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Abstract- This research purpose to determine the comparison of financial performance before and during the Covid-19 pandemic in the 2018-2021 period in textile and garment sub-sector companies listed on the Indonesia Stock Exchange. The comparison result are used as an evaluation of the company’s financial performance.

The financial performance proxies used in this research are debt to equity ratio, quick ratio, return on assets, inventory turnover, and working capital turnover. This research uses a quantitative approach using secondary data derived from the annual report and financial statements of the company. This research samples were taken using purposive sampling method, the number of samples according to the criteria was 14 companies with a period of 2018-2021.

The analysis technique used in descriptive statistical analysis with paired sample t-test and Wilcoxon signed rank test to determine the hypothesis. The result of this research show that there is no difference between debt to equity ratio, quick ratio, return on assets, working capital turnover, and there is a significant difference in inventory turnover before and during the Covid-19 pandemic.

Index Terms- financial performance, debt to equity ratio, quick ratio, return on assets, inventory turnover

1. INTRODUCTION

At the end of the year 2019, the world experienced the pandemic of Covid-19, including Indonesia. The case was first detected in Wuhan, China, at the beginning of December 2019. Covid-19 is a part of the Coronavirus (CoV) which causes many diseases, both mild symptoms, and even death. Various types of policy done by the Indonesian government in facing this pandemic, one of them being at the beginning of March 2020, with Social Distancing and Physical Distancing implemented in Indonesian citizens (Hadiwardoyo, 2020). The government also applied a large-scale social restriction to prohibit offices and industries from operating for an extended period; this has an impact on the disruption of the production of goods and services, resulting in a sluggish economy and losses (Misno, 2020).

Activities at the market are quiet and closed because people are careful in buying something outside the home to avoid the spread of this pandemic virus (Hanoatubun, 2020). In the current pandemic period, many companies from various sectors experienced a loss effect, in which the management must be able to determine the decisions to be taken to reduce future risks. One of them is by analyzing financial performance in the financial report to find out the financial condition of a company.

Financial performance assesses the condition of the company carried out by management in running its functions in a certain period, and financial reports as a medium for assessing financial performance, as well as communication liaison between financial data to interested parties (Suhendro, 2018). Financial performance is a form of the company’s accomplishment that is achieved in a certain period by describing a healthy financial condition, as well as the company can see the potential for future development of the company. Financial performance is a benchmark for achieving the company’s success from various activities that have been carried out (Fahmi, 2006, p.64).

However, the occurrence of Covid-19 in Indonesia affected the financial performance of various sectors, starting from a decrease in company income due to a decrease in the community’s purchasing power, increased debt due to ongoing production and operational
financing of the company, a decrease in sales resulting in slow inventory turnover activities, causing a buildup of production goods in warehouses. It can be viewed from the financial report before and during the pandemic to determine whether there is a significant difference in the company’s financial performance. In order to measure the financial performance, it is necessary to do a financial report analysis.

Therefore, this research focuses on comparing financial performance by choosing the title “A Comparative Analysis of Financial Performance Before and During the Pandemic of Covid-19: A Empirical Study of Textile and Garment Companies Listed on the Indonesia Stock Exchange”. Financial performance can be calculated based on analyses and ratios. The ratios are solvency ratio, measured using Debt to Equity Ratio (DER), liquidity ratio, measured using Quick Ratio (QR), profitability ratio, measured using Return On Assets (ROA), and activity ratio, measured using Inventory Turnover (IT) and Working Capital Turnover (WCT).

2. LITERATURE REVIEW & RESEARCH METHODOLOGY

2.1. Literature Review

a. Signalling Theory
   Signalling theory is a theory that transparently provides information signals to stakeholders carried out by company management who have detailed company information in published financial reports. The signal from this theory is in the form of information about the result of management performance, the information is about the success or failure of a company, as well as signaling from the management aims to reduce asymmetric information between the company and external parties with internal information more known to management than outside parties, such as investors and creditors (Sari and Zuhrotun, 2006).

b. Financial Statement
   Financial statement are the main source of finance which is useful for users of financial statements to be used as decision makers, knowing the company’s performance, and as a form of management accountability to shareholders who have trusted in managing the company well. Basically, financial reports are a form of accounting process used in communicating financial data (Munawir, 1991, p.2).

c. Financial Performance
   Financial performance, namely the achievements that have been achieved by a company in business activities, both in terms of finance, marketing, financing and distribution, technology, and human resources (Jumingan, 2006).

d. Financial Ratios
   Financial ratios are one of the methods of financial performance analysis to analyze financial statements by calculating financial ratios. Financial ratios are used to measure the company’s financial condition by comparing one account to another, the aims is to find out and measure the company’s ability to manage its business.

2.2. Hypothesis Development

a. Difference in financial performance based on DER
   conditions during the Covid-19 pandemic, can affect the company’s finances, including the DER. A high DER means that the company’s capital originating from creditors funds is greater than its own capital. A high DER ratio shows the company’s ability to obtain additional funds from creditors avoid the risks that are borne if the company suffers losses (Nidya Afrinda, 2013). The result of the research by Esomar & Christianity (2021) show that there are significant differences in the DER before and after the Covid-19 pandemic. Based on the description above, this study formulates the first hypothesis as follows:
   H1: There are differences in financial performance based on the company’s Debt to Equity Ratio before and during the Covid-19 pandemic.

b. Difference in financial performance based on QR
   During the Covid-19 pandemic, people’s purchasing power decreased, affecting the company’s income which also decreased. Continuous decline in revenue, making the company take steps with debt, to maintain production activities and cover other costs. QR value reaches 100% or equal to 1, indicating a strong and healthy company with current assets that can over its current liabilities. The components of liquid current assets include cash, accounts receivable, and marketable securities. Research conducted by Saputro and Hapsari (2022) states that there is a difference in QR before and after the pandemic which decreased by -3.01%. It means that the company’s ability to pay its obligations with more liquid current assets is decreasing.
   Based on the description above, this study formulates the second hypothesis as follows:
   H2: There are differences in financial performance based on the company’s Quick Ratio before and during the Covid-19 pandemic.

c. Difference in financial performance based on ROA
   Net profits from several corporate sectors decreased due to the impact of the Covid-19 pandemic. Because people’s purchasing power is declining, people tend to be careful in spending. Research conducted by Umam et al., (2021) states that there are significant
differences in the value of ROA in consumer goods manufacturing companies before and during the Covid-19 pandemic. The average ROA before the pandemic tends to increase, while the average ROA in 2020 has decreased significantly from 10.69% to 6.50%. The decrease was due to a decrease in total revenue while the company also had to continue to bear operating costs.

Based on the description above, this study formulates the third hypothesis as follows:

H$_3$: There are differences in financial performance based on the company’s Return On Assets before and during the Covid-19 Pandemic.

d. Difference in financial performance based on IT

The Covid-19 pandemic affects people’s buying and selling activities, it also has an impact on a company’s inventory turnover, how fast a company can sell inventory within a certain period, including during the Covid-19 pandemic. Low Inventory Turnover indicates a low level of sales and allows excess inventory to be stored, making it unproductive. Meanwhile, a high Inventory Turnover indicates a high level of sales and is able to reduce the cost of storing goods in inventory. Research conducted by Fernando & Edi (2021) states that there is a significant difference in the inventory turnover ratio after a merger or acquisition.

Based on the description above, this study formulates the fifth hypothesis as follows:

H$_5$: There are differences in financial performance based on the company’s Inventory Turnover before and during the Covid-19 pandemic.

e. Difference in financial performance based on WCT

Working Capital Turnover shows how efficiently a company uses working capital to generate sales. Companies that have a high Working Capital Turnover illustrate the company’s ability to run operations to generate more efficient sales. Research conducted by Afriyani et al., (2020) showed that there was a decrease in working capital turnover before and after the IPO.

Based on the description above, this study formulates the fourth hypothesis as follows:

H$_4$: There are differences in financial performance based on the company’s Working Capital Turnover before and during the Covid-19 pandemic.

2.3. Research Designs

This research is designed in the form of comparative research as well as a descriptive statistic by using the approach method of quantitative. Descriptive statistic explains the data based on the mean, minimum, maximum, standard deviation, and variance (Ghozali, 2016, p.19). A comparative study is a form of research that compares and makes an assumption about what causes the difference in the situation that occurs (Ferdinand, 2006, p.5). the presentation of data uses a comparative, which compares before and during the Covid-19 pandemic period 2018-2021.

This research uses on of the classic assumption tests, the data normality test using the One-Sample Kolmogorov-Smirnov Test with a significant value of 0.05 on Asymp. Sig. (2-tailed).

a. Probability > 0.05 means data is normally distributed.
b. Probability < 0.05 means data is not normally distributed.

Comparative research uses Paired Sample t-Test if the data is normally distributed and Wilcoxon Signed Rank Test if the data is not normally distributed.

a. Asymp. Sig. (2-tailed) < 0.05 means there is a significant difference. H$_0$ is rejected, and H$_a$ is accepted.
b. Asymp. Sig. (2-tailed) > 0.05 means there is no difference. H$_0$ is accepted, and H$_a$ rejected.

2.4. Population, Sample, and Sampling Techniques

The population in this study is the sub-sector of textile and garment companies listed on the Indonesia Stock Exchange. The sample collection uses the Purposive Sampling method. The sample criteria are determined as follows:

2. The company provides a complete annual report for the period 2018-2021 consecutively.
3. The company’s financial report have complete data needed according to the variables studied.

The number of appropriate data based on predetermined criteria 14 company data for the 2018-2021 periods in a row.

2.5. The Research Variable and Measurement

The variables used in this study are financial ratios. In this study, in measuring the comparison of financial performance using five variables including:

a. Debt to Equity Ratio (DER)

This indicator is to see the extent to which the company’s equity capability can meet all of the company’s liabilities, namely short-term liabilities and long-term liabilities.

Counting formula (DER):
**Debt to Equity Ratio**

\[ \text{Debt to Equity Ratio} = \frac{\text{Total Liability}}{\text{Total Equity}} \]

### b. Quick Ratio (QR)

This indicator is to measure the entity’s ability to pay current liabilities/short-term liabilities.

Counting formula (QR):

\[ \text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}} \]

### c. Return On Assets (ROA)

This indicator is to measure the company’s ability to generate profits from the total assets owned by the company.

Counting formula (ROA):

\[ \text{Return On Assets} = \frac{\text{Net Profit}}{\text{Total Assets}} \]

### d. Inventory Turnover (IT)

This indicator is to measure how effectively inventory can be managed by comparing the cost of goods sold and measuring inventory turnover in a year.

Counting formula (IT):

\[ \text{Inventory Turnover} = \frac{\text{Cost Of Goods Sold}}{\text{Average Inventory}} \]

### e. Working Capital Turnover (WCT)

This indicator is to measure the company’s ability to make a working capital turnover in a period and to use working capital to generate sales.

Counting formula (WCT):

\[ \text{Working Capital Turnover} = \frac{\text{Net Sales}}{(\text{Current Assets} - \text{Current Liabilities})} \]

### 3. RESULT AND DISCUSSION

#### 3.1. The Result of Descriptive Statistics Analysis

<table>
<thead>
<tr>
<th>The Result of Descriptive Statistics Analysis</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>DER_BEFORE</td>
<td>28</td>
<td>-2.10</td>
<td>14.69</td>
<td>1.8250</td>
<td>3.42738</td>
</tr>
<tr>
<td>DER_DURING</td>
<td>28</td>
<td>-30.15</td>
<td>114.29</td>
<td>3.8304</td>
<td>22.50106</td>
</tr>
<tr>
<td>QR_BEFORE</td>
<td>28</td>
<td>0.03</td>
<td>4.62</td>
<td>1.1211</td>
<td>1.37990</td>
</tr>
<tr>
<td>QR_DURING</td>
<td>28</td>
<td>0.01</td>
<td>4.12</td>
<td>0.8118</td>
<td>1.07305</td>
</tr>
<tr>
<td>ROA_BEFORE</td>
<td>28</td>
<td>-1.12</td>
<td>0.10</td>
<td>0.0300</td>
<td>0.21992</td>
</tr>
<tr>
<td>ROA_DURING</td>
<td>28</td>
<td>-0.88</td>
<td>0.12</td>
<td>-0.0382</td>
<td>0.17499</td>
</tr>
<tr>
<td>IT_BEFORE</td>
<td>28</td>
<td>1.11</td>
<td>8.21</td>
<td>3.6050</td>
<td>1.83389</td>
</tr>
<tr>
<td>IT_DURING</td>
<td>28</td>
<td>0.64</td>
<td>6.56</td>
<td>2.7789</td>
<td>1.72160</td>
</tr>
<tr>
<td>WCT_BEFORE</td>
<td>28</td>
<td>-12.86</td>
<td>312.38</td>
<td>19.3257</td>
<td>60.70442</td>
</tr>
<tr>
<td>WCT_DURING</td>
<td>28</td>
<td>-1.47</td>
<td>111.80</td>
<td>8.2239</td>
<td>21.54043</td>
</tr>
</tbody>
</table>

Source: Data processing result, 2022

The descriptive statistical test result in the table above show that the DER before the pandemic had a minimum value of -2.10, a maximum value of 14.69, a standard deviation of 3.42738, and an average value of 1.8250. DER during the pandemic has a minimum value of -30.15, a maximum value of 114.29, a standard deviation value of 22.50106, and an average value of 3.8304. QR before the pandemic had a minimum value of 0.03, a maximum value of 4.62, a standard deviation value of 1.37990, and an average value of 1.1211. QR during a pandemic has a minimum value of 0.01, a maximum value of 4.12, a standard deviation value of 1.07305, and an average value of 0.8118. ROA before the pandemic had a minimum value of -1.12, a maximum value of 0.10, a standard deviation value of 0.21992, and an average value of 0.0300. ROA during a pandemic has a minimum value of -0.88, a maximum value of 0.12, a standard deviation value of 0.17499, and an average value of -0.0382. IT before the pandemic had a minimum value of 1.11, a maximum value of 8.21, a standard deviation value of 1.83389, and an average value of 3.6050. IT during a pandemic has a minimum value of 0.64, a maximum value of 6.56, a standard deviation value of 1.72160, and an average value of 2.7789. WCT before the pandemic had a minimum value of -12.86, a maximum value of 312.38, a standard deviation of 60.70442, and an average value of 19.3257. WCT during a pandemic has a minimum value of -1.47, a maximum value of 111.80, a standard deviation value of 21.54043, and an average value of 8.2239.
3.2. The Result of Normality Test

<table>
<thead>
<tr>
<th>The Result of Normality Test</th>
<th>Kolmogorov-Smirnov Z</th>
<th>Asymp.Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DER BEFORE</td>
<td>1.474</td>
<td>0.026</td>
</tr>
<tr>
<td>DER DURING</td>
<td>2.386</td>
<td>0.000</td>
</tr>
<tr>
<td>QR BEFORE</td>
<td>1.576</td>
<td>0.014</td>
</tr>
<tr>
<td>QR DURING</td>
<td>1.236</td>
<td>0.094</td>
</tr>
<tr>
<td>ROA BEFORE</td>
<td>1.888</td>
<td>0.002</td>
</tr>
<tr>
<td>ROA DURING</td>
<td>1.697</td>
<td>0.006</td>
</tr>
<tr>
<td>IT BEFORE</td>
<td>0.760</td>
<td>0.611</td>
</tr>
<tr>
<td>IT DURING</td>
<td>0.744</td>
<td>0.637</td>
</tr>
<tr>
<td>WCT BEFORE</td>
<td>2.223</td>
<td>0.000</td>
</tr>
<tr>
<td>WCT DURING</td>
<td>1.972</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Source: Data Processing Result, 2022

The result of the normality test based on the table above show that there is an Asymp.Sig. (2-tailed) value greater than 0.05, meaning the data is normally distributed, and less than 0.05, meaning the data is not normally distributed. As for values greater than 0.05, including QR during the pandemic and IT before and during the pandemic, it is concluded that the data is normally distributed. The values smaller than 0.05 include DER before and during the pandemic, QR before the pandemic, ROA before and during the pandemic, and WCT before and during the pandemic. It is concluded that the data is not normally distributed.

3.3. The Result of Hypothesis Test

In this research, data with normal distribution will use the Paired Sample t-Test, while data with abnormal distribution will use the Wilcoxon-Signed Rank Test.

a. Paired Sample t-Test

<table>
<thead>
<tr>
<th>The Result of Paired Sample t-Test</th>
<th>Std. Deviation</th>
<th>T</th>
<th>Df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT BEFORE – IT DURING</td>
<td>1.01511</td>
<td>4.306</td>
<td>27</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Data Processing Result, 2022

The result of the different Paired Sample t-Test based on the table above show that there are significant differences in financial performance as measured by Inventory Turnover, the significance value of 0.000 is less than 0.05. Then, H₀ is rejected, and Hₐ is accepted. The existence of these differences indicates that the ability of textile and garment companies in the average inventory turnover is not stable.

b. Wilcoxon Signed Rank Test

<table>
<thead>
<tr>
<th>The Result of Wilcoxon Signed Rank Test</th>
<th>Z</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DER BEFORE – DER DURING</td>
<td>-0.973</td>
<td>0.330</td>
</tr>
<tr>
<td>QR BEFORE – QR DURING</td>
<td>-0.986</td>
<td>0.324</td>
</tr>
<tr>
<td>ROA BEFORE – ROA DURING</td>
<td>-0.764</td>
<td>0.445</td>
</tr>
<tr>
<td>WCT BEFORE – WCT DURING</td>
<td>-1.605</td>
<td>0.108</td>
</tr>
</tbody>
</table>

Source: Data Processing Result, 2022

The result of the different Wilcoxon Signed Rank Test based on the table above show the significance value on DER is 0.330 > from 0.05. It means that there is no difference between DER before and during the pandemic, so H₀ is accepted, and Hₐ is rejected. The Significance value on QR is 0.324 > from 0.05. It means that there is no difference between QR before and during the pandemic, so H₀ is accepted, and Hₐ is rejected. The significance value on ROA is 0.445 > from 0.05. It means that there is no difference between ROA before and during the pandemic, so H₀ is accepted, and Hₐ is rejected. The significance value on WCT is 0.108 > 0.05. It means that there is no difference between WCT before and during the pandemic, so H₀ is accepted, and Hₐ is rejected.
3.4. Discussion

a. DER Comparison of Textile and Garment Companies
   The test result state that there is no difference in DER before and during the Covid-19 pandemic. It means that the source of funds from the lender to the company during the pandemic has not changed. The lower the DER, the better for the fundamental condition of the company because the debt is smaller than the size of the company’s assets.

b. QR Comparison of Textile and Garment Companies
   The test result state that there is no difference in QR before and during the Covid-19 pandemic. It means the ability of the company to meet current obligations using the most liquid assets without taking into account the value of inventories in stable conditions. The company provides good guarantees for short-term creditors because the company is able to pay off its short-term debt.

c. ROA Comparison of Textile and Garment Companies
   The test result state that there is no difference in ROA between before and during the Covid-19 pandemic. It means to generate profits in a stable condition.

d. IT Comparison of Textile and Garment Companies
   The test result state that there was a significant IT difference before and during the Covid-19 pandemic. The pandemic has had a major impact on companies in their inventory turnover. Companies need to re-measure in order to be able to provide a good financial position, make careful decisions in handling the movement of goods, save expenses in producing goods, and buy inventory.

e. WCT Comparison of Textile and Garment Companies
   The test result state that there is no difference in WCT between before and during the Covid-19 pandemic. It means that there is no change in how efficiently the company uses working capital to generate sales. A high WCT indicates the company is more efficient in carrying out operations to generate sales, while a low WCT indicates operations are not running effectively.

4. CONCLUSION

Based on the data collected and test result conducted, this research aims to determine whether there are significant differences or no differences in the financial performance of textile and garment companies before and during the pandemic. Judging from the proxied financial ratios, there are no differences in the ratios, including Debt to Equity Ratio, Quick Ratio, Return On Assets, and Working Capital Turnover before and during the pandemic. Means the pandemic does not have a major impact on these financial ratios and is in a stable condition. Meanwhile, in the Inventory Turnover ratio, there is a significant difference before and during the pandemic. It means that the pandemic has had a major impact on the company’s decision to regulate the turnover of its inventory. Companies need to make the right decisions in the movement of goods, save expenses in producing goods, or buying in order to provide a good financial position.

The Research Limitations
Below are some of the limitations of this research as follows:
1. This research only uses data from textile and garment companies, it still cannot be said to represent all companies listed on the Indonesia Stock Exchange.
2. This research only uses financial ratios including DER, QR, ROA, IT, and WCT.

Suggestions
Below are some suggestions for use in further research as follows:
1. The subsequent research examines other companies to find out differences in financial performance before and during the pandemic in the sector.
2. The subsequent research examines financial ratio by add or replacing other variables. For example: Fixed Assets Turnover, Net Profit Margin, Cash Ratio.

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