

The Effect of Liquidity, Capital Structure and Company Size on Profitability (Empirical Study on the Food and Beverage Company Sector Listed on the Indonesia Stock Exchange in 2021-2023)

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Abstract

The company's profitability reflects the company's ability to generate profits from its capital, where the higher the level of profitability will basically affect investor attractiveness and company sustainability. This research aims to analyse the extent to which the liquidity variable (X1), capital structure (X2), and company size (X3) can affect the profitability variable (Y) in the food and beverage company sector listed on the Indonesia Stock Exchange (IDX) for the 2021-2023 period, both partially and simultaneously. This study uses a quantitative approach with multiple linear regression analysis methods to evaluate secondary data from the financial statements of food and beverage companies listed on the Indonesia Stock Exchange (IDX) for the period 2021-2023 with a sample of 44 companies studied. Multiple linear regression analysis was performed on the SPSS Version 25 statistical application. The results showed that simultaneously the variables of liquidity, capital structure, and company size had a significant effect on profitability. The results also show that partially the liquidity variable has a significant positive effect on profitability, capital structure has no significant effect on profitability, and finally company size has no significant effect on profitability.

Keywords

Profitability, Liquidity, Capital Structure, Company Size, Indonesia Stock Exchange

Introduction

The food and beverage sector is one of the industries that has an important role in the Indonesian economy. The growth of this industry continues to increase along with the ever-evolving needs of consumers. Based on data from the Ministry of Industry, the food and beverage subsector contributed the largest contribution to the Gross Domestic Product (GDP) of the non-oil and gas industrial sector, with a value that reached 38.42% in 2022. This shows that the food and beverage industry has great potential in driving national economic growth. In facing challenges and increasingly fierce competition, companies in this subsector need to maintain and improve their profitability. High profitability reflects the company's ability to generate profits from the capital owned, which in turn will affect investor attractiveness and company sustainability. Profitability not only shows the company's success in creating value for shareholders, but is also an important indicator in measuring the company's financial health and competitiveness in the market (Mariani and Desy, 2021: 5).

A high level of profitability indicates that the company is well managed and has a strong financial position, while a low level of profitability can indicate problems in the management or operation of the company. Company profitability is influenced by various factors, including liabilities, capital structure, and company size. Liquidity is the ability of a company to fulfil its short-term obligations. The higher the liquidity of a company, the easier it is for the company to fulfil its short-term obligations (Dwi, 2022: 11). Liquidity itself is considered to affect profitability because sufficient liquidity allows the company to meet its short-term obligations, reduce liquidity risk, and maintain investor confidence. Based on this, liquidity can increase company stability and ultimately contribute to increasing long-term profitability. The company's capital structure is also considered to affect the company's profitability. Capital structure is the ratio between own funds (equity) and borrowed funds (debt) used by the company to run its business. Companies use capital structure to finance operations and investments. The desired capital structure is one that can achieve the best balance between the level of risk and return on investment with the aim of optimising the value of the company's shares. A capital structure with too high a proportion of debt can also increase the risk of bankruptcy, which will reduce the profitability of the company. Large interest expenses can reduce net income and reduce company value if the company is unable to meet its debt obligations (Anugrah et al., 2021: 14).

The next factor that is also considered capable of affecting the profitability of a company is company size. Company size, which is often measured by assets, revenue, or number of employees, has a significant influence on the company's ability to generate profits. Larger companies often have a better reputation in the eyes of consumers, suppliers and investors (Dewi et al., 2019:

13). This reputation can help increase customer loyalty and secure more favourable contracts. High credibility also helps in building long-term relationships with business partners, which has a positive impact on profitability. Several previous studies have examined the effect of these variables on profitability. However, most of these studies were conducted in different periods or using different company samples. In addition, there is still a research gap regarding the effect of these variables simultaneously on food and beverage subsector companies in Indonesia.

This study aims to fill this gap by analysing the effect of liquidity, capital structure, and company size on the profitability of food and beverage subsector companies listed on the Indonesia Stock Exchange during the period 2021-2023. This study refers to previous research conducted by (Dwi et al, 2022: 1) with the title 'The Effect of Liability and Capital Structure on Profitability (Empirical Study of Food and Beverage Sub-Sector Companies Listed on the Indonesia Stock Exchange for the 2019-2020 Period'. Detailed research on factors such as liquidity, and company size submitted by previous researchers, made a very valuable contribution to the understanding of company profitability.

Based on this, the researcher will expand the scope by including the company size variable as an additional factor that has the potential to affect profitability in the food and beverage company sector listed on the Indonesia Stock Exchange (IDX) during the 2021-2023 period. Company size is seen as an important aspect that needs to be taken into account in profitability. This study aims to examine its impact along with the other variables previously mentioned. The difference between this research and previous research lies in the addition of variables and the research time period. This research is based on several courses related to management accounting, where the research focuses on the use of financial information for internal decision making. This research can be related to how companies manage their finances to increase profitability.

Materials and Methods

All data is collected, then data analysis is carried out as the next stage. There are several steps in the data analysis process, such as grouping data based on variables and types of secondary data, tabulating data from all secondary data based on variables, presenting data for each variable studied, and performing calculations to test the hypothesis proposed (Sugiyono, 2017). Data testing in this study used multiple linear regression analysis techniques. For hypothesis testing, SPSS software is used.

Classical Assumption Test

The classic assumption test is a series of statistical tests used to check the basic assumptions underlying certain statistical analyses. Classical assumptions involve normality, homoscedasticity, absence of multicollinearity, and absence of autocorrelation in linear regression (Gujarati, 2018: 29-31). The method used to test for deviations from classical assumptions is as follows.

Multiple Linear Analysis

Multiple regression analysis is a statistical method that enables researchers to simultaneously evaluate the relationship between a specified variable and multiple independent variables, while monitoring the influence of other variables. This approach is commonly used in a variety of fields, including social sciences, business, and other disciplines, with the aim of understanding the complex interactions between variables and forecasting possible outcomes based on these relationships (Gujarati, 2018: 92). The following equation form is also used to express the model:

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3$$

Results and Discussion

Normality Test

The normality test aims to test whether a variable in the regression model has a normal distribution or not. The regression model can be said to be normal if the plotting data that describes the actual data follows the diagonal line (Gujarati, 2018:62). The plotting data in this study is explained in the following figure:

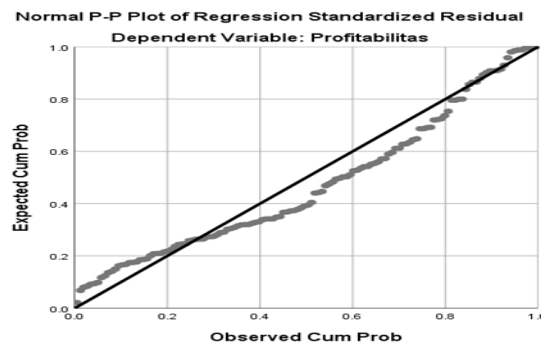


Figure 1. Normalitas Probability Plot

Multicollinearity Test

The multicollinearity test is a linear relationship between independent variables. The assumption of classical linear regression, between independent variables is not allowed to correlate with each other. Multicollinearity will cause a large variance of the regression coefficient which has an impact on the width of the confidence interval for the independent variables used (Gujarati, 2018:76). The basis of the multicollinearity test in this study is presented in the following table:

Table 1. Multicollinearity Test Results

Model	Coefficients ^a			t	Sig.	Collinearity Statistics	
	Unstandardized Coefficients		Standardized Coefficients			Tolerance	VIF
	B	Std. Error	Beta				
(Constant)	.135	.057		2.353	.020		
Likuiditas	.110	.003	.370	4.241	.000	.862	1.160
Struktur Modal	-.261	.007	-.019	-.223	.824	.905	1.105
Ukuran Perusahaan	-.314	.003	-.073	-.879	.381	.942	1.061

a. Dependent Variable: Struktur Modal

Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is inequality of variance from the residual of one observation to another. The variance from the residual of one observation to another if it remains, then it is called homoscedasticity and if it is different, it is called heteroscedasticity (Gujarati, 2018:80). The results of the data that are spread out, namely above and below the zero value, it can be concluded that the regression model is suitable for use because it is free from heteroscedasticity. The scatterplot graph image in this study is as follows:

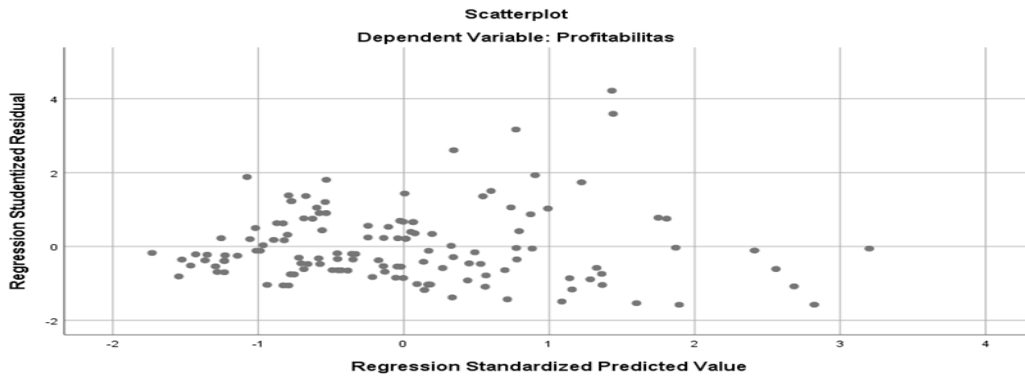


Figure 2. Scatterplot Graph of Heteroscedasticity Test Results

Autocorrelation Test

Autocorrelation test is a condition where there is a correlation between observation members sorted by time (Gujarati, 2018:84). Autocorrelation can be known by using the Durbin Watson (DW) test model. The condition for no autocorrelation symptoms in the Durbin Watson (DW) test is if the Durbin Watson value of the study lies between the du values and $(4-du)$. The Durbin Watson values in this study are presented in the following table:

Table 2. Durbin Watson Value Test Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Model Summary ^b					Durbin-Watson
					Change Statistics	R Square Change	F Change	df1	df2	
1	.399 ^a	.159	.139	.07772	.264	15.331	4	171	.000	1.8323

a. Predictors: (Constant), Ukuran Perusahaan, Pajak, Likuiditas, Profitabilitas

b. Dependent Variable: Struktur Modal

Multiple Linear Analysis

Multiple regression analysis is a statistical method that enables researchers to simultaneously evaluate the relationship between a given variable and several independent variables, while monitoring the influence of other variables. This approach is commonly used in various fields, including social sciences, business, and other disciplines, with the aim of understanding the complex interactions between variables and predicting possible outcomes based on these relationships (Sugiyono, 2017:121-122). The results of SPSS on data processing are explained in the following table:

Table 3. Results of Multiple Linear Regression Analysis

Model	Coefficients ^a			t	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
(Constant)	.135	.057		2.353	.020
Likuiditas	.110	.003	.370	4.241	.000
Struktur Modal	-.261	.007	-.019	-.223	.824
Ukuran Perusahaan	-.314	.003	-.073	-.879	.381

a. Dependent Variable: Profitabilitas

The Effect of Liquidity on Profitability

A company's liquidity reflects the company's ability to meet its short-term obligations in a timely manner. Liquidity can be achieved when the value of the company's current assets exceeds the value of its current liabilities. Liabilities or debts can affect a company's profitability based on how the debt is managed. Liquidity in this study was measured using the current ratio. The current ratio is the most appropriate ratio to compare total assets with liabilities in a company. The results obtained in this study indicate that liquidity has a significant positive effect on profitability in the food and beverage sector listed on the Indonesia Stock Exchange (IDX) during the 2021-2023 period, which can be interpreted that the higher the company's profitability level, the liquidity will also increase.

Based on these results, companies that are able to maintain the stability of current assets against their short-term liabilities can more easily fund operations, support investments in products or strategies that generate income, and handle unexpected events without sacrificing resources that can be used to achieve profitability. In other words, good liquidity allows companies to optimally utilize their current assets to generate greater profits. (Ika and Mahroji, 2023:23). This study is in line with the underlying signal theory, which states that a company's liquidity can be seen as an important signal that reflects the company's ability to meet its short-term obligations and maintain operational stability including the company's profitability. High liquidity indicates that the company has good financial management and can meet its short-term obligations without problems. This gives investors confidence that the company is in a stable financial condition, which in turn increases investor interest and strengthens the company's position in the market. This increase in confidence tends to increase demand for the company's shares, which in turn has

a positive impact on profitability because the company can obtain funding more easily and at a lower cost of capital (Ika and Mahroji, 2023:21).

The signal given by good liquidity also reflects the company's ability to adapt in the face of financial risks or operational challenges, which ultimately supports the company's performance and results in higher profitability. The results of this study are supported by previous research, namely research from (Dwi et al, 2019:23-29). The results of this study also contradict research from (Maryani and Syukri, 2020:58-69) which states that liquidity has an effect on profitability.

The Effect of Capital Structure on Profitability

Capital Structure is the comparison between the company's own invested capital and the debt used to meet funding needs. Company size in this study was measured using the Debt to Equity Ratio (DER) method which measures the comparison between total debt (liabilities) and total company equity. The results obtained in this study indicate that the company's capital structure has no effect on profitability in the food and beverage sector listed on the Indonesia Stock Exchange (IDX) during the 2021-2023 period.

Based on this, it can be interpreted that the composition of funding between debt and equity in the company does not play a significant role in determining the company's ability to generate profits. This means that changes in the proportion of debt and equity do not directly affect the company's profitability, either increasing or decreasing the profits obtained (Maryani and Syukri, 2020:67). The company achieves a capital structure that is close to optimal, so that small changes in the debt and equity ratio do not have a significant impact on the cost of capital or the company's ability to generate profits. In some sectors, including the food and beverage industry, stable market characteristics and relatively constant demand can also be factors that make companies less sensitive to variations in capital structure. Thus, profitability in this sector tends to be more influenced by market conditions or other external factors than by capital composition. The results of this study are supported by previous studies, namely research from (Maryani and Syukri, 2020:58-69). The results of this study also contradict a number of studies, including research from (Dwi et al, 2019:23-29) which states that liquidity has an effect on capital structure.

The Effect of Company Size on Profitability

Company size or firm size is a parameter that reflects the total amount of assets owned by a company. Company size in this study was measured using the natural log of assets method which refers to the logarithm of the company's total assets using the natural logarithm function. The results obtained in this study indicate that company size has no effect on profitability in the food

and beverage sector listed on the Indonesia Stock Exchange (IDX) during the 2021-2023 period. Based on this, it can be interpreted that it shows that the size of the company, which is often measured by total assets or revenue, does not affect the company's ability to generate profits. In other words, increasing company size does not automatically increase or decrease profitability (Ika and Mahroji, 2023:42).

Other factors, such as operational efficiency, cost management, business strategy, and product innovation, may have a more dominant role in determining company profitability compared to company size. Well-managed small companies can achieve the same or even higher level of profitability than large companies if they are able to implement effective operational strategies and respond to market changes. In addition, in some industries, especially those that are technology-intensive or innovation-intensive, firm size may be less relevant in determining profitability. For example, small firms operating in the food and beverage sector may achieve high profitability with high-quality products or the right market segment, regardless of their asset size or scale of operations (Ika and Mahroji, 2023:42). Overall, these findings indicate that to increase profitability, firms may be more effective if they focus on improving operational performance and innovation rather than simply increasing the scale of the firm. The results of this study are supported by previous research, namely research from (Ika and Mahroji, 2023:33-50). The results of this study also contradict research from (Maryani and Syukri, 2020:58-69) which states that liquidity has an effect on capital structure.

Simultaneous Influence on Profitability

Based on the results of the study, the variables studied showed a significant simultaneous influence on the company's profitability. This means that when variables such as liquidity, company size, capital structure, and other factors are analyzed simultaneously, they collectively play a role in determining the level of company profitability. Thus, profitability is not only determined by a single factor, but by a combination of several factors that interact with each other in influencing the company's financial performance. This simultaneous influence indicates that the company needs to manage all factors in an integrated manner to achieve optimal results in increasing profitability. Overall, this simultaneous influence shows that profitability is the result of the interaction between various internal factors of the company. A comprehensive approach to the company's financial and operational management will allow management to optimize the contribution of each factor in achieving the desired profitability performance.

Conclusion

Based on the results of the analysis of the effect of liquidity, capital structure and company size on profitability in companies listed on the Indonesia Stock Exchange in 2021-2023, the following conclusions can be drawn:

1. Liquidity has a significant positive effect on profitability in the food and beverage sector listed on the Indonesia Stock Exchange (IDX) for the 2021-2023 period. The results of this study are in line with the first hypothesis (H1) which states that liquidity has a significant effect on profitability. The results of the study show that liquidity has a positive effect on profitability, where the signal given by good Company liquidity reflects the company's ability to adapt in facing financial risks or operational challenges, which ultimately supports company performance and results in higher profitability.
2. Capital structure does not have a significant effect on profitability in the food and beverage sector listed on the Indonesia Stock Exchange (IDX) for the 2021-2023 period. The results of this study differ from the second hypothesis (H2) which states that capital structure has a significant effect on profitability. The results of the study indicate that capital structure has no effect on profitability, where in several company sectors, including the food and beverage industry, stable market characteristics and relatively constant demand can also be factors that make companies less sensitive to variations in capital structure.
3. Company size does not have a significant effect on profitability in the food and beverage company sector listed on the Indonesia Stock Exchange (IDX) for the 2021-2023 period. The results of this study differ from the third hypothesis (H3) which states that company size has a significant effect on profitability. The results of the study indicate that company size has no effect on profitability, where in some industries, especially those that are technology or innovation intensive, company size may be less relevant in determining profitability. Food and beverage sector companies may be more effective if they focus on improving operational performance and innovation rather than simply expanding the scale of the company.
4. Simultaneously, the variables liquidity, capital structure and company size affect profitability in the food and beverage company sector listed on the Indonesia Stock Exchange (IDX) for the 2021-2023 period. The results of this study are in line with the fourth hypothesis (H4) which states that simultaneously all independent variables have a significant effect on the dependent variable.

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