

The Effect of Profitability and Leverage on Firm Value in Food & Beverage Sub-Sector Companies Listed on the Indonesia Stock Exchange (IDX) for the Period 2020–2024

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Abstract

This study aims to examine the effect of Return on Equity (ROE) and Debt to Asset Ratio (DAR) on Firm Value. The population used in this study consists of all food & beverage sub-sector companies listed on the Indonesia Stock Exchange (IDX) during 2020–2024. This research employs a quantitative method. The sampling technique used is purposive sampling based on predetermined criteria. The total population of food and beverage companies is 102, and after applying the sampling criteria, 29 companies were selected over a 5-year period, resulting in 145 research samples. The data used are secondary data in the form of financial statements obtained from www.idx.co.id and the respective company websites. The analytical technique applied is multiple linear regression using IBM SPSS 25 software. The results show that Return on Equity (ROE) has no significant effect on Firm Value. Meanwhile, Debt to Asset Ratio (DAR) has a significant effect on Firm Value. Simultaneously, the results indicate that Return on Equity (ROE) and Debt to Asset Ratio (DAR) have a positive effect on Firm Value.

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1. INTRODUCTION

Tax is one of the largest sources of state revenue. It is the main component of the State Budget (APBN), where the primary income comes from taxation. One of the objects of taxation is income, regulated in Law No. 36 of 2008, which defines income as any economic gain received by taxpayers from any source that can be used for consumption or to increase wealth. This taxation law serves as a guideline for companies in determining their tax obligations.(Sudarno, 2020)

Profitability also plays an important role in efforts to maintain the company's sustainability in the long term, as this variable reflects whether the company has very good opportunities in the future. (Wulandari & Efendi, 2022)

In 2020, there was a decline in revenue due to the impact of the pandemic. The three sectors that experienced the highest decreases were the food and beverage sector, which dropped by 92.47%, other services by 90.90%, and the transportation and warehousing sector by 90.34%. According to the Ministry of Communication and Information of Indonesia, 2022, in 2019, the contribution of the food and beverage industry to GDP reached 36.40%, in 2020, non-oil and gas GDP was 38.29%, in 2021 non-oil and gas GDP was 38.42%, and in 2022, non-oil and gas GDP was 38.69%. Stock prices also declined;

according to the Indonesia Stock Exchange (IDX), in 2020 it dropped drastically by 37.5%. This was due to the impact of COVID-19, which caused changes in the capital market as investors faced a high level of uncertainty regarding the effects resulting from COVID-19.(Nurhayati & Ludmilla, 2024)

Return On Equity (ROE) is a ratio that shows the ability to generate profits on investments based on the book value of shareholders. The higher this ratio, the better, meaning the position of the company's owners is stronger.(Septika Wati & Arifin, 2023)

Leverage is the ratio used by a company to assess its ability to meet short-term or long-term debt through debt-based financing.(Putri, 2023)

Debt to Total Asset Ratio (DAR) is a ratio commonly used to measure the extent to which a company can still be financed by debt and the company's ability to meet the needs and obligations of the assets owned by the company.(Slamet Adi Prastyo et al., 2022)

Company Value indicates the level of public trust in the company's performance and image, which has been shaped through operational processes from its founding until now. This value represents an estimate of the current value of expected economic benefits in the future.(Wulanningsih & Agustin, 2020)



Figure 1. Average Movement of Company Values in the Food and Beverage Subsector

Based on Graph 1, it shows a fluctuation gap in the company's value from December 2019 to June 2023. Looking back to 2019, December showed a value of 1.23. In June 2020, it decreased to 0.88, and by December it dropped to 0.87. In 2021, it increased in June to 1.30 and in December to 2.44. In 2022, it still experienced an increase, with June showing 2.72 and December rising to an average of 5.95. However, in June 2023, it experienced a very significant decrease to 2.31. This company's value signals the performance level achieved by the company and also impacts the company's overall value. By using the company's value, prospective investors can observe whether the company is undervalued or overvalued.(Shofia & Kadarningsih, 2023)

2. THEORETICAL STUDY

2.1 Agency Theory

Agency Theory in the Great Dictionary of the Indonesian Language (KBBI), agency is defined as an office of a company agent that is related to the business activities of the administrative division of government. Agency can also be formulated as the capacity and ability possessed by an agent as the source and origin of their actions, particularly concerning the relationship between individuals and social structures. In general, the concept of agency is applied to explain the individual's awareness in managing self-consciousness. It also explains the individual's capacity to act independently and free from structural determination. Agents are contracted for certain tasks for principals and have the responsibilities or duties assigned by the principals. Principals have the obligation to provide compensation to agents for the services rendered by the agents.(Sari, 2022)

2.2 Trade Off Theory

Trade-off theory model according to (Hilda et al., 2024) It explains that the use of debt to a certain limit will increase the value of the company. However, once the maximum limit is exceeded, additional debt will lead to a decrease in the company's value. The use of debt can save or reduce the taxes paid by the company, but on the other hand, debt can reduce the company's profits because it may trigger an increased risk of the company failing to meet its obligations, which can result in bankruptcy.

2.3 Return On Equity

ROE (*return on equity*) measuring a company's profitability from the shareholders' perspective, that is, how much profit is earned from each unit of equity invested. The higher the ROE, the more efficiently the company uses the shareholders' capital to generate profits, which can increase the attractiveness of the stock in the eyes of investors. (Sapitri, 2019)

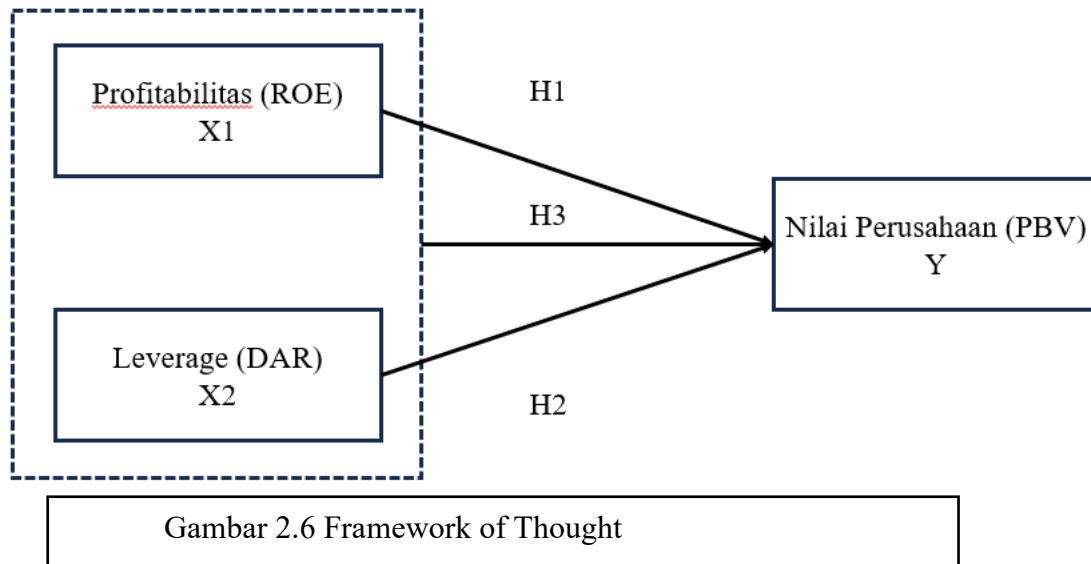
2.4 Debt To Asset Ratio

Debt to Asset Ratio (DAR) is a comparison between the company's total debt and the company's total assets. DAR serves as a proxy for a debt covenant, which is a prediction that aims to increase profit and assets in order to reduce the cost of renegotiating contracts on debt when the company decides to terminate its debt agreements. (Ramawati & Widyowati, 2022)

2.5 Price Book Value

According to (Dera et al., 2025) *Price Book Value* (PBV) aims to illustrate how the market performance and company prospects compare with its book value, thus attracting investors.

2.6 Framework of Thought



3. RESEARCH METHODOLOGY

The research method used in this study is quantitative data. The data source for this research is secondary data, which is data not obtained directly from the source or through intermediary media. The data sources in this study are obtained from the official website of the Indonesia Stock Exchange (IDX) at www.idx.co.id and the respective company websites. The population coverage itself refers to the entire object as a basis for drawing research conclusions. Examples of populations, besides humans, include objects or other entities in nature such as plants, animals, and phenomena or events that have certain

characteristics for a study (Sugiyono, 2022). The research population in this study consists of companies in the F&B subsector listed on the Indonesia Stock Exchange for the period 2020 - 2024, totaling 102 companies.

Tabel 3 Operational Variables

No	Variabel	Variable Concept	Measuremenr	Scale
1	X1 Profitabilitas <i>Return On Equity</i> (ROE) (Tiara Intan Putri et al., 2024)	The higher the ROE, the more effectively the company utilizes shareholders' capital and generates profit, which will attract investors' attention.	$ROE = \frac{\text{Laba Bersih Setelah Pajak}}{\text{Ekuitas Pemegang Saham}} \times 100\%$	Ratio
2	X2 <i>Leverage Debt to Asset Rastio</i> (DAR) (Dwi et al., 2023)	DAR plays an important role in determining decisions to meet the capital needs for asset financing that will occur in the future.	$DAR = \frac{\text{Total Hutang}}{\text{Total Asset}} \times 100\%$	Ratio
3	Y Nilai Perusahaan (PBV) (Agrivani & Lutfi, 2020)	Usually a tool to compare stock prices and the company's asset value. In achieving this value, the company must manage financial aspects effectively.	$\text{Price to Book Value} = \frac{\text{Harga pasar per lembar saham}}{\text{Nilai buku per lembar saham}}$	Ratio

4. Research Results

4.1 Deskriptive Statistic Test

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
<i>Return On Equity</i> (ROE)	145	.00	1.46	.1602	.18727
<i>Debt to Asset Ratio</i> (DAR)	145	.00	1.00	.3956	.19898
NILAI PERUSAHAAN	145	.00	2857.60	64.1300	344.17813
Valid N (listwise)	145				

Source: Secondary data processed with SPSS 25

The independent variable of Return On Equity (ROE) has a minimum value of 0.000 by PT Bisi International Tbk from 2020-2023, PT Japfa Comfed Indonesia Tbk from 2020-2023, and PT Sawit Sumbermas Sarana Tbk from 2020-2022. The mean value of this variable is 0.1602, which is smaller than the standard deviation of 0.18727, indicating that the return on equity (ROE) variable is not quite good. The independent variable Debt to Asset Ratio (DAR) has a minimum value of 0.000 by PT Delta Djakarta Tbk in 2024, which means that PT Delta Djakarta has a very small total debt or the smallest among other companies, and the maximum DAR value of 1.000 by PT Central Protein Prima Tbk in 2024, indicating that PT Central Protein Prima Tbk has the largest total debt among other companies. The mean value of this variable is 0.3956, which is higher than the standard deviation of 0.19898, indicating that the debt to equity ratio (DER) is quite good and can be interpreted that the performance among companies

is relatively consistent and looks good. The dependent variable, Company Value, calculated using PBV (price to book value), has a minimum value of 0.000 for PT Pratama Abdi Nusa Industri Tbk in 2022, which indicates that the stock price of PT Pratama Abdi Nusa Industri Tbk is low, suggesting that there may be no investment opportunities in the company. The maximum value is obtained by PT Nippon Indosari Corpindo Tbk at 2857.60 in 2021. The mean is 64.1300, and the standard deviation is higher than the mean at 344.17813, which can be interpreted as the data being highly variable and widely spread.

4.2 Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		145
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	18.75878560
Most Extreme Differences	Absolute	.071
	Positive	.071
	Negative	-.052
Test Statistic		.071
Asymp. Sig. (2-tailed)		.070 ^c
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Source: Secondary data processed with SPSS 25

The number of samples in the data is 145 with a Kolmogorov–Smirnov value of 0.07. The Kolmogorov–Smirnov value is greater than 0.05 ($0.07 > 0.05$), which can be interpreted as normally distributed.

4.3 Heteroskedastisitas Test

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-67.132	79.896		-.840	.402
	X2	2.889	1.491	.162	1.937	.055
	LNX1	7.752	17.437	.037	.445	.657
a. Dependent Variable: Y						

Source: Secondary data processed with SPSS 25

Based on Table 4.5 above, after performing data transformation, all variables show a significance value > 0.05 . This means that none of the variables above exhibit signs of heteroscedasticity.

4.4 Multikolinearitas Test

Coefficients ^a			
Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	ROE	.945	1.058
	DAR	.945	1.058
a. Dependent Variable: NILAI PERUSAHAAN			

Source: Secondary data processed with SPSS 25

Based on Table 4.4, it is known that the VIF values of variable X1 and variable X2 are $1.058 < 10$ and the tolerance value is $0.945 > 0.1$, so the data does not experience multicollinearity.

4.5 Autokorelasi Test

Model Summary ^b					
Model	R	R Square	Adjusted Square	Std. Error of the Estimate	Durbin-Watson
1	.168 ^a	.028	.015	341.645	2.066
a. Predictors: (Constant), DAR, ROE					
b. Dependent Variable: Nilai Perusahaan					

Source: Secondary data processed with SPSS 25

The Durbin-Watson value is 2.066, indicating that there is no autocorrelation in the regression model according to this criterion. The decision-making rule is $-2 < DW < +2$ ($-2 < 2.066 < +2$).

4.6 Analisis Regresi Linier Test

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-35.798	66.366		-.539	.590
	ROE	-1.206	1.638	-.062	-.737	.463
	DAR	3.038	1.511	.170	2.010	.046
a. Dependent Variable: Nilai Perusahaan						

Source: Secondary data processed with SPSS 25

From the table above, it shows the multiple regression equation obtained as follows: Company Value(Y) = $-35.798 + -1.206 (X1) + 3.038(X2)$. From the results of the multiple linear regression equation above, it can be interpreted that:

- If the constant is -35.798, if there are no variables of Return On Equity (ROE) and Debt to Asset Ratio (DAR) or their values are zero, then the Company Value is -35.798.
- The regression coefficient for the Return On Equity (ROE) variable is -1.206 with a negative direction, which means that every increase of 1 unit in Return On Equity (ROE) will decrease the Company Value by 1.206; however, Return On Equity (ROE) does not affect the Company Value. The regression coefficient for the Debt to Asset Ratio (DAR) variable is 3.038 with a positive direction, meaning that every

increase of 1 unit in Debt to Asset Ratio (DAR) can increase the Company Value by 3.038.

4.7 Statistik T Test

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-35.798	66.366		-.539	.590
	ROE	-1.206	1.638	-.062	-.737	.463
	DAR	3.038	1.511	.170	2.010	.046
a. Dependent Variable: Nilai Perusahaan						

Source: Secondary data processed with SPSS 25

- 1) The Influence of Return On Equity (X1) on Company Value (Y)
Based on table 4.8, it shows that the calculated t-value for X1 is -0.737. This means that the calculated t-value is smaller than the t-table value ($-0.737 < 1.97681$). Therefore, the hypothesis stating that Return On Equity affects Company Value is rejected.
- 2) The Effect of Debt to Asset Ratio (X2) on Firm Value (Y)
Based on Table 4.8, it shows that the calculated t value for X2 is 2.010. This means the calculated t value is greater than the t table value ($2.010 > 1.97681$). Thus, the hypothesis stating that the Debt to Asset Ratio affects Firm Value is accepted.

4.8 Statistik F Test

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.339	2	11.669	4.615	.011 ^b
	Residual	359.086	142	2.529		
	Total	382.425	144			
a. Dependent Variable: LN_Y						
b. Predictors: (Constant), LN_X2, LN_X1						

Source: Secondary data processed with SPSS 25

With a 95% confidence level, df 1 (number of variables - 1) = 2, and df 2 (n-k) = 143, the F table value obtained is 3.06. The F-test results above show that the calculated F value of $4.615 > F$ table 3.06 or p-value $< \alpha$ ($0.011 < 0.05$), thus H_0 is rejected, meaning that together the variables Return On Equity and Debt to Asset Ratio have a significant effect on Firm Value.

4.9 R² Test

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.168 ^a	.028	.015	341.64484
a. Predictors: (Constant), DAR, ROE				

Source: Secondary data processed with SPSS 25

The R value is 0.168, the R Square is 0.028, and the Adjusted R Square is 0.015. This means that 1.5% of Tax Avoidance is influenced by the two independent variables,

namely Return On Assets and Debt To Equity Ratio. Meanwhile, the remaining 98.5% is influenced by other factors outside of the two independent variables in this study.

5. Conclusion

Based on the results of data analysis and discussion regarding Return on Equity (ROE) and Debt to Asset Ratio (DAR) on Firm Value in the Food & Beverage sub-sector companies listed on the Indonesia Stock Exchange (IDX) for the period 2020–2024, the following conclusions can be drawn:

1. The test results for the profitability variable Return on Equity (ROE) show a t-value of -0.737 and a significance value of 0.463. This means the t-value is smaller than the t-table ($-0.737 < 1.97681$) and the significance value is $0.463 < 0.05$. Therefore, it can be concluded that Return on Equity does not affect Firm Value (PBV). This finding is consistent with the study by Agrivani & Lutfi (2020), which stated that Return on Equity has no effect on Firm Value (PBV). However, it differs from the study by Mohammad et al. (2025), which found that Return on Equity does affect Firm Value (PBV). The results of this study indicate that Return on Equity cannot influence Firm Value (PBV). It also shows that factors beyond profitability are more dominant in determining Firm Value. Hence, some investors tend to consider aspects such as growth, financial condition, and stability of the company.
2. The test results for the leverage variable Debt to Asset Ratio (DAR) show a t-value of 2.010 and a significance value of 0.046. This means the t-value is greater than the t-table ($2.010 > 1.97681$) and the significance value is $0.046 < 0.05$. Therefore, it can be concluded that Debt to Asset Ratio (DAR) has a significant effect on Firm Value (PBV).
3. The simultaneous test results for Return on Equity (ROE) and Debt to Asset Ratio (DAR) show an F-value of 4.615 and a significance value of 0.011. This means the F-value ($4.615 > 3.06$) and the significance value ($0.011 < 0.05$) indicate that Return on Equity and Debt to Asset Ratio jointly have a significant effect on Firm Value. These findings reflect that companies are able to generate profits from the capital already owned by shareholders.

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