The Impact of COVID-19 Pandemic on the Financial Performance of Firms on the Indonesia Stock Exchange

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ABSTRACT

The COVID-19 pandemic has harmed the national economy and caused a decline in various businesses’ financial performance. This study aims to examine the impact of the COVID-19 pandemic on firms’ financial performance listed on the Indonesia Stock Exchange. The research samples included 214 companies, which were divided proportionally into nine sectors or 49 sub-sectors. Data analysis used was the Wilcoxon Signed Rank Test. The results show an increase in the leverage ratio and short-term activity ratio but a decrease in the public companies’ liquidity ratio and profitability ratio during the COVID-19 pandemic. There was no significant difference in the liquidity ratio and leverage ratio. However, the public companies’ profitability ratio and short-term activity ratio differed significantly between before and during the COVID-19 pandemic. The sector that experienced an increase in liquidity ratio, profitability ratio, and short-term activity ratio but a decrease in the leverage ratio was the consumer goods sector. In contrast, the sectors experiencing a decrease in the liquidity and profitability ratios were property, real estate and building construction, finance, trade, services, and investment sectors.

1. INTRODUCTION

The COVID-19 pandemic has a profound impact on the economy, not only in Indonesia but also throughout the world. One of the impacts of the COVID-19 pandemic on Indonesia’s economy is the decrease in the tax revenue budget, the largest source of state revenue, from 1,865.7 trillion to 1,462.6 trillion (Ministry of Finance, 2020). Tax revenue is the primary source of state revenue, or 84.4% (1,332.06 trillion) in 2019 (Ministry of Finance, 2020). The decrease in the 2020 target of state revenue originating from the provision of tax incentives for taxpayers and business actors as regulated in the Minister of Finance Regulation No. 44 PMK 03/2020 concerning Tax Incentives for Taxpayers Affected by the Corona Virus Disease 2019 (COVID-19) Pandemic which was issued on April 27, 2020. The government has analyzed that the economic crisis due to the COVID-19 pandemic will undoubtedly impact decreasing profits and
financial performance in various business types. Therefore, implementing tax incentives is the government's first step to carry out an economic rescue that touches the most affected sectors, especially the real sector, which absorbs much labor. It is expected that the sector will be able to survive amid the economic crises due to the COVID-19 pandemic. Tax incentives are not only given to the MSMEs but also large-scale public companies. The provision of tax incentives is also a rescue effort made by the government so that companies do not terminate working relationship with employees as a result of corporate financial difficulties, such as in Australia during the economic crisis in 2008, which caused an increase in unemployment (Jetter et al., 2020).

The economic crisis can impact decreasing sales of products produced by companies (Wijayangka, 2014). The decline in total sales will undoubtedly have an impact on the company's financial performance. Some companies have even been liquidated due to financial difficulties (Bintang et al., 2019). Yudanto and Santosoo (2003) stated that the monetary crisis in 1998 did not affect the real sector's financial performance. The pharmaceutical sub-sector experienced only a slight decrease in the current ratio's average value and quick ratio. The same thing also applied to the cigarette sub-sector, which did not significantly decrease the average value of the current ratio, considering that cigarettes have already been an addictive item. Their sales were not affected by the crisis. Meanwhile, the financial performance in the consumer goods industry sector was affected by the monetary crisis when viewed from the value of the debt to equity ratio (DER), indicating a decline in debt repayment capacity. Increased DER can also be caused by increased total debt but with fixed or decreased total equity.

The global economic crisis in 2008 also caused the manufacturing sector to experience financial difficulties to its lowest point. Data from the Central Statistics Agency recorded that nearly 13% of the manufacturing sector experienced bankruptcy amid the economic crisis in 2008. The only sectors that experienced growth were transportation and communication, gas, electricity and clean water, and agriculture (Ramadhan & Lukviarman, 2009). The global economic crisis in 2008 rocked the financial condition of companies not only in Indonesia but also in developed countries such as the United States. For example, Bear Stearns, a brokerage company that acted as intermediaries for buying and selling securities, almost defaulted, and Lehman Brothers went bankrupt shortly after Merrill Lynch was acquired. These companies' balance sheets experienced shocks, including in the level of leverage, and there was a decrease in asset value (Armansyah & Effendi, 2017; Carlson & Macchiavelli, 2020). This is different from the phenomenon of the economic crisis due to the current COVID-19 pandemic.

The work from home (WFH) policy during the COVID-19 pandemic has resulted in a decrease in the number of flights, but sales of cosmetics and household appliances included in the manufacturing sector continued to increase over the past three months from February to April 2020 (Ministry of Finance, 2020). Sales of food and beverage products also continued to increase during the COVID-19 pandemic. Shen et al. (2020) showed that the COVID-19 pandemic had a significant negative impact on the performance of listed Chinese companies due to a decrease in the value of total revenue, which also affected the decrease in ROA. The research also proved that industries that were significantly affected in the first quarter of 2020 included tourism, catering, and transportation. The COVID-19 pandemic hurts the production, operations, and sales of the industry. Company managers are expected to pay attention to environmental changes outside, make adjustments to the business, establish strategies to make production, and carry out operational activities that meet consumption trends during the COVID-19 pandemic to assist business recovery.

The differential impact of the COVID-19 pandemic in 2020 on the industrial sales or financial conditions needs to be examined quantitatively based on financial reports released on the Indonesia Stock Exchange (IDX). The performance of public companies is the basis for making investment decisions for investors and creditors. Therefore, this research is critical to provide relevant information to potential investors amid the country's financial difficulties during the current COVID 19 pandemic.

Research related to company performance during the COVID 19 pandemic was also carried out by Hadiwardoyo (2020) using a qualitative phenomenological approach. The results show that the most affected business sectors rely on crowds, such as tourism and tourism supporting businesses including mass transportation, hotels, and tertiary product businesses whose sales depend on public savings funds, property, and credit-giving institutions. The energy sector is also under tremendous pressure due to drastically shrinking business activities, except for PLN (State Electricity...
Company). Besides, many other sectors have been affected in a variety of ways. Business sectors that can benefit from social restrictions during the COVID-19 pandemic include goods delivery service providers, cellular operators and internet providers, emergency credit providers, and health insurance. The health sector business also can generate profits for certain types of products such as masks, hand sanitizers, disinfectants, soaps, and similar products. Other than print media, the media sector is also a potentially profitable business with more advertisements due to restrictions on physical movement. The food sector is considered a stable business in crisis times, only experiencing adjustments in methods, such as ordering, payment, and delivery of goods.

So far, the information related to the impact of COVID-19 on the firm performance is limited based on data collected qualitatively (Hadiwardoyo, 2020). Therefore, this study is necessary to prove the results of research conducted by Hadiwardoyo (2020) using a quantitative approach. This research is conducted by examining changes in public companies' performance during the COVID-19 pandemic using a quantitative approach to find out which sub-sectors of the public industry that are negatively or positively affected by the COVID-19 pandemic. This research is expected to provide relevant information for investors in making investment decisions during the COVID-19 pandemic.

2. THEORETICAL FRAMEWORK AND HYPOTHESES

Resource-Based Theory

The company's performance will be optimal if the company has a competitive advantage that is difficult to imitate and is firmly attached to its characteristics, as described in the resource-based theory. According to Sun et al. (2020), to help mining companies' financial performance in China from various risky economic situations, it is necessary to create new competitive advantages for long-term development. Competitive advantage is obtained by utilizing, managing, and controlling owned resources, such as organizational processes and company strategies, in dealing with various conditions, including when facing an economic crisis. Resources that also need to be appropriately managed include assets, knowledge of technology, and human resources' ability to manage the company in various situations and conditions. Sukma (2018) also states that it is essential to create a competitive advantage by creating products or services that have a high economic value that is difficult to imitate and even replace so that they become primary needs for society. The company's performance is highly dependent on management's ability to produce and manage unique and specific resources to compete and survive in various situations. Appreciation for employee performance is also one of the proven efforts to increase company productivity (Unger et al., 2020). This increase in productivity will undoubtedly have an impact on the ability of competitiveness and improve company performance.

Financial Reporting Transparency

Transparency is a form of corporate administrative accountability to the public in realizing good governance by giving users access to information to company financial performance (Davici, 2018). According to Mardiasmo (2002), transparency is openness in companies' information about resource management activities for the community or those who need information. The application of transparency in financial reports in public sector organizations is expected to reduce information asymmetry between internal and external parties (Davici, 2018). Transparency is a form of disclosure that is useful in decision making (Gunawan, 2016). According to Ridha and Basuki (2012), the implementation of transparency in financial reporting includes providing information regarding the success of the predetermined achievements, providing accurate and timely financial information, providing access to stakeholders, and disclosing the information required according to standards (Financial Accounting Standards), and 5) presenting an overview of the achievements of financial performance during the reporting year.

Company's Financial Performance

The company's financial performance is a form of corporate achievement in the financial aspects related to income and overall operating costs, debt structure, assets, and investment returns. Discussions on financial performance are not limited to one-period discussions because stakeholders will also pay attention to any changes (trends) in the company's financial performance, which include changes in the statement of financial position, profit or loss, or cash flow. The company's financial performance is very dependent on policies, strategies, and actions implemented by management to realize organizational goals. Financial performance can be measured through financial statement analysis in the form of
interpretations of financial data summarized in financial reports as a first step to meet the information needs of internal and external parties of the company (Rhamadana & Triyonowati, 2016). According to Subramanyam (2014), financial performance is a condition that reflects the financial condition of a company based on predetermined goals, standards, and criteria.

Financial Ratio
Harahap (2011) explains that financial ratios are the values obtained from comparing one item with another item in the financial statements with a relevant and significant relationship. Financial ratio analysis is used to help evaluate a company's financial performance. The use of ratios is the most effective way to measure the company's financial performance (Rhamadana & Triyonowati, 2016). Foster (1986) states that four things encourage the use of financial ratio models in financial statement analysis: 1) being able to control the emergence of significant differences in numbers between companies or at the same company in different periods, 2) making more comfortable to use in statistical testing, 3) investigating theories related to financial ratios, and (4) being able to be used as a measuring tool to test estimates or predictions of certain variables such as empirical bankruptcy. Fraser and Ormiston (2016) suggest four categories of ratios used to analyze a firm's financial performance. They are liquidity ratio that describes the company's ability to meet short-term liabilities (debt), solvency ratio (leverage) that is used to measure the extent to which the company's assets are financed with debt, activity ratio that is used to measure the effectiveness of the company using its assets, and profitability ratio that is used to assess the company's ability to generate profits.

Liquidity Ratio
The liquidity ratio measures the company's ability to pay obligations that are due within one year. One of the ratios commonly used to measure liquidity is the current ratio. The current ratio is the ratio used to compare current assets to current debt. The current ratio is used to see the current assets' ability to meet its current liabilities (Sari, 2020). A low current ratio value illustrates a problem in liquidity. The current ratio can be said to be normal or on a safe scale if the value is above 100%, which means that current assets' value must be higher than the value of current debt. The formula is current ratio = current assets/current debt (Fraser & Ormiston, 2016). Managers will see the company's performance based on the profit from the operational activity carried out, in which a high current ratio value is better (Rusdin, 2008). However, if the current ratio value is too high, it is also not good because it shows the number of idle funds and reduces its ability to generate profits (Subramanyam, 2014). The current ratio can assess the company's liquidity ability to manage its assets to meet its short-term obligations and ensure that it can continue its business in the future (Sajiyah, 2016). This ratio is calculated by comparing current assets to current liabilities.

An economic crisis can make a company experience liquidity difficulties. The decline in economic growth has an impact on decreasing people's purchasing power. As a result, many customer receivables are uncollectible, reducing the company's cash. On the other hand, the economic crisis also made many supplies pile up. When liquidity is measured using the current ratio, there will be an increase in the liquidity ratio. The increase in the liquidity ratio is not a good condition. Previous studies show indecisive results regarding the impact of an economic crisis on the current ratio. Bintang et al. (2019) show that the changes or differences in the current ratio's average value were not significant. However, Istiningrum (2005) found different results by stating that the 1998 monetary crisis caused a significant decrease in the current ratio value.

Leverage Ratio
The leverage ratio measures the company's ability to pay off all of its obligations. This ratio can be measured using the debt to equity ratio (DER). This ratio shows the issuer's capital structure consisting of debt and equity (Handayani & Zulyanti, 2018). This ratio is used to assess the extent to which company assets are financed with debt (Fraser & Ormiston, 2016; Sajiyah, 2016). It can also represent the solvency ratio showing the number of funds needed to cover all or part of the costs required. This ratio determines the company's ability to pay off not only short-term debt but also long-term debt. The use of short-term debt will affect liquidity, and long-term debt will affect solvency. This ratio will be of concern to creditors, especially long-term creditors (Abbas, 2018). The smaller the DER value, the better the company's condition. Ideally, the company's amount of capital should be higher than the amount of debt (Laiman & Hatane, 2017). The formula for DER is total liabilities divided by total equities.

The economic crisis caused many companies to reduce their production activities due to the decline in people's purchasing power. The company's
activities and performance have decreased so that when companies need loans, fund providers, such as banks and other financing institutions, are reluctant to provide loans. Thus, the economic crisis tends to reduce the company's debt ratio. Previous studies also reveal different results regarding the impact of the financial crisis on financial leverage. Proença, Laureano, and Laureano (2014) prove that financial crisis cause firms debt ratio to decrease. However, Rofiqoh (2001) show that there is no significant difference in DER value.

Profitability Ratio
The profitability ratio measures the company's ability to generate profits or measure the efficiency of the company. The most commonly measured profitability ratio is the return on assets (ROA). It is a ratio between net income after tax and total assets, which shows the measure of asset productivity in generating profit (Handayani & Zulyanti, 2018; Syafirah, 2019; Subramanyam, 2014). ROA analysis is often interpreted as economic profitability, which measures a company's ability to generate profits in the past (Rhamadana & Triyonowati, 2016). This ratio is then projected into the future to see the company's ability to generate profits in the future. ROA can be broken down into two components: profit margin and asset turnover. Profit margin is a measure of a company's efficiency, while asset turnover reflects its ability to generate sales based on specific assets (Subramanyam, 2014). The formula of ROA is the after-tax profit divided by total assets (Abbas, 2018).

The economic crisis undoubtedly harmed the company's ability to generate profits. The decline in people's purchasing power will reduce the company's demand for products or services. In the short term, this decline in sales is not accompanied by a decrease in expenses, so that the impact is to reduce company profits. The Istiningrum (2005) result shows that there is a decrease in the return on assets of service companies during and after the monetary crisis in 1998. This is in line with Rofiqoh (2001), stating that there was a decline in public companies' profitability on the Jakarta Stock Exchange for all sectors during the crisis.

Activity Ratio
Activity ratio measures the effectiveness of a company is using its assets to generate sales. This ratio can be divided into two groups: the ratio of long-term activities and short-term activities. In the context of the impact of the economic crisis, the short-term activity ratio is more relevant. The short-term activity ratio consists of inventory turnover and account receivables turnover. This study uses account receivables to measure activity ratios. According to Fraser and Ormiston (2016), the receivable turnover ratio is used to describe working capital analysis because it can measure how quickly the company's receivables turn into cash. The receivable turnover ratio is a ratio to measure the company's ability to handle credit sales, including its policies. In its operational activities, the company carries out cash sales transactions and sales transactions on credit, resulting in account receivables. Through credit sales facilities for customers, it is expected to boost sales growth, hoping that profits will also increase. The increase in total credit sales will, of course, also be accompanied by an increase in risk for the company. Credit risk due to the emergence of trade receivables will occur when buyers cannot pay or delay payment (Fridson & Alvarez, 2011). Fraser and Ormiston (2016) state that the higher the receivable turnover, the greater the cash to be received and the greater the company's profits. On the other hand, the slower the receivable turnover, the less profitability the company gets (Notta & Vlachvei, 2014). The faster the turnover, the fewer funds invested in accounts receivable. Management can also find out how many times the funds invested in these receivables revolve in one period. Thus, through this ratio, it can be seen whether the company's activities in the collection are effective. The formula of receivable turnover is sales divided by the average account receivables (Abbas, 2018).

Economic Crisis
The economic crisis in Indonesia in 1998 caused the economy to experience a significant downward contraction of -13.2%. The economic crisis also caused an increase in unemployment and the poverty rate and an increase in government debt, and even Indonesia was almost bankrupt (Adiningsih et al., 2008). Indonesia experienced another economic crisis in 2008. Hariyanto (2020) explained that two main factors caused the global economic crisis in 2008. First, too loose monetary policy. Apart from low-interest rates, the increasing demand for housing loans was also driven by government policies that encourage homeownership programs through government agencies. Second, global imbalances. There was a global saving glut phenomenon, meaning that many places carried out too intensive saving activities and lack of spending activities. There was an asymmetry in the global financial system where developed
The current COVID-19 pandemic is also having a bad impact on the Indonesian economy. The Organization for Economic Co-operation and Development (OECD) reports that the COVID-19 pandemic has resulted in the threat of a major economic crisis marked by the cessation of production activities in many countries, falling levels of public consumption, loss of consumer confidence, and falling stock exchanges that ultimately lead to uncertainty (OECD, 2020). In the release of Indonesia's Gross Domestic Product (GDP) in Q1 2020 was recorded at only 2.97% (year-on-year). This figure is the lowest growth rate since 2001. The Ministry of Finance and Bank Indonesia previously had predicted growth in the range of 4% -5% in Q1 2020. The GDP growth during COVID-19 was much lower than predicted. On the expenditure side, the biggest contraction in GDP was recorded in household consumption expenditure, which worsened by 2.84%, representing the largest contraction in consumption since 1999. The sharp decline in consumer household spending can be attributed to at least two things. First, it is caused by an increase in the number of unemployed, which directly impacts decreasing income and household consumption expenditure. Second, it is caused by an increase in uncertainty due to the Covid-19 pandemic. This increased uncertainty has led to a shift in consumption to precautionary savings by households whose income has not been greatly affected by this pandemic. However, not all sectors in the economy have heterogeneous impacts. According to Modjo (2020), some of the sectors severely affected were the transportation sector (1.27% from the previous 7.55%), the construction sector (-2.41%), and the manufacturing industry (-1.47%). Various innovations that are more directed at the defense of people's welfare are needed during the COVID-19 pandemic because, in the end, the people's purchasing power is better able to help the economy move and save business growth, business profitability, and national economic growth (Mohammed et al., 2021)

**Hypothesis Development**

The COVID-19 pandemic has harmed the country's economy. World Bank Managing Director, Mari Elka Pangestu, estimated that Indonesia's economic growth could weaken below 5% in the first quarter of 2020 (Burhanuddin & Abdi, 2020). The financial performance of the industrial sector will also certainly be affected by the economic crisis. However, company management still has to strive to pay attention to stakeholder interests by disclosing its financial situation. Based on stakeholder theory, company management must always provide information related to the company's activities, including its financial condition, to stakeholders for the benefit of these stakeholders. Whatever the case, the company's condition must be disclosed to stakeholders to maintain company transparency. Companies must uphold the value of responsibility and accountability for their stakeholders (Nur & Priantinah, 2012). This economic crisis will certainly lead to a decline in industrial sector sales due to decreased purchasing power (Wijayangka, 2014). If sales in the industrial sector experienced a decrease during the economic crisis due to the COVID-19 pandemic, this would certainly affect the company's financial condition in general, including the value of the company's current assets. The components of current assets that are significantly affected by sales changes are the cash component resulting from cash sales and the value of trade receivables as a result of credit sales. When current assets experience significant changes, this will ultimately affect the value of the current ratio. Bintang et al. (2019) show differences in financial performance, including the current ratio in the period before and after the monetary crisis. The result of Istiningrum (2005) also shows that there was a significant decrease in a firm's liquidity ratios, measured using the current ratio, during the monetary crisis. Therefore, the first hypothesis can be formulated as follows:

H1: The COVID-19 pandemic has a negative effect on the liquidity, measured using the current ratio

A significant decrease in sales will certainly affect company profits and cash received on cash sales transactions. This condition will profoundly impact the company's ability to pay its debts due to the unavailability of cash to make debt payments. Besides, the capital value will also decrease due to losses experienced by the company due to decreased sales. Minimal income from sales will certainly reduce the company's ability to cover all operational costs incurred to suffer losses. Istiningrum (2005) shows that the global crisis hurts the leverage ratio, measured using debt to equity ratio (DER). Rofiqoh (2001) states that an increase in the DER number
indicated the decline in public companies' financial performance on the Jakarta Stock Exchange during the crisis compared to before the crisis. This shows that the long-term risk of public companies on the Jakarta Stock Exchange increases when the monetary crisis occurs because there is uncertainty in long-term performance, especially the many uncontrollable costs, including interest costs. Hakim (2012) also found a significant difference in the DER value between before and after the crisis. Also, the increase in DER value can be triggered by a decrease in the capital structure (equity) from the management or investors due to concerns about the impact of the crisis on decreasing company earnings, which are very risky for shareholders. A decrease in the capital structure (equity) that comes from the management or investors can impact decreasing operational effectiveness and efficiency, which in turn has an impact on the company's overall performance. The second hypothesis can be formulated as follows:

H2: The COVID-19 pandemic has a negative effect on the leverage, measured using debt to equity ratio.

During the monetary crisis, net income decreased significantly due to weakening people's purchasing power and increased interest costs, so that a firm's profitability decreased significantly. When people's purchasing power decreases, it will certainly impact the company's total sales. When the company's sales decline, its profit will also decrease if the company is unable to minimize operating costs incurred. The results of Istiningrum (2005) show that the profitability ratio, measured using returns on assets (ROA), of service companies before the monetary crisis and during the monetary crisis differ significantly, where there is a decrease in the average ratio. Rofiqoh (2001) also states that there was a decline in public companies' financial performance on the Jakarta Stock Exchange for all sectors during the crisis, especially at the level of ability to generate profits, as indicated by a significant decrease in ROA. Besides, Shen et al. (2020) show that the COVID 19 pandemic has a significant negative impact on listed Chinese companies' performance due to a decrease in the value of total revenue, which affects reducing ROA. The third hypothesis can be formulated as follows:

H3: The COVID-19 pandemic has a negative effect on profitability, measured using return on assets.

The current economic crisis during the COVID-19 will certainly impact decreasing people's income, especially for people who work in the tourism and transportation sectors. The decline in community income will decrease people's purchasing power because public financial governance will focus on meeting primary needs. This condition will certainly have a wider impact on the industrial sector, particularly a decrease in sales figures, in which there is no more potential target market. This condition also causes a higher level of credit risk faced by the industrial sector because buyers or service users or customers decline in their ability to pay debts to companies during the economic crisis (Fridson & Alvarez, 2011). The decline in sales, which is not accompanied by a decrease in average receivables, will certainly impact the decline in receivable turnover value. The high level of funds embedded in trade receivables will lead to a slow turnover of accounts receivable (Notta & Vlachvei, 2014). Therefore, the fourth hypothesis can be formulated as follows:

H4: The COVID-19 pandemic has a negative effect on the activity ratio, measured using receivables turnover.

3. RESEARCH METHOD

The research method used was the quantitative method. Based on the source, the data used in this research were secondary data, which were first processed and collected by other organizations or parties. This study's secondary data were financial reports for the second quarter of 2019 and the second quarter of 2020 of companies listed on the Indonesia Stock Exchange. The financial reports were obtained from the official IDX website by accessing the website https://www.idx.co.id/.

Population and Sample

The population of this study was companies listed on the IDX in 2019 and remained registered until the second quarter of 2020, when secondary data was collected. The population also included companies with financial report data for the second quarter of 2019 until the second quarter of 2020. Based on this provision, the total population was 463 public companies, which were divided proportionally into nine sectors or 49 sub-sectors. The nine sectors included: 1) agriculture, 2) mining, 3) basic industry and chemicals, 4) miscellaneous industry, 5) consumer goods industry, 6) property, real estate, and building construction, infrastructure, 7) utilities and transportation, 8) finance, and 9) trade, service,
and investment.

The number of samples was determined using a statistical approach, that is, by using the Slovin formula to avoid subjectivity in determining the number of samples. The error rate used was 5%, with a confidence level of the sample to the population of 95%.

\[ n = \frac{N}{1+Ne^2} \]

Note:
- \( n \): number of samples
- \( N \): total population
- \( e \): error tolerance

The number of samples used in this study, based on calculations using the Slovin formula, was 214 companies, proportionally divided into nine sectors or 49 sub-sectors.

**Research Variables**

The liquidity ratio is measured using the current ratio. It is the ratio to compare current assets to current debt. The current ratio is used to see the current assets' ability to meet its current liabilities (Sari, 2020). The current ratio formula is current assets/current liabilities (Fraser & Ormiston, 2016).

The leverage ratio is measured using the debt to equity ratio (DER). It is a ratio that shows how the company can fulfill all of its obligations with its capital. DER is used to see the company's ability to pay off debt, short-term debt, and long-term debt. The formula of DER is total debt/total equity (Fraser & Ormiston, 2016).

Profitability is measured using the return on assets (ROA). It is used to measure the company's effectiveness to generate profits by taking advantage of the company's effectiveness (Syafirah, 2019). ROA can reflect the level of company performance. The formula of ROA is after-tax profit total assets (Abbas, 2018).

Receivable Turnover is used to measure the activity ratio. It is a ratio to measure a company's ability to handle credit sales and its policies. The formula of receivable turnover is sales/average receivables (Abbas, 2018).

**4. DATA ANALYSIS AND DISCUSSION**

**Descriptive Analysis**

This research data analysis included descriptive statistics and analysis of different tests on public companies' performance in Indonesia between before and during the economic crisis due to the COVID-19 pandemic. First, a data normality test was conducted to determine which statistical tests would be used in the difference test. The data normality test is an absolute requirement in the parametric statistical test. If the data is not normally distributed, another test can be done to use non-parametric statistics, such as the Wilcoxon signed-rank test. The data were analyzed using SPSS version 25.

The results of the descriptive analysis in Table 3 show that there was a decrease in the average current ratio in Indonesian companies during the COVID-19 pandemic compared to before the COVID-19 pandemic. The average value of the current ratio before the COVID 19 pandemic was 8.069, while the average value of the current ratio during the COVID-19 pandemic was 5.201. The decline in the current ratio from the COVID 19 pandemic to during the COVID-19 pandemic was 2.868. This decrease in average indicates that the COVID-19 pandemic has harmed its financial performance when viewed from changes in the value of the current ratio.

When viewed from other performance aspects, such as changes in ROA value, it was found that there was a decrease in the average ROA value, which means that the COVID-19 pandemic situation has harmed the company's financial performance when viewed from changes in the ROA value. The average value of ROA before the COVID-19 pandemic was 0.011, while the average ROA value during the COVID-19 pandemic was 0.004. The decline in the average value of ROA from before to during the COVID-19 pandemic was 0.007. Performance appraisal will be different when viewed from changes in the value of receivable turnover. The increase in the average value of receivable turnover shows that the COVID-19 pandemic situation has positively impacted the company's financial performance when viewed from changes in the value of receivable turnover. The average value of receivable turnover before the COVID 19 pandemic was 3.826, while the average value of receivable turnover during the COVID 19 pandemic was 5.870. The increase in the average value of receivable turnover before the COVID 19 pandemic was 2.044.
The results of the Shapiro-Wilk normality test, presented in Table 4, show that the research data were not normally distributed, so the data could not be tested using a parametric statistical test. Therefore, a non-parametric statistical test was done using the Wilcoxon signed-rank.

| Table 3. Descriptive analysis results |
|--------------------------------------|
| N | Min | Max | Mean | Std. Deviation |
|---|-----|-----|------|----------------|
| CR_before COVID-19 | 214 | 0.193 | 257.740 | 8.069 | 29.263 |
| CR_during COVID-19 | 214 | 0.113 | 120.045 | 5.201 | 16.188 |
| DER_before COVID-19 | 214 | 0.010 | 10.535 | 1.408 | 1.665 |
| DER_during COVID-19 | 214 | 0.005 | 16.395 | 1.482 | 2.169 |
| ROA_before COVID-19 | 214 | -0.037 | 0.097 | 0.011 | 0.021 |
| ROA_during COVID-19 | 214 | -0.534 | 2.269 | 0.004 | 0.347 |
| RTO_before COVID-19 | 214 | 0.001 | 44.292 | 3.826 | 7.215 |
| RTO_during COVID-19 | 214 | 0.001 | 42.822 | 5.870 | 8.219 |

Note: CR is current ratio, DER is debt to equity ratio, ROA is return on assets, and RTO is receivable turnover.

**Data Normality Test**

The results of the Shapiro-Wilk normality test, presented in Table 4, show that the research data were not normally distributed, as shown in Table 4. The normality test results show that the research data were not normally distributed, so the data could not be tested using a parametric statistical test. Therefore, a non-parametric statistical test was done using the Wilcoxon signed-rank.

| Table 4. Normality test results |
|---------------------------------|
| Kolmogorov-Smirnov* | Shapiro-Wilk |
| Statistic | Df | Sig. | Statistic | Df | Sig. |
| CR_before COVID-19 | 0.406 | 214 | 0.000 | 0.346 | 214 | 0.000 |
| CR_during COVID-19 | 0.378 | 214 | 0.000 | 0.248 | 214 | 0.000 |
| DER_before COVID-19 | 0.205 | 214 | 0.000 | 0.682 | 214 | 0.000 |
| DER_during COVID-19 | 0.248 | 214 | 0.000 | 0.569 | 214 | 0.000 |
| ROA_before COVID-19 | 0.390 | 214 | 0.000 | 0.716 | 214 | 0.000 |
| ROA_during COVID-19 | 0.121 | 214 | 0.000 | 0.794 | 214 | 0.000 |
| RTO_before COVID-19 | 0.325 | 214 | 0.000 | 0.502 | 214 | 0.000 |
| RTO_during COVID-19 | 0.411 | 214 | 0.000 | 0.553 | 214 | 0.000 |

**Wilcoxon Signed-Rank Test**

Table 4 shows that the values of the ties for the current ratio, DER, and ROA were 0, meaning that there were no same values for the current ratio, DER, and ROA between before and during the COVID-19 pandemic. At the same time, the receivable turnover has a ties value of 2, meaning that two companies had the same receivable turnover value between before and during the COVID-19 pandemic.

There are 113 companies that experienced a decrease in the current ratio and 101 companies that experienced an increase in their current ratio during the COVID-19 pandemic, as shown by the negative ranks at the N value of 113 and the positive ranks at the N value of 101. Table 5 also shows that 108 companies experienced a decrease in DER value and 106 companies experienced an increase in DER value during the COVID-19 pandemic as indicated by the negative ranks at the N value of 108 and positive ranks of 106. Based on ROA value, 114 companies experienced a decrease in ROA value and 100 companies experienced an increase in ROA value during the COVID-19 pandemic as indicated by the negative ranks value at the N value of 114 and positive ranks at the N value of 100. Based on the receivable turnover value, 72 companies experienced a decrease in the receivable turnover value and 140 companies experienced an increase in the receivable turnover value during the COVID-19 pandemic as indicated by the negative ranks at the N value of 72, and positive ranks at the N value of 140. The ties values of the current ratio, DER, and ROA are 0, which means that there are no the same values for the current ratio, DER, and ROA are 0, which means that there are no the same values for the current ratio, DER, and ROA are 0, which means that there are no the same values for the current ratio, DER, and ROA are 0, which means that there are no the same values for the current ratio, DER, and ROA are 0, which means that there are no the same values for the current ratio, DER, and ROA are 0, which means that there are no the same values for the current ratio, DER, and ROA are 0, which means that there are no the same values for the current ratio, DER, and ROA are 0, which means that there are no the same values for the current ratio, DER, and ROA are 0, which means that there are no the same values for the current ratio, DER, and ROA are 0.
Table 5. Wilcoxon Signed-Rank test results

|                      | N  | Mean Rank | Sum of Ranks |
|----------------------|----|-----------|--------------|
| CR_during COVID-19 - | 113| 60.29     | 6812.77      |
| CR_before COVID-19   |    |           |              |
| Negative Ranks       | 113|           |              |
| Positive Ranks       | 101| 56.11     | 5667.11      |
| Ties                 | 0  |           |              |
| Total                | 214|           |              |
| DER_during COVID-19 -| 108| 57.18     | 6175.44      |
| DER_before COVID-19  |    |           |              |
| Negative Ranks       | 108|           |              |
| Positive Ranks       | 106| 60.98     | 6463.88      |
| Ties                 | 0  |           |              |
| Total                | 214|           |              |
| ROA_during COVID-19 -| 114| 64.82     | 7389.48      |
| ROA_before COVID-19  |    |           |              |
| Negative Ranks       | 114|           |              |
| Positive Ranks       | 100| 42.69     | 4269.00      |
| Ties                 | 0  |           |              |
| Total                | 214|           |              |
| RTO_during COVID-19 -| 72 | 49.92     | 3594.24      |
| RTO_before COVID-19  |    |           |              |
| Negative Ranks       | 72 |           |              |
| Positive Ranks       | 140| 58.02     | 8112.80      |
| Ties                 | 2  |           |              |
| Total                | 214|           |              |

The results of the Wilcoxon signed-rank test in Table 6 show that there is a significant difference in the values of ROA and receivable turnover between before and during the COVID 19 pandemic, which can be seen from the Asymp. Sig. (2-tailed) values of 0.03 and 0.00 < 0.05. For the current ratio and DER, there is no significant difference between before and during the COVID 19 pandemic, which can be seen from the Asymp. Sig. (2-tailed) values of 0.19 and 0.72 > 0.05. It can be concluded that H1 and H2 are rejected, while H3 and H4 are accepted.

Table 6. Wilcoxon Signed-Rank test results

| CR_during COVID-19 | CR_before COVID-19 | DER_during COVID-19 | DER_before COVID-19 | ROA_during COVID-19 | ROA_before COVID-19 | RTO_during COVID-19 | RTO_before COVID-19 |
|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------|
| Z                  | -1.29b             | -0.35c              | -1.69b              | -5.81c              |
| Asymp. Sig. (2-tailed) | 0.19              | 0.72               | 0.03               | 0.00               |

The Impact of COVID-19 Pandemic on the Financial Performance of Industrial Sector

Based on the test results, changes in the average value of the current ratio, DER, ROA, and receivable turnover between before and during the COVID 19 pandemic in each industrial sector can be seen in Tables 7, 8, 9, 10, 11, 12, 13, 14 and 15.

Table 7. Changes in Average Value of Current Ratio, DER, ROA, and Receivable Turnover in the Agricultural Sector

|                          | Descriptive Statistics |
|--------------------------|------------------------|
|                          | N | Min | Max | Mean | Std. Deviation |
| CR_before COVID-19       | 7 | 0.642| 2.704| 1.440| 1.107          |
| CR_during COVID-19       | 7 | 0.490| 2.286| 1.212| 0.948          |
| DER_before COVID-19      | 7 | 1.077| 2.083| 1.695| 0.541          |
| DER_during COVID-19      | 7 | 0.855| 2.733| 1.887| 0.953          |
| ROA_before COVID-19      | 7 | -0.016| 0.020| 0.003| 0.018          |
| ROA_during COVID-19      | 7 |       |      |      |               |

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### Descriptive Statistics

|                | N | Min  | Max  | Mean  | Std. Deviation |
|----------------|---|------|------|-------|----------------|
| ROA during COVID 19 | 7 | -0.028 | 0.031 | 0.006 | 0.030          |
| RTO before COVID 19  | 7 | 3.373 | 12.400 | 6.562 | 5.063          |
| RTO during COVID 19  | 7 | 2.016 | 20.326 | 11.156 | 9.155          |

Table 7 shows that the seven agricultural sector companies experienced a decrease in the average value of the current ratio, from 1.440 to 1.212, while the average DER value increased from 1.695 to 1.887. The average value of ROA increased from 0.003 to 0.006, and the average value of receivable turnover also increased, from 6.562 to 11.156.

### Table 8. Changes in Average Value of Current Ratio, DER, ROA, and Receivable Turnover in the Mining Sector

|                | N | Min  | Max  | Mean  | Std. Deviation |
|----------------|---|------|------|-------|----------------|
| CR before COVID 19 | 11 | 0.202 | 9.535 | 1.972 | 2.973          |
| CR during COVID 19 | 11 | 0.248 | 9.028 | 2.268 | 2.647          |
| DER before COVID 19 | 11 | 0.070 | 6.094 | 1.020 | 2.841          |
| DER during COVID 19 | 11 | 0.130 | 9.679 | 2.805 | 4.243          |
| ROA before COVID 19 | 11 | -0.018 | 0.097 | 0.029 | 0.040          |
| ROA during COVID 19 | 11 | -0.220 | 0.112 | -0.008 | 0.090          |
| RTO before COVID 19 | 11 | 0.001 | 23.637 | 4.462 | 7.395          |
| RTO during COVID 19 | 11 | 0.001 | 38.954 | 7.097 | 12.243         |

Table 8 shows that the eleven mining sector companies experienced an increase in the current ratio’s average value, from 1.972 to 2.268. The average value of DER also increased from 1.020 to 2.805. The average value of ROA decreased from 0.029 to -0.008, while the average value of receivable turnover increased from 4.462 to 7.097.

### Table 9. Changes in Average Value of Current Ratio, DER, ROA, and Receivable Turnover in the Basic Industri & Chemicals Sector

|                | N | Min  | Max  | Mean  | Std. Deviation |
|----------------|---|------|------|-------|----------------|
| CR before COVID 19 | 24 | 0.858 | 4.329 | 1.798 | 1.082          |
| CR during COVID 19 | 24 | 0.415 | 15.365 | 2.404 | 3.171          |
| DER before COVID 19 | 24 | 0.166 | 10.535 | 2.163 | 3.100          |
| DER during COVID 19 | 24 | 0.005 | 10.059 | 0.511 | 4.006          |
| ROA before COVID 19 | 24 | -0.019 | 0.059 | 0.007 | 0.018          |
| ROA during COVID 19 | 24 | -0.534 | 0.070 | -0.029 | 0.148          |
| RTO before COVID 19 | 24 | 1.044 | 44.292 | 5.395 | 9.538          |
| RTO during COVID 19 | 24 | 1.767 | 27.409 | 6.678 | 6.253          |

Table 9 shows that the twenty-four Basic Industry and Chemicals sector companies experienced an increase in the current ratio's average value from 1.798 to 2.404. In contrast, the average value of DER decreased from 2.163 to 0.511. The average value of ROA also decreased from 0.007 to -0.029, while the average value of receivable turnover increased from 5.395 to 6.678.
Table 10. Changes in Average Value of Current Ratio, DER, ROA, and Receivable Turnover in the Miscellaneous Sector

|                  | N  | Min  | Max  | Mean  | Std. Deviation |
|------------------|----|------|------|-------|----------------|
| CR_before COVID 19 | 14 | 0.193| 9.682| 2.531 | 2.531          |
| CR_during COVID 19 | 14 | 0.121| 13.402| 3.218 | 3.516          |
| DER_before COVID 19 | 14 | 0.120| 2.732| 0.564 | 1.585          |
| DER_during COVID 19 | 14 | 0.782| 4.829| 1.205 | 1.924          |
| ROA_before COVID 19 | 14 | -0.034| 0.036| 0.011 | 0.017          |
| ROA_during COVID 19 | 14 | -0.158| 0.035| -0.019| 0.052          |
| RTO_before COVID 19 | 14 | 0.365| 9.132| 2.314 | 2.321          |
| RTO_during COVID 19 | 14 | 0.001| 6.902| 3.331 | 2.2811         |

Table 10 shows that fourteen companies in the Miscellaneous Industry used as samples experienced an increase in the current ratio’s average value from 2.531 to 3.218. The average value of DER also increased from 0.564 to 1.205. The average value of ROA decreased from 0.011 to -0.019, while the average value of receivable turnover increased from 2.314 to 3.331.

Table 11. Changes in Average Value of Current Ratio, DER, ROA, and Receivable Turnover in the Sector of Consumer Goods

|                  | N  | Min  | Max  | Mean  | Std. Deviation |
|------------------|----|------|------|-------|----------------|
| CR_before COVID 19 | 20 | 0.767| 6.765| 3.154 | 1.912          |
| CR_during COVID 19 | 20 | 0.799| 14.135| 4.504 | 4.152          |
| DER_before COVID 19 | 20 | 0.121| 3.299| 0.826 | 0.933          |
| DER_during COVID 19 | 20 | 0.119| 1.959| 0.622 | 0.568          |
| ROA_before COVID 19 | 20 | -0.013| 0.060| 0.018 | 0.024          |
| ROA_during COVID 19 | 20 | -0.025| 2.269| 0.211 | 0.624          |
| RTO_before COVID 19 | 20 | 0.334| 10.667| 2.882 | 3.569          |
| RTO_during COVID 19 | 20 | 0.698| 42.822| 8.309 | 12.100         |

Table 11 shows that twenty companies in the Consumer Goods Industry experienced an increase in the current ratio’s average value from 3.154 to 4.504. In contrast, the average value of DER decreased from 0.826 to 0.622. The average value of ROA increased from 0.018 to 0.211, and the average value of receivable turnover also increased from 2.882 to 8.309.

Table 12. Changes in Average Value of Current Ratio, DER, ROA, and Receivable Turnover in the Sectors of Property, Real Estate, and Building Construction

|                  | N  | Min  | Max  | Mean  | Std. Deviation |
|------------------|----|------|------|-------|----------------|
| CR_before COVID 19 | 24 | 1.147| 10.196| 3.717 | 3.441          |
| CR_during COVID 19 | 24 | 1.135| 3.809| 2.612 | 1.157          |
| DER_before COVID 19 | 24 | 0.084| 3.689| 1.352 | 1.315          |
| DER_during COVID 19 | 24 | 0.079| 5.700| 1.614 | 2.101          |
| ROA_before COVID 19 | 24 | -0.015| 0.043| 0.005 | 0.019          |
| ROA_during COVID 19 | 24 | -0.015| 0.014| -0.004| 0.012          |
| RTO_before COVID 19 | 24 | 0.688| 23.789| 6.093 | 8.803          |
| RTO_during COVID 19 | 24 | 0.421| 36.691| 9.278 | 13.890         |
Table 12 shows that the twenty-four companies in the Property, Real Estate, and Building Construction sector used as the samples experienced a decrease in the average value of the current ratio from 3.717 to 2.612. The average value of DER increased from 1.352 to 1.614. The average value of ROA decreased from 0.005 to -0.004, while the average value of receivable turnover increased from 6.093 to 9.278.

Table 13 shows that 24 companies in the Infrastructure, Utilities, and Transportation sector experienced an increase in the current ratio's average value from 0.874 to 0.942. The average value of DER increased from 0.003 to 1.152. The average value of ROA decreased from 0.010 to -0.027, and the average value of receivable turnover decreased from 7.235 to 6.188.

Table 14 shows that thirty-three companies in the Finance sector experienced a decrease in the current ratio's average value from 36.582 to 20.080. The average value of DER increased from 2.609 to 3.131. The average value of ROA decreased from 0.006 to -0.017. The average value of the receivable turnover increased from 0.514 to 1.793.

Table 15 shows changes in the average value of current ratio, DER, ROA, and receivable turnover in the sectors of Trade, Services, and Investment.
obtained through tax revenue from the real sectors will gradually weaken due to decreased income. The decline in people’s income due to the economic crisis during the COVID-19 pandemic will certainly decrease sales in the industrial sector will also decrease. The decline in sales value in the industrial sector will certainly decrease due to losses experienced by the company due to decreased sales. Minimal income from sales will result in a decrease in the company’s ability to cover all operational costs incurred to suffer losses. The result is in line with Bintang et al. (2019), showing that there were differences in financial performance, including the current ratio before and after the monetary crisis. However, this study shows that changes or differences in the average value of the current ratio are not significant. Regarding the DER value, Rofiqoh (2001) states that an increase in the DER value indicated the decline in public companies’ financial performance listed on the Jakarta Stock Exchange during the crisis compared to before the crisis. However, the results of this study show that there is no significant difference in DER value. The difference between the results of this research and those conducted by Bintang et al. (2019) and Rofiqoh (2001) can be caused by the influence of samples from all industrial sectors used in this study, while the research conducted by Bintang et al. (2019) was limited to the use of manufacturing sector as the sample and the research conducted by Rofiqoh (2001) is limited to the use of 4 types of industries only, such as food and beverage, automotive, property and real estate, textile. The use of all industrial sectors in this study can lead to a decrease in the level of significance of differences due to the presence of sectors that experience a decrease, which is offset by the presence of sectors that experience an increase in the current ratio or DER with varying degrees of change. This research was also carried out until the second quarter of 2020 financial reporting so that it has not been very long since experiencing a crisis due to the COVID-19 pandemic.

The economic crisis due to the COVID-19 pandemic has a significant impact on firms’ profitability (ROA) and activity ratio (receivable turnover).
When the company’s profit decreases as a result of decreased sales, it will certainly have an impact on the profitability. The decline in sales will have an impact on the decline in profits if the company is still unable to reduce the company's operating costs or other costs outside the operational costs which are also taken into account in the company's profit value. The results of this research are supported by Istiningrum (2005) stating that the returns on assets (ROA) of service companies before the monetary crisis and during the monetary crisis decreased significantly. Rofiqoh (2001) also states that there was a decline in the financial performance of public companies on the Jakarta Stock Exchange for all sectors during the crisis, especially at the level of ability to generate profits as indicated by a significant decrease in ROA. Regarding the firms’ activity ratio, as measured using receivable turnover, the results of this research show an increase in the average value of receivable turnover, which means that a significant decrease in average receivables accompanies a decrease in sales. A significant decrease in average receivables can be caused by intensive collection from companies for outstanding receivables as a form of early anticipation of an economic situation such as during the COVID-19 pandemic.

Based on the descriptive analysis results, it is found that there are various changes in the value of the liquidity, leverage, profitability, and activity ratios for each sector of the industry. The sector that experiences an increase in liquidity ratio, profitability ratio, and activity ratio, as well as decreased leverage, is the consumer goods sector. The consumer goods sector includes food and beverage, tobacco manufacture, pharmaceuticals, cosmetics, and houseware. The COVID-19 crisis will not reduce people's need for food, household needs, and health needs. This subsector will continue to survive and even experience a surge in financial performance amidst the economic crisis caused by the current COVID-19 pandemic. Meanwhile, sectors that experience a decline in liquidity and profitability include property, real estate and building construction, finance, trade, services, and investment. The results of this study support Hadiwardoyo (2020) stating that the business sectors that are greatly affected by the current COVID-19 pandemic are those that rely on crowds, such as tourism and tourism supporting businesses including mass transportation, hotels, tertiary product businesses whose sales are depending on public savings funds, property, and credit institutions. The energy sector is also under great pressure due to drastically shrinking business activities, except for PLN. Meanwhile, the health sector business can generate profits for certain products such as masks, hand sanitizers, disinfectants, soaps, and other similar products.

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

The conclusion that can be drawn from this research is that a) there was an increase in leverage ratio and activity ratio, but a decrease in liquidity ratio and profitability ratio in the public companies during the COVID-19 pandemic; b) there was no significant difference in the liquidity ratio and leverage ratio, but there was a significant difference in the profitability ratio and activity ratio in the public companies between before and during the COVID-19 pandemic; and c) the sector that experienced an increase in liquidity ratio, profitability ratio, and activity ratios is consumer goods sector, while the sectors that experienced a decrease in the liquidity ratio and profitability ratio are property, real estate and building construction, finance, trade, services, and investment sector.

This study's results can be used as a source of relevant information for investors or potential investors in making investment decisions during a crisis due to the current COVID-19 pandemic. This study's results can also be used as information for the government regarding the relevance of providing the right tax incentives for the affected sectors so that tax incentives can be given to the right sectors.

This research's limitation is that the research has not examined changes in each subsector's financial performance so that the research results are still general for each industrial sector. Besides, testing could only be carried out until the second quarter of 2020, when the COVID-19 pandemic began to enter Indonesia because the public companies' financial reports were only until the second quarter of 2020. Further research is expected to carry out more in-depth research related to the sub-sector with the highest potential for increased financial performance so that investor attention can be more specific. Further research is also expected to add an analysis period after the companies publish their third-quarter 2020 financial reports to test the consistency of this study's results.

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