



Impact of the Covid-19 Pandemic on Performance and Financial Condition of Manufacturing Companies Listed on the IDX

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Abstract

In December 2019, Wuhan China was hit by an outbreak of Corona Virus infection or what is currently called Covid-19, and continues to spread to various countries including Indonesia. Various policies issued by the government such as Social-distancing, lockdown and the implementation of strict health protocols have been implemented by Indonesia to reduce the spread of the Covid-19 virus. Covid-19 has had an impact on various sectors, including the economic sector in Indonesia. This study aims to obtain empirical evidence of the effect of the COVID-19 pandemic on the performance and financial condition of manufacturing companies in Indonesia. The covid-19 pandemic is used as an Independent variable. While the dependent variable used is the company's performance and financial condition. The research method uses the Wilcoxon test, by comparing the company's financial data in the two-year period before and two years after COVID-19 in companies in the manufacturing sector listed on the Indonesia Stock Exchange. The results showed that the Current Ratio, Quick Ratio, Return On Assets, Return On Equity, Net Profit Margin there were differences between before and after the Covid -19 pandemic. As for the Debt to Assets Ratio, Debt to Equity Ratio and Cash ratio, there is no difference between before and after the covid-19 pandemic. Based on the results of descriptive statistics show that food companies are able to maintain their financial performance. This can be seen from the results of the ratio which actually increased after the Covid-19 pandemic. Judging from the increase or decrease in performance, it shows that the Current Ratio, Quck Ratio, Return on Assets, Cash Ratio (CaR), Debt to Assets Ratio, Debt to Equity Ratio, Return on Assets experienced an increase after the COVID -19 pandemic while the ratio of Return On Equity and Net Profit Margin experienced a decline in financial performance.

Keywords: *Liquidity; Solvency; Profitability; Covid-19; Pandemic*

Introduction

Indonesia's manufacturing business has also been affected by the Covid-19 pandemic. The manufacturing industry has a significant impact on Indonesia's Gross Domestic Product (GDP). Purchasing Managers' Index (PMI) at the end of the first quarter of 2020, Indonesian manufacturing companies were under pressure according to data from the Ministry of Industry. The company's financial condition or condition can be determined from the turnover received and the company's share price. The

financial statement approach is the most frequently used metric in assessing the company's financial performance. Every financial ratio in the financial statements is very important in running a business. An understanding of each financial ratio in the company's financial statements must be owned by the owner of the company and every stakeholder who has an interest in the financial report. Financial ratios will be used as material for analysis or reference material regarding the financial condition and financial success of the company which is then used for future decision making (Roosdiana, 2021). Financial ratio analysis to compare the company's financial statements that are useful for company management. Liquidity ratios, solvency ratios, profitability ratios and activity ratios are one of the measures of company health that can be found in financial statements.

Based on the above background, the author will examine and then obtain empirical evidence regarding the presence or absence of the influence of covid-19 on the company's performance and financial condition. The results of the study provide information about the performance and financial condition of manufacturing companies affected by the covid-19 pandemic which has reduced the national economy. The ratios to be analyzed are the *Liquidity Ratio (Current Ratio, Quick Ratio, Cash Ratio)*, *Solvency (Debt to Asset Ratio, Debt to Equity Ratio)* and *Profitability (Return On Assets, Return On Equity, Net Profit Margin)*.

Literature Review

Signal Theory

This theory explains that if the company reports earnings in the financial statements increases, it means that the signal is good or good, but if the company reports earnings in the financial statements decreases, it means that the signal is bad or not good (Mariani & Suryani, 2018)

Covid-19 Pandemic

The Covid-19 pandemic was first discovered in Wuhan, China in December 2019. After a few months, Covid-19 began to spread to various countries in the world, including Indonesia. Covid-19 began to appear in Indonesia in March 2020 and resulted in several government policies that must be implemented in Indonesia. One of these policies is social distancing. Not only in Indonesia, various countries in the world have also implemented this policy to minimize the spread of the Covid-19 virus. This policy resulted in disruption of the country's economic activity, causing a decrease in customer demand and purchasing power of manufacturing companies in Indonesia. This results in a decrease in demand, and will have an impact on the company's revenue decline. With a decrease in income it can affect the financial performance of manufacturing companies. According to Buvaneshwar. R and Venkatesh. M, (2013), the company's achievement in achieving its main financial goals is financial performance.

Financial Performance

The ability of the organization to achieve its financial targets is the understanding of financial performance. According to Gift (2018), company performance includes maximizing company profits, shareholder wealth, earnings per share growth and increasing liquidity. To measure financial performance, it is done by using several variables to determine the level of the entity meeting the financial capability within the specified time. Measuring financial performance can be done by using several variables. Performance measurement is the process of measuring the efficiency and effectiveness of past actions (Illmer, 2011 in Gift, 2018). According to Team FME (2013), financial performance is measured to determine financial ratios, where financial ratios can help interpret a company's financial

information. One of the financial ratio measuring tools is Return On Equity (ROE). This study also uses three other ratios, namely Return On Assets (ROA), Net Profit Margin (NPM), and Gross Profit Margin (GPM) to assess the objectives of the company's financial performance.

Types of Financial Ratios

In general, in practice there are three types of financial ratios that are often used to assess the financial condition and performance of the company. The three ratios are.

1) Liquidity Ratio

It is a company's ability to meet its short-term obligations that will soon mature. This ratio can be calculated through sources of information about working capital, namely the post of current assets and current liabilities (Harahap, 2010). Some of the ratios included in the liquidity ratio are the current ratio. Current ratio is a ratio that measures the company's ability to pay off its debts using current assets. The next ratio is the Quick Ratio, which is a ratio that shows the company's ability to meet (pay) current liabilities or debt (short-term debt) with current assets without taking into account the value of inventory (inventory), meaning that we ignore the value of inventory, by subtracting from total value of current assets. The greater this ratio, the better (Kasmir, 2014). The last in the liquidity ratio is the cash ratio. Cash Ratio (cash ratio) is a ratio used to measure how much cash or cash equivalents are available to pay short-term debt (Hery, 2015: 183).

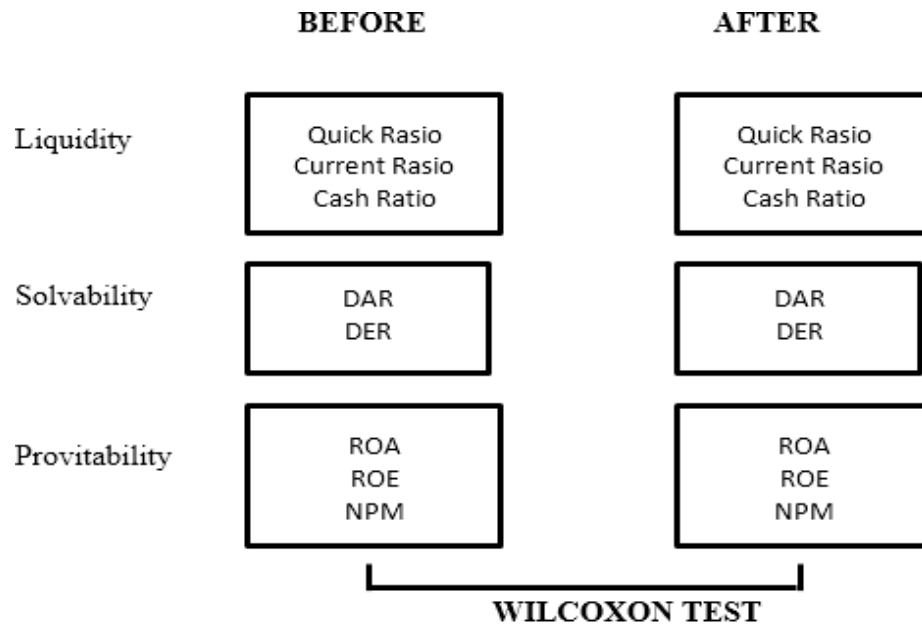
2) Solvency Ratio

The solvency ratio is used to measure the company's ability to pay all of its obligations with its current assets. One of the solvency ratios is the Debt to Asset Ratio (Debt to Asset Ratio). Debt to Asset Ratio (DAR) is a ratio used to measure the ratio between total debt and total assets. Total assets are total current assets with non-current assets. Meanwhile, total debt is the total current debt and total non-current debt (Kasmir, 2014). Meanwhile, the other solvency ratio is the Debt to Equity Ratio (DER). Debt to Equity ratio is a comparison between total capital (equity) and total assets.

3) Profitability Ratio

According to Harahap (2010), the profitability ratio is the company's ability to earn profits through all available capabilities and sources such as cash sales activities, capital, number of employees, number of branches and so on. Meanwhile, according to Munawir (2007), profitability is the ratio used to assess the company's ability to earn profits. There are three types of profitability ratios, namely: Return on Assets (Return on Assets), this ratio shows the percentage distribution between net income and total assets. The greater the ROA ratio means the better the company's ability to generate profits from its assets (Harahap, 2010). b) Return on Equity, is the ratio used to measure net profit after tax with own capital. The higher this ratio, the better. This means that the position of the owner of the company is getting stronger (Kasmir, 2014). c) Net Profit Margin (Net Profit Margin), is a ratio used to measure the percentage of the company's net profit on net sales. The higher the net profit margin, the higher the net profit generated.

Research Framework



Picture 1. Research Framework

Researchers conducted a different test by analyzing the results of differences before and after the presence of covid-19. In addition, researchers compared the average of each study variable between before and after covid-19. Likewise will be analyzed for each ratio, namely *Liquidity*, *Solvability* and *Profitability*.

Research Methods

The data in this study uses secondary data, namely statistical data on manufacturing companies listed on the Indonesia Stock Exchange. The data taken are two years before (2017-2018) and two years after (2019-2020). This study uses the different Wilcoxon Signed Rank Test, which is one of the test methods to assess the effectiveness of the treatment, marked by the difference in the average before and after being given treatment (Widiyanto, 2013). The *Wilcoxon test* is used to analyze the results of paired observations of two data whether they are different or not. *The Wilcoxon signed rank test* is used only for data in the form of intervals or ratios. However, the data do not follow a normal distribution. This test is used to measure the magnitude of the difference in the financial performance of manufacturing companies, before the announcement of the Covid-19 case that occurred for the first time in Indonesia and after the announcement.

Results and Discussion

In this study, researchers used 117 manufacturing companies listed on the Indonesia Stock Exchange and met the predetermined criteria. The research years in this study were 2017 and 2018 as the year before the Covid-19 outbreak and 2019 and 2020 as the year after the Covid-19 outbreak. So that the total data processed in this study were 448 data. The following are the results of descriptive statistics in this study:

Table 1. Descriptive Statistics

Information	Current Ratio (CR)	Quick Ratio (QR)	Cash Ratio (CaR)	Debt Asset Ratio (DAR)	Debt Equity Ratio (DER)	Return on Assets (ROA)	Return on Equity (ROE)	Net Profit Margin (NPM)
mean	2,997	2.018	0.681	1.026	0.926	0.083	-0.170	-463,937
median	1,641	0.9857	0.157	0.466	0.837	0.043	0.091	3,460
Std. Deviation	10,871	8,984	4.091	10,676	14,197	0.632	6,780	9865,035
Minimum	0.057	-0.593	-0.491	0.000	-270,853	-1.014	-136,972	-264,970
Maximum	206.864	173.782	84.785	226,222	92.297	13,182	29,279	425,970
N	448	448	448	448	448	448	448	448

Viewed from table 1 shows the average value (mean) current ratio of 2,997. Then the average value of the quick ratio is 2.018. Furthermore, for the average cash ratio of 0.681. The average value of the debt asset ratio is 1.026. The average value of the debt equity ratio is 0.926. Furthermore, the average return on assets is 0.083. The average return on equity is -0.170. And lastly, the average net profit margin is -463.937.

The median value of the current ratio is 1.641. Then the median quick ratio value is 0.9857. Furthermore, the median cash ratio is 0.157. The median value of the debt asset ratio is 0.466. The median value of the debt equity ratio is 0.837. Furthermore, the median return on assets is 0.043. The median return on equity is 0.091. And finally, the median net profit margin is 3,460.

The standard deviation value of the current ratio is 10,871. Then the standard deviation of the quick ratio is 8.984. Furthermore, the standard deviation of the cash ratio is 4.091. The standard deviation value of the debt asset ratio is 10.676. The standard deviation of the debt equity ratio is 14,197. Furthermore, the standard deviation of return on assets is 0.632. The standard deviation value of return on equity is 6.780. And finally, the standard deviation of the net profit margin is 9865,035.

The minimum current ratio value of 0.057 is in 2020 at the ARGO company (PT Argo Pantes Tbk). While the maximum value of the current ratio of 206.864 is in 2020 at the KINO company (PT Kino Indonesia Tbk). The minimum quick ratio value of -0.593 was in 2017 at the ADMG company (PT Polychem Indonesia Tbk). While the maximum quick ratio value of 173,782 is in 2020 at the KINO company (PT Kino Indonesia Tbk).

The minimum cash ratio value of -0.491 is in 2020 at the SPMA company (PT Suparma Tbk). While the maximum quick ratio value of 84,785 is in 2020 at the KINO company (PT Kino Indonesia Tbk). The minimum Debt Asset Ratio (DAR) value of 0.000 is in 2020 at the GDST company (PT Gunawan Dianjaya Steel Tbk). While the maximum value of 226.222 is in 2020 at the INDF company (PT Indofood Sukses Makmur Tbk).

The minimum Debt Equity Ratio (DER) value of -270,853 was in 2018 at the SIPD company (PT Sreeya Sewu Indonesia Tbk). While the maximum value of 92.297 was in 2017 at the company PT FKS Food Sejahtera Tbk. The minimum Return on Assets (ROA) value of -1.014 is in 2020 at the company PT Wismilak Inti Makmur Tbk. While the maximum value of 13,182 is in 2020 at the company PT Indofood Sukses Makmur Tbk.

The minimum Return on Equity (ROE) value of -136,972 is in 2020 at the company PT Wijaya Karya Beton Tbk. While the maximum value of 29,279 is in 2020 at the company PT Goodyear Indonesia Tbk. The minimum value of Net Profit Margin (NPM) of -264,970 is in 2020 at the company PT Multi Prima Sejahtera Tbk. While the maximum value of 425,970 is in 2019 at the company PT Multi Prima Sejahtera Tbk.

Based on the results of descriptive statistics show that food companies are able to maintain their financial performance. This can be seen from the results of the ratio which actually increased after the Covid-19 pandemic. Judging from the results of the ratio above, it shows that food companies are more able to survive and actually experience an increase compared to other types of companies such as cigarettes and construction. This is because people's purchasing power has decreased due to the COVID-19 pandemic, so many have reduced development.

1) There is a difference in Quick Ratio (QR) before and after covid-19

From the results of data processing the current ratio variable is shown in table 3 Regarding the different *Wilcoxon signed rank test*, the Quick Ratio (QR) variable has a 2-tailed Asymp.Sig result of 0.054 where 0.054 is smaller than the significance value of 0.10. if the significance value is less than the 0.10 significant level, it can be concluded that there is a difference in the quick ratio between before and after covid-19. In the previous table 2, it is known that the average Quick ratio (QR) has increased between before and after Covid-19. This means that even though it is currently Covid, the company's ability to pay debts in the short term is increasing. This supports the different test results that there are differences in current assets before and after Covid-19.

2) There is no difference in Cash Ratio (CaR) before and after Covid-19

From the results of data processing the cash ratio variable is shown in table 3 about the *Wilcoxon signed rank test difference test*, the Cash Ratio (CaR) variable has a 2-tailed Asymp.Sig result of 0.580 where 0.580 is greater than the significance value of 0.10. if the significance value is greater than the 0.10 significant level, it can be concluded that there is no difference in the cash ratio between before and after covid19.

3) There is no difference in Debt to Asset Ratio (DAR) before and after Covid-19 From the results of data processing the debt to asset ratio variable is shown in table 3 Regarding the different *Wilcoxon signed rank test*, the Debt to Assets Ratio (DAR) has a 2-tailed Asymp.Sig result of 0.116 where 0.116 is greater than the significance value of 0.10. if the significance value is greater than the 0.10 significant level, it can be concluded that there is no difference in the Debt to Assets Ratio between before and after covid19.

5) There is no difference in Debt to Equity Ratio (DER) before and after Covid-19 From the results of data processing the debt to equity ratio variable, it is shown in table 3 Regarding the different *Wilcoxon signed rank test*, the variable Debt to Equity Ratio (DER) has a 2-tailed Asymp.Sig result of 0.365 where 0.365 is greater than the significance value of 0.10. if the significance value is greater than the 0.10 significant level, it can be concluded that there is no difference in the debt to equity ratio between before and after covid19.

6) There is a Difference in Return on Assets (ROA) before and after Covid-19

From the results of data processing the return on assets variable is shown in table 3 about the *Wilcoxon signed rank test difference test*, the Return on Assets (ROA) variable has a 2-tailed Asymp.Sig result of 0.001 where 0.001 is smaller than the significance value of 0.05. if the significance value is

smaller than the significant level of 0.05, it can be concluded that there is a difference in return on assets between before and after covid19. In table 2, the results obtained that the average return on assets before covid19 was smaller than after covid19 so that the average return on assets (ROA) increased during the occurrence of covid19. So that even though they are experiencing the covid19 period, the company is experiencing an increase in using and managing assets properly. This supports the results of different tests that there are differences in ROA before and after covid-19.

7) There is a Difference in Return on Equity (ROE) before and after Covid-19

From the results of data processing the return on assets variable is shown in table 3 about the *Wilcoxon signed rank test difference test*, the Return on Equity (ROE) variable has a 2-tailed Asymp. Sig result of 0.021 where 0.001 is smaller than the significance value of 0.05. If the significance value is smaller than the significant level of 0.05, it can be concluded that there is a difference in return on equity between before and after covid19. In the previous table 2, the Average Return on Equity (ROE) decreased during the Covid-19 outbreak. The average return on equity before covid is greater than after covid. This supports the results of different tests that there are differences in ROE before and after covid-19.

8) There is a difference in Net Profit Margin (NPM) before and after Covid-19

From the results of data processing the net profit margin variable is shown in table 3 regarding the *Wilcoxon signed rank test difference test*, the Net Profit Margin (NPM) variable has a 2-tailed Asymp. Sig result of 0.002 where 0.002 is smaller than the significance value of 0.05. If the significance value is smaller than the 0.05 significant level, it can be concluded that there is a difference in net profit margin between before and after covid19. In table 2, the Net Profit Margin (NPM) decreased during the COVID-19 outbreak. The average NPM before covid is greater than the average NPM after covid. This supports the results of different tests that there are differences in NPM before and after Covid-19.

Conclusions and Recommendations

Conclusion

Indonesia's manufacturing business has also been affected by the Covid-19 pandemic. By comparing the company's financial statements, the authors can perform analysis of financial ratios that are useful for determining financial performance that can be used by company management. One measure of company health that can be found in the financial statements includes the liquidity ratio (current ratio, quick ratio, cash ratio), solvency ratio (DAR, DER), and profitability ratios (ROA, ROE, NPM).

The results of this study, researchers used 117 manufacturing companies listed on the Indonesia Stock Exchange that have met the specified criteria. The research years in this study were 2017 and 2018 as the year before the Covid-19 outbreak and 2019 and 2020 as the year after the Covid-19 outbreak. So that the total data processed in this study were 448 data. From the results of the different *Wilcoxon signed rank test*, the results of data processing are as follows:

1. There is a difference in Current Ratio (CR) before and after Covid-19
2. There is a difference in Quick Ratio (QR) before and after Covid-19
3. There is no difference in Cash Ratio (CaR) before and after Covid-19
4. There is no difference in Debt to Assets Ratio (DAR) before and after Covid-19
5. There is no difference in Debt to Equity Ratio (DER) before and after Covid-19

6. There is a difference in Return on Assets(ROA) before and after Covid-19
7. There is a difference in Return on Equity(ROE) before and after Covid-19
8. There is a difference in Net Profit Margin(NPM) before and after Covid-19
9. Based on the results of descriptive statistics show that food companies are able to maintain their financial performance. This can be seen from the results of the ratio which actually increased after the Covid-19 pandemic.
10. Judging from the increase or decrease in performance, it shows that the Current Ratio, Quck Ratio, Return on Assets, Cash Ratio (CaR), Debt to Assets Ratio,Debt to Equity Ratio, Return on Assets experienced an increase after the covid - 19 pandemic while the ratio of Return OnEquity and Net Profit Margin experienceda decline in financial performance.

Suggestion

From the results of this study, the researcher gives suggestions for further research to replace insignificant variables with other variables outside the study which are suspected to have differences before and after covid-19. Another suggestion, further researchers can add years of research and industrial sector.

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