

## THE EFFECT OF PROFITABILITY, LIQUIDITY, SOLVENCY AND ACTIVITIES ON THE VALUE OF MANUFACTURING COMPANIES IN THE FOOD AND BEVERAGE SUB-SECTOR LISTED ON THE IDX 2018-2022

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### Abstract

This research was conducted with the aim of knowing, analyzing, and testing the effect of profitability, liquidity, solvency, and activity on the value of manufacturing companies in the food and beverage sub-sector listed on the Indonesia Stock Exchange for the 2018-2022 period. Profitability is measured by Return on Equity, liquidity is measured by the Current Ratio, solvency is measured by the *Debt to Equity Ratio*, and activity is measured by Total Asset Turnover. This study uses a type of quantitative research with a comparative causal approach. The population used in this study were 30 food and beverage sub-sector companies listed on the Indonesia Stock Exchange for the 2018-2022 period. The research sample was taken using a purposive sampling technique, so that a sample of 11 food and beverage sub-sector companies were obtained which were listed on the Indonesia Stock Exchange for the 2018-2022 period. The analytical method used is multiple linear regression analysis using the SPSS version 21 program.

The results of this study state that profitability has a positive and significant effect on firm value. Solvability has a positive and insignificant effect on firm value. liquidity and activity have a negative and insignificant effect on firm value.

**Keywords:** *Profitability, Liquidity, Solvency, Activity, Firm Value*

### 1. INTRODUCTION

World Health Organization (WHO) has officially declared Covid-19 a pandemic. The corona virus first appeared in Wuhan, China at the end of 2019 (CRC John Hopskin University, 2020). The first case in Indonesia itself occurred on March 2 2020. The Covid-19 pandemic has made changes in human life, starting from socializing, studying, worshipping, and so on.

This pandemic threatens not only health but also world economic growth. According to Manilet (2020) explained that the PSBB in DKI Jakarta contributed 15% -17% of the slowdown in Indonesia's economic development so that when economic development in Jakarta slowed down, economic development in Indonesia also slowed down.

The company is an organization formed by one person or several people whose activities carry out production and distribution processes that are useful for meeting the needs of people's lives. With the establishment of a company, the company must have a goal, namely to get the maximum profit

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and maintain the continuity of its business (Darsono, 2006).

In addition, the company also maximizes the prosperity or wealth of the shareholders. If the level of prosperity and welfare of shareholders is high, it will be followed by an increase in the value of a company.

Company value can be a benchmark for the success of the performance achieved by the company. Price Book Value (PBV) is a measure of company value. PBV calculates the stock price against book value per share (Brigham and Houston, 2006). The higher the PBV ratio, the better the company's prospects in the eyes of investors. Whether a company's value is good or not can be seen from its performance which includes the level of profitability, liquidity, solvency, and activity.

The first factor affecting firm value in this study is profitability. According to (Husnan, 2015: 317) profitability is the level of net profit that can be achieved by a company when carrying out its operations. Profitability used in this study is proxied by Return on Equity (ROE), namely the company's ability to generate profits through the efficient use of its own capital, which can be calculated by dividing the profit after tax with its own capital.

The second factor that affects the value of the company in this study is liquidity. According to (Sartono, 2014: 114) liquidity is a company's ability to meet short-term financial obligations. The current ratio (CR) as a proxy for liquidity in this study is a ratio to measure a company's ability to meet current debt by using all of its current assets (Sudiani & Darmayanti, 2016).

The third factor is Solvability, which is the ratio used to measure a company's ability to meet long-term debt. Companies in funding their activities tend to use their own capital from retained earnings and share capital rather than using debt.

The solvency ratio chooses a DER proxy because compared to the Debt to Total Asset Ratio (DAR) ratio, the Debt to Equity Ratio (DER) can be said to be more accurate because the basis of the comparison used is the equity or capital of the issuer, not from total assets which also include debt to other parties.

The fourth factor is the activity ratio Kasmir (2016) states that the activity ratio is the ratio used to measure a level of utilization efficiency in company resources (sales, inventory, etc.). The activity ratio uses the Total Asset Turnover (TATO) proxy to measure a company's ability to generate profits through total asset turnover calculated from sales volume to find out how far all assets are capable of generating sales.

Manufacturing companies have not been spared the impact of the Covid-19 pandemic. Food & beverage companies are a sub-sector of the manufacturing industry that is stable even when the country's economy is in crisis, because the products produced are primary needs that are needed by the community in any condition. So that the food and beverage sector is chosen by many investors because it deals with daily needs that must be met and is resistant to the crisis conditions that have befallen Indonesia.

According to the Ministry of Industry (2020), food and beverage companies contribute quite well to the national economy. The food and beverage industry sector is said to be able to grow by 4% with the start of the new normal. In 2019, the increase in the food and beverage industry by 7.78 percent reached a more significant figure when compared to the growth of the non-oil and gas industry of 4.34 percent and the growth of the national industry of 5.02 percent. In fact, the food and beverage industry sector also contributes up to 36.4 percent to the GDP (Gross Domestic Product) of

the non-oil and gas processing industry. According to Kartasasmita (2021), until February 2021, food and beverage companies grew 1.66% in the fourth quarter of 2020.

This sector has a high demand during the pandemic. Because people need good intake to maintain health. This research takes the food and beverage sector on the Indonesia Stock Exchange (IDX) for research because it wants to see the financial reports that occurred before and during the Covid-19 outbreak. For this reason, companies must be able to organize and manage finances well and be able to give investors confidence so that investors continue to invest in food and beverage companies even though they are still in a pandemic. (I Gusti and Ayu Darmayanti, 2019).

## 2. RESEARCH METHOD

The type of research conducted in this research is associative research with quantitative techniques which is research to determine the relationship between two or more variables, according to Sugiyono (2016: 55). This research was conducted by library research. This study uses documentation techniques for data collection. The population used in this study is the food and beverage sub-sector companies listed on the Indonesia Stock Exchange (IDX). With a total sample of 11 companies using a purposive sampling strategy. The analytical method used is multiple linear regression analysis using the SPSS version 21 program.

## 3. RESULTS AND DISCUSSION

### 3.1 RESULTS

#### 3.1.1 Descriptive Statistics

Descriptive statistics explain the data seen from the average value (mean), standard deviation, maximum value, minimum value of the sample data.

**Table 1**

**Descriptive Statistics**

	N	Minimum	Maximum	Means	std. Deviation
ROE	55	0	1.05	0.1882	0.2164
CR	55	0.73	4.85	22,285	105,234
DER	55	0.16	2.14	0.7596	0.45206
TATTOO	55	0.45	1.95	11,095	0.37007
PBV	55	0.34	28.87	41,722	585,175
Valid N (listwise)	55				

Source: Data processed using IBM SPSS 21

1. From the table above it can be seen that the profitability variable (ROE) with a total of 55 data (N) has an average of 0.1882 with a minimum value of 0.00 and a maximum of 1.05, with a standard deviation of 0.21640.
2. The liquidity variable (CR) with a total of 55 data (N) has an average of 2.2285 with a minimum value of 0.73 and a maximum of 4.85 with a standard deviation of 1.05234.
3. The solvency variable (DER) with a total of 55 data (N) has an average of 0.7596 with a minimum value of 0.16 and a maximum of 2.14 with a standard deviation of 0.45206.
4. The activity variable (TATO) with a total of 55 data (N) has an average 1.1095 with a minimum value of 0.45 and a maximum of 1.95 with a standard deviation of 0.37007.

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5. The firm value variable (PBV) with a total of 55 data (N) has an average 4.1722 with a minimum value of 0.34 and a maximum value of 28.87 with a standard deviation 5.85175.

### 3.1.2 Classical Assumption Test

#### a. Normality test

The Normality test can be tested using the Kolmogorov-Smirnov approach method or normal probability plot graphs.

**Table 2**  
**One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residuals
N		55
Normal Parameters, b	Means	.0000000
	std. Deviation	2.03586941
	absolute	.122
Most Extreme Differences	Positive	.122
	Negative	-.065
Kolmogorov-Smirnov Z		.907
asympt. Sig. (2-tailed)		.384

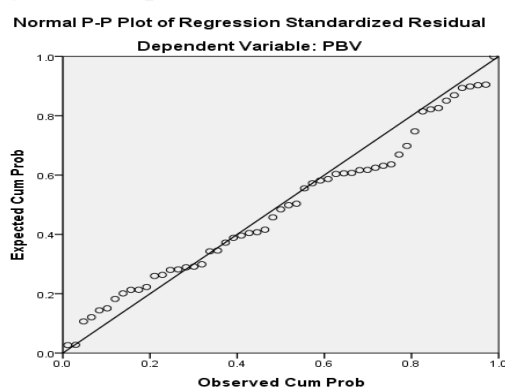
a. Test distribution is Normal.

b. Calculated from data.

Source: Data processed using IBM SPSS 21

Table 2 shows that asympt.sig is  $0.348 > 0.05$ . Thus, it can be concluded that the data in this research model are normally distributed.

**Figure 1 Graph of Normality Probability Plot**



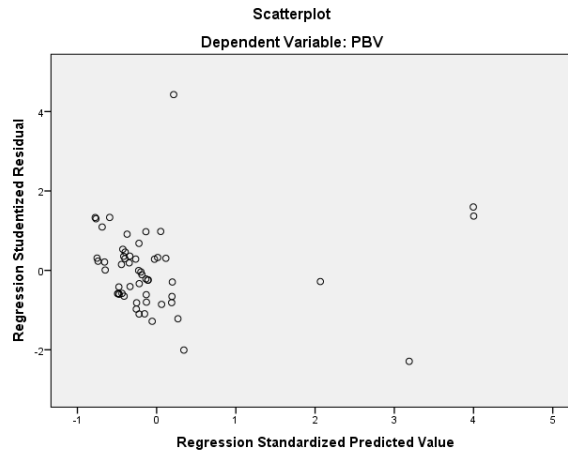
Source: Data processed using IBM SPSS 21

In Figure 1, it can be seen that the results of the Normal PP Plot of Regression Standardized Residual graph show that the data are along the diagonal line, so it can be concluded that the data in this study are normally distributed.

#### b. Heteroscedasticity Test

According to Ghazali (2016: 64) The heteroscedasticity test aims to see whether in the regression model there is an inequality of variance from the residuals of one observation to another.

**Figure 2 Heteroscedasticity Test Results**



Source: Data processed using IBM SPSS 21

In Figure 2, it can be seen that the Scatterplot graph displays points that spread randomly and no pattern is formed and in the distribution of these points spread below and above zero (0) on the Y axis, it can be concluded that this model does not have heteroscedasticity disturbances.

### c. Multicollinearity Test

The multicollinearity test in this study was carried out by looking at the tolerance value and the VIF value.

**Table 3 Multicollinearity  
Coefficients<sup>a</sup>**

Model	Collinearity Statistics	
	tolerance	VIF
(Constant)		
1 ROE	.813	1230
CR	.408	2,449
DER	.367	2,727
TATTOO	.938	1,066

a. Dependent Variable: PBV

Source: Data processed using IBM SPSS 21

From the results of the multicollinearity test above, it shows that all independent variables have a tolerance value greater than 0.1 and a VIF value less than 10. So it can be concluded that this study does not have symptoms of multicollinearity and can be used for further analysis.

### d. Autocorrelation Test

The autocorrelation test aims to test whether a linear regression model has a correlation between the confounding errors in period t and period t-1 (previously).

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**Table 4 Autocorrelation Test**

**Summary modelb**

Model	R	R Square	Adjusted R Square	std. Error of the Estimate	Durbin-Watson
1	.938a	.879	.869	2.11574	1,663

a. Predictors: (Constant), TATO, DER, ROE, CR

b. Dependent Variable: PBV

Source: Data processed using IBM SPSS 21

Table 4 shows the results of the autocorrelation test using the Durbin Watson test is equal to 1,663. The terms for making a decision on the autocorrelation test using Durbin Watson are  $dU < DW < 4-dU$ , so there is no autocorrelation. The following table shows the dL and dU values for a total sample of 55 with a significance value of 5%.

**Table 5 Durbin Watson values with  $\alpha = 5\%$**

N	K = 4	
	dL	dU
55	1.4136	1.7240

Source: www.stanford.edu

Based on the above table shows that  $dU < DW < 4-dU$  with a value of  $dU = 1.7240$ ,  $DW = 1.663$ ,  $4-dU = 2.337$ . So that Durbin Watson's value is in the range of dU and  $4-dU$  ( $1.4136 < 1.663 < 2.337$ ). It can be concluded that there is no autocorrelation in this regression model.

### 3.1.3 Analysis Model

#### a. Multiple Linear Regression Analysis

The results of multiple linear regression analysis in this study can be seen in the table below.

**Table 6 Multiple Linear Regression Analysis**

Model	Unstandardized Coefficients		Standardized Coefficients	Q	Sig.
	B	std. Error	Betas		
(Constant)	.965	2022		.477	.635
1 ROE	24,437	1,476	.904	16,560	.000
CR	-.543	.428	-.098	-1,269	.210
DER	.164	1,052	.013	.156	.877
TATTOO	-.275	.803	-.017	-.343	.733

a. Dependent Variable: PBV

Source: Data processed using IBM SPSS 21

Based on the results of the regression test above, the regression equation model is obtained as follows:

$$PBV = 0.965 + 24.437 ROE - 0.543 CR + 0.164 DER - 0.275 TATO + e$$

From the results of the regression model equation above, it can be concluded as follows:

1. The constant value is 0,965. If the magnitude of all independent variables is 0, then the value of the company (PBV) will be 0,965.

2. The value of the profitability regression coefficient (ROE) is equal to 24,437. This means that if ROE increases by one percent, then the company's value (PBV) will increase by 24,437 assuming all other independent variables are constant.
3. The value of the liquidity regression coefficient (CR) is -0,543. This means that if CR increases by one percent, the firm value (PBV) will decrease by 0.543 assuming all other independent variables are constant.
4. The value of the solvency regression coefficient (DER) is 0.164. This means that if the DER increases by one percent, then the firm's value (PBV) will increase by 0.164 assuming all other independent variables are constant.
5. The value of the activity regression coefficient (TATO) is equal to -0.275. This means that if TATO increases by one percent, the firm value (PBV) will decrease by 0.275 assuming all other independent variables are constant.

#### b. Hypothesis testing

The following results of hypothesis testing in this study can be seen in the table below.

**Table 7 Partial Test (t-Count)**

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	Q	Sig.
	B	std. Error	Betas		
(Constant)	0.965	2022		0.477	0.635
1 ROE	24,437	1,476	0.904	16,560	0
CR	-0.543	0.428	-0.098	-1,269	0.21
DER	0.164	1,052	0.013	0.156	0.877
TATTOO	-0.275	0.803	-0.017	-0.343	0.733

a. Dependent Variable: PBV

Source: Data processed using IBM SPSS 21

The interpretation of the regression equation is as follows:

- 1) The results of testing the hypothesis for the profitability variable as measured by ROA obtained a t value of 16,560 and a significance value of 0.000, which means H1 is accepted, so it can be stated that profitability has a positive and significant effect on firm value.
- 2) The results of hypothesis testing for the liquidity variable as measured by CR obtained a t value of -1,269 and a significance value of 0.210 which means H2 is rejected, so it can be stated that liquidity has a negative and insignificant effect on firm value. This means that if liquidity increases, the value of the company will be smaller. Conversely, if liquidity decreases, the value of the company will be even greater.
- 3) The results of testing the hypothesis for the solvency variable as measured by DER obtained a t value of 0.156 and a significance value of 0.877 which means H3 is rejected, so it can be stated that solvency has a positive and not significant effect on firm value. This means that if solvency increases, the value of the company will be even greater. Conversely, if solvency decreases, the value of the company will be smaller.
- 4) The results of testing the hypothesis for the activity variable as measured by TATO obtained a t value of -0.343 and a significance value of 0.733 which means H4 is rejected, so it can be stated that activity has a negative and insignificant effect on firm value. This means that if activity increases,



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the value of the company will be smaller. Conversely, if activity decreases, the value of the company will be even greater.

**Table 8 Simultaneous F-Test**

ANOVA <sup>a</sup>					
Model	Sum of Squares	Df	MeanSquare	F	Sig.
Regression	1,625,305	4	406,326	90,772	.000b
residual	223,817	50	4,476		
1 Total	1,849,123	54			

a. Dependent Variable: PBV

b. Predictors: (Constant), TATO, DER, ROE, CR

Source: Data processed using IBM SPSS 21

Based on the results of the Anova test or F test, it can be seen that the F value is equal to 90,772 with a significance value of 0.000, because the profitability or Sig value indicates 0.000 which is less than 0.05, the regression model can be used to predict profitability, liquidity, solvency and activity, simultaneously or simultaneously affecting firm value.

### c. Determination Coefficient Test ( $R^2$ )

**Table 9 Coefficient of Determination**

Summary model <sup>b</sup>				
Model	R	R Square	Adjusted R Square	std. Error of the Estimate
1	.938a	.879	.869	2.11574

a. Predictors: (Constant), TATO, DER, ROE, CR

b. Dependent Variable: PBV

Source: Data processed using IBM SPSS 21

The coefficient of determination ( $R^2$ ) = 0,879 which shows that the variation in company value in food and beverage companies listed on the IDX can be explained by the variables of profitability, liquidity, solvency and activity of 87.9%, while the remaining 12.1% is influenced by other factors.

## 3.2 DISCUSSION

### 3.2.1 Effect of Profitability/Return on Equity on Company Value

The results of this study indicate that profitability proxied by Return On Equity (ROE) has a positive and significant effect on firm value proxied by Price Book Value (PBV). This indicates that the higher the profitability of the company, the higher the value of the company

### 3.2.2 Effect of Liquidity/Current Ratio on Firm Value

In this study, liquidity by proxy current ratio (CR) has a negative and not significant effect. The negative regression coefficient value means that the current ratio and firm value are not in the same direction. This means that if liquidity increases, the value of the company will be smaller. Conversely, if liquidity decreases, the value of the company will be even greater. It is not significant, meaning that the current ratio does not affect the firm value variable.



### **3.2.3 Effect of Solvency / Debt to Equity Ratio on Firm Value**

The results of this study concluded that solvency by proxy debt to equity ratio (DER) has a positive and not significant effect. The value of the positive regression coefficient means that the debt to equity ratio and firm value are unidirectional, if there is a change in the debt to equity ratio variable it will affect the firm value variable. It is not significant, meaning that the debt to equity ratio does not affect the firm value variable. This means that the higher the DER, the higher the firm value and the insignificant results of this study support the theory which states that as long as the company is able to balance the benefits and costs incurred due to debt, it is not a problem. Thus a high DER but followed by good management can increase profits and initial returns.

### **3.2.4 Effect of Activity / Total Asset Turnover on Company Value**

In this study, the activity variable proxied by Total Assets Turnover (TATO) shows that activity has no effect on firm value at a significant level of 0.05. The negative regression coefficient value means that Total Assets Turnover and company value are not in the same direction. This means that if activity increases, the value of the company will be smaller. Conversely, if activity decreases, the value of the company will be even greater. Not significant means that Total Assets Turnover does not affect the company value variable. This shows that the high or low ratio of activity has no relationship with the value of the company.

Activity has no effect on firm value because the company under study has a stable activity ratio with an average 1.1095 shows a number more than 1 ( $> 1$ ) where the company has been effective in utilizing its assets. So that this ratio is used only as a comparison of the level of efficiency in the use of business assets. This makes shareholders pay less attention to and consider the activity ratio in investing, so it has no influence on firm value.

## **4. CONCLUSION**

From all the tests that have been carried out, the following conclusions can be drawn:

1. Profitability using a proxy return on equity (ROE) partially has a positive and significant effect on firm value (PBV). This indicates that the higher the profitability of the company, the higher the value of the company.
2. Liquidity using a partial current ratio (CR) has a negative and insignificant effect on firm value (PBV). The company's liquidity is considered good if the company is able to meet its short-term obligations on time because of the large amount of funds available for the company to finance its operational and investment activities.
3. Solvability using a proxy debt to equity ratio (DER) partially has a positive and not significant effect on firm value (PBV). This means that the higher the DER, the higher the firm value and the insignificant results of this study support the theory which states that as long as the company is able to balance the benefits and costs incurred due to debt, it is not a problem.
4. Activities using the total asset turnover (TATO) proxy partially have a negative and insignificant effect on firm value (PBV). This indicates that if activity increases, the value of the company will decrease. Conversely, if activity decreases, the value of the company will be even greater.

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