

# Effect of Profitability Ratio, Solvency Ratio, and Liquidity Ratio to Price Book Value (Pbv) on Food and Beverage Sub-Sector Companies Listed on the Idx in 2017-2021

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## Abstrack

This study aims to determine and analyze the effect of profitability ratio (ROA), solvency ratio (DER), and Liquidity Ratio (CR) to Price Book Value (PBV) in food and beverage sub-sector companies listed on the Indonesia Stock Exchange in 2017-2021. The type of data in this study is secondary data in the form of financial statements of the company. The research method used is quantitative method. Samples in this study were determined using purposive sampling method based on certain criteria, obtained samples of 13 companies in the food and beverage sub-sector companies listed on the Indonesia Stock Exchange in 2017-2021. The dependent variable in this study is the Price Book Value (PBV) and the independent variables are profitability (ROA), solvency (DER), and liquidity (CR). The data analysis method used is multiple linear regression analysis in though using SPSS 25. Partial test results showed that profitability (ROA) has a significant effect on Price Book Value (PBV), solvency (DER) has a significant effect on Price Book Value (PBV), and liquidity (CR) has a significant effect on Price Book Value (PBV). While the simultaneous test shows that profitability (ROA), solvency (DER), and liquidity (CR) together significantly affect the Price Book Value (PBV).

## Keywords:

Liquidity (CR), Price Book Value (PBV), Profitability (ROA), Solvency (DER)

## 1. Introduction

The development of an increasingly tight business world creates intense competition between companies. One of these industries is a company engaged in the food and beverage industry. The food and beverage sector is the sector most resistant to the economic crisis. In times of crisis, food and beverage companies will still be in demand because they are the most basic needs. So that investment in food and beverage is a promising investment in line with the scale of population growth in Indonesia and the needs of the people of food and beverage. Food and beverage companies in Indonesia are growing day by day, as evidenced by the increasing number of food and beverage companies listed on the Indonesia Stock Exchange. Competition requires all companies to improve their performance to achieve their goals. The main purpose of a company is to increase the wealth of its owners or shareholders by increasing the value of the company. The higher the value of a company, the higher the price will be received by the owner of the company (Palestina & Djawoto, 2020)

The phenomenon experienced by issuers in the food and beverage sub-sector is the decline in company revenues in the 2019 period. Companies in the food and beverage sub-sector recorded a decrease in income or profit in several large-cap food and beverage issuers. Unilever Indonesia Tbk (UNVR), Mayora Indah Tbk (MYOR), Garudafood Putra Putri Jaya Tbk (GOOD). The net profits of the three listed companies each fell 4.37% at Unilever Indonesia Tbk (UNVR), down 0.51% at Mayora Indah Tbk (MYOR), and the biggest decline was 19.9% at Garudafood Putra Jaya Tbk (GOOD). Looking at the data further, the decline in UNVR's profit was also caused by a decrease in sales in the food and beverage segment. Sales in this segment reached Rp 3.1 trillion, down about 8.8 percent from last year's Rp 3.4 trillion. The food and beverage segment contributed 29% of UNVR's total sales. Meanwhile, the UNVR household equipment segment still showed a slight year-on-year growth of 2.7%. In the first quarter of 2019, revenue in this segment reached Rp 7.4 trillion or contributed 71% of total revenue. Two other companies experienced different things, namely MYOR and GOOD. It is also experiencing a decline in revenue due to various factors. The increase in operating expenses that exceeded sales growth, ultimately eroded the profits or profits of both companies. The decline in financial performance that occurs in food and beverage companies will certainly have an impact on the decline in company value.

The value of a company is one of the key concepts that investors consider when valuing an investment. The value of a company is reflected in the market price of the company's shares. The higher the share price of a company, the more investors are interested in investing in the company (Suroto, 2015).

Price Book Value is one of the indicators in assessing the company. PBV is a ratio that describes how much the market appreciates the book value of a company's stock. PBV is a ratio that measures the ratio of the price of a stock to its book value.

The policy that must be considered in optimizing the value of the company is profitability, because the profitability ratio indicates the success of the company in making a profit. According to Luis & Moncayo, (2019, p. 197). Improved performance of the company will increase the ROA which is a proxy example of profitability ratio. ROA is used to see the ability of an entity to generate profits from each asset owned. Asset returns also indicate the efficiency of an entity's asset utilization in delivering the entity's primary purpose of existence (Luis & Moncayo, 2019)

Another factor that can also affect the value of a company is solvency. Solvency (leverage) is described to see the extent to which a company's assets are financed by debt compared to its own capital. Liquidity ratios in this study in proaksikan with debt-to-equity ratio (DER). debt to equity ratio (DER) is the ratio of total debt held to total equity. Through the ratio, users can compare the source of funding obtained from shareholders. As with debt ratios, the higher the debt-to-equity ratio indicates a lower leverage utilization as well as a stronger equity capability of an entity (Luis & Moncayo, 2019).

Another variable that affects the value of the company is the liquidity ratio liquidity ratio is used to describe how liquid a company is and the company's ability to settle its short-term liabilities using current assets so that this ratio is used to measure the company's ability to pay obligations that will soon be due. Liquidity ratios in this study in proaksikan with current ratio (CR). The current ratio (CR) is used to compare the total of all current assets owned by an entity with all current liabilities owned. The higher the current ratio, the more an entity is considered to have the ability to meet its current liabilities.

Based on the background of the problems described above, the author is interested in conducting a study entitled "The effect of Profitability Ratios, solvency ratios, and Liquidity Ratios on Price Book Value (PBV) in food and beverage Sub-sector companies listed on the IDX in 2017-2021".

## **2. Literatur Review and Hypothesis Development**

Profitability has a significant effect on the value of the company (Awulle, Murni, & Rondonuwu, 2018). Profitability has a significant positive effect on the value of the company (Ndruru, Silaban, Sihalohe, Manurung, & Sipahutar, 2020). profitability has a positive and significant effect on company value (Palestina & Djawoto, 2020). Profitability has a positive effect on company value (Kepramareni, Ayu, Yuliasuti, Wayan, & Suarningsih, 2020). Profitability variables have a significant positive effect on company value (Riswanto, Redhono, & Nurhayatun, 2021). Profitability has a significant effect on the value of the company (Jihadi et al., 2021). Profitability variables significantly influence the variable value of the company (PBV) (Markonah, Salim, & Franciska, 2020). Profitability affects the value of the company. (Ningsih & Sari, 2019). Thus, the hypothesis is

### **2.1. H1: return on Assets partially significant effect on Price Book Value**

#### **2.1.1. Effect of Debt to Equity on Book Value**

Solvency against PBV, several studies on the effect of solvency on the value of the company that researchers have conducted and resulted in different conclusions. Solvency has a significant effect on the value of the company (Awulle et al., 2018). Leverage / solvency has no significant negative effect on the value of the company (Ndruru et al., 2020). Leverage has a positive and insignificant effect on the value of the company (Palestina & Djawoto, 2020). That leverage has a positive effect on company value (Kepramareni et al., 2020). Solvency has a significant positive effect on company value (Riswanto et al., 2021). Leverage has a significant effect on company value (Jihadi et al., 2021). The variable debt to equity ratio has a significance value of  $0.070 > 0.05$  this means that the debt to equity ratio has no significant effect on the value of the company (Supriadi, 2019). Leverage (DER) has a significant effect on the variable value of the company (PBV) (Markonah et al., 2020). Solvency (DAR) has no effect on the value of the company. (Ningsih & Sari, 2019). Thus, the hypothesis is

### **2.2. H2: Debt Equity ratio partially significant effect on Price Book Value**

#### **2.2.1. Effect of Current Ratio on Price Book Value**

Liquidity to PBV, several studies on the effect of liquidity on the value of the company have been conducted by researchers and resulted in different conclusions. Liquidity has no significant effect on company value (Awulle et al., 2018). Liquidity has a significant positive effect on the value of the company (Ndruru et al., 2020). Liquidity has a positive and insignificant effect on company value (Palestina & Djawoto, 2020). Liquidity has a positive effect on the value of the company. (Kepramareni et al., 2020). liquidity ratios have a significant effect on company value (Jihadi et al., 2021). Variable liquidity (CR) has no significant effect on the company's variable value (PBV) (Markonah et al., 2020). Liquidity (CR) has no effect on the value of the company. (Ningsih & Sari, 2019). Thus, the hypothesis is:

### 2.3. H3: Current Ratio partially significant effect on Price Book Value

Based on research conducted by (Awulle et al., 2018), the results of simultaneous test studies show that profitability, liquidity, solvency, simultaneously have a significant effect on the value of the company (Awulle et al., 2018).

### 2.4. H4: profitability, solvency, liquidity, simultaneously significant effect on Price Book Value (PBV)

### 2.5. Conceptual framework and hypothesis building

Based on the introduce above, the research framework is described as follows:

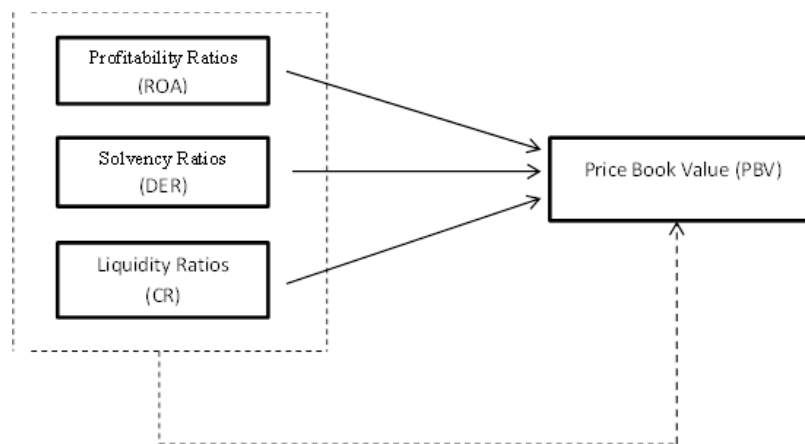


Figure 1 Conceptual framework and hypothesis building

## 3. Methods

### 3.1. Research Object

The object of this research is mkananan and beverage companies listed on the Indonesia Stock Exchange in 2017-2021. Source of data used in this study is the secondary data obtained from the annual financial statements through the site [www.idx.com](http://www.idx.com) and [www.idnfinancial.com](http://www.idnfinancial.com) during the period 2017-2021. The population of this study were all food and beverage companies listed on the Indonesia Stock Exchange in 2017-2021. Samples in this study were determined using purposive sampling method based on criteria. The samples taken in this study were as many as 13 food and beverage companies listed on the Indonesia Stock Exchange in 2016-2020. Of the total population of all food and beverage companies registered on the IDX as many as 26 companies. In this study diporeleh 13 companies from 26 companies because 13 companies are meeting the criteria in this study. These 13 companies have completed financial statement data and are needed by this study compared to other companies that do not have complete data in the form of incomplete financial statements in the year that has been determined.

### 3.2. Types, Sources and Thechniues of Data Collection

Based on the nature of the data used in this study are quantitative data besifat. Quantitative Data is data in the form of numbers. Quantitative Data in this study is in the form of annual financial statements on food and beverage companies for the period 2017-2021 listed on the Indonesia Stock Exchange. The source of data used in this study is secondary data. Secondary Data in this study were obtained from the annual financial statements of food and beverage companies listed on the Indonesia Stock Exchange in 2017-2021 which were published on the official website of the IDX, namely [www.idx.co.id](http://www.idx.co.id) and [www.idnfinancials.com](http://www.idnfinancials.com).

Data collection techniques used in this study is a documentation technique that is by collecting data on the annual financial statements of food and beverage companies. Testing the hypothesis of this study using multiple linear regression analysis. Multiple linear regression equation can be formulated as follow: This study was conducted using multiple linear regression method. In this study using tools such as statistical software that is SPSS. Multiple linear regression analysis was used to study the influence by using dependent variables (bound) and independent variables (free) (Yanti & Darmayanti, 2019).. The multiple regression equation in this study are as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + e.....$$

Description:

Y = book value price (PBV)

X1 = return on assets (ROA)

X2 = debt to equity ratio (DER)

X3 = current ratio (CR)

## 4. Result and Discussion

### 4.1. Research Descriptive Statistic

Table 1. Deskripsi Data Penelitian  
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	45	-,03	,53	,1148	,11048
DER	45	,16	3,02	,8342	,63478
CR	45	,58	8,64	2,8944	2,06564
PBV	45	,81	28874484,38	3636677,721 0	7749115,73252
Valid N (listwise)	45				

Based on Table 1. during 2017-2021, it can be shown that the profitability / Return on Assets (ROA) variable has a minimum value of -0.03 percent owned by food and beverage sector companies on the IDX in 2017-2021, with a maximum value of ROA of 0.53 percent, a mean value of 0.1148 percent, with a standard deviation of 0.11048 percent which means a difference from the value of the ROA variable with an average of 0.11048 percent.

The solvency / Debt Equity Ratio (DER) variable has a minimum value of 0.16 percent owned by food and beverage sector companies on the IDX in 2017-2021, with a maximum value of DER of 3.02 percent, a mean value of 0.8342 percent, with a standard deviation of 0.63478 percent which means a difference from the value of the DER variable with an average of 0.63478 percent.

The liquidity / Current Ratio (CR) variable has a minimum value of 0.58 percent owned by food and beverage sector companies on the IDX in 2017-2021, with a maximum value of CR of 8.64 percent, a mean value of 2.8944 percent, with a standard deviation of 2.06564 percent which means a difference from the value of the CR variable with an average of 2.06564 percent.

The Price Book Value (PBV) variable has a minimum value of 0.81 percent owned by food and beverage sector companies on the IDX in 2017-2021, with a maximum value of PBV of 28874484.38 percent, a mean value of 3636677.7210 percent, with a standard deviation of 7749115.73252 percent which means a difference from the value of the PBV variable with an average of 7749115.73252 percent.

### 4.2. Result of Multiple Linear Regression Analysis

Tabel 2. Multiple Linear Regression Analysis

Model		Unstandardized Coefficients	
		B	Std. Error
1	(Constant)	-3320687,470	1799701,536
	ROA	5775547,452	4210246,161
	DER	3874053,346	1060308,701
	CR	-1002630,053	327654,250

Results of linear equations:

$$Y = -33320687,470 + 5775547,452 X_1 + 3874053,346 X_2 - 1002630,053 X_3$$

From the results of the multiple linear regression equation, each independent variable can be interpreted influence terhadap Price Book Value/ value of the company as follows:

1. Constant of -33320687,470 the value of the coefficient indicates that if there is no independent variable in the independent variable (ROA, DER, CR) then the variable Price Book Value (PBV) has a value of -33320687,470.
2. Regression coefficient Return on Assets (ROA) (X<sub>1</sub>) is positive and the magnitude is 5775547.452 means that if the Return on Assets increased by 1%, then the coefficient of Price Book Value /company value (Y) will increase by 5775547.452.
3. Regression coefficient Debt Equity Ratio (DER) (X<sub>1</sub>) is positive and the magnitude is 3874053.346 means that if the Debt Equity Ratio has increased by 1%, then the coefficient of Price Book Value /company value (Y) will increase by 3874053.346
4. Regression coefficient Current Ratio (CR) (X<sub>1</sub>) marked negative and the magnitude is 1002630.053 means that if the Current Ratio has increased by 1%, then the coefficient of Price Book Value /company value (Y) will decrease by 1002630.053.

#### 4.2.1. Result of the model feasibility test (F – test)

Simultaneous hypothesis testing (F-test) is used to show whether all the independent variables included in the model have a simultaneous (simultaneous) influence on the dependent variable. Can be said to affect simultaneously if the value of F count > Ftable and significance value < 0.05. The result of the simultaneous significance test of this study can be seen in table 3.

Table 3. Result of the model fe

Model	F	Sig.
1 Regression	80,887	,000b
Residual		
Total		

Based on the results of SPSS data processing above that obtained the value of F. GIs of 0.000 which is smaller than 0.05 or (0.000 < 0.05) which means that the variable profitability (ROA), solvency (DER), and liquidity (CR) simultaneously affect the dependent variable company value (PBV) in food and beverage companies listed on the IDX. This suggests that this study deserves to be continued in the next analysis.

#### 4.2.2. Coefficient of Determination

Tabel 4. The coefficient determination R<sup>2</sup>

Model	R	R Square	Adjusted R Square
1	,925a	,855	,845

R2 value of 0.855 (85.5%) indicates the independent variable can explain the dependent variable is equal to 85.5% while 14.5% is explained by other variables outside this study. While the remaining 14.5% (100% - 85.5%) is described by other variables that are not included in the equation.

#### 4.2.3. Partial Test Result (t- test)

Tabel 5. Partial Test Result (t-test)  
Coefficients<sup>a</sup>

Model	t	Sig.	
1 (Constant)	-1,845	,072	
ROA	13,718	,000	
DER	3,654	,001	
CR	-3,060	,004	

Based on partial test results in Table 4.10 it can be concluded as follows:

1. Test the effect of profitability (ROA) on company value (PBV). Based on the table above is known t value of 13.718 and a significant value of 0.000 less than the value of the Test level or 0.000 < 0.05, so it can be concluded that the partial profitability (ROA) positive and significant effect on the value of the company (PBV). Thus, the first hypothesis (H1) which states that profitability (ROA) has a positive and significant influence on the value of the company (PBV), accepted.
2. Test the effect of Solvency (DER) on the value of the company (PBV). Based on the table above is known t value of 3.654 and a significant value of 0.001 is smaller than the value of the Test level or 0.001 < 0.05, so it can be concluded that partial solvency (DER) positive and significant effect on the value of the company (PBV). Thus, the second hypothesis (H2) which states that solvency (DER) has a positive and significant influence on the value of the company (PBV), accepted.
3. Test the effect of liquidity (CR) on company value (PBV). Based on the table above, it is known that the value of t is -3.060 and the significant value is 0.004 less than the value of the Test level or 0.004 < 0.05, so it can be concluded that partial liquidity (CR) has a positive and significant effect on the value of the company (PBV). Thus, the third hypothesis (H3) which states that liquidity (CR) has a positive and significant influence on the value of the company (PBV), accepted.

The results showed that the Return on Assets (X1), Debt Equity Ratio (X2) and Current Ratio (X3) significantly affect the book value of the price (PBV) (Y). from the results of multiple linear analysis obtained F count (80.887) is greater than f table with a significant level of 5% and significant (0.000) < (0.05), so it can be

concluded that the hypothesis states return on assets (ROA) (X1), debt equity ratio (DER) (X2), and current ratio (CR) (X3) significantly affect the book value price (PBV).

## 5. Conclusion

1. Profitability ratio (X1) provides significant to the Price Book Value of food and beverage companies listed on the IDX in 2017 to 2021. The results of statistical tests get the regression coefficient value of 5775547.452, t-calculate ROA of 13.718 greater than T-table 2.01410 and the significance value of  $0.000 < 0.05$ . So, it can be concluded that the partial profitability ratio as measured by return on assets (ROA) has a positive and significant influence on the value of the company (PBV).
2. The solvency ratio (X2) provides a significant impact on the Price Book Value of food and beverage companies listed on the IDX in 2017 to 2021. The results of statistical tests get the regression coefficient value of 3874053.346, t-count DER of 3.564 greater than T-table 2.01410 and the significance value of  $0.001 < 0.05$ . So, it can be concluded that partially solvency ratio measured by debt equity ratio (DER) has a positive and significant influence on the value of the company (PBV).
3. Liquidity ratio (X3) provides significant to the Price Book Value of food and beverage companies listed on the IDX in 2017 to 2021. Statistical test results get the value of regression coefficient -1002630.053, der significance value  $0.004 < 0.05$ . So, it can be concluded that the partial liquidity ratio as measured by the current ratio (CR) gives a positive and significant influence on the value of the company (PBV).
4. The results simultaneously showed that the value of F. GIs of 0.000 which is smaller than 0.05 or ( $0.000 < 0.05$ ) which means that the variable profitability (ROA), solvency (DER), and liquidity (CR) simultaneously affect the dependent variable company value (PBV) in food and beverage companies listed on the IDX.

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