

The Effect of Profitability and Liquidity on Capital Structure in Manufacturing Sub-Sector Companies in 2019-2022

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Article Info

Article history:

Received 17/08/2023

Revised 18/08/2023

Accepted 19/08/2023

Keyword:

Profitability, Liquidity,
Capital Structure

ABSTRACT

The purpose of this study was to examine and analyze the effect of profitability and liquidity on the capital structure of manufacturing sub-sector companies listed on the Indonesia Stock Exchange in 2019-2022. The research population is all manufacturing sub-sector companies listed on the IDX for the period 2019 – 2022, namely 53 companies. The sampling method in this study used purposive sampling so that a sample of 40 companies was obtained. Data analysis in this study used multiple regression using the SPSS statistical program version 24. The results showed that profitability had a significant effect with a negative relationship to capital structure in manufacturing sub-sector companies listed on the Indonesia Stock Exchange in 2019-2022. Then liquidity was found to have a significant effect with a negative relationship to the capital structure of manufacturing sub-sector companies listed on the Indonesia Stock Exchange in 2019-2022. Finally it was found that simultaneously profitability and liquidity had a significant effect on the capital structure of manufacturing sub-sector companies listed on the Indonesia Stock Exchange in 2019-2022.



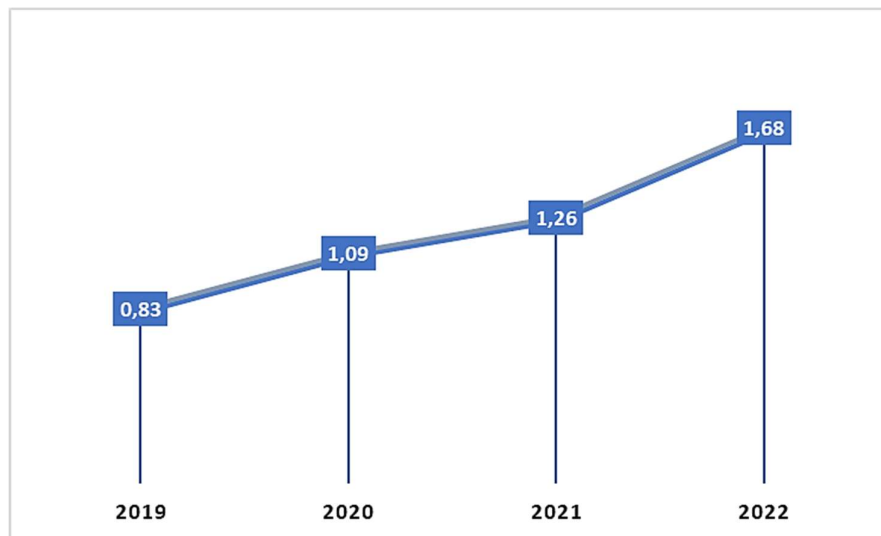
INTRODUCTION

Companies as business actors have an important role as economic actors in Indonesia. The establishment of the company is inseparable from the aim to gain profits and increase the value of the company. In achieving its goals, the role of the manager is very important to manage the company's funding because it is fundamental to carrying out the company's operational activities. Managers must manage the company's funding efficiently both from internal and external sources of the company. Funds originating from internal or own capital come from share capital and retained earnings. When internal funding still requires more costs, the company should consider funding from external companies or debt (Novwedayaningayu & Hirawati, 2020). If the company's activities in making funding decisions are taken correctly, it will also produce the right capital structure. The capital structure is one of the Company's factors in adopting a funding policy. How the company finances its operational activities and assets is indicated by the capital structure. The capital structure is part of the financial structure that maintains a balance between the total debt and the company's capital (Puspita & Dewi, 2019).

The financial position of the company is determined by the level of the company's capital structure. Companies need important factors in order to support good productivity in marketing activities or in making strategies. The capital structure is a permanent expenditure from the company which reflects a comparison between the company's long-term debt and its own capital in the form of retained earnings and the issuance of shares (Deviani & Sudjarni, 2018). In financing assets and increasing the company's business capital, capital structure is one of the key company financial decisions. Guna & Sampurno (2018) that capital structure is a financial ratio that compares total debt to capital. The use of the capital structure itself is as a reference for the company in making decisions

about working capital to be used by the company, where the capital itself is funded by external parties or debt and capital is funded from the company's internal parties. A good capital structure will definitely have a good impact on the value or finances of a high company. If there is an error in managing the capital structure it can result in a large company debt and make the company unable to pay the company's debts. The problem of capital structure is a very important issue for every company, the capital structure will have an impact on the company's finances. Mistakes in determining the capital structure will affect the sustainability of a company, especially if the company's debt is large, the burden that will be borne will also be greater (Lilia et al., 2020).

The importance of capital structure at the micro and macroeconomic level also refers to increasing the value of the company, full utilization of available funds, maximizing returns, minimizing financial risks, reducing the cost of capital, solvency or liquidity position and flexibility according to changing conditions or capital adjustments (Prieto & Lee, 2019). The following is the average value of the capital structure of manufacturing sub-sector companies listed on the Indonesia Stock Exchange for 2019 – 2022.



Source: Research Processed Data (2023)

Figure 1 Average Capital Structure of Companies in the Manufacturing Sub Sector for 2019-2022

The graphic image above shows the capital structure of manufacturing sub-sector companies listed on the Indonesia Stock Exchange in 2019 of 0.83. Then in 2020 the capital structure of manufacturing sub-sector companies listed on the Indonesia Stock Exchange has increased by 1.09. The increase in the average capital structure value of manufacturing sub-sector companies listed on the Indonesia Stock Exchange has also occurred again in 2021 to 1.26. In 2022 or the end of the observation year, the capital structure of manufacturing sub-sector companies listed on the Indonesia Stock Exchange has again experienced an increase as well as the highest in the observation year to 1.68. The increase in the average value of the capital structure in manufacturing sub-sector companies is an interesting phenomenon because if the value of the capital structure is above one or greater than one, it means that the company has a greater amount of debt than the amount of its own capital. This condition is not in accordance with the theory of optimal capital structure, where the company's debt should not be greater than its own capital. Meanwhile, most investors are more interested in investing their capital in the form of investment in companies that have a certain capital structure that is less than one. Because if the capital structure is greater than one, it means that the risk borne by investors increases.

Many factors influence the manager's decision in determining the company's capital structure. Tijow et al. (2018) revealed that profitability is one of the factors that influence the capital structure which is seen through how the company is able to generate profits from the activities it carries out with the decisions and policies taken by the company in certain periods in accordance with the

company's main goal to gain profit (profit) so that the company can carry out its activities and maintain the continuity of the company in the future. Profitability is also known as financial performance related to the company's capital structure, the higher the debt, the lower the profitability. Companies with high levels of profitability must have low levels of debt, because companies with high profitability have adequate internal funding sources. Dewiningrat & Mustanda (2018) revealed that profitability has a negative and significant effect on capital structure. This is the same as what was described by Puspita & Dewi (2019) who in their research found that profitability had a significant positive effect on capital structure.

The next factor is liquidity, where according to Sukamulja (2019) liquidity shows how much a company's ability to pay short-term debt on time has been determined, the size of the company's current assets is a reflection of the company's liquidity. The liquidity ratio reflects the company's ability to pay off its short-term liabilities or how quickly the company can convert its assets into cash. The liquidity ratio is the ratio that shows the relationship between the company's cash and current assets and the company's current liabilities (Brigham & Houston, 2010). The current ratio calculates the company's ability to pay off all short-term liabilities using current assets owned by the company. The higher this ratio, the more liquid the financial condition of the company.

Previous research conducted by Nasimi (2016) concluded that capital structure can be influenced by company profitability, and the optimal level of capital structure must be used to achieve the targeted level of efficiency in business. Although many theories have been developed to explain the optimal capital structure of firms, there is still no consensus theory that managers can rely on to find the optimal capital structure. Furthermore, Chakrabarti's research (2018) found a relationship between the liquidity of Indian energy companies having a negative relationship with their capital structure. This negative relationship between liquidity structures indicates that the selected Indian energy companies tend to finance projects of an operation using internal funds rather than seeking external debt funds. Meanwhile Tiyas & Nurasik (2022) found that liquidity has a positive and significant effect on capital. However, research conducted by Gah (2022) found that profitability has no effect on capital structure. Agustinus & Mulyani (2023) also found no significant effect between profitability on capital structure in property and real estate companies listed on the IDX for the period 2017-2021.

Based on the description above, there are still results that are not conclusive and there are still research gaps between one study and another. For this reason, researchers are interested in conducting research and trying to find the effect of profitability and liquidity on capital structure using different measures with the help of multiple regression analysis in manufacturing sub-sector companies listed on the Indonesia Stock Exchange for the period 2019-2022.

LITERATURE REVIEW

Profitability

According to the pecking order theory, a firm's future projects should be financed through retained earnings, not external debt financing (Chen et al. 1998). Companies with more profitability have less debt in their capital structure. Profitability is the company's ability to generate profits. In this study, profitability is measured by Return on Assets (ROA), which is the ratio of asset turnover as measured by sales volume. The high cost of capital can result from a smart and careful decision. So that it can affect low profitability and threaten the financial position of a company (Qusibah & Yusra, 2019). Companies with lower profitability are often faced with debt equity financing decisions because their income is far from their investment plans, therefore the need for external funding is a ratio and debt ratios tend to increase (Omorieg et al., 2019). Return on assets (ROA) how efficiently a company can manage its assets to generate profits over a period:

$$ROA = \frac{\text{Net Income}}{\text{Total Assets}}$$

Liquidity

The liquidity ratio reflects the company's ability to pay off its short-term liabilities or how quickly the company can convert its assets into cash. Liquidity is a ratio that shows the relationship between cash and other current assets of a company with its current liabilities. The liquidity ratio is the ratio used so that it can measure a company's ability to return its current liabilities with available

current assets to meet obligations (Indriani et al., 2017). Lenders hesitate to lend to companies that have high agency liquidity costs resulting in an adverse relationship between liquidity and capital structure (Dakua, 2018). Liquidity is the ratio of current assets to current liabilities which can be measured using a formula:

$$LIQ = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Capital Structure

The company's capital structure is defined as a specific combination of debt, equity and other sources used as a source of funding in its business activities. The optimal capital structure is the capital structure that is predicted to produce the lowest weighted average cost of capital in order to maximize firm value (Liang & Natsir, 2019). The capital structure is an important issue for the company because the good or bad capital structure will have a direct effect on the company's financial position. There is no definite size regarding the amount and composition of capital of each company, but basically the regulation of the capital structure within the company must be oriented towards achieving financial stability and ensuring the survival of the company (Aslah, 2020). Financial difficulties can arise through wrong decisions and can even lead to bankruptcy. The measurement of the capital structure variable is as follows:

$$DER = \frac{\text{Total Debt}}{\text{Total Equity}}$$

From the description of the previous theory, the research model is presented as below:

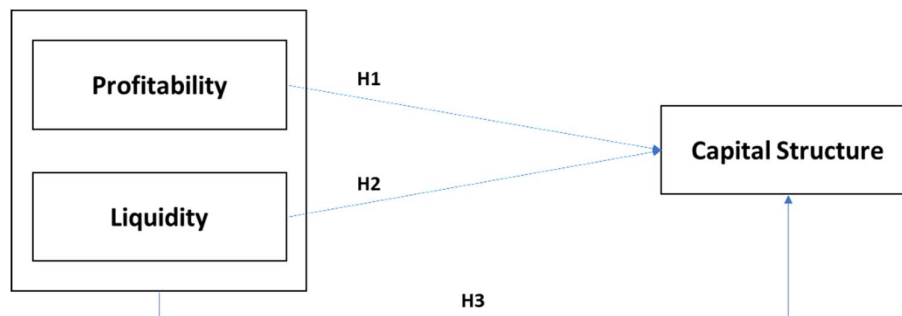


Figure 2. Thinking Framework

The hypotheses proposed in the study include:

- H1:** Profitability has a negative effect on capital structure
- H2:** Liquidity has a negative effect on capital structure
- H3:** Profitability and Liquidity together influence the capital structure

RESEARCH METHODS

This type of research is a quantitative research that uses numerical data or figures. Quantitative data used in this study is the company's financial statements. In this study, there are three independent variables used, namely profitability and liquidity, while the dependent variable used is capital structure. In this study, the population is all manufacturing sub-sector companies listed on the Indonesia Stock Exchange (IDX). The sample used as the object of this study is a manufacturing sub-sector company listed on the Indonesia Stock Exchange for the period 2019 to 2022. The sample selection was carried out using a purposive sampling method, which means that the population to be used as a research sample is a population that meets certain sample criteria according to what is desired. researcher. Sugiyono (2018) revealed that purposive sampling is a sampling technique with certain considerations. The criteria for companies that will be carried out by research to be used as research samples are as follows:

1. Manufacturing Sub Sector Companies listed on the IDX for the period 2019 – 2022
2. The company reports complete financial statements for the period 2019-2022

Furthermore, in this study the data collection method used is secondary data sourced from the documentation method. In this method the researcher searches for information and data through websites including 1) www.idx.co.id; 2) www.idnfinancial.com; 3) www.sahamok.com; and 4) www.yahoofinance.com. In addition, the data was also obtained from the financial statements of each company. The analytical tools used are classical assumptions and hypothesis testing, including descriptive statistical analysis, normality test, multicollinearity test, heteroscedasticity test, autocorrelation test, and multiple regression analysis by testing the hypothesis using t statistical test, simultaneous test (f test), test coefficient of determination (R^2). The necessary analysis of the data obtained was carried out by utilizing the SPSS 24 statistical program.

RESULTS AND DISCUSSION

Secondary information is collected from annual reports of manufacturing sub-sector companies listed on the IDX for the period 2019-2022. An overview of the procedures involved in determining the study sample size is provided in the table below:

Table 1. Sampling Criteria

No	Sampling Criteria	Amount
1	Manufacturing Sub Sector Companies listed on the IDX for the period 2019 - 2022	53
2	Sort companies Sub Sector Manufacturing incomplete financial reports	(13)
Number of Observations (40 x 4 years of observations)		160

Source: Results Processed by Researchers (2023)

Descriptive Statistics Test

Descriptive statistical tests can provide an explanation of the object under study by showing the minimum (min), maximum (max), average (mean), and standard deviation (std. deviation) values of each dependent and independent variable. Table 2 displays the results of the descriptive statistical tests performed on all variables:

Table 2. Descriptive Statistical Test Results

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
STRUKTURMODAL	160	-2,130	17,040	1,19525	2,256768
PROFITABILITAS	160	-,280	,610	,07256	,123412
LIKUIDITAS	160	,410	12,760	2,69263	2,088759
Valid N (listwise)	160				

Source: Results of Data Processing with SPSS 24 (2023)

The Capital Structure variable obtains a mean value of 1.19525 with a maximum value of 17.040 at PT. Prashida Aneka Niaga Tbk and a minimum value of -2,130 at PT. Tiga Pilar Sejahtera Food Tbk. The maximum increase in the average variable with reference to the standard deviation value is 2.256768.

Then the Profitability variable obtains a mean value of 0.07256, with a maximum value at PT. Tiga Pilar Sejahtera Food Tbk of 0.610 and the minimum value at PT. Indofarma (Persero) Tbk of -0.280. When the standard deviation of the variable is 0.123412, it indicates that the average value will not increase more than that.

The mean value for the Liquidity variable is 2.69263 with a maximum value of 12.760 at PT. Hartadinata Abadi Tbk with a minimum value of 0.410 at PT. Tiga Pilar Sejahtera Food Tbk. The standard deviation is 2.088759, thus the highest increase is only that big.

Analysis of Research Results

Classic Assumption Test

The normality test aims to test whether in the regression model, the confounding or residual variables have a normal distribution. Testing the normality of the distribution of population data was carried out using Kolmogorov-Smirnov statistics. In this study the results of the data normality test can be seen in Table 3 below.

Table 3. Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		160
Normal Parameters ^{a,b}	Mean	,0000000
	Std. Deviation	2,06279883
Most Extreme Differences	Absolute	,058
	Positive	,058
	Negative	-,092
Test Statistic		,092
Asymp. Sig. (2-tailed)		,083 ^c

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.

Source: Results of Data Processing with SPSS 24 (2023)

From Table 1 it can be seen that the Asymp coefficient. Sig (2-tailed) is 0.083. These results indicate that the Asymp. The (2-tailed) sig obtained is greater than the 5% significance level, thus it can be concluded that the data is normally distributed.

The multicollinearity test aims to test whether the regression model found a correlation between the independent (independent) variables. A good regression model should not have a correlation between the independent variables (Ghozali, 2013: 105). To test multicollinearity, correlation analysis was carried out between independent variables and calculation of tolerance values and variance inflation factor (VIF). From the results of statistical data processing, table 4 results of the multicollinearity test as follows.

Table 4. Multicollinearity Test Results

Variable	Tolerance	VIF
Profitability	.995	1.005
Liquidity	.995	1.005

Source: Results of Data Processing with SPSS 24 (2023)

Based on the results of the multicollinearity test, the results showed that each independent variable (Profitability and Liquidity) obtained a Tolerance value of > 0.1 and a VIF value < 10. Thus it can be said that the data in this study are free from multicollinearity problems.

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residual of another observation. A good regression model is homoscedasticity or non-heteroscedasticity (Ghozali, 2013: 139). The statistical test used is the Glejser test so that the results obtained are accurate. The Glejser test proposes to regress the absolute residual value of the independent variable (Ghozali, 2013: 142).

Table 5. Heteroscedasticity Test Results

Variable	Sig.	Information
Profitability	0.103	There is no Heteroscedasticity
Liquidity	0.117	There is no Heteroscedasticity

Source: Results of Data Processing with SPSS 24 (2023)

Based on the results of the heteroscedasticity test, it can be seen that each independent variable (Profitability and Liquidity) obtains a Sig value. > alpha 0.05. Thus it can be concluded that the data in this study did not contain heteroscedasticity.

To identify the existence of autocorrelation, namely by using the Durbin-Watson (D-W) test (Durbin and Watson, 1951). The D-W test assesses whether there is autocorrelation by testing the null hypothesis of no autocorrelation, which is tested for negative autocorrelation with respect to the lower and upper bounds and for positive lower and upper bounds. Mooi et. al (2017: 231) The situation that occurs depends on the interaction between the D-W test statistics (d) and the lower (dL) and upper (du) critical values.

Table 6. Autocorrelation Test Results

N K = 2	DW count	4-dU	4-dL	Lower Limit Dw Table (dl)	Upper Limit DW Table (du)
160	2,261	2,240	2,294	1,706	1,760

Source: Results of Data Processing with SPSS 24 (2023)

Based on the results of the autocorrelation test with Durbin Watson, the results were (4 - du < d < 4 - DL) (2.240 < 2.261 < 2.294). These results can be interpreted that there is no autocorrelation in the regression model used in this study.

Multiple Regression Test Results

In addition to being a descriptive tool, multiple regression is also used as an inference tool to test hypotheses and estimate populations. The following are the results of multiple regression testing in the study.

**Table 7. Multiple Regression Test Results
Coefficients^a**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	2,343	,280		8,354	,000
	PROFITABILITAS	-5,340	1,337	-,292	-3,993	,000
	LIKUIDITAS	-,282	,079	-,261	-3,574	,000

a. Dependent Variable: STRUKTURMODAL

Source: Results of Data Processing with SPSS 24 (2023)

Based on Table 7 it can be concluded that the multiple regression equation is as follows:

$$\text{STRUKTURMODAL} = 2,343 - 5,340\text{PROFITABILITAS} - 0,282\text{LIKUIDITAS} + e$$

From the results of the multiple linear regression analysis equation, it can be explained through the following statement:

1. The constant value of the regression results is 2.343. This value means that if the profitability and liquidity variables have a value of 0 (zero), then the capital structure is 2.343.
2. The regression coefficient value of the profitability variable is negative by 5.340. These results indicate that there is a negative relationship between the profitability variable and capital structure. So when the profitability value is high, it will have an impact on decreasing the ratio of the capital structure because if the company has a high profit rate, the company will use the retained earnings owned by the company to be used as the company's capital so that this will reduce the value of the capital structure.
3. The regression coefficient value of the liquidity variable is negative at 0.282. These results indicate that there is a negative relationship between liquidity variables and capital structure. This shows

that the higher the level of liquidity, the value of the debt to equity ratio will decrease because the total debt decreases due to reduced long-term.

Partial Hypothesis Test (t test)

Partial hypothesis testing with t-test is used to determine whether the independent variable is significant or not to the dependent variable individually by comparing t-count with t-table at a significance level of 5% ($\alpha=0.05$). The results of partial hypothesis testing can be explained based on Table 8 below.

Table 8. Partial Hypothesis Results (t test)

No.	Variable	T count	Sig.
1.	Profitability	-3.993	0.000
2.	Liquidity	-3.574	0.000

Source: Results of Data Processing with SPSS 24 (2023)

Based on Table 8 it can be explained regarding the results of the t-test hypothesis as follows:

First Hypothesis (H1)

The first hypothesis in this study aims to determine the effect of the profitability variable on capital structure in manufacturing sub-sector companies listed on the IDX for the period 2019-2022. The hypothesis put forward is:

Ho1 = Profitability has no negative effect on the capital structure of manufacturing sub-sector companies listed on the IDX for the period 2019-2022.

Ha1 = Profitability has a negative effect on the capital structure of manufacturing sub-sector companies listed on the IDX for the period 2019-2022.

Based on Table 8, the results of the regression of the profitability variable on capital structure yield a tcount of $-3.993 > t_{table} 1.975$ with a significant value (sig.) of $0.000 < 0.05$. Thus Ho1 was rejected in this study, Ha1 was accepted. It can be concluded that there is a relationship between profitability and capital structure in manufacturing sub-sector companies listed on the IDX for the period 2019-2022.

Second Hypothesis (H2)

The second hypothesis in this study aims to determine the effect of the liquidity variable on the negative effect on capital structure in manufacturing sub-sector companies listed on the IDX for the period 2019-2022. The hypothesis put forward is:

Ho2 = Liquidity has no negative effect on manufacturing sub-sector companies listed on the IDX for the period 2019-2022.

Ha2 = Liquidity has a negative effect on Capital Structure in manufacturing sub-sector companies listed on the IDX for the period 2019-2022.

Based on Table 8, the regression results of the liquidity variable on capital structure yield a tcount of $-3.574 > t_{table} 1.975$ with a significant value (sig.) of $0.000 < 0.05$. Thus Ho2 was rejected in this study, Ha2 was accepted. It can be concluded that there is a relationship between liquidity and capital structure in manufacturing sub-sector companies listed on the IDX for the period 2019-2022.

Simultaneous Hypothesis Test (Test F)

The results of the simultaneous test or F test are used to test whether all the independent variables jointly have an influence on the dependent variable. The results of simultaneous hypothesis testing can be explained based on Table 9 below:

Table 9. Simultaneous Hypothesis Test Results (Test F)

		ANOVA ^a				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	133,220	2	66,610	15,457	,000 ^b

Residual	676,567	157	4,309	
Total	809,787	159		

a. Dependent Variable: STRUKTURMODAL

b. Predictors: (Constant), LIKUIDITAS, PROFITABILITAS

Source: Results of Data Processing with SPSS 24 (2023)

From the results of the analysis in the table above, it shows that:

Third Hypothesis (H3)

The third hypothesis in this study aims to determine the simultaneously effect of the profitability and liquidity variables on the capital structure of manufacturing sub-sector companies listed on the IDX for the period 2019-2022. The hypothesis put forward is:

Ho3 = Profitability and Liquidity simultaneously have no effect on Capital Structure in manufacturing sub-sector companies listed on the IDX for the period 2019-2022.

Ha3 = Profitability and Liquidity simultaneously affect the Capital Structure of manufacturing sub-sector companies listed on the IDX for the period 2019-2022.

The results of the simultaneous hypothesis test or F test yielded an f-count value of 15.457 > 3.901 with a significant value (sig.) of 0.000 < 0.05. Thus Ho3 was rejected in this study, Ha3 was accepted. It can be concluded that the profitability and liquidity variables simultaneously affect the capital structure of manufacturing sub-sector companies listed on the IDX for the period 2019-2022.

Determination Coefficient Test

The coefficient of determination (R²) is intended to determine the best level of accuracy in the regression analysis, this is indicated by the magnitude of the coefficient of determination (R²) between 0 (zero) to 1 (one). The results of testing the coefficient of determination in this study can be seen in Table 10 below:

Table 10. Test Results for the Coefficient of Determination

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.406 ^a	.165	.154	2,075896	1,261

a. Predictors: (Constant), LIKUIDITAS, PROFITABILITAS

b. Dependent Variable: STRUKTURMODAL

Source: Results of Data Processing with SPSS 24 (2023)

The Adjusted R-Square value is 0.154 or 15.4%. This means that the profitability and liquidity variables together have a 15.4% relationship to the capital structure of manufacturing sub-sector companies listed on the IDX for the period 2019-2022. While the remaining 84.6% is influenced by other variables outside the research model.

Discussion

The first hypothesis is supported by the regression coefficient value for the profitability variable of -5.340 with a negative relationship, a significant value (sig.) of 0.000 < 0.05. Thus it can be said that profitability has a negative and significant effect on the capital structure of manufacturing sub-sector companies listed on the IDX for the period 2019-2022. This condition indicates that management's decision to reduce the use of debt when the resulting profitability (ROA) is high. This situation is by the concept of peking order theory, where management chooses internal financing to increase its capital requirements. The use of debt will only be made if internal financing is insufficient to cover the required capital requirements. Lilia et al. (2020) revealed that a company in good financial condition will borrow less money, but will generate investor interest in investing. The results of this study are in line with the findings of Arilyn (2019) who found that profitability, liquidity and tangibility have a significant effect on the capital structure of Chemical Industry companies listed on the Indonesia Stock Exchange in 2014 – 2018.

The second hypothesis is supported by the regression coefficient value for the liquidity variable of -0.282 with a negative relationship, a significant value (sig.) of 0.000 < 0.05. Thus it can be concluded that liquidity has a significant negative effect on the capital structure of manufacturing

sub-sector companies listed on the IDX for the period 2019-2022. The greater the liquidity owned by the company, the smaller the external funds, especially debt used by the company, will reduce the capital structure. Companies with high liquidity tend not to use debt financing. This finding supports Prieto & Lee (2019) who found that company-specific factors, in this case liquidity, negatively affect capital structure. Likewise with Chakrabarti's research (2018) which found a relationship between the liquidity of Indian energy companies having a negative relationship with their capital structure, even though the coefficient is not very significant. This negative relationship between liquidity structures indicates that the selected Indian energy companies tend to finance projects of an operation using internal funds rather than seeking external debt funds.

The third hypothesis is supported by a significant value (sig.) for the variable profitability and liquidity simultaneously of $0.000 < 0.05$. Thus it can be concluded that profitability and liquidity simultaneously have a significant effect on the capital structure of manufacturing sub-sector companies listed on the IDX for the period 2019-2022. If the company obtains greater profitability, the greater retained earnings means that the capital structure itself is greater. Increasing profits also increase current assets in the form of cash or receivables, so that the capital structure can also increase (Sinurat et al., 2021). The results of tests conducted by Paramita et al. (2021) on manufacturing companies listed on the Indonesia Stock Exchange for large company groups shows that liquidity has a negative effect on capital structure or leverage in particular. If the liquidity of large companies is lower, the funding decision with leverage will be higher. Large companies tend to have a lower level of liquidity than small companies, so that large companies need to seek additional external funding. In line with Martini et al. (2021), his research shows that there is a simultaneous influence between activity, liquidity, profitability, and asset structure on capital structure. Likewise with Qur'ani & Purwaningsih (2022) simultaneously there is the influence of capital structure, liquidity, company size, and inventory turnover variables on Profitability.

CONCLUSION

Referring to the results of the research that has been explained, it can be seen that profitability has a significant effect with the direction of a negative relationship to the capital structure of manufacturing sub-sector companies listed on the Indonesia Stock Exchange in 2019-2022. Likewise, liquidity in this study has a significant effect with a negative relationship to the capital structure of manufacturing sub-sector companies listed on the Indonesia Stock Exchange in 2019-2022. And finally it was found that simultaneously profitability and liquidity have a significant influence on the capital structure of manufacturing sub-sector companies listed on the Indonesia Stock Exchange in 2019-2022. The limitation of this research is that the research only uses a relatively short observation period, namely four years starting from 2019 to 2022, so it does not reflect long-term conditions and cannot describe the actual situation. Then this research is only limited to manufacturing sub-sector companies listed on the Indonesia Stock Exchange, so it is less able to represent the condition of the company as a whole. Finally, the variables used in this study are limited because they do not use all the factors that can affect the company's capital structure.

Based on the results and limitations of this study, suggestions for further research are that future research can increase the research period, so that it can reflect long-term conditions and be able to describe the actual situation. In addition, it is also recommended to use other companies outside the manufacturing sub-sector companies as research subjects. Further research can also use other research variables that are thought to have an effect on capital structure.

REFERENCES

- Agustinus, E. & Mulyani, N. (2023). Pengaruh Profitabilitas dan Likuiditas Terhadap Struktur Modal Pada Perusahaan Property Dan Real Estate yang Terdaftar di Bursa Efek Indonesia (BEI) Periode 2017-2021. *Jurnal Arastirma* 3(2):349. DOI:10.32493/arastirma.v3i2.31806
- Arilyn, E. J. (2019). The Effects of Profitability, Liquidity, Tangibility, Firm Size, and Asset Turnover on Capital Structure in Chemical Industry Listed on Indonesia Stock Exchange From

- 2014 to 2018. *Advances in Economics, Business and Management Research*, Vol. 145, 399-404.
- Aslah, T. (2020). Pengaruh Profitabilitas, Likuiditas, Struktur Aset Dan Ukuran Perusahaan Terhadap Struktur Modal. *Jurnal Akuntansi & Perpajakan*, Volume 2, No. 1, E-Issn : 2714-8165.
- Paramita, A. S., Suhardjo, Y., Asri, M. (2021). The Influence of Liquidity Toward Capital Structure. *E-Jurnal Akuntansi*, Vol. 31, No. 11, p. 2800-2811.
- Brigham, E. F. & Houston, J. F. (2019). *Dasar-dasar Manajemen Keuangan. Edisi Empat Belas. Buku Dua*. Jakarta: Salemba Empat.
- Chakrabarti, A & Chakrabarti, A.,(2018). The capital structure puzzle – evidence from Indian energy. *International Journal of Energy Sector Management*, DOI: <https://doi.org/10.1108/IJESM-03-2018-0001>
- Chen, L. H., Lensink, R., & Sterken, E. (1998). *The determinants of capital structure: Evidence from Dutch panel data*. University of Groningen.
- Dakua, Sarada. (2018). Effect of determinants on financial leverage in Indian steel industry: A study on capital structure. *International Journal of Finance & Economics*, 24(1), 427-436. DOI: <https://doi.org/10.1002/ijfe.1671>
- Deviani, M. Y., & Luh K. Sudjarni. (2018). Pengaruh Tingkat Pertumbuhan, Struktur Aktiva, Profitabilitas, dan Likuiditas terhadap Struktur Modal Perusahaan Pertambangan di Bei. *E-Jurnal Manajemen Universitas Udayana*, vol. 7, no. 3. doi:10.24843/EJMUNUD.2018.v7.i03.p04
- Dewiningrat, A I., & Mustanda, I. K. (2018). Pengaruh Likuiditas, Profitabilitas, Pertumbuhan Penjualan, dan Struktur Aset terhadap Struktur Modal. *E-Jurnal Manajemen Universitas Udayana*, vol. 7, no. 7. doi:10.24843/EJMUNUD.2018.v07.i07.p02
- Durbin, J., & Watson, G.S. (1951). Testing for Serial Correlation in Least Square Regression. *Biometrika*, Vol. 38, pp. 159 – 177.
- Gah, T. N. P. (2022). Analysis Of Factors Affecting Capital Structure (Empire Study On Lq45 Companies Listed On The Indonesia Stock Exchange). *Enrichment: Journal of Management*, 12(4), 2763-2769.
- Ghozali, I. (2013). *Aplikasi Analisis Multivariate dengan Program IBM SPSS21 Update PLS Regresi*. Semarang: Badan Penerbit Universitas Diponegoro.
- Guna, M. A. & Sampurno, R. D. (2018). Analisis Faktor-faktor yang Mempengaruhi Struktur Modal (Strudi Kasus pada Perusahaan Makanan dan Minuman yang terdaftar di BEI periode 2012-2016). *Diponegoro Journal Of Management*, Vol. 7, No. 2.
- Indriani, A., Widyarti, E. T., & Fitria, S. (2017). Capital Structure Perbankan Syariah di Asia Tenggara: Sebuah Pendekatan Empiris. *Al Tijarah*, 3(2), 97-118.
- Liang, I. & Natsir, K. (2019). Pengaruh Profitabilitas, Likuiditas Dan Ukuran Perusahaan Terhadap Struktur Modal. *Jurnal Manajerial dan Kewirausahaan*, Vol. 1 No. 3. DOI: <https://doi.org/10.24912/jmk.v1i3.5359>
- Lilia, W., Situmeang, S. I. L., Verawaty., & Hartanto, D. (2020). Pengaruh Profitabilitas, Likuiditas, Ukuran Perusahaan terhadap Struktur Modal Perusahaan Property dan Real Estate yang terdaftar di BEI. *Owner* 4(2):627, DOI:10.33395/owner.v4i2.259.
- Martini, E., Ramli, M. A., Gustyana, T. T., & Nugraha. (2021). Impact of Activity Ratio, Profitability, Liquidity, and Asset Structure on Capital Structure in Food and Beverages Companies Listed On Indonesia Stock Exchange Period 2015-2019. *Jurnal Manajemen Indonesia* Vol. 21(2), pp. 112-119.
- Nasimi, A. N. (2016). Effect of capital structure on firm profitability (an empirical evidence from London, UK). *Global Journal of Management and Business Research*, 16(4), 9–19.
- Novwedayaningayu, H. C. & Hirawati, H. (2020). Pengaruh Profitabilitas, Likuiditas Dan Struktur Aktiva Terhadap Struktur Modal Pada Perusahaan Consumer Goods. *Jurnal Sains Manajemen dan Bisnis Indonesia*, Vol. 10, No. 2. DOI: <https://doi.org/10.32528/jsmbi.v10i2.4124>
- Omoregie, O. K., Olofin, S. A., & Ikpesu, F. (2019). Capital Structure and the Profitability-Liquidity Trade-off. *International Journal of Economics and Financial Issues*, 9(3), 105-115. DOI: <https://doi.org/10.32479/ijefi.7758>
- Prieto, A. B. T. & Lee, Y. (2019). Internal and External Determinants of Capital Structure in Large Korean Firms. *Global Business & Finance Review*, 24(3), 79-96.

- Puspita, I. A. P. T. & Dewi, I. K. (2019). Pengaruh Likuiditas, Pertumbuhan Penjualan, dan Risiko Bisnis Terhadap Nilai Perusahaan. *E-Jurnal Akuntansi*, Vol. 26, No. 1, pp. 85 – 110.
- Qur'ani, F. I. & Purwaningsih, E. (2022). The Effect of Capital Structure, Liquidity, Company Size, and Inventory Turnover on Profitability. *ENDLESS : International Journal of Future Studies*, Vol. 5, No. 2, 95-105.
- Qusibah, V. L., & Yusra, I. (2019). Profitabilitas, dan Ukuran Perusahaan Sebagai Faktor Penentu Leverage Perusahaan Di Indonesia. *Jurnal Pundi*, Vol. 03 No. 01.
- Sinurat, M., Lilinesia., Subhan, M., & Simanjuntak, A. (2021). The Culinary sector survival strategy to restore populist economy based on the creative industry during Covid-19 Pandemic. *Management Research and Behavior Journal*, Vol. 1(1), June, 7-14. DOI: 10.29103/mrbj.v1i1.3784
- Sugiyono. (2018). *Metode Penelitian Kombinasi (Mixed Methods)*. Bandung: CV. Alfabeta.
- Sukamulja, S. (2019). *Analisis Laporan Keuangan: Sebagai Dasar Pengambilan Keputusan Investasi*. Yogyakarta: Andi.
- Tijow, A. P., Sabijono, H., & Tirayoh, V. Z. (2018). Pengaruh Struktur Aktiva Dan Profitabilitas Terhadap Struktur Modal Pada Perusahaan Sektor Industri Barang Konsumsi Yang Terdaftar Di Bursa Efek Indonesia. *Jurnal Riset Akuntansi Going Concern*, 13(3), 477-488.
- Tiyas, W. D. P., & Nurasik, N. (2022). The Effect of Profitability and Liquidity on Capital Structure in the Food and Beverages Sub-Sector Listed on the Indonesia Stock Exchange for the 2017-2019 Period. *Academia Open*, 7. DOI: 10.21070/acopen.7.2022.2759. <https://doi.org/10.21070/acopen.7.2022.2759>