



DOI: <https://doi.org/10.38035/dijefa.v5i6>
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The Influence of Financial Factors on Profit Growth with Company Size as a Moderating Variable: Study of LQ45 Manufacturing Companies

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Abstract: The aim of this research is to determine the effect *Return On Asset* (ROA), *Net profit Margin* (NPM), *Current Ratio* (CR) on profit growth. And to find out whether company size as a moderating variable can strengthen ROA, NPM and CR on profit growth. This research is quantitative descriptive research using Eviews 12 software. The population in this research is manufacturing companies which are members of the LQ45 index during the research period, namely 2018-2022, totaling 18 companies. Sample selection using *purposive sampling* and obtained 12 companies that would become research samples. The research results show that variables *Return On Asset* (ROA), *Net profit Margin* (NPM), *Current Ratio* (CR) has a significant positive effect on profit growth. Meanwhile, company size chosen as a moderating variable can strengthen the positive influence of ROA, NPM and CR on profit growth.

Keyword: Profit Growth, Company Size, Financial Ratios, LQ45

INTRODUCTION

For a company, achieving maximum profits in accordance with the set targets allows the company to contribute significantly to the welfare of owners and employees, as well as improving the quality of the products produced. According to Tumangkeng and Mildawati (2018), the profits obtained by a company have an impact on the wealth of a company so that it can increase the size of the company. A significant increase in profits indicates that the company has made huge profits. Understanding reported changes in earnings is key to assessing a company's financial health. A substantial increase in profits indicates the company's strong financial performance. Management, investors and creditors can use financial ratios as a basis for decision making. Multiple ratios finance used for decision making, among others *Return On Asset* (ROA), *Net Profit Margin* (NPM), and *Current Ratio* (CR). *Return On Asset* (ROA) is a ratio that compares the net profit obtained by a company with the total assets owned. A high ROA indicates that the company can maximize the assets it owns to generate high profits (As'ari, 2021). *Net Profit Margin* (NPM) is a financial ratio that compares a company's sales with the net profit obtained by the company. A company with high income means the company is able to obtain high sales (Fudin, 2022). *Current Ratio* (CR) is a ratio that compares

short-term debt with the company's current assets, value *Current Ratio* The higher it is, the better the company's financial position in terms of paying its short-term bills so that profit growth will increase (Lestari, 2021)

Company profit growth can be caused by several factors such as changes in selling prices, decreased sales, increased operational costs, and can also be caused by an increase in other components in the income statement. Company profit growth is not only influenced by the company's internal conditions, but external conditions can also influence company profit growth, such as inflation rates, global economic conditions, disease outbreaks, or even government policies. For example, in 2020, the Covid-19 pandemic spread rapidly in Indonesia. The government sets policies to handle or prevent this outbreak. One of the policies is to limit large-scale business activities which ultimately affect the operations of companies in Indonesia, including manufacturing companies. Challenging economic conditions and situations never faced before caused a decline in demand, which directly affected the company's revenue and net profits. From 2018 to 2022, the manufacturing industry has faced fluctuations in profit growth. The following graph shows the trend of changes in profits earned by various companies in the sector over 5 years:

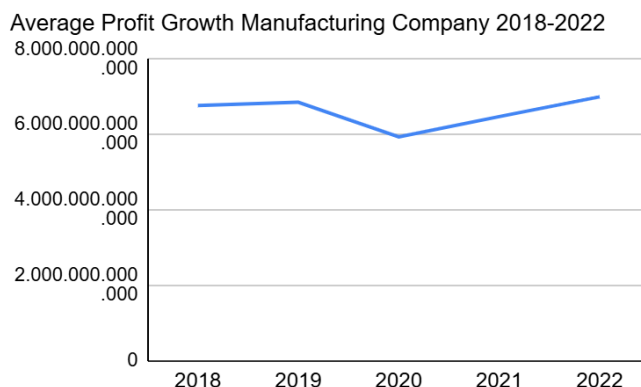


Figure 1. Average Profit Growth Manufacturing Company 2018-2022

The graph above shows fluctuations in the average profit growth of manufacturing companies. The companies above are included in the LQ45 index where the companies included in this index group are companies with large market capitalization, stable liquidity and strong fundamentals, but these companies have been impacted by Covid-19. The downward trend reached its lowest point in 2020, and that year coincided with the peak period of the spread of the Covid-19 virus in Indonesia.

Based on the explanation above, the author wants to conduct further research with the aim of finding out whether *Return On Asset*, *Net Profit Margin*, And *Current Ratio* positive effect on profit growth. And the author also wants to know whether the size of a company can strengthen the positive influence on *Return On Asset*, *Net Profit Margin*, And *Current Ratio*.

METHOD

This research is quantitative descriptive research using secondary data obtained through <http://idx.co.id> in the form of financial reports. Quantitative descriptive research is a structured method to answer research questions or apply research procedures within a quantitative framework (Harahap, 2020). The population in this study was 18 manufacturing companies listed on the Indonesian Stock Exchange (BEI) in 2018-2022. The method used in sample selection is *purposive sampling* and 12 companies were obtained that met the research criteria. Panel data regression is used to test the hypotheses that have been created. Then for *software* used is Eviews version 12.

RESULTS AND DISCUSSION

Result

There are 3 (three) approaches in the panel data regression model. These models are *Common Effect Model* (CEM), *Fixed Effect Model* (FEM), and *Random Effect Model* (BRAKE). The influence each model has is different, therefore it is necessary to test each model in order to obtain the best model. Each model uses 3 types of testing, namely Hausman test, *Chow test*, And *Legrange Multiplier Test*.

Panel data regression model selection using the Chow test was carried out to choose between models *Common Effect Model* or *Fixed Effect Model*. *Common Effect Model* selected if the probability value is > 0.05 . However, if the probability value is < 0.05 then *Fixed Effect Model* selected.

Table 1. Chow Test Results

Effect Model	Probability	Result
<i>Cross-Section F</i>	0,000	<i>Fixed Effect Model</i>

Based on table 1 above, the probability value is $0.000 < 0.05$. This means that the selected model is *Fixed Effect Model*. The second test is the Hausman test. This test is carried out to choose between *Fixed Effect Model* or *Random Effect Model*. If the probability value is < 0.05 then the model chosen is *Fixed Effect Model*. Meanwhile, if the probability value is > 0.05 , the model chosen is *Random Effect Model*.

Table 2. Hausman Test Results

Effect Model	Probability	Result
<i>Cross-section random</i>	0,0004	<i>Fixed Effect Model</i>

Based on table 2 above, the probability value is $0.0004 < 0.005$. This means that the selected model is *Fixed Effect Model*. Based on the 2 (two) tests that have been carried out, both produce the same model choice, namely *Fixed Effect Model*, so there is no need to carry out a third test or test *Legrange Multiplier Test*.

Normality Test

The normality test is carried out to determine the distribution of data in the variables to be used.

Series: Standardized Residuals	
Sample 2018 2022	
Observations 60	
Mean	2.65e-16
Median	-0.007536
Maximum	0.371028
Minimum	-0.240575
Std. Dev.	0.116406
Skewness	0.385843
Kurtosis	3.347963
Jarque-Bera	2.806601
Probability	0.245784

Figure 2. Normality Test Results

The resulting probability value is $0.2457 > 0.05$, meaning that the research data used passes the normality test.

Heteroscedasticity Test

If the research data has a probability value $< 5\%$ then the research data can be said to have heteroscedasticity. However, if the probability value is $> 5\%$ then heteroscedasticity does not occur.

Figure 3. Heteroscedasticity Test Results

Dependent Variable: RESABS
 Method: Panel Least Squares
 Date: 09/25/24 Time: 22:28
 Sample: 2018 2022
 Periods included: 5
 Cross-sections included: 12
 Total panel (balanced) observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	20.71597	24.98406	0.829168	0.4118
X1	47.86280	149.9810	0.319126	0.7513
X2	-206.7927	143.7505	-1.438553	0.1579
X3	-4.477492	10.51929	-0.425646	0.6726
Z	-0.617481	0.807037	-0.765122	0.4486
X1Z	-1.386262	4.761663	-0.291130	0.7724
X2Z	6.547339	4.555544	1.437224	0.1582
X3Z	0.132091	0.341093	0.387258	0.7006

Based on Figure 2, the research data is free from heteroscedasticity problems. This can be seen from the probability value which is greater than 0,05.

Autocorrelation Test

Based on the results of the tests that have been carried out, the following is the research autocorrelation test table:

Table 3. Autocorrelation Test Results

Durbin Watson Statistik (dW)	1,947760
dL	1,3349
dU	1,8505
4-dU	2,1495

The Durbin Watson value is higher than the lower limit of Durbin Watson (dU), namely 1,8505 and lower than the upper limit (4-dU), namely 2,1495. With a Watson Durbin value of 1,947760 which lies between these two limits, the conclusion is that there is no autocorrelation problem in the data used.

Multicollinearity Test

This test is carried out to see whether there is a relationship between the independent variables. Following are the test results

Figure 4. Multicollinearity Test Results

	X1	X2	X3	Z	X1Z	X2Z	X3Z
X1	1.000000	0.390110	-0.113559	-0.095025	0.698983	0.371422	-0.113136
X2	0.390110	1.000000	-0.098451	0.092413	0.389805	0.696548	-0.086629
X3	-0.113559	-0.098451	1.000000	-0.141976	-0.112068	-0.103008	-0.086629
Z	-0.095025	0.092413	-0.141976	1.000000	-0.057713	0.162711	-0.074732
X1Z	0.698983	0.389805	-0.112068	-0.057713	1.000000	0.374089	-0.108862
X2Z	0.371422	0.696548	-0.103008	0.162711	0.374089	1.000000	-0.086583
X3Z	-0.113136	-0.086629	-0.086629	-0.074732	-0.108862	-0.086583	1.000000

Based on the research results shown in Figure 3, the correlation coefficient value for each variable is below 0.90, so there is no multicollinearity.

Panel Data Regression Analysis

The image below is the test result *Fixed Effect Model*

Figure 5 Panel Data Regression Results *Fixec Effect Model*

Dependent Variable: Y
 Method: Panel Least Squares
 Date: 09/25/24 Time: 22:22
 Sample: 2018 2022
 Periods included: 5
 Cross-sections included: 12
 Total panel (balanced) observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.186317	0.188012	11.62863	0.0000
X1	2.576556	0.131433	19.60357	0.0000
X2	1.026575	0.385243	2.664751	0.0100
X3	0.500322	0.175632	2.848693	0.0051
Z	3.841487	0.978374	3.926400	0.0002
X1Z	0.923787	0.335560	2.752976	0.0067
X2Z	0.400679	0.201953	1.984018	0.0494
X3Z	0.007801	0.003333	2.340716	0.0200

Effects Specification

Cross-section fixed (dummy variables)			
R-squared	0.864206	Mean dependent var	1.838167
Adjusted R-squared	0.833086	S.D. dependent var	1.872186
S.E. of regression	0.764883	Akaike info criterion	2.478668
Sum squared resid	28.08218	Schwarz criterion	2.897537
Log likelihood	-62.36004	Hannan-Quinn criter.	2.642511
F-statistic	27.77057	Durbin-Watson stat	1.947760
Prob(F-statistic)	0.000000		

First regression model:

$$Y = 2.186 + 2.576 ROA + 1.026 NPM + 0.500 CR + e$$

Second regression model

$$Y = 2,186 + 2,576 ROA + 1,026 NPM + 0,500 CR + 0,923 ROA*UP + 0,400 NPM*UP + 0,007 CR*UP + e$$

Panel data regression analysis with application *Fixed Effect Model* can be interpreted as follows:

1. The positive constant value is 2.186. If variable *Return On Asset* (ROA), *Net Profit Margin* (NPM), and *Current Ratio* (CR) is equal to zero, then the profit growth value is 2,186.
2. Variable regression coefficient *Return On Asset* (ROA) is positive at 2.576, meaning that for every 1% increase and the value of other variables remains ROA, it will increase profits by 2,576.
3. Variable regression coefficient value *Net Profit Margin* (NPM) is positive at 1,026. This means that if the values of other variables remain constant and the NPM value increases by 1%, profit growth will increase by 1,026.
4. Regression coefficient *Current Ratio* (CR) has a positive value of 0,500. If other variables are constant and CR increases by 1% then the contribution to the increase in profit is 0,500.
5. The coefficient of the ROA variable which is moderated by company size is 0,923. If other variables have constant values, a one unit increase in the interaction between ROA and company size will contribute 0,923 to profit growth.
6. The NPM variable which is moderated by company size has a coefficient value of 0,400. This means that profits will increase by 0,400 for a one unit increase in the interaction of the NPM variables and company size on profit growth.

7. Variable coefficient *Current Ratio* (CR) which is moderated by company size of 0,007. If other variables are considered constant and a 1 unit increase in the interaction between CR and company size will have a contribution to profit growth of 0,007.

According to Mackinnon (2011), the value of the regression model in research does not change before or after entering the moderating variable. This is because the model is an integrated entity. If the regression model is split, its ability to identify the influence of moderating variables may be reduced.

F Test (Significance)

This test is carried out to determine the influence of several independent variables directly on the dependent variable. If the significance value is > 0.05, there is no significant influence simultaneously from the independent variables on the dependent variable. However, if the significance value is <0.05, it indicates that when the independent variables are tested simultaneously they will have a significant impact on the dependent variable.

Table 4 F Test Results

Information	Mark	Result
<i>Prob (F-statistic)</i>	0.000	Signifikan

The significance value < 0.05 means that simultaneously there is a significant influence of the ROA, NPM and CR variables on the dependent variable, namely profit growth.

t Test (Partial)

In this research, decisions will be taken with two conditions. First, if the significance level is > 0.05 then there is no significant influence of the independent variable on partial profit growth. Second, if the significance value is <0.05 then there is a significant influence of the independent variable on partial profit growth.

Based on Figure 4, all variables used in this research have positive values and the probability value of all variables is <0.05, which means the independent variables used have a significant positive effect on the profit growth of LQ45 manufacturing companies.

Determination Coefficient Test (R-square)

This test was carried out to measure the significant influence of the independent variable on the dependent variable. The test results are as follows:

Table 5 Determination test results

Information	Mark
<i>R-square</i>	0.864

R-square amounting to 86.4%. This means that independent variables such as *Return On Asset*, *Net Profit Margin*, and *Current Ratio* has a contribution of 86.4% to the variation in the dependent variable. The remainder is influenced by other variables not included in this study.

DISCUSSION

Based on the results of the research analysis, discussion is needed to answer the research problems that have been described. The following are the results of the research:

1. Effect of ROA on Profit Growth

The results of this research show that ROA has a significant positive effect on the profit growth of LQ45 manufacturing companies in 2018-2022. A high ROA value means that the net profit generated from each fund invested in total assets is increasingly higher. This research

is in line with research conducted by Firdaus and Sulistiyo (2023) which states that *Return On Asset* influence the profit growth of property companies and *real estate* period 2017 to 2022.

2. The Influence of NPM on Profit Growth

The results of the tests that have been carried out illustrate that NPM has a significant positive effect on the profit growth of LQ45 manufacturing companies in 2018-2022. The higher the NPM value, the higher the profit growth will be. The research conducted has results that are in line with research conducted by Nugraha and Susyana (2021) which states that NPM significant positive effect on profit growth. So the second hypothesis (H2) is accepted.

3. Effect of CR on Profit Growth

The results of the tests that have been carried out illustrate that CR has a significant positive effect on the profit growth of LQ45 manufacturing companies in 2018-2022. A higher CR value can indicate that the company has a good ability to pay off its short-term debt. Research carried out is in line with Kalsum (2020), the results of the research are that CR has a positive effect on company profit growth. Based on this, the third hypothesis (H3) is accepted.

4. Company size can strengthen the influence of ROA on profit growth

The test results show that company size (Z) can strengthen a significant positive influence *Return On Asset* on company profit growth. When a company's total assets and ROA value show a positive trend, this is often interpreted as a profitable indicator by investors. This research is not in line with research conducted by Pratama (2023) but is in line with Firdaus and Sulisty's 2023 results: company size as a moderating factor in profit growth increases the impact *Return On Asset*.

5. Company size can strengthen the influence of NPM on profit growth

The test results show that company size (Z) can strengthen the significant positive influence of NPM on company profit growth. Thus, it can be concluded that company size (Z) contributes positively and significantly in strengthening the positive influence *Net Profit Margin* in increasing profits (Y), the hypothesis is accepted. Research conducted by Firdaus and Sulisty (2023) illustrates that company size used as a moderating variable can strengthen the NPM variable on profit growth.

6. Company Size can Strengthen the Effect of CR on Profit Growth

Based on the hypothesis test that has been carried out, company size used as a moderating variable can strengthen the positive influence *Current Ratio* on the profit growth of manufacturing companies member of the LQ45 index, hypothesis 6 (H6) is accepted. The results of research conducted by Wigati (2020) are that company size plays a role in strengthening influence *Current Ratio* on company profit growth.

CONCLUSIONS

Based on the research data analysis that has been carried out, the conclusions that can be drawn are as follows:

1. *Return On Asset* has a significant positive effect on the profit growth of manufacturing companies included in the LQ45 index successively from 2018 to 2022.
2. *Net Profit Margin* has a significant positive effect on the profit growth of manufacturing companies included in the LQ45 index successively from 2018 to 2022.
3. *Current Ratio* has a significant positive effect on the profit growth of manufacturing companies included in the LQ45 index successively from 2018 to 2022.

4. Company size can strengthen the positive influence *Return On Asset* on the profit growth of manufacturing companies included in the LQ45 index successively from 2018 to 2022.
5. Company size can strengthen positive influences *Net Profit Margin* on the profit growth of manufacturing companies included in the LQ45 index successively from 2018 to 2022.
6. Company size can strengthen positive influences *Current Ratio* on the profit growth of manufacturing companies included in the LQ45 index successively from 2018 to 2022.

REFERENSI

- As' ari, A. G. P., & Pertiwi, T. K. (2021). Rasio Fundamental Terhadap Pertumbuhan Laba: Variabel Moderasi Ukuran Perusahaan (Fundamental Ratio On Income Growth: Variables of Company Size Moderation). *JISAMAR (Journal of Information System, Applied, Management, Accounting and Research)*, 5(1), 261-270.
- Firdaus, R. A. C., & Sulistiyo, H. (2023). Pengaruh Return On Asset dan Net Profit Margin Terhadap Pertumbuhan Laba Pada Perusahaan Sektor Properti dan Real Estate dengan Ukuran Perusahaan Sebagai Variabel Moderasi. *Innovative: Journal Of Social Science Research*, 3(3), 6251-6261.
- Fudin, A., & Indriyani, F. (2022). Pengaruh Kinerja Keuangan terhadap Pertumbuhan Laba dengan Ukuran Perusahaan sebagai Variabel Moderasi pada Bank Umum Syariah Periode 2016-2020. *Mutanaqishah: Journal of Islamic Banking*, 2(1), 1-9.
- Harahap, H. F. (2020). Analisis Kinerja Keuangan Pemerintah Daerah Kabupaten Tapanuli Tengah. *Ekonomis: Journal of Economics and Business*, 4(1), 34-38.
- Kalsum, U. (2021). Pengaruh rasio keuangan terhadap pertumbuhan laba pada perusahaan LQ45 yang terdaftar di BEI. *Jurnal Akuntansi Dan Keuangan Kontemporer (JAKK)*, 4(1), 25-32.
- LESTARI, S. (2021). *Pengaruh Current Ratio (CR), Debt To Equity Ratio (DER), Net Profit Margin (NPM), Return On Asset (ROA), dan Ukuran Perusahaan Terhadap Pertumbuhan Laba* (Doctoral dissertation, UNIVERSITAS ISLAM NEGERI SULTAN SYARIF KASIM RIAU).
- Mackinnon DP. Integrating Mediators and Moderators in Research Design. *Res Soc Work Pract*. 2011 Nov;21(6):675-681. doi: 10.1177/1049731511414148. Epub 2011 Jul 13. PMID: 22675239; PMCID: PMC3366634.
- 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.
- Pratama, F. (2023). Pengaruh Rasio Keuangan Terhadap Pertumbuhan Laba Dengan Ukuran Perusahaan Sebagai Variabel Moderasi Pada Perusahaan Sub Sektor Farmasi Yang Terdaftar Pada Bursa Efek Indonesia Periode 2019-2021. *Jurnal Ilmu Manajemen*, 377-392.
- Tumangkeng, M. F., & Mildawati, T. (2018). Pengaruh Struktur Modal, Pertumbuhan Laba, Profitabilitas dan Ukuran Perusahaan Terhadap Nilai Perusahaan. *Jurnal Ilmu Dan Riset Akuntansi*, 7(6), 1-16. <http://jurnalmahasiswa.stiesia.ac.id/index.php/jira/article/view/634>.
- Wigati, T. P. (2020). Pengaruh Rasio Keuangan Terhadap Pertumbuhan Laba Dengan Ukuran Perusahaan Sebagai Variabel Moderating. *Neraca*, 16(1), 27-39.