Profitability And Profit Growth Of Manufacturing Companies In Indonesia During The Covid-19 Pandemic

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Abstract.
The purpose of this study is to determine and analyze the effect of Net Profit Margin (NPM), Return On Assets (ROA), and Return On Equity (ROE) on profit growth in manufacturing companies in Indonesia. This type of research is classified as causal associative, a study that aims to determine the relationship between two or more variables. All of the manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2018-2020 and selected as the research population were 194. A purposive sampling method adapted to the purpose was used in the selection of samples so that 16 companies were obtained as samples. This study uses quantitative data types, while the analytical techniques used are classical assumption test, multiple regression analysis, $R^2$ coefficient of determination test and t test. Based on the results of the analysis, it is stated that profit growth in the manufacturing sector listed on the Indonesia Stock Exchange (IDX) in 2018-2020 is not significantly affected by the NPM, ROA and ROE variables.

Keywords : NPM, ROA, ROE and profit growth

I. INTRODUCTIONS

The company's performance can be measured through projections and profit growth obtained every year, profit growth according to Safitri [1] is a positive difference from the increase in profits obtained by the company, profits that increase every year indicate an effective company's financial condition so that company value can increase. An increase in profit is one of the benchmarks for good company performance, so that it can increase investor interest in investing [2]. Profit growth can be seen from how much increase in industrial profits [3]. In general, profit growth is influenced by internal and external factors, including the profitability ratio [4] [5]. Susyana and Nugraha [6] in their research also reveal that profit growth is influenced by the variable net profit margin. In contrast to Amar and Nurfadila [7], Safitri [1], Bionda and Mahdar [8] the results of their research show that net profit margin does not have a significant effect on profit growth. Agustina [9] revealed that the external factors that affect profit growth are the inflation rate and economic conditions. At this time of the Covid-19 pandemic, the manufacturing industry is one of the sectors experiencing a high rate of decline in profits compared to the previous period. In 2018 profit growth was 25%, in 2019 it decreased by 8% to 17%. In 2020, it decreased by 24% to -7%. In 2020 a natural phenomenon occurred with the covid-19 pandemic, several manufacturing companies got effective performance in some sub-sectors even though they were in the middle of an economic crisis situation due to the covid-19 pandemic. In the fourth quarter of 2020, foreign demand for the base metal sector increased by 11.46%.

The increase in the chemical, pharmaceutical and traditional medicine sector by 8.45% with the support of domestic demand, especially in increasing the production of soap, hand sanitizer, disinfectant, medicine and vitamins. Demand for the food and beverage sector increased by 1.66%, this is because people must maintain their health by consuming quality food during the COVID-19 pandemic (www.Kemenperin.go.id, accessed on October 21, 2021). The projection of the company's profit growth rate can be predicted using financial statement ratio analysis both horizontally and vertically on the items contained in the company's income statement, changes in capital, and balance sheet. Financial statements are information that provides signals for decision making on parties with an interest in financial statements. This is in accordance with signal theory. Signal theory explains that companies must convey financial information to external parties such as potential investors [10]. According to Hasanah [11] signal theory is information
provided to investors about the company's prospects by the management. Signals in the form of accurate and reliable company financial information can encourage investors' interest in more effective and efficient company prospects. The company's financial condition and profit growth can be seen from the financial ratios. The company's management will evaluate the company's performance when the company's financial condition is not good. This is done with the aim of increasing profit growth in a company in the future. The manufacturing industry's profit growth from 2018 to 2020 has decreased. Ratios to measure the company's profit growth include profitability ratios. Profitability ratio is proxied by net profit margin, return on assets and return on equity. The research objective is to analyze the effect of net profit margin, return on assets and return on equity on profit growth.

**Profit Growth**

Increased company profits can strengthen the relationship between company size and the level of profit earned [4]. Increased company profits will increase assets so as to provide a great opportunity to earn profits in the coming period. Investors, creditors, and managers use the company's profit growth to get their business back on track. Indications of profit growth in a company can be seen from the difference between the net profit of a certain period and the net profit of the previous period then divided by the net income of the previous period.

**Signal Theory**

Signal theory was first postulated by Ross [10] that the information shared by the company is very important for investment decisions by investors. Financial statement information submitted by company executives to investors can increase the company's stock price. Signal theory is related to financial statements because it is a medium to show how the condition of a company is, if the financial statements are good then a company will have good prospects in the future and vice versa if the financial statements are bad then the future prospects are not too good and need improvement. In other words, this signal theory can help investors to find out how good a company's prospects are in the future from its financial statements. According to Hasanah [11], signal theory is information provided to investors about the company's prospects by the management. The importance of this information is because of the information asymmetry in signal theory. Information asymmetry is the difference in information held between management and investors. Information provided by the company to investors in the form of financial statements.

**Profitability**

Muslichah and Bahri [12] stated that the profitability ratio is a ratio that measures an entity's ability to earn a profit. Types of profitability ratios include:

a. **Profit Margin (Net Profit Margin)**

   NPM or sales margin is used to evaluate the company in obtaining net profit from overall sales obtained in the financial period. NPM indicates whether or not the entity is using operating costs. The higher the NPM, the better the operating ability to earn high profits.

b. **Return on Assets (Return On Assets)**

   ROA is used to show the entity's ability to generate net income before tax from total assets. ROA measures how the entity utilizes its assets to earn a profit and the rate of return on investment by using all of its assets.

c. **Return on Equity (Return on Equity)**

   ROE aims to assess the entity's ability to earn net income by using its own capital so as to show efficiency in the use of its own capital. The higher the ROE, the better the entity will get profit from its own capital and the position of the owner will be stronger.

**Hypothesis**

The effect of profitability on profit growth from empirical studies and previous theories has shown inconsistency, Myer and Majulf [13] in the classical perspective states that increasing operating profit will increase investment and business expansion, so that profit growth in the following year can be achieved. Supported by previous research Coad [14], Coad [15] which suggests that profitability has a significant positive effect on profit growth. In contrast to Jang and Park [16] which suggests that profitability has a
negative effect on profit growth and companies that experience zero profit, their profit growth is also negative.

**Net Profit Margin and Profit Growth**

Net profit margin (NPM) is a ratio that measures profit after total sales. The higher the NPM indicates the company's ability to earn high profits. This gives the company the opportunity to increase business capital without debt, so that income increases. Income increases profit will also increase so that it will affect the increase in profit growth. This is supported by research by Napitulu [4], Safitri and Mukaram [5], Susyana and Nugraha [6] that net profit margin (NPM) has a significant effect on profit growth. Then the hypothesis can be tested regarding the effect of net profit margin on profit growth as follows:

\[ H1 : \text{Net Profit Margin (NPM) has an effect on profit growth.} \]

**Return On Assets and Profit Growth**

Return on assets (ROA) is a ratio that measures the company's profit with total assets. ROA is used to see the level of efficiency of the company's operations as a whole. The higher the ROA indicates the level of efficiency in the use of company assets to generate profits. High profits will affect the company's profit growth. This is in accordance with research by Panjaitan [17], Safitri and Mukaram [5], Widiyanti [18] that return on assets (ROA) has a significant effect on profit growth. Then the hypothesis can be tested regarding the effect of return on assets on profit growth as follows:

\[ H2: \text{Return on Assets has an effect on profit growth.} \]

**Return On Equity and Profit Growth**

Return on equity (ROE) measures the company's profit generated from total equity. ROE is usually a concern of shareholders or potential shareholders as well as management. The higher the ROE of a company, the higher the return that investors will receive from their investment. The increasing value of ROE can show the effectiveness of the company in managing funds originating from owners or investors so that the company is able to generate profits. High profits will affect the company's profit growth. This is supported by the research of Erawati and Widayanto [19], Sihura and Gaol [20] which have a significant effect on profit growth. Then the hypothesis can be tested regarding the effect of return on equity on profit growth as follows:

\[ H3 : \text{Return on equity has an effect on profit growth} \]

II. METHODS

**Types of research**

This type of research uses the causal associative method because it aims to determine the effect between variables to be tested through hypothesis testing.

**Population and Sample**

The population used in this study were all manufacturing companies totaling 194 companies. The criterion method (purposive sampling) was chosen in the sample selection technique. Sample based on criteria (purposive sampling) is a sample selection technique based on certain criteria with the aim of conveying maximum information [21]. The sample used is 16 companies that match the criteria, so the sample criteria in this study are as follows:
2. Manufacturing companies that consistently publish financial reports during the study period.
3. Companies that experienced an increase in profits during the study period.

**Definition of Variable Operational**

1. Net profit margin (NPM) measures the company's ability to generate profit in total sales, or by the formula:

\[
\text{NPM} = \frac{\text{Earning after Tax}}{\text{Net Sales}} \times 100\%
\]

2. Return on assets (ROA) measures the company's ability to generate profits in managing its total assets, or with the formula:
3. Return on equity (ROE) measures the company’s ability to generate profits in managing its capital, or by the formula:

\[ \text{ROE} = \frac{\text{laba Bersih setelah pajak}}{\text{Total Equitas}} \times 100\% \]

4. Profit growth according to [22] is measured by the formula:

\[ \text{Profit growth} = \frac{\text{Net sales}_t - \text{Earning after Tax}_{t-1}}{\text{Earning after Tax}_{t-1}} \]

III. RESULT AND DISCUSSION

Uji Statistik Deskriptif

Based on the results of descriptive statistical tests that the sample data tested were 16 research samples in the 2018-2020 period (48 data) of manufacturing companies listed on the Indonesia Stock Exchange (IDX) and there were data that were not used because they were outliers of six data so that the data analyzed is (42 data). Researchers have tested using descriptive statistical tests in the SPSS program and have the following results:

<table>
<thead>
<tr>
<th>Statistic</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPM</td>
<td>42</td>
<td>.019100</td>
<td>.243400</td>
<td>.09129610</td>
<td>.054044235</td>
</tr>
<tr>
<td>ROA</td>
<td>42</td>
<td>.021200</td>
<td>.269000</td>
<td>.11734269</td>
<td>.059174128</td>
</tr>
<tr>
<td>ROE</td>
<td>42</td>
<td>.041100</td>
<td>.294300</td>
<td>.13394636</td>
<td>.059709766</td>
</tr>
<tr>
<td>PL</td>
<td>42</td>
<td>-.1088793</td>
<td>.8919000</td>
<td>.191340305</td>
<td>.2080812592</td>
</tr>
</tbody>
</table>

Table 1. Statistic Descriptif

Source: Data processed, 2021

Table 1 shows that the net profit margin has the lowest yield of 0.0191, the highest yield of 0.2434, and the average yield of 0.0912. The standard deviation result is 0.0540 where the standard deviation is smaller than the average (mean) result. Meanwhile, Return on assets has the lowest yield of 0.0212, the highest return of 0.2690, and the average result is 0.1173. The standard deviation result is 0.0592 where the standard deviation is smaller than the average result. While the Return on equity variable has the lowest result of 0.0411, the highest result of 0.2943, and the average result is 0.1339. The standard deviation result is 0.0597 where the standard deviation is smaller than the average result. Profit growth variable has the lowest result of -0.1088, the highest result of 0.8919, and the average result of 0.1913. The results of the standard deviation of 0.2080 where the standard deviation is greater than the average result.

Normalitas Test

The one-sample Kolmogorov-Smirnov test was chosen to test the normality of the data. The one-sample Kolmogorov-Smirnov test aims to determine whether the distribution is normal, Poisson, uniform or exponential. Based on the results of the one-sample Kolmogorov-Smirnov/Test Statistics, it has a value of 0.123 with a significance level of 0.111. Based on the data, the significance value is 0.111 > 0.05, so it can be concluded that the data is normally distributed.

Multikolinieritas Test

The Variance Inflation Factor (VIF) value can indicate a regression model experiencing symptoms of multicollinearity or not. The regression model is said to have no multicollinearity symptoms if the VIF value is <10. Based on the results of data processing, it shows that the calculation results of the VIF on the NPM variable have a VIF value of 4.072 and the ROA variable has a VIF value of 8.073 and the ROE variable has a value of 6.714. These results indicate that the value of VIF < 10, it can be concluded that there is no multicollinearity in the independent variables in this regression.

Autokorelasi Test

A good regression model is one that is free from autocorrelation. How to detect the presence or absence of autocorrelation in a regression using the Durbin Watson (DW) test. Based on the results of the
data processing, the value of DW \(-2 < 1.910 < 2\), which means that it is in an area without autocorrelation. It can be concluded that the research data is free from autocorrelation symptoms.

**Heteroskedastisitas Test**

A good regression is a regression that does not occur heteroscedasticity. The way that can test heteroscedasticity is using the Spearman's rho correlation method. A regression is said to have no heteroscedasticity if the significance level value between variables is more than 0.05. Based on the results of the data processing shows the correlation between the variables NPM, ROA and ROE with an unstandardized residual value has a significance level value of 0.366 > 0.05, which means that there is no heteroscedasticity.

**Koefisien Determinasi (R2)**

The test that measures the model's ability to explain the independent variable to the dependent variable or is said to be the proportion of the influence of the independent variable on the dependent variable. The value of the coefficient of determination is measured by the Adjusted R-Square because the research uses more than one variable. In the results of data processing the value of Adjusted R Square (R2) is 0.120, which means that 12% of profit growth can be explained by the variables of net profit margin, return on assets and return on equity, while the remaining 88% is influenced by other variables not used in this study.

**Multiple Regression Analysis**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-.046</td>
</tr>
<tr>
<td>NPM</td>
<td>.812</td>
<td>1.138</td>
</tr>
<tr>
<td>ROA</td>
<td>-.634</td>
<td>1.520</td>
</tr>
<tr>
<td>ROE</td>
<td>.065</td>
<td>1.323</td>
</tr>
</tbody>
</table>

*Sources: Data Processed, 2021*

Based on table 2 of the multiple regression analysis above, the following equation is obtained:

\[
\text{Earning growth} = -0.046 + 0.812 \text{NPM} + (-0.634)\text{ROA} + 0.065(\text{ROE}) + e
\]

**Result**

The results of the research that have been tested show that the net profit margin (NPM) has no effect on profit growth in manufacturing companies listed on Indonesia Stock Exchange (IDX) for the 2018-2020 period, so it is not in accordance with the alleged hypothesis. It is not proven that this hypothesis is shown a significant value of 0.480 > 0.05. It can be concluded that H1 is rejected, namely NPM has no effect on profit growth. These results indicate that the profit generated by the company is not optimal, because the lower the value of the net profit margin (NPM) indicates that the company is not efficient in running its operations which affects the profit generated by the company. This is in accordance with research by Amar and Nurfadila [7], Safitri [5] and Bionda and Mahdar [8] showing that NPM has no effect on profit growth.

The second variable of this study uses return on assets (ROA) which also has no effect on profit growth, so it is not in accordance with the alleged hypothesis. This hypothesis is not proven, indicated by a significant value of 0.679 > 0.05 which can be concluded that H2 is rejected. These results indicate that the company is not optimal in managing its assets for the production process, so the assets cannot be used optimally which has an impact on sales so that the profits obtained are not optimal.

This is in accordance with Yanti's [23] research showing that ROA has no effect on profit growth. Return on equity (ROE) also has no effect on profit growth in manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the 2018-2020 period, so it is not in accordance with the alleged hypothesis. Not proven this hypothesis is indicated by a significant 0.961 > 0.05 it can be concluded that H3 is rejected. So with these results, it means that manufacturing companies have a low level of managing their capital to earn a profit. This is because the company is not able to manage capital efficiently to earn a profit. In addition, the investment pattern made by the company is not appropriate so that all assets are not used optimally.
efficiently so that the profits obtained by the company are not optimal. This is in accordance with research by Safitri [5], Bionda and Mahdar [8] showing that ROE has no effect on profit growth.

IV. CONCLUSION

Based on the test results, it can be analyzed and concluded from the research that has been done that the profitability variables used consist of net profit margin (NPM), return on assets (ROA) and return on equity (ROE) have no effect on profit growth in manufacturing companies in Indonesia. during the covid-19 pandemic. In addition, during the COVID-19 pandemic, many manufacturing sector sectors experienced a slump triggered by various external factors, namely the economy which could be said to be experiencing paralysis or congestion so that the profit growth rate of the manufacturing sector also experienced obstacles.

The limitations of the study are indicated by the value of Adjusted R Square (R2) that net profit margin (NPM), return on assets (ROA) and return on equity (ROE) are able to explain profit growth of 12%, while 88% is explained by other factors that are not used in this study. Suggestions for further researchers are expected to add independent variables such as activity ratios, liquidity and solvency because these variables may affect the company's profit growth. Further researchers can also increase the research period in order to obtain more accurate research results.

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