



## **Analysis of Differences in Profit Before and During the Covid-19 Pandemic in Companies Listed on the Indonesia Stock Exchange**

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### ABSTRACT

In Indonesia itself, the pandemic has been felt since the implementation of large-scale social restrictions (lock down) since March 16 2020. The existence of this large-scale social restriction policy has had a profound impact on various sectors including the industrial sector. This research was conducted by comparing proximate profitability to earnings per share before and during the pandemic in companies that distributed dividends. Analysis was carried out using an independent sample t-test by testing the normality of the residual data first. Data during the pre-pandemic window period were 271 companies from 2017-2019 which is the three-year mean EPS and during the 2020 pandemic there were 263 companies. The results of the descriptive statistical test showed a minimum EPS of -395.50, a maximum of 4,578.13, a mean of 159.57 before the pandemic and during the pandemic a minimum of -1,043.45, a maximum of 3,974.73 and a mean of 83.98.

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## INTRODUCTION

The Covid-19 pandemic has been going on since the end of 2019 and its impact is starting to really be felt around the world. In the world economic sector, this pandemic has had an extraordinary impact on economic activity and financial markets around the world. The S&P 500 US stock market index plunged nearly 34 percent from February 20 to March 23, 2020 (Bloomberg,n.d.). The same is reported by the CROBEX Croatian index value (Zagreb Stock Exchange,n.d.). This decline follows the previous 11% decline of the China CSI 300 stock market index from January 23 to February 3, 2020 (China Securities Index, n.d.) (Slamet & Susilowati, 2021). Indonesia began to be affected by the Covid-19 pandemic starting in early 2020. To suppress the surge in the spread of Covid-19 the Indonesian Government began implementing restrictions on activities since March 16 2020 in all regions under various terms. There are at least six terms used, ranging from Large-Scale Social Restrictions (PSBB) to Restricting Community Activities (PPKM), Micro PPKM, Thickening of Micro PPKM, Emergency PPKM, and finally using the term PPKM Level (Rismawan, 2021)

As a result of the Covid-19 Pandemic, almost all sectors were affected and the industrial sector was no exception. Not a few companies, both large and micro, were affected, so they had to change their operational strategy, starting from reducing the workforce to stopping their business operations because they were no longer able to finance the company's operations. In this pandemic situation, according to the Ministry of Cooperatives and MSMEs, there were around 37,000 MSMEs who reported that they were very seriously affected by this pandemic, marked by around 56 percent reporting a decline in sales, 22 percent reporting problems with the financing aspect, 15 percent reporting problems with goods distribution. , and 4 percent reported difficulty obtaining raw materials (Thaha, 2020). The threat of Covid-19 was able to influence and reduce MSME yields by 0.583 (Fathoni, 2020). However, for companies that are able to adapt and innovate, they will be able to maintain and continue their business activities, not even a few companies that actually gained profits during this pandemic.

The tourism sector (Figure 1) is the industry most affected by the pandemic, followed by construction services, followed by transportation, mining and automotive, while the financial, MSME and agricultural sectors apart from being affected by the pandemic also have opportunities to develop. The logistics, telecommunications, electronics, food and beverage, pharmaceutical chemicals and medical devices, and textile service sectors are industries that have great opportunities to develop during the pandemic (Antaraneews.com, n.d.). One of the reasons for the company to continue operating is to generate profit, because the company's main goal is to do so (profit oriented). Profit is the added value that the company obtains from income after deducting operating expenses. With profit, the company can continue to grow and develop so as to ensure business continuity. Without profit, the company will find it difficult to finance its operational expenses.

Research on company profits is still very interesting to study considering that almost all investors hope that their investment in a company is able to provide returns in the form of dividends, while the dividend itself does not always reflect the company's performance. Dividends can be given to investors just to show that the company is still able to share its profits (signalling theory), but behind all that it is very possible that the company pays dividends not from the current year's profit but from the previous year's profit or even from a capital deposit (liquidation dividend). ) because the source of dividend payments is retained earnings, not current year's earnings.

This research needs to be conducted to test the signaling theory for companies that continue to pay dividends during the pandemic. The dividend distribution is carried out whether because the company has the ability to distribute dividends derived from profits earned or because it is to maintain the company's reputation in the eyes of investors so that even though the company does not generate profits, it still tries to pay dividends.

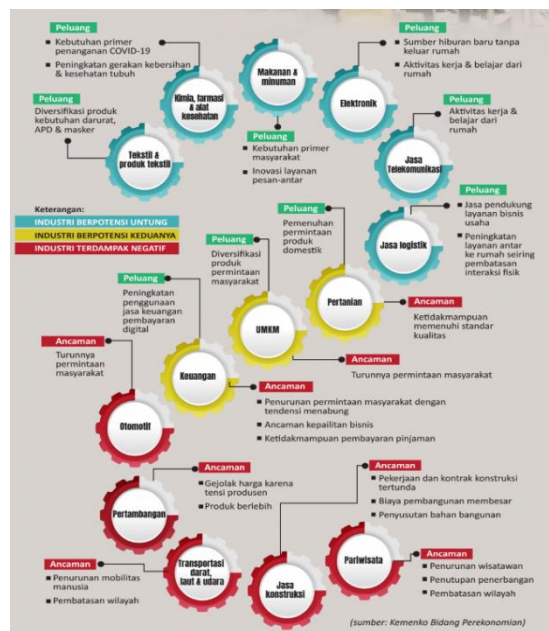


Figure 1. Industrial Potential in the Midst of a Pandemic

The purpose of this research is to:

1. conduct analysis and empirical testing regarding the amount of profit before the pandemic
2. conduct analysis and empirical testing regarding the amount of profit during the pandemic
3. Conduct analysis and empirical testing of profit differences before and during the pandemic

## THEORETICAL REVIEW

### *Pandemic and Impact on Companies*

Covid-19 which has become a pandemic on a global scale has limited human movement in all aspects. The existence of these restrictions causes a

decrease in the level of convenience of the population in accessing various needs, both primary, secondary and tertiary needs. This limitation has an impact on the law of demand and supply, namely a decrease in the number of requests for various products in society, the effect is a decrease in sales for producers or companies. The impact of a decrease in sales results in less revenue received by the company so that the company will try to reduce production costs through various efforts, including reducing the number of workers and working hours, reducing production capacity, and closing the company. The impact on society is the occurrence of unemployment and a significant decrease in income.

#### *Dividend Policy and Signaling Theory*

In addition to mastering an industry, generally the main goal of investors is to obtain returns from the funds invested, both in the form of dividends and capital gains. Before deciding to invest, an investor will carry out an analysis, especially fundamental analysis, namely the company's performance. If the company's performance is good, it will be attractive to the potential investor. The more attractive a company is to investors, the value of the company in the eyes of investors will increase, this can be reflected in the company's stock price which continues to increase. For companies, gaining investors' trust is something that is very valuable, through investors' trust, companies can obtain funding easily. In order to attract and gain the trust of investors, various efforts have been made by company management, including trying to issue reports in a timely manner and pay dividends regularly. According to Deegan (2004) in (Ekasari, 2014) states that accounting plays a very important part in society because many important decisions are made on the basis of information provided by accountants.

Dividend policy is an interesting thing for investors, some investors still hope that the amount of dividends will be distributed to shareholders because the existence of dividends besides being able to show the company's performance ability will also be able to increase the prosperity of shareholders even though dividends are not actually taken from current year's profits but from retained earnings which will result in reducing internal funding sources for the company. Brigham and Gapenski argue that each dividend policy will have two conflicting effects. If all profits are distributed to investors in the form of dividends, the interests for the development of the company will be neglected, conversely, if all profits are retained, the interests of investors will be neglected (Deitiana, 2009). Dividend policy is often seen as a signal for investors because the existence of dividends will show the good and bad performance of the company so that it can have an impact on the company's stock price (Mardiyati et al., 2020). There are at least two different views regarding the relevance of dividends to stock prices, namely: the first is the relevant dividend put forward by (Lintner, 1956) and the second is the irrelevant dividend put forward by (Miller & Modigliani, 1961).

The bird in the hand theory by (Lintner, 1956) states that dividends distributed are better than capital gains, because investors view one bird in hand as more valuable than a thousand birds in the air so companies should

offer higher dividend yields. The higher the dividend, the more attractive it will be to investors so that it will increase the value of the company in the eyes of investors and this will have an impact on rising stock prices. (Miller & Modigliani, 1961) states that there is no relevance between dividend policy and firm value. The value of the company depends on the investment policy on its assets, not on the amount of dividends that are distributed or profits that are not distributed so that there will never be an optimal dividend policy because shareholders can create their own dividends by selling their shares when the company distributes dividends not according to what investors want. Conversely, if the company distributes dividends beyond the wishes of investors, the excess will be reinvested to buy additional shares so that if investors can sell or buy shares to determine their own dividend policy without incurring taxes or other costs, then the dividend policy becomes irrelevant.

### *Corporate Profits*

Earning a profit is the goal of establishing a company. With profits, companies can maintain business continuity and even expand their business. In general, profit is used for two purposes: first is to be distributed to shareholders (stockholders) because with this dividend, shareholders can be satisfied in return for their investment returns. Without dividends, investors will not be interested in investing in the company and this can result in a low level of investor confidence, both existing and potential investors so that the company's stock price can fall. effect on stock prices, and the second is not distributed but stored in the form of retained earnings (retained earnings). It is this retained earnings that can be used in the future for company development even under certain conditions, namely when profits decrease or even losses. dividends to maintain the company's reputation in the eyes of investors.

According to Madhavan (2008) until now profit (profit) is still the main goal why a business is established. Basically, there are 3 (three) modern business goals, namely: (1) profit and growth; (2) creating a generation of workers and (3) customer satisfaction (Ekasari, 2014). During a pandemic, many companies experienced a decline in profits and even suffered losses. This condition is exacerbated by the company's inability to adapt and innovate to changes in external conditions, but not a few companies have actually grown during this pandemic. The tourism sector is the industry most affected by the pandemic, followed by construction services, followed by transportation, mining and automotive, while the financial, MSME and agriculture sectors apart from being affected by the pandemic also have opportunities to develop. The logistics, telecommunication, electronics, food and beverage, chemical, pharmaceutical and medical device, and textile services sectors are industries that have great opportunities to develop during the pandemic (Antaraneews.com, n.d.).

### *Previous Research Results*

Research on differences in company financial performance before and during the pandemic and the decline in performance during the pandemic has been carried out by, among others (Pura, 2021), (Hidayat, 2021), (Gunawan,

2021), (Wiarta et al., 2021), (Hamanay et al., 2021) and (Sullivan & Widodoatmodjo, 2021). Research (Pura, 2021) on the performance of PT Telkomsel Tbk shows that there is a significant difference between profitability before and during the pandemic. During the pandemic period, PT Telkomsel experienced a decrease in profitability as measured using the ROA proxy compared to the pre-pandemic period. This research is further supported by research conducted by (Hidayat, 2021).

(Hidayat, 2021) conducted research on differences in financial performance and company value before and during the Covid-19 pandemic in the telecommunications and textile company sector using proxies of earnings per share and price earning ratio (PER) with a sample of 22 companies. The test results show that there is a difference between financial performance before and during the pandemic, namely a decline in performance.

Research conducted by (Gunawan, 2021) aims to compare financial performance as measured by profitability, liquidity, solvency and activity ratios in 23 companies in the food and beverage sector. The results of the research also strengthen the research conducted by (Pura, 2021) and (Hidayat, 2021) which show differences in profitability indicated by a decrease in profitability and liquidity while the solvency and activity ratios do not show any differences.

Research (Wiarta et al., 2021) on Bank BRI shows that company profits fluctuate from year to year and have a tendency to increase every year, but during the pandemic Bank BRI recorded a decline in profits in 2020. (Hamanay et al., 2021) in his research showed that MSMEs were one of the sectors affected by Covid-19 with a decrease in income of 36.03%. To overcome this problem, several steps were taken by MSMEs, namely reducing employee salaries to reduce operating expenses to reduce the amount of production according to market absorption, not even a few MSMEs were unable to continue their business operations. Research (Sullivan & Widodoatmodjo, 2021) shows different results. This research concerns the differences in banking financial performance before and during the pandemic using CAMEL with the proxies of Capital Adequacy Ratio (CAR), Non-Performing Loans (NPL), Return on Equity (ROE), Operating Expenses to Operating Income (BOPO), and Loans to Deposits. Ratio (LDR) with a sample of 43 banks. The test was carried out using the t-test of two dependent samples. The results showed that there were differences in CAR, NPL, and BOPO between before and during the pandemic, while there were no differences in ROE and LDR.

#### *Hypothesis Development*

Based on the theoretical basis and the results of previous studies that have been stated previously, the hypotheses that can be developed in this study are: There is a difference in profit before and during the pandemic.

## METHODOLOGY

### *Population, Sample, and Sampling Technique*

The population of this study are all companies listed on the Indonesia Stock Exchange during 2017-2020 with samples taken by purposive sampling, namely samples that have the following criteria:

1. Listed on the Indonesia Stock Exchange in 2017-2020
2. Announce and pay dividends consistently during the observation period
3. Publish financial reports during the observation period

### *Method of collecting data*

The data collected is secondary data obtained from <https://www.idx.co.id> or from the Indonesian Stock Exchange Corner.

### *Research Design*

This quantitative research was conducted by comparing profits proxied by EPS three years before the pandemic (2017-2019) and during the pandemic (2020). Because there were three years of previous data, the mean was used for the pre-pandemic observation period. Testing was carried out using an independent sample t-test with the aim of knowing the differences before and during the pandemic. The advantages of using the t-test are in terms of practicality, namely 1) because the data tested consists of two groups, namely before and during the pandemic, the t-test is sufficient, 2) can be used on small samples (< 30 samples) and/or standards the population deviation is unknown. The different test flowchart can be seen in Figure 3 below:

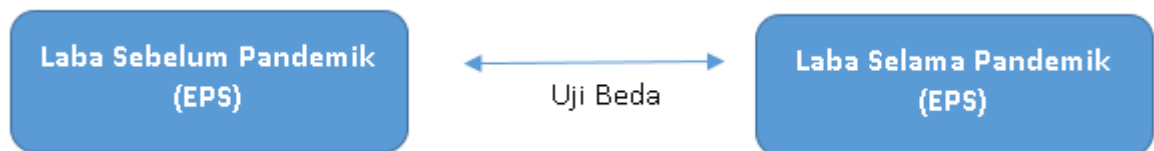


Figure 2. Difference Test

### *Research Procedure*

This research was conducted by carrying out the following procedures:

1. Look for companies that distribute dividends during the observation period (windows period)
2. Look for data on the amount of company EPS that distributes dividends during the window period, namely 2017-2020
3. Grouping data into two groups, namely data before the pandemic (2017-2019) and data during the pandemic (2020)
4. Calculate the mean EPS data before the pandemic because there are three years
5. Perform data analysis by testing the normality of the residual data first
6. Test the hypothesis using an independent sample t-test.

*Data Analysis*

Data analysis was carried out using a statistical test tool, namely the independent sample t-test after the previous normality test was carried out. This test is intended to prove the truth of the hypothesis whether it is accepted or not. The hypothesis is declared accepted or unacceptable if it meets the following criteria:

- The hypothesis is declared accepted if the significance level is  $< \alpha$
- The hypothesis is declared unacceptable if the significance level is  $< \alpha$

**RESULTS AND DISCUSSIONS**

This research is a quantitative study using secondary data obtained from the Indonesia Stock Exchange which meets the following criteria:

1. The company is listed on the Indonesia Stock Exchange during 2017-2020
2. Companies that distribute dividends during the observation year
3. The required data in the form of earnings per share (earnings per share) is available

Data was taken during 2017-2019 as data before the pandemic and in 2020 as data during the pandemic. During 2017-2019 data was obtained from 271 companies which was the mean for three years of observation, while in 2020 there were 263 companies that declared dividends.

*Descriptive Statistics Test*

Table 1. Descriptive Statistics

<b>EPS during Pandemic</b>	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Standard Deviation</b>
Before Pandemic	271	-395,50	4.578,13	159,57	383,11
During Pandemic	263	-1.043,45	3.974,73	83,98	328,10

Table 1 shows that the minimum earnings per share before the pandemic was IDR -395.5 per share, this shows that there were companies that experienced losses during the observation period before the pandemic was exacerbated by the pandemic so that the minimum value decreased to IDR 1,043.45 per share. The existence of a negative profit (loss) earned but the company is still able to distribute dividends indicates that the dividends distributed are not derived from current year's profit but from retained earnings. Based on these findings, it can be seen that the company views investors as parties who are still dividend-oriented so that in order to fulfill this desire, the company tries to distribute dividends to shareholders while at the same time wanting to show investors that it seems as if the company still has good capabilities and performance. this is in line with signalling theory.

Apart from companies that experienced losses, there were still many companies that experienced profits before the pandemic period as indicated by the maximum value of IDR 4,578.13 per share. During the pandemic, although

many companies were able to make profits by taking advantage of the existing moments, they had not been able to return to pre-pandemic conditions. This was indicated by the maximum profit per share value of IDR 3,974.73 which was still far from the maximum value before the pandemic.

#### *Normality Test*

Table 2. Normality Test  
Kolmogorov-Smirnov<sup>a</sup>

Statistics	df	Sig.
0,253	534	0,000

Before testing the hypothesis, the researcher tested the normality of the residual data from EPS for all years of observation. The normality test uses the Kolmogorov-Smirnof and gives a significance value of 0.00, this indicates that the data is not normally distributed meaning that the data comes from different populations so that further hypothesis testing is carried out using the Mann-Whitney non-parametric test.

#### *Hypothesis Testing*

Table 3. Hypothesis Testing Results

Mann-Whitney U	26172,000
Wilcoxon W	60888,000
Z	-5,309
Asymp. Sig. (2-tailed)	0,000

The results of hypothesis testing in Table 3 regarding the results of hypothesis testing using the Mann-Whitney test yield a significance value (2-tailed) of 0.00. The significance value is below  $\alpha = 0.05$  which indicates that the test results show a significant difference so that the hypothesis cannot be rejected. Based on these findings, it was concluded that there were differences in profits before and during the pandemic. The pandemic has had a major impact on company performance, this can be seen in Table 1, namely a decrease in profitability as measured by earnings per share (EPS) from 159.57 to 83.98. The difference in EPS before and during the pandemic was significant at a significance level of 0.00 (Table 2). The results of this study support research that has been conducted by (Hidayat, 2021), (Gunawan, 2021), (Wiarta et al., 2021), (Hamanay et al., 2021) which show a decrease in performance before and during a pandemic, but contradict with research conducted by (Sullivan & Widodoatmodjo, 2021) which showed no difference in performance before and during the pandemic when measured using ROE.

## **CONCLUSIONS AND RECOMMENDATIONS**

Based on the results of the analysis and discussion previously described, it can be concluded that:

1. Company profits before the pandemic period varied from negative profits to positive profits. The existence of negative profit indicates that the dividends distributed are not derived from current year's profit but from retained earnings.
2. The company's profit during the pandemic has decreased compared to before the pandemic.
3. There is a difference in profit between before and during the pandemic.

## **FURTHER STUDY**

This research needs to be conducted to test the signaling theory for companies that continue to pay dividends during the pandemic. The dividend distribution is carried out whether because the company has the ability to distribute dividends derived from profits earned or because it is to maintain the company's reputation in the eyes of investors so that even though the company does not generate profits, it still tries to pay dividends.

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