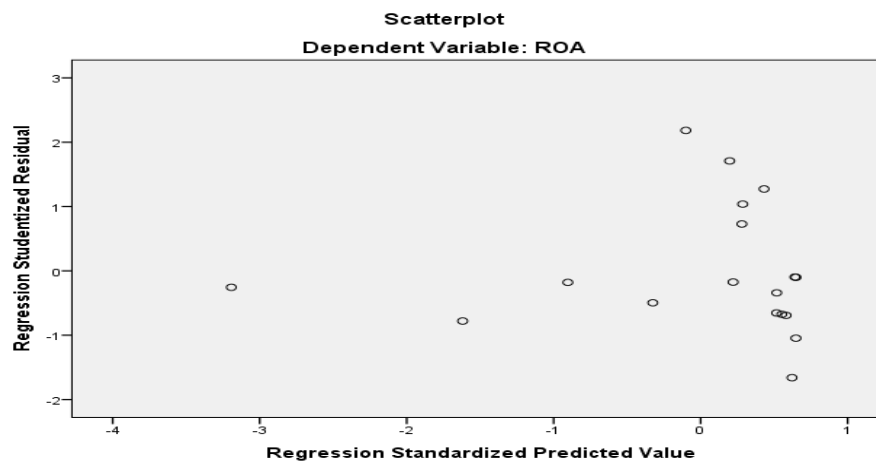
This test is to test whether the regression model variance inequality occurs from the residual of one observation to another. A good regression Model is a regression model that is homocedasticity or heteroscedasticity does not occur. The standard used to determine whether the data occurred heteroscedasticity or not can be explained through the significance coefficient which is compared with the significance level of 0.05 or 5%. If the significance coefficient is above the specified significance level, it can be concluded that there is no heteroscedasticity (homoscedasticity). Conversely, if the coefficient is below the significance level of 0.05 or 5%, it can be concluded that heteroscedasticity occurs.

**Table 5 Heteroscedasticity Test Results**

| Variabel | Sig   | Description                    |
|----------|-------|--------------------------------|
| EVA      | 0,370 | There is no heteroscedasticity |

**Source: secondary data processed, 2023.**

Based on Table 5, the test results showed that none of the independent variables have significance coefficients below the significance level of 5%, so it can be concluded that the regression model does not contain heteroscedasticity. Here is the result of heteroscedasticity test using graph.



## Hypothesis Testing Results

### T Test

This t-test is used to prove the significant influence between the independent variable to the dependent variable, if the calculated t value has a significance value of  $< 0.05$  then there is a persial influence. The results of the t-Test between Return on assets and the size of the company to the value of the company with moderated Corporate Social Responsibility can be seen as follows :

**Table 6. T test results  
Coefficients<sup>a</sup>**

| Model        | Unstandardized |            | Standardized         | t      | Sig. |
|--------------|----------------|------------|----------------------|--------|------|
|              | B              | Std. Error | Coefficients<br>Beta |        |      |
| 1 (Constant) | .072           | .009       |                      | 7.882  | .000 |
| EVA          | -.002          | .001       | -.484                | -2.215 | .042 |

a. Dependent Variable: ROA

Based on table 6 t test results from the first equation above shows:

The calculated t value of EVA (X) on financial performance is -2.215 with significance of  $0.042 > 0.05$ . This indicates that  $H_0$  is rejected and  $H_1$  is accepted. So it can be concluded that EVA (X) has a significant effect on the financial performance proxied with ROA.

## Test R<sup>2</sup>

The coefficient of determination ( $R^2$ ) is a coefficient that shows the amount of variation caused by the free variable or the amount of contribution (influence) given by the independent variable to the dependent variable.

**Table 7. Hasil Uji R<sup>2</sup>**

| Model Summary |                   |          |                   |                            |
|---------------|-------------------|----------|-------------------|----------------------------|
| Model         | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1             | .484 <sup>a</sup> | .235     | .187              | .03306                     |

a. Predictors: (Constant), EVA

Based on table 7 shows the value of the coefficient of determination ( $R^2$ ) between variable EVA (X) to the financial performance that is proxied with ROA is 23.5% while the rest is influenced by other variables outside the study.

## CONCLUSION

Measuring financial performance using Economic Value Added

From the calculation that has been done in this study variable Economic Value Added (X) has a positive influence on financial performance (Y) with significance of  $0.042 > 0.05$ . This indicates that  $H_0$  is rejected and  $H_1$  is accepted. So it can be concluded that EVA (X) has a significant effect on the financial performance proxied with ROA. This shows that the use of Economic Value Added as a tool to measure financial performance is feasible to use. This means that we are able to see clearly how the company's performance is good by using the Economic Value Added method.

The purpose of this study is to measure Financial Performance by using Economic Value Added in food and beverage manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the period 2020-2022. Based on the results of the analysis and discussion of 6 Food and beverage companies listed on the Indonesia Stock Exchange (IDX) taken from 2020-2022, it can be concluded that the results of the T test calculation with significant results of  $0.042 > 0.05$  prove the rejection of  $H_0$  and acceptance of  $H_1$  which prove the existence of a corresponding influence between the application of Economic Value Added to the measurement of financial performance of a company.

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