

THE EFFECT OF RETURN ON ASSET (ROA) AND NET PROFIT MARGIN (NPM) ON PROFIT GROWTH IN MANUFACTURING COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE FOR THE 2021-2023 PERIOD

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Abstract

The purpose of this study is to assess how Return on Assets (ROA) and Net Profit Margin (NPM) affect profit growth. A quantitative method was used in conducting this study, with a focus on secondary data collection. The research population includes manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the period from 2021 to 2023. A total of 126 companies were selected as samples, and the list of these companies can be accessed through the official IDX website at www.idx.co.id. The data were processed and analyzed using SPSS version 23, applying multiple linear regression analysis techniques to determine the effect of ROA and NPM on profit growth. The results of the analysis indicate that individually, both ROA and NPM do not have a statistically significant effect on profit growth. However, when the variables are examined simultaneously, the study finds that they have a significant combined influence on the increase in company revenue, suggesting the importance of analyzing financial indicators together rather than in isolation.

Keywords: Return on Asset, Net Profit Margin, Profit Growth

1. Introduction

Manufacturing companies are now one of the drivers of Indonesia's economic strength. Measuring profit growth is very important to evaluate a company's performance because the main thing for a company is to maximize profit revenue. Since the increase in profits provides information about the distribution of profits, this has become very important for investment policy.

If the performance of the capital market improves, it indicates that the economy is running, which will encourage investors to reinvest. The assumption that the exchange rate is a key factor explaining significant fluctuations in the capital market, indicates that major changes in the Indonesian capital market during the economic crisis are not only triggered by fundamental factors.

In the current era of globalization, every company needs to manage its critical functions with effectiveness and efficiency to maintain a competitive advantage, so as to increase the rate of return for shareholders. In addition, this aims to develop the business and maintain the company's survival. If a company can generate the largest possible profit, this means that success is achieved and the competition is won.

According to the FASB's Statement of Financial Accounting Concepts No.1 "Financial Accounting Standards Board" in 1978, "profits are the primary focus in financial statements." So, the information in financial reporting must be able to predict future profits, because profits are an indicator of a company's performance that shows changes in equity due to various transactions.

Profit shows the return given to equity holders during the period in question. Profit is the growth of economic benefits in an accounting period that occurs due to the addition of assets, the reduction of liabilities, or a combination of both, which leads to an increase in equity without involving contributions from capital owners. Consistent profit growth indicates the company's healthy financial condition.

Eventually, the value of the company will increase due to the number of dividends paid in the future, depending on the company's condition. The relationship between the amount of profit earned and the size of the company can be strengthened by companies with profit growth. Growing companies are companies that show significant increases in margins, profits, and sales.

Several factors can affect a company's ability to generate profits, including ROA "Return On Asset" and NPM "Net Profit Margin". ROA assesses the effectiveness of an entity in generating profits from its total assets; A higher ratio signals better company performance. (Maynardto, 2022). ROA can also be used as an indicator to predict profits. The good performance of the company can certainly be interested by investors and creditors, so it is important to conduct in-depth supervision and analysis to ensure sustainable profit growth.

Annisa Nuradawiyah and Susi Susilawati (2020), argue that "Net Profit Margin (NPM) is a ratio that shows the comparison between net profit after deducting all costs, expenses, and taxes with the company's total sales" NPM performance can vary depending on the industry sector in which the company is located, indicating a positive correlation between the company's operational level and NPM.

The following are some ROA and NPM data on profit growth in manufacturing companies listed on the IDX:

Table 1. Research Phenomena

No.	Company Name	ROA		NPM	
		2023	2022	2023	2022
1.	Indofood CBP Successfully Makmur	7.09%	4,96%	0,12%	0,08%
2.	Kimia Farma	10,35%	0,35%	0,18%	0,01%

Source: Indonesia Stock Exchange

The table above shows that the Return on Asset Ratio in the example of Indofood CBP Sukses Makmur (ICBP) and Kimia Farma (KAEF) companies has increased and so has the Net Profit Margin ratio of the two companies increased by percentage.

2. Theoretical Background

2.1 Theory of the impact of ROA on profit growth

According to Harahap (2018), "Return On Asset (ROA) is a ratio used to assess how much net profit is generated based on the total value of assets, by dividing net profit by the average total assets of the company. A higher ROA value indicates a stronger company position and better efficiency in leveraging its assets." Meanwhile, the formula for calculating ROA according to Brigham & Houston (2018) is:

$$ROA = \frac{\text{Net Profit}}{\text{Total Assets}} \times 100\%$$

ROA serves to evaluate how much net profit is obtained from each rupiah invested in total assets. When the return on capital increases, it indicates that the net profit per rupiah of investment in total assets also increases. On the other hand, if the return on assets decreases, therefore, the net profit earned on each rupiah invested in total assets also shows a decrease.

H1: "ROA has a positive effect on profit growth"

2.2 NPM Impact Theory on Profit Growth

It is a measure that shows the ability of an industry to make a profit at a certain level, calculated by dividing sales revenue by costs and income tax. The increase in profit indicates positive financial performance in the industry, giving a good signal to investors that the company or industry is able to carry out its operations effectively. This can increase investor interest in investing, which ultimately has the potential to increase the company's profits (Suryono, 2017).

$$NPM = \frac{\text{Net Profit After Tax}}{\text{Net Sales}} \times 100\%$$

To evaluate profit growth, the step taken is to calculate the difference between this year's net profit and the previous year's net profit, then divide it by last year's net profit. One of the commonly used indicators to assess the success of an industry is the amount of profit generated (Kalsum, 2021).

H2: Net Profit Margin affects Profit Growth

3. Methods

The study is quantitative, and the data is presented in the form of absolute numbers, which makes it easier to collect and read. The use of data is secondary data, meaning that data exists and can be accessed from other sources. Net income, net sales, and total assets are examples of secondary data used in this study. This secondary data source comes from "www.idx.co.id", which is the financial reporting of a sample company published on the IDX.

The research method chosen is a classical assumption test, which is designed to assess the feasibility of research data. These tests include descriptive analysis, normality tests, heteroscedasticity, determination coefficients, model suitability, and multiple linear regression, all of which aim to assess the impact of variables on the company's value. The regression equations produced are:

$$Y = a + b_1X_1 + b_2X_2 + e$$

Information:

Y = Profit Growth

a = Constant

B1 = Variable coefficient of Return On Asset (%)

X1 = Return On Asset (%)

B2 = Net Profit Margin Coefficient

X2 = Net Profit Margin

e = Estimated Error (0.05)

4. Results and Discussion

4.1 Overview of the Indonesia Stock Exchange

The capital market, often called the Stock Exchange, provides an organized platform for trading various financial assets or securities. These assets include stocks, commodities, derivative instruments such as warrants, and bonds. The Indonesia Stock

Exchange (IDX) is present as a forum that provides benefits for various parties, including companies, governments, and investors (both individuals and institutions). These benefits are in the form of easier access to make investments and obtain funding sources.

4.2 Descriptive Statistical Analysis

It provides information about the maximum, minimum, standard deviation, and mean values for the variables used in a study. In this study, the independent variables used were ROA and NPM and the bound variable was profit growth. Furthermore, the collected data was tested with SPSS 23, which provides the following analysis results:

Table 2. Results of Descriptive Statistical Analysis

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
ROA	103	.06	39.97	7.8846	7.08723
NPM	103	.08	31.36	8.0268	7.30983
PERTUMBUHAN_LABA	103	-1.30	1.35	.0450	.57982
Valid N (listwise)	103				

Source: Data processed (2024)

As in the table, the results of descriptive statistical analysis can be described as follows:

- 1) Return On Asset has a minimum value of 0.06, a max value of 39.97, an average value of 7.8846 and a standard deviation of 7.08723.
- 2) The Net Profit Margin is worth a min of 0.08, a max of 39.97, an average value of 8.0268 and a standard deviation of 7.30983.
- 3) Profit growth has a mean value of -1.30, a max value of 1.35, an average value of 0.57982.

4.3 Classic Assumption Test

4.3.1 Normality Test

This is intended to determine whether normal distributions exist in the regressed independent variable and dependent models. This test involves two methods: the Kolmogorov-Smirnov one-sample statistical test and the histogram graphical method as well as the normal P-Plot.

1) Statistical test of one sample Kolmogorov Smirnov

The statistical test "one sample kolmogorov smirnov" is used with the criterion if the sign. value exceeds 0.05 if the data is considered normal, and if the sign. <0.05 the data is considered not to have a normal distribution. Handling that can be carried out in the event of abnormal data is through searching for outlier data. Outlier is the extreme deletion of data and the normality test is carried out again on the data that has been subtracted. The significance value of the Kolmogorov-Smirnov One Sample test is 0.000, which proves that the value is too small from 0.05. This indicates that the data is not

distributed normally. In order to solve this problem, the researcher carried out extreme data deletion (outlier), resulting in a reduction in the amount of data. Finally, after removing data from 23 companies, the total number of companies analyzed was 103 from 126.

Table 3. Results of the Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		103
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.56107849
Most Extreme Differences	Absolute	.086
	Positive	.086
	Negative	-.044
Test Statistic		.086
Asymp. Sig. (2-tailed)		.056 ^c

Source: Data processed (2024)

Referring to Table 3 the researcher carried out a sample reduction and tested normality again using 103 companies. From the test, it was proved that the significance value of One Sample Kolmogorov-Smirnov was 0.056, which proved that the data was now distributed normally, considering that the significance value exceeded 0.05.

2) Histogram Chart Method and normal P-Plot

Shown Gains of this test through a histogram model:

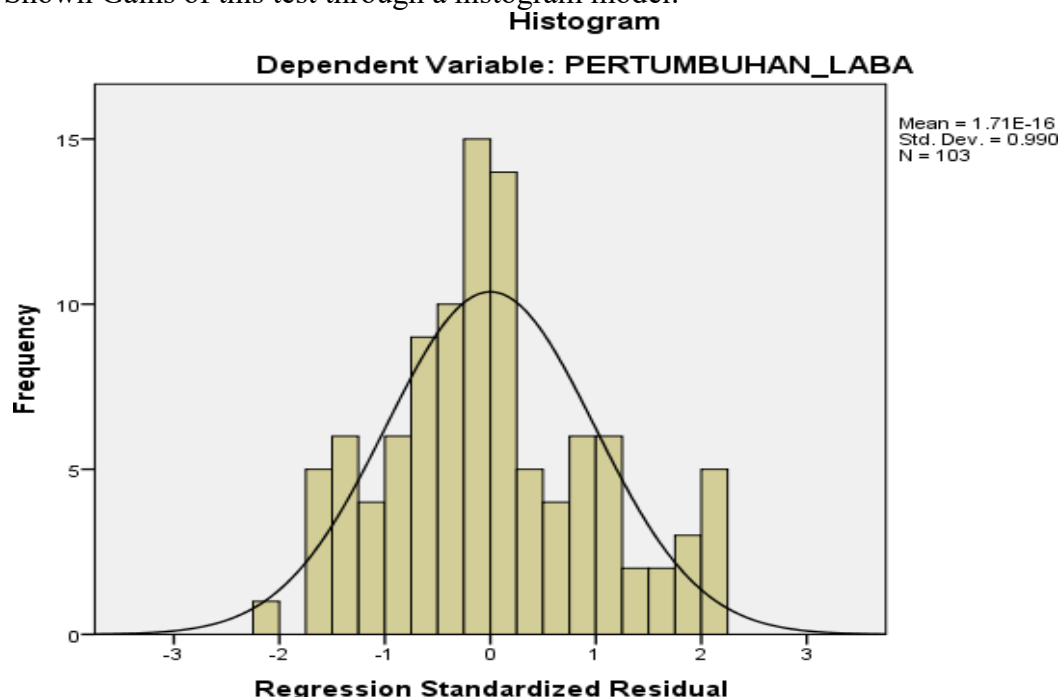


Figure 1. Results of the Normality Test of the Histogram Chart Method

Source: Data processed (2024)

The figure is intended to be if the line forms a curve, then it is found that the above data nodes have been distributed normally

3) P-Plot chart method

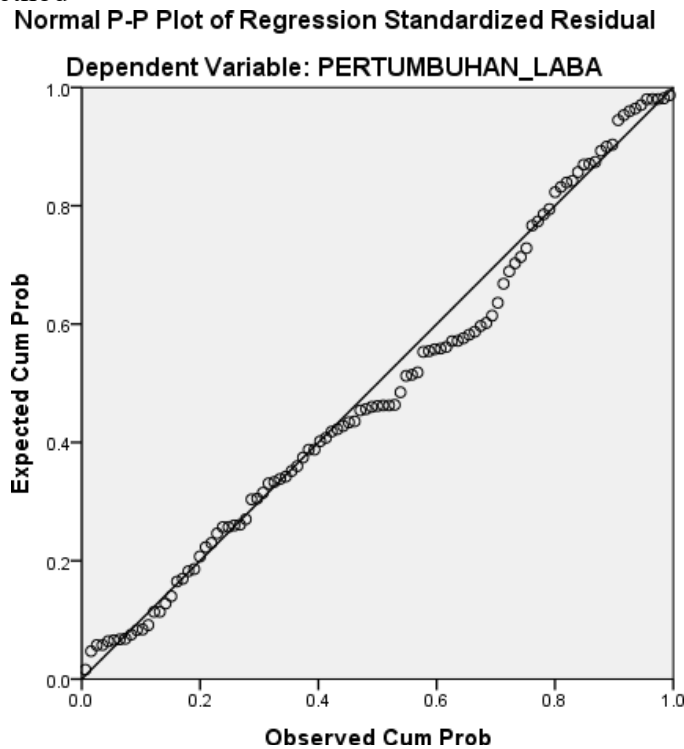


Figure 2. Results of the Normality Test of the P-Plot graph method

Source: Data processed (2024)

The image indicates that some points in the linear regression model are scattered along the diagonal line, which confirms that the data has a normal distribution.

4.3.2 Multicollinearity Test

This is carried out to identify the relationship between independent variables. This testing process is carried out by checking the results of the SPSS calculation on the Tolerance and VIF values. If the tolerance value exceeds 0.10 and the VIF is below 10, then it is concluded that there is no multicollinearity.

Table 4. Multicollinearity Test Results

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.109	.085		-1.283	.203		
	ROA	-.006	.018	-.073	-.339	.736	.200	5.012
	NPM	.025	.017	.316	1.457	.148	.200	5.012

a. Dependent Variable: PERTUMBUHAN_LABA

Source: Data processed (2024)

The results prove that the ROA variable (X1) has a VIF value of 5.012 and a tolerance value of 0.200. Meanwhile, the NPM variable (X2) also showed a VIF value of 5.012 and

a tolerance value of 0.200. These findings indicate that the data in this study are free from multicollinearity problems, because the VIF value of both tested variables is below 10 and the tolerance value exceeds 0.10.

4.3.3 Heteroscedasticity Test

This is carried out as a determinant of the difference in residual variance between different observations in the regression model. To analyze the likelihood of heteroscedasticity in the model, the Scatterplot pattern can be used as a prediction tool.

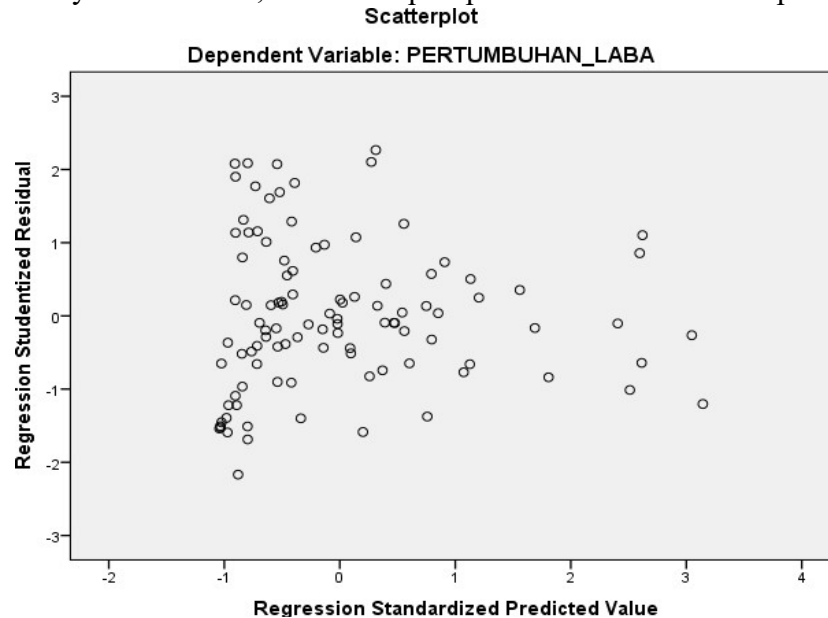


Figure 3. Heteroscedasticity Test Results via Scatterplot

Source: Data processed (2024)

In the image, several plot points are seen scattered without forming a clear pattern or shape. Therefore, it was concluded that the data did not show any indication of heteroscedasticity.

4.3.4 Autocorrelation Test

Table 5. Autocorrelation Test Results

	Unstandardized Residual
Test Value ^a	-.05472
Cases < Test Value	51
Cases >= Test Value	52
Total Cases	103
Number of Runs	52
Z	-.098
Asymp. Sig. (2-tailed)	.922

Source: Data processed (2024)

As the output, the value of Asymp. Sig (2-tailed) gained 0.922, which surpassed 0.05. Thus, it was concluded that autocorrelation symptoms were not present in this study.

4.4 Multiple Linear Regression Analysis

Table 6. Results of Multiple Linear Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.109	.085		-1.283	.203
	ROA	-.006	.018	-.073	-.339	.736
	NPM	.025	.017	.316	1.457	.148

Source: Data processed (2024)

$$\text{Profit Growth} = -0.109 + 0.006 + 0.025 + e$$

Looking at the multiple linear regression similarities presented, it is interpreted as follows:

- 1) A value of -0.109 indicates that if the independent variables, namely ROA and NPM, are considered constant, then the profit growth will be -0.109. This constant reflect the value of the dependent variable, i.e. the growth of profits, when all independent variables remain unchanged.
- 2) The b1 value of -0.006 proves that the ROA variable has a negative effect on profit growth. So, if the ROA variable increases by 1 unit, then the decrease in profit growth will reach 0.006, while the value of other variables is considered fixed.
- 3) The b2 value of 0.025 shows that the NPM variable has a negative effect on profit growth. This means that if the NPM variable increases by 1 unit, then the decrease in profit growth will reach 0.025, assuming the value of other variables is fixed.

4.5 Hypothesis Testing

4.5.1 Test T

A partial regression model test was carried out to assess whether each independent variable had a significant influence on the dependent variable. If the t calculation exceeds the table t or if the probability value (significance) is too small from α (0.05), then it can be said that the independent variable has a significant effect on the dependent variable.

The t-value of the table can be found by referring to the distribution of t at a significance level of $0.05/2 = 0.025$ (for a two-sided test) with degrees of freedom $df = n - k - 1 = 103 - 2 - 1 = 100$ (where k is the number of independent variables). Therefore, the t-table obtained in this test is 1.983.

Table 7. Results of T Test Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.109	.085		-1.283	.203
	ROA	-.006	.018	-.073	-.339	.736
	NPM	.025	.017	.316	1.457	.148

Source: Data processed (2024)

1) H1: Return on Asset affects Profit Growth

The table displays the results of the t-test for the effect of ROA on profit growth, where the calculated t-value of 0.339 is smaller than the t-table of 1.983. In addition, the significance value of 0.736 is also higher than 0.05. Thus, it can be concluded that H1 is rejected, which means that the ROA variable has no influence on profit growth.

2) H2: Net Profit Margin affects Profit Growth

The table presents the results of the t-test for the impact of NPM on profit growth, at 1,457, which is too small compared to the ttable of 1,983. On the other hand, the value of signs. which reached 0.148 also exceeded 0.05. Thus, it was concluded that H2 was rejected, which shows that the NPM variable has no effect on profit growth.

4.5.2 Test F

The F test has the purpose of determining whether the independent variable simultaneously affects the dependent variable. The F test process is carried out through a comparison of Fcal values on Ftables. If the calculation exceeds the Ftable or the probability value (significance) is too small from α (0.05), then the independent variable is considered to have a significant effect together on the dependent variable.

The value of f table can be obtained by finding the value in the statistical table of distribution f by using the value of df in the results of the analysis of the F test so that the f table in this test is 3.086

Table 8 Results of Test F analysis

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.180	2	1.090	3.395	.037 ^b
	Residual	32.111	100	.321		
	Total	34.291	102			

Source: Data processed (2024)

H3: ROA and NPM affect profit growth

Based on the output above, the F-count value of 3.395 exceeds the F-table value of 3.086, and the significance value for the ROA and NPM variables is 0.037, which is too small 0.05. Thus, it was concluded that H3 was accepted, which shows that the ROA and NPM variables have a simultaneous effect on profit growth.

4.5.3 R Test

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.252 ^a	.064	.045	.56666	2.284
a. Predictors: (Constant), NPM, ROA					
b. Dependent Variable: PERTUMBUHAN_LABA					

Source: Data Processed (2024)

The output proves that the Adjusted R Square (R^2) value is 0.045 or 4.5%. It can be interpreted that the independent variable has an effect of 4.5% on the dependent variable, while the remaining 95.5% is due to other variables that are not discussed in this study.

4.6 Discussion

4.6.1 The Effect of Return on Asset on Profit Growth

Based on partial regression analysis, it was found that Return On Asset (ROA) did not have a positive and significant influence on profit growth. The implication is that fluctuations in a company's ROA do not correlate with an increase or decrease in its profit growth. This phenomenon can be explained by the inefficiency of the company's asset utilization in operations, which results in assets owned not contributing to increasing profits. These findings are consistent with previous research by Rais et al. (2021), which showed the negative impact of ROA on profit growth. This means that the increase in ROA value is inversely proportional to the growth of the company's profit, indicating the inability of the company to generate profits commensurate with the assets under management.

4.6.2 Effect of Net Profit Margin on Profit Growth

The results of partial regression analysis show that Net Profit Margin (NPM) does not have a negative or significant influence on profit growth. This indicates that the amount of NPM is not strong enough to affect the increase in the company's profit. In other words, the high and low net profit margin does not directly cause profit growth. This condition is generally caused by the high expenditure of operational costs which results in a large company burden. The findings of this study are supported by a similar study conducted by Linda (2022), which also concluded that NPM does not affect profit growth. The existence of significant expenses, although it generates high sales, actually increases the company's burden. This situation creates an imbalance with sales revenue, so that profit growth becomes less effective and efficient.

5. Conclusion

The purpose of this study is to test the impact of ROA "Return on Asset" and NPM "Net Profit Margin" in profit growth in manufacturing companies listed on the IDX. The number of samples used includes 42 manufacturing companies listed on the IDX from 2021-2023.

- 1) As data analysis, hypothesis testing, and presentation are carried out, the conclusions of this study can be formulated, among others:
- 2) The results of the partial hypothesis test (t) prove that the ROA variable has no effect in sign. on profit growth in manufacturing companies listed on the IDX during the 2021-2023 period.
- 3) The results of the partial hypothesis test (t) prove that the NPM variable does not have a significant impact on profit growth in manufacturing companies listed on the IDX during 2021-2023.
- 4) ROA and NPM affect profit growth with a determination coefficient of 4.5%. Other factors that were not mentioned in this study affected the remaining 95.5%.
- 5) Given that the coefficient of determination in this study is only around 4.5%, this indicates that there are 95.5% of other variables that have not been explained. Therefore, the next research is expected to add and expand the variables that have an influence.

- 6) In order to increase the results, it is hoped that the next research can carry out retesting through extending the observation period and increasing the number of samples.

References

- Anin, L. A. B. P., Tigor, R. H., & Panjaitan, F. (2021). Analisis Pengaruh Return on Asset, Return on Equity dan Net Profit Margin Terhadap Pertumbuhan Laba (Studi Kasus pada Perusahaan Manufaktur Sektor Industri Dasar Dan Kimia Yang Terdaftar di Bursa Efek Indonesia Periode 2015-2019). *Jurnal Progresif Manajemen Bisnis*, 8(2), 21-28.
- Anwar, M. (2019). *Dasar-dasar manajemen keuangan perusahaan*. Prenada Media.
- Fahmi, I. (2018). *Analisis Kinerja Keuangan: Panduan bagi Akademisi, Manajer, dan Investor dan Menganalisis Bisnis dari Aspek Keuangan*. Alfabeta.
- Ghozali, I. (2018). *Aplikasi analisis multivariate dengan program IBM SPSS 25 Edisi 9*. Badan Penerbit Universitas Diponegoro.
- Harahap, D. A., & Amanah, D. (2018). *Pengantar Manajemen*.
- Kasmir. (2019). *Analisis laporan keuangan*. Depok: Rajawali Pers.
- Lilian Anggela Br Perangin Angin, R. H. T. & F. P. (2021). Analisis Pengaruh Return on Asset, Return on Equity Dan Net Profit Margin Terhadap Pertumbuhan Laba (Studi Kasus Pada Perusahaan Manufaktur Sektor Terdaftar Di Bursa Efek Indonesia. 8(2), 21–28.
- Linda, R. (2022). Pengaruh Current Ratio, Debt To Asset Ratio, Total Asset Turnover, Return On Asset, Return On Equity Dan Net Profit Margin Terhadap Perubahan Laba. *Management Studies and Entrepreneurship Journal ...*, 3(1), 159–168.
- Masyita, E., & Harahap, K. K. S. (2018). Analisis kinerja keuangan menggunakan rasio likuiditas dan profitabilitas. *Jurnal Akuntansi Dan Keuangan Kontemporer (JAKK)*, 1(1), 33-46.
- Muvidha, N. I., & Suryono, B. (2017). Pengaruh Struktur Kepemilikan, Keputusan Pendanaan, Profitabilitas, dan Ukuran Perusahaan terhadap Nilai Perusahaan. *Jurnal Ilmu Dan Riset Akuntansi (JIRA)*, 6(5).
- Nugraha, N. M., & Susyana, F. I. (2021). Pengaruh net profit margin, return on assets dan current ratio terhadap pertumbuhan laba. *Jurnal Ekonomi Manajemen Perbankan*, 3(1), 56-69.
- Nugraha, N. M., & Susyana, F. I. (2021). Pengaruh net profit margin, return on assets dan current ratio terhadap pertumbuhan laba. *Jurnal Ekonomi Manajemen Perbankan*, 3(1), 56-69.
- Nuradawiyah, A., & Susilawati, S. (2020). Analisis faktor-faktor yang mempengaruhi nilai perusahaan. *Jurnal Akuntansi*, 9(2), 218-232.
- Rais, W. P., Yustika, N. F., Darmawan, A. A. R., & Sohilauw, M. I. (2021). Kontribusi Profitabilitas Terhadap Pertumbuhan Laba Pt. Bank Rakyat Indonesia (Persero), Tbk. *Eqien: Jurnal Ekonomi Dan Bisnis*, 8(2). <https://doi.org/10.34308/eqien.v8i2.240>
- Ramadhan, M. (2021). *Metode penelitian*. Cipta Media Nusantara.
- Nugraha, N. M., & Susyana, F. I. (2021). Pengaruh net profit margin, return on assets dan current ratio terhadap pertumbuhan laba. *Jurnal Ekonomi Manajemen Perbankan*, 3(1), 56-69.
- Safitri, A. M. (2018). Pengaruh ROA, ROE, dan NPM terhadap pertumbuhan laba pada perusahaan sektor industri barang konsumsi yang terdaftar di Bursa Efek Indonesia. *Jurnal riset bisnis dan investasi*, 4(1), 25-39.

- Siregar, Q. R., & Batubara, H. C. (2017). Analisis determinan pertumbuhan laba di Bursa Efek Indonesia. *Jurnal Riset Finansial Bisnis*, 1(1), 79-92.
- Sopian, D., & Rahayu, W. P. (2017). Pengaruh rasio keuangan dan ukuran perusahaan terhadap financial distress (studi empiris pada perusahaan food and beverage di Bursa Efek Indonesia). *Competitive Jurnal Akuntansi Dan Keuangan*, 1(2).
- Sugiyono. (2017). *Motode Penelitian Pendidikan*. Bandung: Alfabeta.