



THE EFFECT OF PROFITABILITY AND COMPANY SIZE ON THE CAPITAL STRUCTURE OF PT TELEKOMUNIKASI INDONESIA TBK PERIOD 2015-2024

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Abstract. The purpose of this study is to identify and analyze the influence of profitability (measured by Return on Assets/ROA) and firm size on capital structure at PT Telekomunikasi Indonesia Tbk from 2015 to 2024. This research uses secondary data derived from the company's financial statements. The method applied is descriptive quantitative with a time series approach. Analytical tools include classical assumption tests (normality, multicollinearity, heteroscedasticity, and autocorrelation), multiple linear regression to measure simultaneous effects, coefficient of determination (R^2) to assess the contribution of independent variables to the dependent variable, and hypothesis testing to evaluate the significance of each variable's influence. The results show that ROA has a negative effect on capital structure. This indicates that the company's decision in determining the composition of debt and equity is not dependent on the level of profit earned. Firm size also has a negative effect on capital structure, meaning that an increase in Telkom's assets does not necessarily alter the proportion of debt and equity. These findings provide important implications for corporate management in formulating effective financing strategies.

Keywords: profitability; firm size; capital structure

1 Introduction

The global and national telecommunications industry has grown rapidly over the past decade as digitalization accelerates across various sectors. Advances in IoT, artificial intelligence, and cloud computing have strengthened the industry's role in supporting digital transformation. In Indonesia, the internet service provider (ISP) sector has also expanded significantly, reaching 13.54 million subscribers in 2023, with individual users dominating at 88.98% (BPS, 2024). Rising demand for high-speed and reliable data services continues to push companies to invest in fiber-optic networks, 4G and 5G infrastructure, data centers, and a variety of digital services.

At the corporate level, these developments highlight the importance of financial efficiency in supporting technological expansion. Profitability plays a critical role in a firm's capital structure decisions, as companies with strong profits tend to rely on internal funding, which is more efficient and carries lower risk. In contrast, firms with lower profitability are more dependent on external financing, exposing them to higher financial risk. This condition underscores the strategic relevance of analyzing the determinants of capital structure within the telecommunications industry.

PT Telekomunikasi Indonesia Tbk (Telkom), as the largest telecommunications company in Indonesia and a strategic state-owned enterprise (SOE), plays an important role in supporting the national digital infrastructure. During the 2015–2024 period, Telkom's financial performance showed dynamic growth, although profitability ratios, particularly Return on Assets (ROA), fluctuated due to industry competition, technological developments, and changes in consumer patterns. In addition to

profitability, the size of the company, as proxied by total assets, reflects Telkom's capacity to carry out operations and expansion, with asset growth indicating sustained expansion through telecommunications infrastructure and service diversification. Furthermore, the capital structure policy, as proxied by the Debt to Equity Ratio (DER), also shows the dynamics of Telkom's funding strategy during 2015-2024, both when relying on external financing and internal capital.

Fluctuations in ROA, asset growth, and variations in DER reflect the dynamics of PT Telekomunikasi Indonesia Tbk's capital structure, where increased profitability tends to lower DER, while rapid asset growth increases the need for external funding. The urgency of this research lies in two aspects: practically, the results are expected to help management and investors understand the role of profitability and company size in determining optimal and sustainable funding policies; academically, this research responds to the inconsistency of previous studies regarding the influence of these two variables on capital structure, particularly in the telecommunications sector.

Based on this, this study aims to analyze the effect of profitability and company size on the capital structure of PT Telekomunikasi Indonesia Tbk for the period 2015–2024. The results of this study are expected to contribute to the development of financial management science and provide input for Telkom's management in formulating efficient financing strategies and for investors in assessing the company's financial policies.

2 Theoritical Basis

2.1 Pecking Order Theory

According to Sudianto et al., (2022), the Pecking Order Theory explains why profitable companies borrow less money. This theory states the following:

1. Companies prefer internal financing because these funds are collected without sending signals that could lower stock prices.
2. If external funds are needed, companies issue debt first and only issue equity as a last resort.

2.2 Trade-off Theory

According to Sudianto et al., (2022), this model is called the “Trade-Off” model because the optimal capital structure can be found by balancing the benefits of using debt (tax shield benefit of leverage) with the costs of financial distress and agency problems. The trade-off model cannot precisely determine the optimal capital structure because it is difficult to accurately determine the PV of financial distress costs and PV of agency costs.

2.3 Capital Structure

According to Musthafa (2017) in Tania Nabila & Ika Rahmawati (2023), capital structure is the ratio between the amount of permanent short-term debt, long-term debt, preferred stock, and common stock owned by a company. A good capital structure can balance risk and return, strengthen competitiveness, and increase investor confidence. According Lisiana & Widyarti (2020), factors that can influence it include business risk, asset structure, profitability, and company size.

In this study, capital structure is proxied by the Debt to Equity Ratio (DER), which is a ratio used to measure the ratio between total debt and total equity of a company (Astuti et al., 2021). The formula for calculating DER is as follows:

$$DER = \frac{\text{total debt}}{\text{total equity}}$$

2.4 Profitability

According to Nirawati et al., (2022), profitability is a company's ability to generate profits from all of its resources, including assets, capital, and human resources. Profitability reflects a company's efficiency in managing its assets and resources to generate profits, while also demonstrating management's ability to maximize the company's value. Profitability ratios are not only important for internal management as performance indicators, but also serve as a reference for investors and creditors to assess the attractiveness of investments and the company's ability to meet its financial obligations.

In this study, profitability is proxied by Return on Assets (ROA), which shows the percentage of net profit relative to the company's total assets on investments that have been made to provide the expected return on profit Simanullang & Chandra (2021). The average industry standard for Return on Assets (ROA) for good and efficient financial performance is 30%. The formula for calculating ROA is as follows:

$$ROA = \frac{EAT}{Total\ Assets}$$

2.5 Company Size

Company size reflects the scale of a company's operations, which can be measured by several indicators, including the amount of capital used, total assets owned, and total sales earned. Large companies generally show high growth rates and have a strong position in the market, making access to external funding sources easier. This condition allows companies to obtain additional capital from external parties more efficiently, which in turn can be used to increase profits and strengthen the company's value. Thus, company size not only reflects operational capacity but is also closely related to the company's ability to obtain financial resources and optimize overall financial performance (Dewi & Praptoyo, 2022).

In this study, company size is proxied by total assets using the following calculation formula:

$$Ln = Total\ Assets$$

3 Research Methods

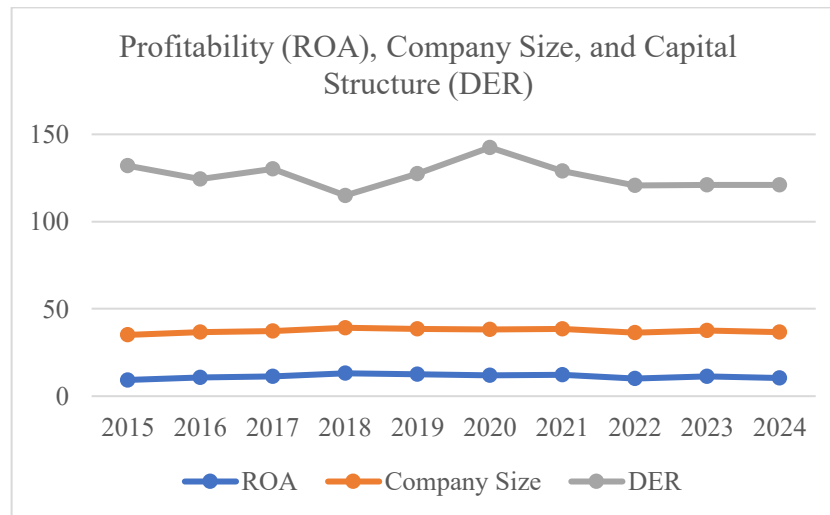
This study uses a quantitative approach with the aim of analyzing the effect of profitability (ROA) and company size (total assets) on capital structure (DER) at PT Telekomunikasi Indonesia Tbk. The data used is secondary data in the form of the company's annual financial reports for the 2015–2024 period, obtained from the official website of the Indonesia Stock Exchange (www.idx.co.id) and the company's website (www.telkom.co.id). In addition, the researcher also reviewed relevant literature in the form of books, journals, and scientific articles to strengthen the theoretical basis of the research. The sampling technique used was purposive sampling with time series data.

Before performing multiple linear regression analysis, the data was tested using classical assumption tests, including normality, multicollinearity, heteroscedasticity, autocorrelation, and linearity tests to ensure the validity of the model. Regression analysis was used to determine the linear relationship between independent and dependent variables with the equation $Y = a + b_1X_1 + b_2X_2 + e$, where Y is capital structure, X_1 is ROA, and X_2 is company size. The coefficient of determination (R^2) was used to measure the contribution of independent variables to dependent variables. The hypotheses tested

in this study include: (1) profitability has a significant effect on capital structure, (2) company size has a significant effect on capital structure, and (3) profitability and company size simultaneously have a significant effect on capital structure.

4 Results And Discussions

Profitability, Company Size, and Capital Structure Data for PT Telekomunikasi Indonesia Tbk for the period 2015-2024 can be seen in figure 1 and Table 1:



Source : Data Processed by researchers

Figure 1. Profitability, Company Size, and Capital Structure for PT Telekomunikasi Indonesia Tbk for period 2015-2024

Table 1. Profitability, Company Size, and Capital Structure for PT Telekomunikasi Indonesia Tbk for the period 2015-2024

Year	ROA (%)	Ln Total Assets	DER (%)
2015	9,3	25,8	96,8
2016	10,8	25,9	87,8
2017	11,2	26,0	93,1
2018	13,1	26,1	75,8
2019	12,5	26,1	88,7
2020	12,0	26,2	104,3
2021	12,2	26,3	90,6
2022	10,1	26,3	84,4
2023	11,2	26,4	83,3
2024	10,3	26,4	84,4

Source: Data Processed by researchers

4.1 Classical Assumption Test

The following are several tests conducted to determine whether the classical assumptions are met using SPSS version 20.

4.2 Normality Test

Data normality can be tested using statistical tests, such as Kolmogorov-Smirnov, with the condition that if the One-Sample Kolmogorov-Smirnov test results in a significance value > 0.05 , then the data is normally distributed.

One-Sample Kolmogorov-Smirnov Test			Unstandardized Residual
N			10
Normal Parameters ^{a,b}	Mean		.0E-7
	Std. Deviation		.07436322
Most Extreme Differences	Absolute		.185
	Positive		.185
	Negative		-.180
Kolmogorov-Smirnov Z			.584
Asymp. Sig. (2-tailed)			.885

a. Test distribution is Normal.

b. Calculated from data.

Source: Data processed by researchers

Figure 2. One-Sample Kolmogorov-Smirnov Table

The results of the One-Sample Kolmogorov-Smirnov analysis show that the Asymp.Sig. (2-tailed) value is 0.885. This value is greater than $\alpha = 0.05$ ($0.885 > 0.05$). This indicates that the data in this study is normally distributed, thus fulfilling the normality requirement in the regression model.

4.3 Multicollinearity Test

This test was conducted by looking at the VIF (Variance Inflation Factor) or Tolerance value, with the condition that if the Tolerance value is > 0.10 and $VIF < 10$, then there is no multicollinearity.

Coefficients ^a											
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	3.877	3.575		1.084	.314					
	ROA	-.966	2.409	-.145	-.401	.700	-.197	-.150	-.142	.966	1.035
	Ukuran Perusahaan	-.110	.138	-.287	-.796	.452	-.314	-.288	-.283	.966	1.035

a. Dependent Variable: Struktur Modal

Source: Data processed by researchers

Figure 3. Coefficients Table

The results of the multicollinearity test are as follows:

- The Tolerance value for Return on Assets (ROA) is $0.966 > 0.10$ and the VIF value for Return on Assets (ROA) is $1.035 < 10$.
- The Tolerance value for Company Size (Ln Total Assets) is $0.966 > 0.10$ and the VIF value for Company Size (Ln Total Assets) is $1.035 < 10$.

Based on the results in the coefficients table, it can be concluded that there is no multicollinearity in the regression model, because the Tolerance value is > 0.10 and the VIF is < 10 .

4.4 Heteroscedasticity Test

The heteroscedasticity test is performed using the Glejser Test, which aims to regress the independent variable against the absolute value of the residual. The decision based on this test is that if the significance is > 0.05 , then there is no evidence of heteroscedasticity.

Coefficients ^a											
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	3.877	3.575		1.084	.314					
	ROA	-.966	2.409	-.145	-.401	.700	-.197	-.150	-.142	.966	1.035
	Ukuran Perusahaan	-.110	.138	-.287	-.796	.452	-.314	-.288	-.283	.966	1.035

a. Dependent Variable: Struktur Modal

Source: Data processed by the researcher

Figure 4. Coefficients Table

Using SPSS version 20, it can be seen that the Sig. value is $1.000 > 0.05$. Therefore, it can be concluded that in this model, there is no evidence of heteroscedasticity.

4.5 Autocorrelation Test

Using SPSS version 20, it can be seen that the Sig. value is $1.000 > 0.05$. Therefore, it can be concluded that in this model, there is no evidence of heteroscedasticity.

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.345 ^a	.119	-.133	.084320	.119	.472	2	7	.642	1.872

a. Predictors: (Constant), Ukuran Perusahaan, ROA

b. Dependent Variable: Struktur Modal

Source: Data processed by researchers

Figure 5. Model Summary Table.

Based on the results of the Durbin Watson test, the Durbin Watson value is 1.872. Because the (d) value is between -2 and +2, it can be concluded that there is no autocorrelation in the regression model of this study.

4.6 Linearity Test

To assess whether there is a linear relationship in the model, testing can be carried out using the Ramsey RESET Test (Regression Specification Error Test) method developed by J.B. Ramsey in 1969.

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.345 ^a	.119	-.133	.084320	.119	.472	2	7	.642	1.872

a. Predictors: (Constant), Ukuran Perusahaan, ROA

b. Dependent Variable: Struktur Modal

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.926 ^a	.858	.786	.036606	.858	12.050	3	6	.006	3.359

a. Predictors: (Constant), DFFIT, Ukuran Perusahaan, ROA

b. Dependent Variable: Struktur Modal

Source: Data processed by researchers

Figure 6. Model Summary Table.

Based on the results of data processing using SPSS, the following linearity test results were obtained: $R^2_{old} = 0.119$; $R^2_{new} = 0.858$; the number of new independent variables (m) is 1, namely DFF_1; the number of observations (n) = 10; the number of new equation parameters (K) is 3 (ROA, company size, and DFF_1).

Calculation of F value:

$$F_{\text{Calculated}} = [(R^2_{\text{new}} - R^2_{\text{old}}) / m] \div [(1 - R^2_{\text{new}}) / (n - k)]$$

$$F_{\text{Calculated}} = [0.858 - 0.119] / 1 \div [(1 - 0.858) / (10 - 3)]$$

$$F_{\text{Calculated}} = 3.64$$

$$F_{\text{Table}} = 3.70$$

The results show that $F_{\text{calculated}} < F_{\text{table}}$ ($3.64 < 3.70$), with a significance level of 5%. Thus, it can be concluded that the regression model has a linear relationship.

4.7 Multiple Linear Regression Analysis

Based on the results of data processing using SPSS version 20, the following regression equation was obtained:

Coefficients ^a											
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	3.877	3.575		1.084	.314					
	ROA	-.966	2.409	-.145	-.401	.700	-.197	-.150	-.142	.966	1.035
	Ukuran Perusahaan	-.110	.138	-.287	-.796	.452	-.314	-.288	-.283	.966	1.035

a. Dependent Variable: Struktur Modal

Source: Data processed by researchers.

Figure 7. Coefficients Table.

$$Y = 3.877 - 0.966 X_1 - 0.110 X_2 + e$$

Interpretation:

- The constant value (a) of 3.877 indicates that if Return on Assets (X_1) and Company Size (X_2) have a value of zero, then the Capital Structure (Y) at PT Telekomunikasi Indonesia Tbk. will be 3.877%.
- The regression coefficient (b1) for Return on Assets (ROA) of -0.966 indicates that for every 1% increase in Return on Assets (ROA), the Capital Structure (Y) will decrease by 0.966%, assuming that the Company Size (X_2) variable remains constant. Conversely, for every 1% decrease in Return on Assets (ROA), Capital Structure (Y) will increase by 0.966%, assuming that the Company Size (X_2) variable remains constant. The regression coefficient for Return on Assets (ROA) can be interpreted as meaning that the effect of Return on Assets (ROA) on Capital Structure (Y) is negative, meaning that the higher the Return on Assets (ROA), the lower the Capital Structure (Y) will be.
- The regression coefficient (b2) for Company Size of -0.110 indicates that for every 1% increase in Company Size, Capital Structure (Y) will decrease by 0.110%, assuming that the Return on Assets (X_1) variable remains constant. Conversely, for every 1% decrease in Company Size, Capital Structure (Y) will increase by 0.110%, assuming that the Return on Assets (X_1) variable remains constant. The regression coefficient for Return on Assets (ROA) can be interpreted as meaning that the effect of Company Size on Capital Structure (Y) is negative, meaning that the larger the Company Size, the lower the Capital Structure (Y) will be.

4.8 Coefficient of Determination

Based on the results of data processing using SPSS version 20, the following results were obtained:

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.345 ^a	.119	-.133	.084320	.119	.472	2	7	.642	1.872

a. Predictors: (Constant), Ukuran Perusahaan, ROA
b. Dependent Variable: Struktur Modal

Source: Data processed by researchers

Figure 8. Model Summary Table

Based on the results of the coefficient of determination analysis calculated using SPSS version 20, it is known that the coefficient of determination (R²) value is recorded at 0.119 or 11.9%, which shows that the percentage contribution of Return on Assets (ROA) and Company Size as a whole to Capital Structure is 0.119 or 11.9%, while the remaining 0.881 or 88.1% is influenced by other factors not included in this study.

4.9 Model Suitability Test (F Test)

Based on the results of data processing using SPSS version 20, the following results were obtained:

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.007	2	.003	.472	.642 ^b
	Residual	.050	7	.007		
	Total	.056	9			

a. Dependent Variable: Struktur Modal
b. Predictors: (Constant), Ukuran Perusahaan, ROA

Source: Data processed by researchers

Figure 9. ANOVA Table.

Based on the results of the F-test shown in the ANOVA table, a significance value of 0.642 was obtained with an error rate of 5% ($\alpha = 0.05$), where the significance value is greater than 0.05 ($0.642 > 0.05$). Therefore, the decision taken is to accept H₀ and reject H_a, which means that simultaneously, there is no effect of Return on Assets (X₁) and Company Size (X₂) on Capital Structure (Y) at PT Telekomunikasi Indonesia Tbk.

4.10 The Effect of Profitability (ROA) on the Capital Structure of PT Telekomunikasi Indonesia Tbk. for the period 2015-2024

The results of the study indicate that Profitability (ROA) does not have a significant effect on Capital Structure (DER) at PT Telekomunikasi Indonesia Tbk. for the period 2015-2024, with a regression coefficient of -0.966 and a significance level of $t \ 0.700 > 0.005$. This is in line with studies by Zulkarnain (2020) and Iskandar & Zaki (2023), which found that profitability does not have a significant effect on capital structure because companies prioritize internal funding. In the context of Telkom, retained earnings are allocated for digital infrastructure development, so changes in ROA do not have a significant effect on DER. An article (Djumena, 2025) in Kompas.com emphasizes that

Telkom's profit growth is supported more by efficiency and data revenue, without a significant increase in debt.

4.11 The Effect of Company Size on the Capital Structure of PT Telekomunikasi Indonesia Tbk. for the period 2015-2024

Company size (Ln Total Assets) also did not have a significant effect on the DER at PT Telekomunikasi Indonesia Tbk. for the period 2015-2024, with a regression coefficient of -0.110 and a significance t of $0.452 > 0.005$. These results are consistent with studies by Tania Nabila & Ika Rahmawati (2023) and Hanbo & Zulaikha (2022), which found that company size does not have a significant effect on capital structure because large companies tend to rely on internal funds and credibility. Based on the article (CNN Indonesia, 2025), Forbes 2025 data recorded Telkom's assets reaching IDR 154.83 trillion without a proportional increase in debt, highlighting that asset growth is accompanied by conservative risk management.

4.12 The Effect of Profitability (ROA) and Company Size on the Capital Structure of PT Telekomunikasi Indonesia Tbk. for the period 2015-2024

Simultaneously, profitability (ROA) and company size do not have a significant effect on DER, as evidenced by the significance value of $F\ 0.642 > 0.05$ and $R^2\ 0.119$ (11.9%). This is in line with studies by Lisiana & Widyarti (2020) and Hanbo & Zulaikha (2022), which state that both variables do not have a significant effect because companies prioritize internal funding and are influenced by macroeconomic factors. At Telkom, variations in ROA and asset growth do not affect DER because the company implements a conservative strategy with retained earnings and state equity support. In 2024, consolidated revenue reached IDR 150 trillion with a profit of IDR 23.6 trillion and a stable DER of 84.4% (Zhafira, 2025) (CNBC Indonesia, 2025).

5 Conclusion

Based on the results of the research conducted, the author concludes the following.

1. Profitability (ROA) does not affect the Capital Structure of PT. Telekomunikasi Indonesia Tbk. This means that the company's decision in determining the composition of debt and equity does not depend on how much profit is obtained, but is more likely determined by investment needs, management policies, and external factors (regulations and industry).
2. Company size (total assets) does not affect the capital structure of PT. Telekomunikasi Indonesia Tbk. This means that an increase or the size of Telkom's total assets does not necessarily change the composition of debt and equity. It is possible that the capital structure is more influenced by other factors, such as management policy, government regulations, industry conditions, and technology expansion strategies.

6 Managerial Implications

The findings show that profitability and firm size do not significantly affect Telkom's capital structure, indicating that the company should continue prioritizing internal funding to support digital infrastructure development. Borrowing decisions must be aligned with long-term cash flow capacity rather than asset growth, enabling Telkom to maintain a conservative and stable financing policy. In addition, capital structure decisions should incorporate ESG-oriented financing, such as green bonds or sustainability-linked loans, which offer lower financing costs and strengthen investor

confidence. Integrating ESG considerations into funding strategies will enhance Telkom's financial flexibility and support sustainable digital transformation initiatives.

References

- Astuti, Sembiring, L. D., Supitriyani, Azwar, K., & Susanti, E. (2021). *ANALISIS LAPORAN KEUANGAN*. MEDIA SAINS INDONESIA.
- BPS. (2024). *STATISTIK TELEKOMUNIKASI INDONESIA 2023* (Vol. 12). <https://www.bps.go.id/id/publication/2024/08/30/f4b846f397ea452bdc2178b3/statistik-telekomunikasi-indonesia-2023.html>
- Dewi, A. L., & Praptoyo, S. (2022). PENGARUH UKURAN PERUSAHAAN, PROFITABILITAS, DAN LEVERAGE TERHADAP NILAI PERUSAHAAN. *Jurnal Ilmu Dan Riset Akuntansi*.
- Lisiana, K. X. M., & Widyarti, E. T. (2020). Analisis Faktor-Faktor Yang Mempengaruhi Struktur Modal Pada Perusahaan Manufaktur Di Bursa Efek Indonesia Periode 2014-2018. *DIPONEGORO JOURNAL OF MANAGEMENT*.
- Nabila, D. T., & Rahmawati, M. I. (2023). PENGARUH PROFITABILITAS, STRUKTUR AKTIVA DAN UKURAN PERUSAHAAN TERHADAP STRUKTUR MODAL. *Jurnal Ilmu Dan Riset Akuntansi*. <https://jurnalmahasiswa.stiesia.ac.id/index.php/jira/article/view/5517>
- Nirawati, L., Samsudin, A., Stifanie, A., Setianingrum, M. D., RyanSyahputra, M., Khrisnawati, N., & Saputri, Y. (2022). Profitabilitas dalam Perusahaan. *Jurnal Manajemen Dan Bisnis*.
- Simanullang, R., & Chandra, D. R. (2021). ANALISIS RASIO PROFITABILITAS DAN RASIO LIKUIDITAS TERHADAP KINERJA KEUANGAN PADA PERUSAHAAN MANUFAKTUR SUB SEKTOR FOOD & BEVERAGES YANG TERDAFTAR DI BURSA EFEK INDONESIA PERIODE 2016-2020. *JURNAL KEWIRAUSAHAAN, AKUNTANSI DAN MANAJEMEN TRI BISNIS*, 3(2), 213–228. <https://doi.org/10.59806/tribisnis.v3i2.44>
- Sudianto, Suyatni, & Mulyadi. (2022). *Manajemen Keuangan*. Trussmedia Grafika.