

THE IMPACT OF COVID-19 ON THE PROFITABILITY OF MANUFACTURING COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE (IDX)

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Abstract

This study aims to determine the impact of COVID-19 on the profitability of manufacturing companies listed on the Indonesia Stock Exchange. This sample was taken from manufacturing companies listed on the Indonesia Stock Exchange (IDX) which can be accessed via the website (www.idx.co.id), the research sample was selected using the purposive sampling method of 22 manufacturing companies listed on the Indonesian stock exchange for the 2019-2021 period. The type of data used in this research is quantitative data obtained from financial reports that have been audited and published by manufacturing companies listed on the 2019-2021 Indonesian Stock Exchange. Data collection is done by using Documentation technique. In this research, the data source used is secondary data. The analytical methods used in this study include: Using Descriptive Statistical Tests and Difference Tests (Paired Sample T-Test)

The results of this study indicate that it is concluded that the COVID-19 pandemic has had a significant impact on the profitability of manufacturing companies listed on the Indonesia Stock Exchange. NPM, ROA, and ROE underwent significant changes after the pandemic, indicating a decrease or increase in the financial performance of these companies. These results indicate the need for companies to adapt their business strategy and financial management to face the challenges posed by the COVID-19 pandemic in order to ensure the continuity and profitability of the company in the future.

Keywords: *COVID-19, Profitability Ratio*

1. INTRODUCTION

COVID-19 is a new virus that was first discovered in Wuhan, China at the end of December 2019. In early March 2020, it was reported that COVID-19 had spread to Indonesia after two people were found to be infected in the community, and then quickly spread to the surrounding areas. The government has also implemented a social-distancing policy to minimize the spread of the virus.

Financial performance is a parameter used to evaluate the work of a company. Financial performance can be an indicator to determine whether COVID-19, which is a

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disease caused by the 2019 Corona virus, has a negative or positive impact on the sustainability of companies in Indonesia.

Profitability ratios are used as a tool to evaluate a company's ability to generate profits from its assets. The COVID-19 pandemic has caused several economic sectors to experience a decline, but in a number of sectors they have experienced an increase. These conditions have shown that the COVID-19 pandemic has caused several economic sectors to experience a decline, but in a number of sectors it has actually increased. In a "shaken" and unstable condition, several economic sectors experienced a decline (Yang & Yang, 2021),

According to Wahyuni (2021), companies can get achievements in a certain period of time as a result of the work process for a certain period of time, this is called company performance. So assessing company profitability, relevant data and information are needed, and related to the activities of a company in a certain period of time which is one of the factors that can show how the company earns profits.

When COVID-19 occurred, most manufacturing companies had to face a number of problems with declining sales. Certain companies don't even earn revenue. As a result of COVID-19, human and organizational activities are limited. Therefore, this has an impact on the performance of the company which will decrease (Bank Indonesia, 2020).

One of the impacts of the COVID-19 pandemic on the economic sector is the performance of the manufacturing industry which experienced deep pressure during the second quarter of 2020 as a result of the COVID-19 pandemic.

Based on the gross domestic growth rate of the manufacturing industry in Indonesia during the COVID-19 pandemic, it achieved results in 2019 of 3.80%, in 2020 -2.93%, in 2021 it reached 3.39%. And in 2022 it will reach 3.51%. In this case it will have a negative impact on the level of financial performance of the company.

Ratio analysis is future oriented, meaning that ratio analysis can be used as a tool to predict financial conditions and business results in the future. If the company's financial performance is good then profits increase, and conversely the company's performance is not good then profits also decrease. The financial ratios used in this study are profitability ratios by focusing on Return on Assets (ROA), Return On Equity (ROE), and Net Profit Margin (NPM) Njauwman (2021).

Various performances occurred in manufacturing companies on the Indonesia Stock Exchange (hereinafter referred to as BEI), in terms of limiting the supply of raw materials from within and outside the country, a decrease in human resources, to the instability of the company's financial condition. IDX and Investors need to map the financial performance (especially profitability) of manufacturing companies in order to improve and restore investment conditions in Indonesia.

The hypothesis in this study are:

- H1: There is a Significant Difference in Net Profit Margin (NPM) before and after COVID-19
- H2: There is a Significant Difference in Return On Equity (ROE) before and after COVID-19
- H3: There is a Significant Difference in Return on Assets (ROA) before and after COVID-19

2. RESEARCH METHOD

The type of research used is a quantitative method, because this research is related to numbers and the object of this research, namely manufacturing companies listed on the Indonesia Stock Exchange (IDX). Data collection is done by using Documentation technique. This study uses secondary data sources. The population of this study is 193 manufacturing companies listed on the Indonesia Stock Exchange and have published financial reports for the period 2019-2022 or before and after the establishment of the COVID-19 emergency status. The research sample used a purposive sampling technique of 22 sample companies. The analytical method used in this research is Descriptive Statistical Test and Difference Test (Paired Sample T-Test).

3. RESULTS AND DISCUSSION

RESULTS

3.1 Descriptive Test Results

This research involved companies belonging to the manufacturing sector and listed on the Indonesia Stock Exchange (IDX). The sample number of companies listed on the IDX in 2020 is 22. The main characteristic of manufacturing companies is converting resources into finished goods through the manufacturing process, which are then sold to consumers. The following is an explanation of the descriptive statistics of this study.

Table 1 NPM Descriptive Test Results
Descriptive Statistics

	N	Minimum	Maximum	Means	std. Deviation
NPM Before the Pandemic	66	0.038	0891	0.13393	0.166655
NPM After the Pandemic	66	0.041	0.605	0.11578	0.093518
Valid N (listwise)	66				

Overall, the table above provides an overview of the distribution of NPM variables before and after the pandemic based on descriptive statistics. NPM data after the pandemic shows changes in mean, median, and standard deviation values compared to the pre-pandemic period.

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Descriptive Statistics					
	N	Minimum	Maximum	Means	std. Deviation
ROA Before the Pandemic	66	0.049	0.808	0.21962	0.163305
ROA After the Pandemic	66	0.043	0.522	0.1686	0.08446
Valid N (listwise)	66				

Overall, the table above provides an overview of the distribution of ROA variables before and after the pandemic based on descriptive statistics. ROA data after the pandemic shows a decrease in mean, median, and standard deviation values compared to the pre-pandemic period.

Table 3 ROE Descriptive Test Results

Descriptive Statistics					
	N	Minimum	Maximum	Means	std. Deviation
ROE Before the Pandemic	66	0.032	0.495	0.13428	0.110273
ROE After the Pandemic	66	0.025	0.314	0.09091	0.060974
Valid N (listwise)	66				

Overall, the table above provides an overview of the distribution of ROE variables before and after the pandemic based on descriptive statistics. ROE data after the pandemic shows a decrease in mean, median, and standard deviation values compared to the pre-pandemic period.

Based on the results of the descriptive research, it can be observed that there are significant differences in the distribution of data between manufacturing industries. This can be seen from the average and median values which show differences in the value of Net Profit Margin (NPM), Return on Assets (ROA) and Return on Equity (ROE) between the basic and chemical industry sectors. In addition, the standard deviation of each sector on NPM, ROA and ROE also show significant value variations, indicating variations in the profitability of IDX companies in the basic and chemical industries, various industries, and the consumer goods industry during the COVID-19 pandemic.

This condition reflects the level of resilience of a company against "abnormal" conditions that occur. Companies in the consumer goods industry sector show a better level of profitability compared to the basic and chemical industry sectors as well as various industries. This can be explained by the fact that basic needs such as food and beverages are prioritized over other needs during the COVID-19 pandemic, so it is only natural that the consumer goods sector continues to have demand and companies continue to obtain sales, which in turn has an impact on profitability.

3.2 Normality Test Results

This study used the One-Sample Kolmogorov-Smirnov Test method to test the normality of the distribution of the analyzed data. The following is a table of results from the data normality test.

Table 4 Data Normality Test Results

<i>One-Sample Kolmogorov-Smirnov Test</i>		
		<i>Unstandardized Residuals</i>
N		396
<i>Normal Parameters, b</i>	<i>Means</i>	0
	<i>std. Deviation</i>	0.04276
<i>Most Extreme Differences</i>	<i>absolute</i>	0.171
	<i>Positive</i>	0.171
	<i>Negative</i>	-0.082
<i>Test Statistics</i>		0.471
<i>asympt. Sig. (2-tailed)</i>		.920c
<i>a. Test distribution is Normal.</i>		
<i>b. Calculated from data.</i>		
<i>c. Lilliefors Significance Correction.</i>		

The table above shows that asymp.sig is $0.920 > 0.05$. Thus, it can be concluded that the data in this research model are normally distributed.

3.3 Results of the Paired Sample T-Test

The following are the results of the paired sample T-test which was carried out in stages for each variable. To find out the Impact of Covid 19 on Manufacturing companies.

Table 5. NPM Paired Sample T-Test Test Results

	Paired Differences					Q	f	Sig. (2- tailed
	Means	std. Deviation	std. Error Means	95% Confidence Interval Of the Difference				
				Lower	Upper			
Pair 1 NPM Before the Pandemic - NPM After the Pandemic	0.1845	0.093803	0.11546	-0.004914	0.41205	.572	5	0.001

The results of the t statistical test were 1.572 with degrees of freedom (df) of 65. At a significance level of 0.05, it was found that the p-value (Sig. 2-tailed) was 0.001. This p-value is smaller than the specified significance level (0.05), so there is sufficient evidence to reject the null hypothesis. Thus, the results of the paired sample T-Test show that there is a significant difference between NPM before and after the pandemic. This indicates that the impact of Covid-19 has had an effect on the profitability of manufacturing companies, with observable changes in the level of net profit.

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Table 6 ROA Paired Sample T-Test Results

	Paired Differences					Q	f	Sig. (2-tailed)
	Means	std. Deviation	std. Error Means	95% Confidence Interval Of the Difference				
				Lower	Upper			
Pair 1 ROA Before the Pandemic - ROA After the Pandemic	0.0510129	0.120522	0.014835	0.021391	0.080647	.439	5	0.001

The result of the t statistical test was 3.439 with degrees of freedom (df) of 65. At a significance level of 0.05, it was found that the p-value (Sig. 2-tailed) was 0.001. This p-value is smaller than the specified significance level (0.05), so there is sufficient evidence to reject the null hypothesis. Thus, the results of the paired sample T-Test show that there is a significant difference between ROA before and after the pandemic. This indicates that the impact of Covid-19 has had an effect on the return on assets of manufacturing companies, with observable changes in the rate of return on assets.

Table 7. Paired Sample T-Test ROE Test Results

	Paired Differences					Q	f	Sig. (2-tailed)
	Means	std. Deviation	std. Error Means	95% Confidence Interval Of the Difference				
				Lower	Upper			
Pair 1 ROE Before the Pandemic - NPM After the Pandemic	0.043374	0.069875	0.008601	0.026196	0.060551	043	5	,00

The result of the t statistical test was 5.043 with degrees of freedom (df) of 65. At a significance level of 0.05, it was found that the p-value (Sig. 2-tailed) was 0.000. This p-value is smaller than the specified significance level (0.05), so there is sufficient evidence to reject the null hypothesis. Thus, the results of the paired sample T-Test show that there is a significant difference between ROE before and after the pandemic. This indicates that the impact of Covid-19 has had an effect on the return on equity of manufacturing companies, with observable changes in the rate of return on equity.

DISCUSSION

1. There were differences in NPM's financial performance before and after COVID-19

Net Profit Margin is a measure of profit by comparing profit after interest and taxes compared to sales. Net Profit Margin shows the net profit earned by the company. The higher the NPM value, the better the company's performance.

NPM Before Covid-19 in 2017-2019 The average company did not experience a decrease in revenue and sales were normal before Covid-19 because the net profit margin was obtained by comparing profits from business operations to sales. The higher the value of this ratio, the better the company's profitability, so that investors are interested in investing their capital and even before Covid-19 the company's average profit from sales still showed a positive value. While NPM after Covid-19 in 2020-2022. after the Covid-19 pandemic, the difference occurred because the average NPM during the pandemic experienced a significant decrease compared to before the pandemic, this was due to a decrease in net profit during the pandemic, in which sales decreased because people's purchasing power decreased, moreover the community prioritized primary goods over secondary goods during the Covid-19 pandemic so this caused a significant decrease in net profit and NPM at the company So this is a bad signal for companies and investors (siwu meivi herlina 2022). And also the difference in Net Profit Margin before and during the Covid-19 pandemic in manufacturing companies in the consumer goods and industrial sector listed on the Indonesia Stock Exchange. From the test results it was also known that there was a decrease in the average Net Profit Margin before and after Covid-19. This decrease occurred because the company's ability to make sales and net profit decreased. This can be caused by decreased purchasing power as a result of some people tending to save money, experiencing decreased income and even no longer having a steady income (Baune Aldi et al 2022). This research is in line with research conducted by Natalia, 2022; Prasetyo, 2022 and Rinofah, 2022, state that there are differences.

2. There are differences in ROA financial performance before and after COVID-19

Return On Assets (ROA) is a ratio that measures financial performance by comparing net profit to total assets. Return On Assets is used to determine the effectiveness of management in generating profitability from sales and investment activities.

ROA Before Covid-19 in 2017-2019 So before the Covid-19 pandemic the average ROA value of companies listed on the Indonesia Stock Exchange tended to increase, this can be seen from the increase in ROA before the occurrence of Covid-19 because also the average assets of these companies were very good and ROA before Covid-19 also greatly helped company value. ROA After Covid-19 in 2020-2022 where there was a significant difference in ROA before Covid-19 because there was an average difference before and during the Covid 19 pandemic which meant that during Covid 19 the performance of the ROA ratio had decreased. This is due to factors that influence external parties, for example the existence of regulations issued by the government, namely large-scale social restrictions (PSBB) and physical distancing so that the services offered by manufacturing companies cannot be enjoyed by local people and foreign countries as a result of which these companies

experience decreased profits. In this study, the results showed that there were significant differences in financial performance in the Profitability ratio as measured by ROA (Baune Aldi et al. 2022).

This is in accordance with research conducted by Maria J. F Esomar, Restia Christianty (2021) which states that the ROA ratio has decreased drastically during the Covid 19 pandemic, this is due to a decrease in income earned due to the Covid 19 pandemic so tourism sector companies need to be vigilant if there is a drastic decline that gets deeper.

3. There are differences in ROE financial performance before and after COVID-19

Return On Equity is used to determine the effectiveness of management in generating profitability from sales and investment activities. The higher the ROE ratio, the better management effectiveness in seeking profitability

ROE Before Covid-19 in 2017-2019 So before the Covid-19 pandemic, the average ROE value was normal at the time before Covid-19 and has increased, this can be seen from the increase in ROE before the occurrence of Covid-19. ROE achieved. The greater the return on equity (ROE) reflects the company's ability to generate high profits for shareholders. This has an impact on increasing the value of the company. The results of testing the effect of return on equity (ROE) on firm value show a positive value for the company. This shows that it can be seen before Covid-19 that return on equity (ROE) positively affects firm value. Whereas ROE after covid-19 in 2020-2022 So after the Covid-19 pandemic, this happened because the average ROE during the pandemic had decreased significantly as a result of decreased net profit during the Covid-19 pandemic. There was a difference in the Return on Equity ratio because there was an average difference before and during the covid 19 pandemic, which means that the Return On Equity (ROE) ratio during the covid 19 pandemic has decreased. The cause of the decline in the Return On Equity ratio is still not optimal, indicating a decrease in management performance in managing existing resources within the company to generate profits. This inability is also influenced by external factors, this is because the contribution of capital in generating profits has not been maximized compared to before the Covid-19 pandemic. This is due to large-scale social restrictions (PSBB) and physical distancing so that the services offered by the 22 companies cannot be enjoyed by local people and foreign countries, so that these companies experience a decrease in profits. As a result, the investors did not choose the company to be used as a company to invest their funds (Baune Aldi et al 2022).

Shows a significant difference in the Return on Equity (ROE) ratio. This is in accordance with research conducted by Maria J. F Esomar, Restia Christianty (2021) which stated that the ROE ratio experienced a significant decrease during the covid 19 pandemic, this was due to management's performance not being optimal in managing existing resources so that it affected income earned due to the covid 19 pandemic.

4. CONCLUSION

Based on the research that has been done, it is concluded that COVID-19 has had a reduced impact on Manufacturing Company Profitability Ratios as measured using Net Profit Margin. Manufacturing Company Profitability Ratios are measured using Return on Total Equity.

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