Comparative Analysis Of Stock Price Dan Volume Before And During Covid-19 Pandemic At PT. Kalbe Farma Tbk

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Abstract. This study aims to analyze the comparison of stock prices and volume at PT. Kalbe Farma Tbk before and during covid-19 pandemic. Type of this research used is descriptive quantitative analysis. Data analysis techniques using Paired Simple T-Test with SPSS 25. Based on the results of the Paired Sample T-Test on the stock price of PT. Kalbe Farma Tbk can be concluded that the significance value is 0.733 (p > 0.05). So Hi is rejected, Ho is accepted, which means there is no significant difference to the stock price of PT. Kalbe Farma Tbk, before and during the covid-19 pandemic. Based on the results of the Paired Sample T-Test on the stock volume of PT. Kalbe Farma Tbk can be concluded that the significance value is 0.043 (p < 0.05). So, Hi is accepted, Ho is rejected, which means that there is a significant difference in share volume.

Keywords: Stock Price, Stock Volume, Covid-19 Pandemic.

INTRODUCTION

Stocks represent one of the most prevalent investment instruments on the capital market, Stocks are a different type of investment instrument which investors want to use to achieve a return on their investments. Stocks are evidence of an individual's or institution's capital investment in traded company *go public*. Stocks are certificates of ownership in a firm or entity, in which a shareholder has a claim to the assets and income of the entity that issued the stocks (Rusdin, 2008:68).

The price of a stock in the capital market at a given time is known as the stock price, and it is influenced by supply and demand for stocks there (Jogiyanto, 2008:167). Investors pay close attention to the ups and downs of stock prices while making stock investments. Both economic and non-economic events have an impact on the up and down movement of stock values.

An *emergency* event is one of the non-economic circumstances that influence the rise and fall of stock values. Frequently, investors make decisions based on *emergency* situations, So , the occurrence of an emergency (*emergency*) becomes a factor in determining the ups and downs of stock prices.

Since the end of December 2019, the COVID-19 outbreak is one of the emergency situations that have happened. Covid-19 is an infection of the respiratory system caused by the SARS-CoV-2 virus (*Severe Acute Respiratory Syndrome Corona virus 2*). On March 11, 2020, the World Health Organization (WHO) designated the outbreak of coronavirus (COVID-19) a pandemic (kompas.com). Since the declaration of the COVID-19 epidemic in Indonesia on Monday, March 2, 2020, the weakened economic activity caused by the virus has resulted in numerous societal issues, including poverty, unemployment, dropping out of school, and various other problems. Given the scale and simultaneity of these issues, it is only reasonable that the government cannot handle everything by itself. The government enforces the "*New Normal*" policy with the formation of Minister of Health Decree number HK.01.07/MENKES/328/2020 regarding guidelines for the prevention and control of Covid-19 in office work places, given that the end of the pandemic cannot be predicted with certainty (Ministry of Health, 2020).

The coronavirus (COVID-19) pandemic in Indonesia has not only affected the health sector, but also many other areas, most notably the economy, which has been severely affected. The economic sector impacted by the corona virus (COVID-19) epidemic includes the capital market. Thus according data from the official website of the Indonesia Stock Exchange (IDX), the Composite Stock Price Index (JCI) reached 6,299 at the end of 2019, an increase of 1.9% from its value of 6,181 at the beginning of the year. However, after the confirmation of the first case of Covid-19 in Indonesia, the IHSG finished in the red, causing the Indonesian stock market to decline 1.67 % to 5,361.24 points. The decline occurred following the March 2020 news of the introduction of the corona virus into Indonesia in March 2020 of 3,937.63.

At the end of March 2020, a number of stock prices on the Indonesia Stock Exchange (IDX) reached their lowest levels because they continued to fall (Purnaningrum and Ariyanti, 2020). In the midst of the COVID-19 epidemic which occurred in Indonesia, there may be a number of subsectors of companies whose stock prices are able to survive and even grow. The demand and supply of a stock determine its price, with a reduction in demand for stocks resulting in a decline in stock values.

Pharmaceutical sector companies become issuers which are able to survive the decrease in the JCI caused by the Covid-19 pandemic-related economic crisis, This is because people require a large quantity of medical gadgets and vitamins, which might be supplied by pharmaceutical companies, Even while the prices of medical devices and vitamins continue to rise due to restricted raw resources, the community's need for medical devices and vitamins increases.

Many medicines, particularly those that boost immunity, will be bought by the public, but fewer people will buy cosmetic drugs, which will undoubtedly have an influence on the pharmaceutical industry's revenue and profit. PT. Kalbe Farma is one of the issuers that received a very high profit per share during the covid-19 pandemic. This is because PT. Kalbe

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Farma became a supplier of medical devices and drugs required by the community and government agencies, and in 2020 PT. Kalbe Farma will be able to distribute dividends twice despite the COVID-19 pandemic.

Stocks in the pharmaceutical industry are traded by investors with strong mathematical skills. Stock transactions can result in fluctuating stock prices and an increase in the volume of stock transactions. In addition to stock prices, a company's performance can also be measured by the number of its stocks that are traded. The volume of stock trading is the number of stocks exchanged during a given time period. The volume of stock transactions indicates investors' desire to acquire and sell stocks (Nurmasari, 2020). Trading volume is a type of capital market reaction to an event; when trading volume increases, it is owing to an increase in supply, which is created by good news; when volume of trading tends to increase due to an increase in sales, it is triggered by negative news (bad news).

The majority of market participants sold due to this decrease. This demonstrates the market fear caused by the *corona* virus. The Indonesia Stock Exchange (IDX) has adopted a policy to limit the *Lower Auto Rejection* (ARB) to 7%, which means the stock price can only decline by 7%. To determine whether the Covid-19 pandemic can effect price fluctuations on the capital markets, it can be observed on trading volume activity, also known as *trading volume activity* (tva). The exceptionally high volume of stock transactions on the exchange is considered as an indication of positive market conditions (Febriyanti, 2020).
Research conducted by (Nurmasari, 2020) analyzed the effect of covid-19 on stock price fluctuations and transaction volume. Before and after the announcement of the Covid-19 case in Indonesia, the results of this analysis reveal a significant variation in stock prices and transaction volume. The Covid-19 case has led to a reduction in share prices and an increase in transaction volume. Based on the aforementioned context, the author recommends a study titled "**Comparative Analysis Of Stock Price Dan Volume Before And During Covid-19 Pandemic At PT. Kalbe Farma Tbk**"

RESEARCH METHODS

The research method employed is descriptive quantitative. This study will employ comparative analysis to analyze stock prices and trading volumes throughout the pre- and post-covid-19 pandemic phases. The data sources utilized are secondary data, specifically stock price and stock volume data, and monthly closing price data for PT. Kalbe Farma Tbk for the period of 1 year prior to and 1 year during the pandemic. The analytical technique utilized is the SPSS 25 *Paired Simple T-Test. The criteria for the Paired Sample t-test* are the following:
1. The subject's data consists of interval or ratio information.

The distributions of both groups of paired data are normal. Therefore, prior to doing the *paired sample t-test,* the Normality Test is conducted. If there is a difference, is it important or insignificant? (Riduwan and Sunarto, 2013: 125).

RESULTS AND DISCUSSION

RESULTS

According to information gathered from the Indonesia Stock Exchange, the following is a summary of PT. Kalbe Farma Tbk's stocks.

Table 1

Summary of stocks prior to the covid-19 pandemic in Indonesia
March 2019-February 2020

Month	Price Stock closure	Lowest	Highest	Stock Volume
01 April 2019	1,545	1,470	1,545	293,758,700
01 May 2019	1,405	1,260	1,545	577,782,300
01 June 2019	1,460	1,400	1,495	276,130,800
01 July 2019	1,470	1,360	1,495	372,543,200
01 Agustus 2019	1,690	1,360	1,690	963,443,400
01 September 2019	1,675	1,635	1,690	553,771,100
01 October 2019	1,595	1,560	1,680	518,916,900
01 November 2019	1,525	1,475	1,640	477,448,800
01 December 2019	1,620	1,525	1,640	399,682,400
01 January 2020	1,430	1,430	1,680	359,837,100
01 February 2020	1,220	1,175	1,490	441,323,900
01 March 2020	1,200	830	1,340	1,182,501,600

Table 1 provides a review of stocks prior to covid-19 in Indonesia from March 2019 to February 2020. The day with the greatest closing share price was August 1, 2019, with 1690, and the day with the lowest closing price was March 1, 2020, with 1200. The volume was again the biggest on March 1, with 1,182,501,600 stocks traded. This occurred as a result of community concerns surrounding the introduction of the covid epidemic to Indonesia.

Table 2

Summary of the stock market following the revelation of the covid-19 pandemic in Indonesia

March 2020- February 2021

Month	Closing Price of Stocks	Lowest	Highest	Stock Volume

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01 April 2020	1,440	1,085	1,500	1,146,748,900
01 May 2020	1,415	1,310	1,460	707,736,900
01 June 2020	1,460	1,320	1,520	635,977,300
01 July 2020	1,565	1,450	1,695	2,083,450,100
01 Agustus 2020	1,580	1,470	1,640	790,818,700
01 September 2020	1,550	1,410	1,610	586,818,300
01 October 2020	1,525	1,515	1,650	498,413,600
01 November 2020	1,505	1,440	1,545	975,329,700
01 December 2020	1,480	1,455	1,590	999,311,700
01 January 2021	1,465	1,455	1,960	3,303,562,900
01 February 2021	1,470	1,420	1,610	1,040,953,200
01 March 2021	1,440	1,085	1,500	1,146,748,900

Data Source : www.idx.co.id (Data Processed) 2022

The summary of stocks during covid-19 in Indonesia from March 2020 to February 2021 is provided in table 2. The closing price of stocks falls between 1400 and 1500. Meanwhile, the greatest stock volume was registered in January 2021, precisely 3,303,562,900. And the lowest stock volume recorded was 498,413,600 in October 2021.

Stock Price Comparison Before and During the Covid-19 Pandemic

Table 3

Paired Samples Test			
Paired Differences			

		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair1	Before - During	-15,83333	156,78348	45,25949	-115,44881	83,78214	-,350	11	,733

Source : SPSS 25 (Data Processed) 2022

The Paired Simple Test table is the primary table of the output, displaying the results of all performed tests. This is evident from the table's two-tailed significance. This table's statistical significance is 0.733 (p < 0.05). So Hi is rejected and Ho is approved, indicating that there is no substantial change between PT. Kalbe Farma Tbk's stock price before and during the covid-19 epidemic.

Stock Price Comparison Before and During the Covid-19 Pandemic

Table 4

Paired Samples Test									
		Paired Differences							*Sig. (2-tailed)*
		Mean	*Std. Deviation*	*Std. Error Mean*	*95% Confidence Interval of the Difference*		*t*	*df*	
					Lower	*Upper*			
Pair1	Before - During	-603663483 ,33333	913359878,50048	2636642 85,85963	-11839846 63,75653	-233423 02,910130	-2,29 0	11	,043

Source: SPSS 25 (Data Processed) 2022

The Paired Simple Test table is the primary table of the output, displaying the outcomes of the conducted tests. This is indicated by the two-tailed significance in the table. This table's value of significance is 0.043 (p < 0.05). Therefore, Hi is approved and Ho is rejected, indicating that the amount of stocks at PT. Kalbe Farma Tbk before and during the covid-19 epidemic varies significantly.

DISCUSSION

Figure 4.4

Share Price and Stock Volume
Before and During the Pandemic March 2020-February 2021

Based on the findings of the research, it can be said that PT. Kalbe Farma Tbk. stock had an average price of 1486,2500 one year before to the pandemic. While the stock price was 1502,0833 for a full year during the pandemic. The correlation between the two periods before and during the epidemic was 0.532>0.05, which denotes a significant correlation. The findings of the paired sample test yield a value of 0.733 (p> 0.05). So Hi is rejected and Ho is allowed, indicating that the stock price of PT. Kalbe Farma Tbk before and after the covid-19 epidemic did not alter significantly. This signifies that PT. Kalbe Farma Tbk is not impacted by the COVID-19 epidemic. This occurred because PT. Kalbe Farma is a provider of medical equipment and medications that the public and government entities require.

This research contradicts that of Permata (2021), who found that there were notable variations in stock values for retail businesses and those in the hotel, restaurant, and tourism subsector in Indonesia one year before and one year after the COVID-19 epidemic.

The analysis of PT. Garuda Indonesia Persero (Tbk.) stock prices by Mangindaan in 2020 revealed a significant difference of Rp. 160.97, with the average share price of PT. Garuda Indonesia dropping from Rp. 369.20 before the announcement of the first case of covid to 208.33 after the announcement. The Persada study (2020) found that there was a considerable difference in the stock price of the LQ45 index, with an average price decrease of 22%, and came to the opposite conclusion about the COVID-19 pandemic's detrimental effects on corporate stock. Suryani (2021) also conducted research, comparing stock price indices before and after the declaration of covid-19 as a pandemic, using a sample of five stock exchanges in

five ASEAN nations. The results indicate that there are changes in the five factors between the closing stock price index before and after the identification of the COVID-19 pandemic.

Thus according research on the volume of stocks at PT. Kalbe Farma Tbk 1 year before to the epidemic, the mean (average) value is 534761683.3333 based on 12 data points.

The collected data sheet (standard deviation) has a value of 272687936.71048 and a standard error of 7871826,83228. It has a mean value (average) of 1138425166,6667 based on 12 observations during the pandemic. The collected data sheet has a standard deviation of 796002089,93590 and a standard error of 229786010,45000.

The results of the Paired Simple Test reveal the results of tests conducted on a comparison of stock volume one year prior to and one year during the epidemic. This is evident from the table's two-tailed significance. ($p < 0.05$) This table's significance value is 0.043. Therefore, Hi is approved and Ho is rejected, indicating that the volume of stocks at PT. Kalbe Farma Tbk before and during the covid-19 epidemic differed significantly.

The difference between PT. Kalbe Farma Tbk's average volume of stocks before and during the covid-19 epidemic, which was -603663483,33333. The magnitude of the negative number indicates that the average value was lower before the epidemic than it was during the outbreak. This research is consistent with Suidarma's study from 2021, which found a substantial difference in stock prices and trading volume before and after the revelation of the first case of COVID-19.

CONCLUSION

Based on the results of the conducted analysis and tests, then:

1. The significance level for the stock price of PT. Kalbe Farma Tbk is 0.73 (p> 0.05) based on the results of the Paired Samples T-Test. So Hi is rejected and Ho is allowed, indicating that the stock price of PT. Kalbe Farma Tbk before and after the covid-19 epidemic did not alter significantly.

2. The significance level for the stock volume of PT. Kalbe Farma Tbk is 0.043 (p < 0.05) based on the findings of the Paired Samples T-Test. So, Hi is approved whereas Ho is refused, indicating a substantial discrepancy in the volume of stocks. The covid-19 epidemic has an effect on the volume of PT. Kalbe Farma Tbk, it may be concluded.

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