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Analysis of Financial Distress and Financial Performance Before and After the Covid-19 Pandemic

(Empirical Study of Industrial Sector Companies listed on the Indonesia Stock Exchange Year 2019-2021)

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Abstract: *This study aims to analyze differences in financial distress measured using the Grover Score model and financial performance measured using Net Profit Margin (NPM), Return on Assets (ROA), and Return on Equity (ROE). This study uses data from industrial sector companies listed on the Indonesia Stock Exchange (IDX) for the 2019-2021 period. The sample used is purposive sampling method. The population in this study were 55 companies and 43 industrial sector companies that were included in the criteria, so the sample data for this study were 129 industrial sector companies. The tests used in this study were the Descriptive Statistical Test, the Normality Test using the Kolmogorov-Smirnov test, and the Difference Test using the Wilcoxon Signed Ranks Test. The results of this study indicate that there are differences in the financial distress, Net Profit Margin (NPM), Return on Assets (ROA), and Return on Equity (ROE) of industrial sector companies between before and after the Covid-19 pandemic.*

Keywords: Financial Distress, Financial Performance, Grover Score, Pandemic Covid-19

I. INTRODUCTION

At the beginning of 2020, almost all countries faced a virus pandemic named Covid-19. According to the presentation from World Health Organization (WHO), Covid-19 is an infection of the human respiratory system caused by exposure to the SARS-COV-2 virus. This virus can be transmitted through particles originating from the mouth or nose of sufferers which are spread by coughing, sneezing, and other activities such as talking and breathing. This easily transmitted virus causes many people to be infected, every day there are cases of sufferers Covid-19 increasing and spreading in almost all regions in Indonesia. In an effort to reduce the surge in cases, the government issued a restriction or restriction regulated in Government Regulation no. 21 of 2020. Restrictions are carried out, among others, by closing access to and from the country, imposing travel restrictions, and reducing people's mobility. Pandemic impact covid-19 this resulted in only 58.95% of companies being able to operate normally, in fact as many as 82.45% of companies experienced a decrease in income (Central Bureau of Statistics, 2020).Based on BPS data in 2020 it is known that the industrial sector experienced minus GDP growth of -2.93%. The reason is that companies reduce output capacity by reducing employee working hours, reducing the number of machines, and reducing employees. This is done so that the company can continue to operate by complying with the rules made by the government to anticipate the increasing number of Covid-19. With this reduction, the company's income has decreased because the amount of output has decreased (Prabowo and Iswanaji, 2022).

The economic downturn caused by the Covid-19 pandemic is likely to have an impact on the financial condition of companies in Indonesia, especially on financial distress and company financial performance. Platt and Platt (2002) define financial distress as a situation when a company is in a stage of declining financial condition before bankruptcy or liquidation of the company occurs. According to research conducted by Fitri and Syamwil (2020), financial distress influenced by financial performance company. Financial performance can be interpreted as financial figures that come

from the results of operational activities carried out by the company (Amalia et al., 2021). Financial performance can be measured with liquidity ratio, activity ratio, profitability ratio, and leverage ratio. If the company experiences financial distress then can reflect financial performance companies that are not good, if this is allowed to continue it can lead to the failure of the company's business. Business failure can be caused by various factors, such as lack of management experience, management negligence, fraud that occurs in the company, bad corporate governance, disasters, and macroeconomic factors (Sari and Setyaningsih, 2022).

This research is a development of Sari and Setyaningsih research (2022). The novelty of this research is the scope of observation of industrial sector companies listed on the Indonesia Stock Exchange (IDX) for the 2019-2021 period. Prediction models financial distress that will be used in this study is the model Grover Score, this model was chosen because research conducted by Sudrajat and Wijayanti (2019) and Wulandari and Maslichah (2021) stated that the model Grover Score is a prediction model with the highest level of accuracy among other prediction models in measuring financial distress manufacturing company. In this study the ratio will be used to assess financial performance is the profitability ratio, because researchers want to see the company's ability to earn profits during a pandemic Covid-19 this. This study aims to analyze the differences in financial distress and financial performance (Net Profit Margin, Return on Assets, and Return on Equity) industrial sector companies before and after the pandemic Covid-19 happen.

II. LITERATURE REVIEW

2.1 Signaling Theory

According to Spence (1973), signal theory is an action taken by the sender who is the owner of the information (company management) to give a signal to the receiving party (investors and other stakeholders), the direction given by management is in the form of information that can reflect the condition of the company that will later be be of benefit to the recipient. A good signal can be indicated by a good financial report, the better the financial report, the better the financial performance indicates that the company's financial performance is in a good condition and minimizes the possibility of financial distress. Meanwhile, a bad signal can be seen from unfavorable financial reports, the worse the financial reports indicate that the company's financial performance is in a bad condition and increases the possibility of financial distress.

2.2 Financial Distress

Financial distress or financial difficulties can be said to be a company's financial condition which is in a stage of decline and if it is not immediately resolved it can lead to bankruptcy or liquidation (Platt & Platt, 2002). The causes of financial distress include the large number of company debts, operating losses, non-current cash flows, and more macro external factors such as government policies which can later add to the company's cost burden (Damodaran, 1997). According to Hery, quoted by Wulandari and Maslichah (2021), financial distress is divided into five types, namely economic failure, business failure, technical insolvency, insolvency in bankruptcy, and legal bankruptcy.

2.3 Grover Score

Grover Score was first introduced by Jeffery S. Grover in 2001 by designing and reassessing the Altman Z-Score model created by Edward I. Altman to predict financial distress company. The Grover model was created by Jeffrey S. Grover who uses a sample according to the Altman Z-score model by adding thirteen new financial ratios. The sample used was 70 companies with 35 companies that went bankrupt and 35 companies that did not go bankrupt from 1982 to 1996 (Kurniawati and Kholis, 2016). In this model, Grover uses X1 and X3 from the Altman Z-score formula and increases the profitability ratio which can be seen from the Return on Assets (Hantono, 2019). Research conducted by Wulandari & Maslichah (2021) also shows that the model Grover Score is the most appropriate model in estimating financial distress manufacturing companies compared to other prediction models such as the Springate, Ohlson, and Altman Z-Score models with an accuracy of 78.08%.

2.4 Financial Performance

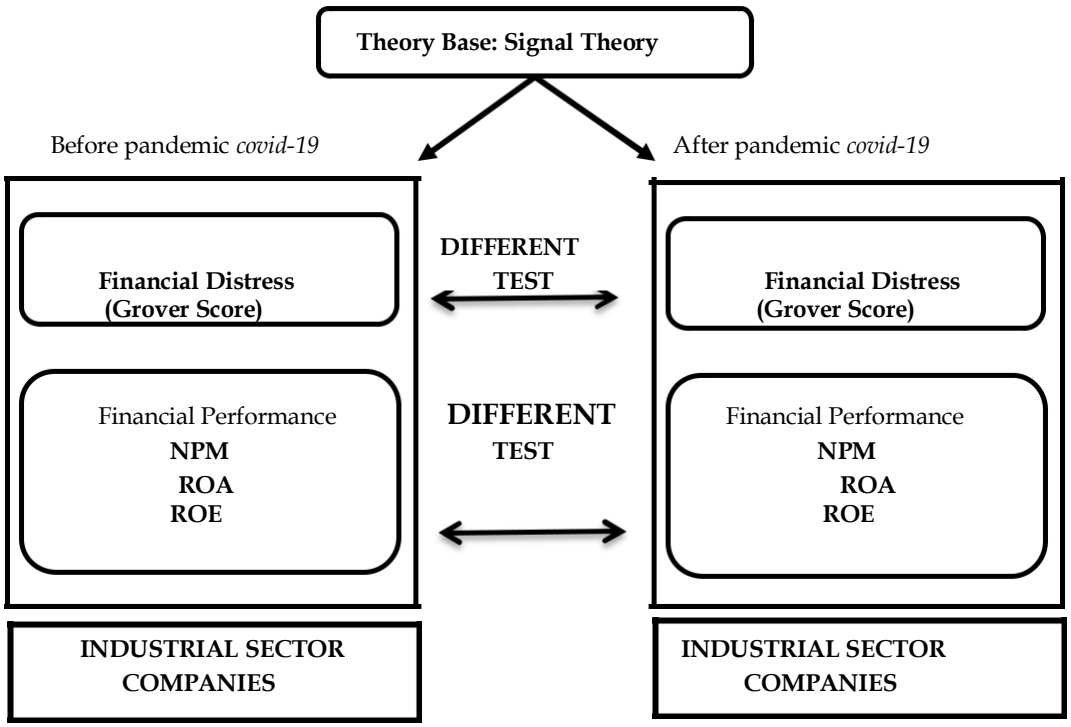
Financial performance are financial figures that come from the results of operational activities carried out by the company (Amalia et al., 2021). According to Fahmi (2012) quoted by Thamrin (2021) financial

performance is carried out to analyze the extent to which the company has carried out using the rules of financial implementation properly and correctly. Such as by making a financial report that complies with the standards and provisions of SAK (Financial Accounting Standards) or GAAP (General Accepted Accounting Principle).

2.5 Profitability Ratio

According to Horne & Wachowics (2005), the profitability ratio is a ratio that can be used to assess a company's ability to earn profits, later this ratio will link company profits derived from income activity with company investment. Profitability ratios consist of several ratios that have their respective functions, these ratios consist of: (1)net profit margin is the ratio that shows the company's net profit with the results of the calculation can reflect the company's ability to generate profits based on the company's net sales, (2)return on assets is a ratio that is able to describe returns based on the number of assets owned by the company and this ratio can reflect the company's ability to earn profits based on the assets used by the company and the calculation of ROA can assist management in evaluating company performance in maintaining performance efficiency, (3)return on equity is the ratio used by comparing net income to shareholder equity and this ratio can reflect the efficiency of the company's equity (Kasmir, 2016).

2.6 Research Framework and Hypothesis Development



Financial distress can be caused by factors originating from outside the company that are more macro in nature, one of which is government policy (Damodaran, 1997). During a pandemic Covid-19 Currently, the government has issued many policies that are expected to reduce the surge in cases, one of which is the restriction rule. This regulation has in fact had an impact that has caused a decline in the Indonesian economy and a decline in the economy of manufacturing companies, which can be seen from the IHS Markit survey on Indonesian Manufacturing PMI. There are several studies to test financial distress, research conducted by Armadani, Fisabil and Salsabila (2021) shows that there are differences financial distress hotel, restaurant & tourism sub-sector companies between before and during the pandemic. Research conducted by Kurniawan, Hariardi, Sulistyaningrum and Kristanto (2021) which shows that the pandemic Covid-19 can cause bankruptcy in Indonesian manufacturing companies, this is also reinforced by research conducted by Sari and Setyaningsih (2022) showing differences and decreases in value financial distress manufacturing companies when compared between

before and during the pandemic Covid-19 happen. Based on the description above, the research hypothesis is formulated as follows:

H1: There are difference in financial distress industrial sector companies before and after the pandemic Covid-19

Restrictive rules made by the government can trigger a company's financial difficulties which can later cause it financial distress. Financial performance included in the influencing factors financial distress companies (Fitri & Syamwil, 2020). One of the ratios that can be used to measure financial performance company is the ratio of profitability which consists of 3 ratios is Net Profit Margin (NPM), Return on Assets (ROA) and Return on Equity (ROE). NPM is a ratio that shows the company's net profit as a result of this calculation which can later reflect the company's ability to generate profits based on net sales (Kasmir, 2016). There are several studies to test NPM, research conducted by Rinofah, Sari, and Evany (2021), this study concludes that there are differences between NPM, ROA, and ROE as an illustration financial performance compass 100 company between before and during the pandemic. Research conducted by Amelya, Nugraha, and Puspita (2021) this study concluded that there were differences in NPM before and after the pandemic covid-19, this is also reinforced by research conducted by Sari and Setyaningsih (2022) this study concluded that there are differences and decreases in the value Net Profit Margin (NPM), manufacturing companies when compared between before and during the pandemic Covid-19. Based on the description above, the research hypothesis is formulated as follows:

H2: There are differences in NPM industrial sector companies before and after the pandemic Covid-19

ROA is a ratio that can describe return based on the number of assets owned by the company. This ratio can later reflect the company's ability to earn profits based on the assets used by the company (Kasmir, 2016). The company's ROA calculation can assist management in evaluating the company's performance results in maintaining performance efficiency. There are several studies to test ROA, research conducted by Rinofah, Sari, and Evany (2021), this study concludes that there are differences between NPM, ROA, and ROE as an illustrative financial performance compass 100 company between before and during the pandemic. Research conducted by Prabowo and Iswanji (2022) concluded that profitability as measured using ROA has a positive and significant influence on financial distress, this is also reinforced by research conducted by Sari and Setyaningsih (2022) this study concluded that there are differences and decreases in the value Return on Assets (ROA) of manufacturing companies when compared between before and during the pandemic Covid-19. Based on the description above, the research hypothesis is formulated as follows:

H3: There are difference in ROA industrial sector companies before and after the pandemic Covid-19

ROE is the ratio used by comparing net income to shareholder equity, this ratio can later reflect the efficiency of the company's equity (Kasmir, 2016). This ratio is used to see how much profit the company gets from every one rupiah invested by shareholders in the company. Research conducted by Fitri and Syamwill (2020) Profitability proxied by return on equity has a significant and negative effect on financial distress in manufacturing companies. There are several studies to test ROE, research conducted by Rinofah, Sari, and Evany (2021), this study concludes that there are differences between NPM, ROA, and ROE as an illustration financial performance Kompas 100 companies between before and during the pandemic, this was also reinforced by research conducted by Sari and Setyaningsih (2022) this study concluded that there were differences and decreases in the value Return on equity (ROE) of manufacturing companies when compared between before and during the pandemic Covid-19 happen. Based on the description above, the research hypothesis is formulated as follows:

H4: There are differences in the ROE of industrial sector companies before and after the pandemic Covid-19

III. METHOD

3.1 Population, Sample, and Sampling Method

The data used in this study is secondary data, because the data needed in this research can be obtained from the annual financial reports of industrial sector companies for the period 2019-2021 which are accessed from www.idx.co.id. The sample in this study was selected using a purposive sampling technique,

namely determining the sample with certain criteria and considerations (Sugiyono, 2016). The criteria used in determining the sample include:

a. Industrial sector companies listed on the Indonesia Stock Exchange during the 2019-2021 observation period.

b. Industrial sector companies that present annual financial reports for the 2019-2021 observation period.

c. Provide complete data information needed in research during the 2019-2021 observation period.

Based on data from the Indonesia Stock Exchange (IDX), there are 56 industrial sector companies listed on the IDX. However, from 56 companies there were 13 companies that did not meet the criteria so that only 43 companies were continued for the data analysis process. The observation period in this study was 3 consecutive years. So the total research sample is 129 research samples.

3.2 Variable Operational Definition and Variable Measurement

3.2.1 Financial Distress

In this study, financial distress can be measured using the grover score model. The grover score model is a prediction model with the highest level of accuracy among other prediction models in measuring the financial distress of manufacturing companies (Sari and Setyaningsih, 2022).

$$G = 1{,}650X_1 + 3{,}404X_3 - 0{,}016ROA + 0{,}057$$

Information:

G = Grover score

X_1 = Working Capital/Total Assets

X_3 = Profit Before Tax Interest/Total Assets

ROA = Net Profit/Total Assets

3.2.2 Financial Performance

This study uses profitability ratios consisting of net profit margin (NPM), return on assets (ROA), and return on equity (ROE) to assess management's ability to generate profits.

a. NPM

NPM can be calculated by comparing net profit after tax to net sales. A high Net Profit Margin shows that the company was able to increase its business by achieving operating profit in that period (Rinofah, Sari, and Evany 2021). NPM can be formulated as follows:

NPM = (Net Profit)/(Net Sales) x 100%

b. ROA

The greater the value of the ROA, it means that the better the company uses its assets to make a profit, with the increase in the value of ROA, the profitability of the company increases. (Rinofah, Sari, and Evany 2021). ROA can be formulated as follows:

ROA = (Net Profit)/(Total Assets) x 100%

c. ROE

Return On Equity (ROE) is a ratio to measure the ability of equity to generate net income. ROE (Return On Equity) is a comparison between net income and the amount of capital reported in the same period (Safitri & Mukaram, 2018). ROE is calculated using the formula:

ROE = (Net Profit)/(Total Equity) x 100%

IV. FIGURES AND TABLES

4.1 Research and Result and Discussion

4.1.1 Descriptive Statistical Analysis

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
GS 2019	43	-4,20	1,78	,5200	,93323
GS 2020	43	-4,51	1,63	,3493	1,01084
GS 2021	43	-2,31	2,12	,5905	,69876
NPM 2019	43	-,67	,95	,0949	,23477
NPM 2020	43	-1,50	2,38	,0144	,47075
NPM 2021	43	-,76	1,62	,0660	,29523
ROA 2019	43	-,40	,32	,0444	,10756
ROA 2020	43	-,35	,68	,0205	,14246
ROA 2021	43	-,19	,51	,0486	,11424
ROE 2019	43	-,55	1,94	,1365	,32839
ROE 2020	43	-,64	,82	,0223	,22604
ROE 2021	43	-,40	,53	,0605	,17743
Valid N (listwise)	43				

Source: Processed secondary data, 2023

In this study, the minimum score on the Grover Score before the 2019 industrial sector company covid-19 was -4.20 from PT Dosni Roha Indonesia Tbk and the maximum score was 1.78 from PT Multifiling Mitra Indonesia Tbk, meanwhile the minimum score and the maximum Grover Score during the Covid-19 pandemic decreased in 2020 with a minimum value of -4.51 which also came from PT Dosni Roha Indonesia Tbk and a maximum score of 1.63 which came from PT Hexindo Adiperkasa Tbk. This decrease can be seen from the company's average Grover Score, which was previously 0.5200 in 2019 with a standard deviation of 0.93323, down to 0.3493 in 2020 with a standard deviation of 1.01084. Meanwhile, after the Covid-19 pandemic in 2021, the Grover Score has increased with a minimum score of -2.31 from PT Intraco Penta Tbk and a maximum score of 2.12 from PT Mark Dynamics Indonesia Tbk with an average score of 0.5905 as well as a standard deviation value of 0.69876.

Net Profit Margin (NPM) of industrial sector companies before the 2019 covid-19 pandemic had a maximum value of 0.95 which came from PT Multifiling Mitra Indonesia Tbk and a minimum value of -0.67 which came from PT Keramika Indonesia Association Tbk. In 2020 it has a maximum value of 2.38 from PT Modern Internasional Tbk and a minimum value of -1.50 from PT Intraco Penta Tbk. The decrease was seen from the average during the 2020 Covid-19 of 0.0144 from before the 2019 Covid-19 pandemic of 0.0949 and the standard deviation of 0.47075 from before the Covid-19 pandemic in 2019 of 0.23477. While the NPM after the Covid-19 pandemic in 2021 has a maximum value of 1.62 from PT Modern Internasional Tbk and a minimum value of -0.76 from PT Intraco Penta Tbk, it has increased from an average value of 0.0660 with standard deviation 0.23477.

Return on Assets (ROA) of industrial sector companies before the 2019 covid-19 pandemic had a maximum value of 0.32, which came from PT Multifiling Mitra Indonesia Tbk, a minimum value of -0.40, which came from PT Keramika Indonesia Association Tbk, an average value of the average is 0.0444 and the standard deviation is 0.10756.

During the Covid-19 pandemic in 2020, ROA decreased with a maximum value of 0.68 from PT Modern Internasional Tbk, a minimum value of - 0.35 from PT Intraco Penta Tbk, an average value of 0.0205 and a standard deviation of 0. ,14246. While ROA after the covid-19 pandemic in 2021 has increased with a maximum value of 0.51 from PT Modern Internasional Tbk, a minimum value of -0.19 from PT Intraco Penta Tbk, an average value of 0.0486 and a standard deviation of 0.11424.

Return on Equity (ROE) of industrial sector companies before the 2019 covid-19 pandemic had a maximum value of 1.94 from PT Intraco Penta Tbk, a minimum value of -0.55 from PT Mark Dynamics Indonesia Tbk, an average value of 0 .1365 and a standard deviation of 0.32839. During the Covid-19 pandemic in 2020 it decreased with a maximum value of 0.82 which also came from PT Intraco Penta Tbk, a minimum value of -0.64 which came from PT Bakrie & Brothers Tbk, an average value of 0.0223 and a standard deviation of 0.22604. Meanwhile, after the Covid-19 pandemic in 2021, there was an increase in ROE with a maximum value of 0.53 coming from PT Mark Dynamics Indonesia Tbk, a minimum value of -.040 coming from PT Ateliers Mecaniques D Indonesie Tbk, an average value of 0.0605 and a standard deviation of 0.17743.

4.1.2 Normality Test

Table 2. Kolmogorov-Smirnov Test

Variable	Test Statistic	Asym. Sig. (2-tailed)	Information
GS 2019	0,197	0,000	No Normal Distributed Data
GS 2020	0,223	0,000	No Normal Distributed Data
GS 2021	0,129	0,068	Normal Distributed Data
NPM 2019	0,219	0,000	No Normal Distributed Data
NPM 2020	0,340	0,000	No Normal Distributed Data
NPM 2021	0,291	0,000	No Normal Distributed Data
ROA 2019	0,200	0,000	No Normal Distributed Data
ROA 2020	0,251	0,000	No Normal Distributed Data
ROA 2021	0,206	0,000	No Normal Distributed Data
ROE 2019	0,283	0,000	No Normal Distributed Data
ROE 2020	0,222	0,000	No Normal Distributed Data
ROE 2021	0,186	0,001	No Normal Distributed Data

Source: Processed secondary data, 2023

Based on Table 2 above, it shows that the Grover Score 2019-2020 has an abnormal data distribution because of the Asymp results. Sig. (2-tailed) shows a value of 0.000 which is less than 0.05 while the Grover Score 2021 shows an Asymp score. Sig. (2-tailed) of 0.068 which value is greater than 0.05, which means that the data is normally distributed. While the 2019-2021 NPM, ROA, ROE significance values show the Asymp value. Sig. (2-tailed) is smaller than 0.05 which means the data is not normally distributed. From these results a different test step can be taken using a non-parametric statistical test, namely the Wilcoxon Signed Rank Test because the average sample is not normally distributed.

4.1.3 Different Test

Table 3. Wilcoxon Signed Ranks Test

Variable	Z	Asymp. Sig. (2-tailed)	Information
GS20-GS19	-2,669	0,008	H_1 Accepted
GS21-GS20	-2,488	0,013	H_1 Accepted
NPM20-NPM19	-3,344	0,001	H_2 Accepted
NPM21-NPM20	-2,373	0,018	H_2 Accepted
ROA20-ROA19	-3,280	0,001	H_3 Accepted
ROA21-ROA20	-2,430	0,015	H_3 Accepted
ROE20-ROE19	-3,967	0,000	H_4 Accepted
ROE21-ROE20	-3,072	0,038	H_4 Accepted

Source: Processed secondary data, 2023

Based on Table 3 above, it shows that the results of the H1 Grover Score test for 2019-2020 can be seen by the Asymp value. Sig. (2-tailed) 0.008 <0.05 and the Grover Score for 2020-2021 can be seen from the Asymp value. Sig. (2-tailed) 0.013 <0.05 so it can be concluded that there are differences in the financial distress of industrial sector companies before and after the Covid-19 pandemic. This conclusion proves that H1 is accepted.

The results of the 2019-2020 NPM H2 test can be seen in the Asymp value. Sig. (2-tailed) 0.001 <0.05 and the NPM for 2020-2021 can be seen from the Asymp value. Sig. (2-tailed) 0.018 <0.05, it can be concluded that there are differences in the NPM of industrial sector companies before and after the Covid-19 pandemic. This conclusion proves that H2 is accepted.

The results of the H3 ROA test for 2019-2020 can be seen in the Asymp value. Sig. (2-tailed) 0.001 <0.05 and ROA for 2020-2021 can be seen from the Asymp value. Sig. (2-tailed) 0.015 <0.05 so it can be concluded that there are differences in the ROA of industrial sector companies before and after the Covid-19 pandemic. This conclusion proves that H3 is accepted.

The results of the H4 ROE test for 2019-2020 can be seen in the Asymp value. Sig. (2-tailed) 0.000 <0.05 and ROE for 2020-2021 can be seen from the Asymp value. Sig. (2-tailed) 0.038 <0.05, it can be concluded that there are differences in the ROE of industrial sector companies before and after the Covid-19 pandemic. This conclusion proves that H4 is accepted.

4.2 Discussion of Analysis Result

1. Differences in Financial Distress Before and After the Covid-19 Pandemic

The results of the non-parametric statistical test using the Wilcoxon signed rank test show that the Grover Score for 2019-2020 can be seen by the Asymp value. Sig. (2-tailed) 0.008 < 0.05 and the Grover Score for 2020-2021 can be seen from the Asymp value. Sig. (2-tailed) 0.013 < 0.05 so it can be concluded that there are differences in the financial distress of industrial sector companies before and after the Covid-19 pandemic. This is proven that of the 43 industrial sector companies listed on the Indonesia Stock Exchange in 2019, there were two companies that were categorized as gray areas, 37 companies that did not experience financial distress, in 2020 there were 36 companies that did not experience financial distress, and in 2021 there were 38 companies who are not experiencing financial distress. Meanwhile, four companies experienced financial distress in 2019, in 2020 it increased to seven companies, and in 2021 it decreased to five companies. This number shows that the Covid-19 pandemic can increase the number of companies experiencing financial distress. The

results of this hypothesis are in line with the theory put forward by Demodaran (1997) which states that factors originating from outside the company that are more macro in nature such as government policies can cause financial distress to the company. In this case, changes in financial distress in industrial sector companies in Indonesia occur due to government policies in the form of restrictions aimed at reducing the spread of the Covid-19 virus in society. The results of this study are in line with research conducted by Armadani et al., 2021, Kurniawan et al., 2021, and Tazza Novaya Sari,l (2022).

2. Differences in NPM Before and After the Covid-19 Pandemic

Based on the results of the Wilcoxon signed rank test, it shows that the NPM for 2019-2020 can be seen by the Asymp value. Sig. (2-tailed) 0.001 < 0.05 and the NPM for 2020-2021 can be seen from the Asymp value. Sig. (2-tailed) 0.018 < 0.05, it can be concluded that there are differences in the NPM of industrial sector companies before and after the Covid-19 pandemic. In this study, industrial sector companies experienced significant differences due to a decrease in revenue accounts, while companies continued to incur costs for operational purposes. So that the component of operating profit (net profit) that can be obtained from each sale of automatic services also decreases. So when operating profit is compared to total assets during the co-19 pandemic, the NPM ratio is smaller than before the co-19 pandemic took place. So it can be interpreted that the Covid-19 pandemic has made a significant difference to the ability of tourism companies to generate net profit from each sale. The results of this study are in line with research conducted by Rinofah et al., 2021, Amelya et al., 2021, and Tayyaza Novaya Sari el al., 2022 where these results show that there are differences in NPM when compared between before and during the Covid-19 pandemic.

3. Differences in ROA Before and After the Covid-19 Pandemic

Based on the results of the Wilcoxon signed rank test, it shows that the 2019-2020 ROA can be seen from the Asymp value. Sig. (2-tailed) 0.001 < 0.05 and ROA for 2020-2021 can be seen from the Asymp value. Sig. (2-tailed) 0.015 < 0.05, it can be concluded that there are differences in the ROA of industrial sector companies before and after the Covid-19 pandemic. This decrease in profit occurred due to an increase in the company's production costs caused by government restriction regulations, making it difficult for companies to obtain materials and an increase in other costs that were difficult to cover by the income received by the company during the pandemic, in addition to inflation that occurred during the pandemic as well. became one of the factors that led to a decrease in company profits. The decrease in ROA shows that the assets owned by the company are still not able to generate maximum company profits during the Covid-19 pandemic (Tayyaza Novaya Sari el al., 2022). The test results obtained on the ROA variable are in line with the test results on the financial distress variable of industrial sector companies, namely that it was found that there was a decrease in ROA and an increase in the prediction of financial distress in manufacturing companies. The results of this study are in line with research conducted by Rinofah et al., 2021, Prabowo and Iswanji (2022), and Tayyaza Novaya Sari el al., 2022 where the results show differences and decreases in ROA when compared to before and during the Covid-19 pandemic .

4. Differences in ROE Before and After the Covid-19 Pandemic

Based on the results of the Wilcoxon signed rank test, it shows that the 2019-2020 ROE can be seen from the Asymp value. Sig. (2-tailed) 0.000 < 0.05 and ROE for 2020-2021 can be seen from the Asymp value. Sig. (2-tailed) 0.038 < 0.05, it can be concluded that there are differences in the ROE of industrial sector companies before and after the Covid-19 pandemic. This decrease in ROE shows that the efficiency of the company's equity has decreased which reflects the weaker position of company owners after the Covid-19 pandemic. In addition, a decrease in the company's ROE also indicates that the company cannot maximize its equity to generate profits (Tazza Novaya Sari, et.al 2022). The results of this study are in line with research conducted by Fitri and Syamwill (2020), Rinofah et al., 2021, and Tayyaza Novaya Sari el al., 2022 where the results show differences and decreases in ROA when compared to before and during the Covid-19 pandemic .

V. CONCLUSION

Based on the result of the analysis and discussion described in the previous chapter, the following conclusion can be drawn:

1. There are differences in the financial distress of companies in the industrial sector before and after the Covid-19 pandemic.

2. There are differences in the Net Profit Margin (NPM) of companies in the industrial sector before and after the Covid-19 pandemic.

3. There are differences in the Return on Assets (ROA) of companies in the industrial sector before and after the Covid-19 pandemic.

4. There are differences in the Return on Equity (ROE) of companies in the industrial sector before and after the Covid-19 pandemic.

5. Appropriate strategies for overcoming the conditions of companies that are in the financial distress category or the gray area of industrial sector companies listed on the Indonesia Stock Exchange (IDX) before and after the Covid-19 pandemic by improving the company's managerial capabilities to be more professional, able to adapt effectively quickly on the dynamics and changes in conditions that occur in the environment by means of restructuring, product/service differentiation, downsizing and product differentiation.

Limitations

This research still has limitations, so it needs to be considered for future research. The limitations of the study are as follows:

1. This study only uses financial ratios in the form of profitability ratios. Meanwhile, there are several other ratios that can be used as research objects that may be affected by the Covid-19 pandemic.

2. Explanation of research results in the form of numbers into descriptive elaboration is still not perfect.
3. The period of observation years used in this study is relatively short, namely three years, 2019-2021.

Suggestion

Based on the conclusions and liminations contained in this study, it can be put forward some suggestion that can be used for consideration in further research, namely:

1. Further research, it is expected to add other financial ratios such as liquidity and solvency so that the results obtained will be more diverse. In addition, it is hoped that it will not only examine companies in the industrial sector, but all companies listed on the Indonesia Stock Exchange.

2. Future researchers are expected to use methods other than the Grover Score method, such as the Ohlson method, the Altman Z-Score method, the Zmijweski method, the Springate method, the Beaver method, and the Wilcox method.

3. Further research it is expected to increase the observation period so that the research will be better and the results consistent.

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