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STOCK PRICE REACTION ANALYSIS BEFORE AND AFTER THE ANNOUNCEMENT OF THE FIRST COVID-19 PSBB IMPLEMENTATION ON THE LQ-45 INDEX LISTED ON THE INDONESIA STOCK EXCHANGE

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Abstract:
This study was conducted to determine the reaction of stock prices before and after implementing the PSBB for the first time. Stock price reactions were measured by abnormal returns and trading volume activity using the event study method with an adjusted market model approach. The population used in this arrangement is the number of companies listed on the LQ-45 index for the February-July 2020 period, as many as 45 companies. The sample used a saturated sampling technique for as many as 45 companies. This research data uses secondary data consisting of daily stock closing prices and daily stock trading volumes with an observation period of seven days before the event, one day when the PSBB was implemented, and seven days after the PSBB was implemented. The statistical tools used were the normality test and the one-sample t-test. The results of this study indicate that there is a significant average abnormal return. However, there is no difference in abnormal returns before and after implementing the first PSBB. Besides that, the results show a significant average trading volume activity. However, trading volume activity is the same before and after the first PSBB implementation.

Keywords: *Abnormal Return, Trading Volume Activity*, Indeks LQ-45, *Event Study.*

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INTRODUCTION

A capital market is an economic tool that plays the most critical role in the development and performs two functions in a country: economics and finance. In the capital market, there is an LQ-45 index, namely a stock price index consisting of 45 companies with high liquidity (Purba & Handayani, 2017). LQ-45 facilitates objective assessments of financial analysts and observers to monitor stock movements on the IDX (Mujib & Candraningrat, 2021). In this case, it is the announcement of the first implementation of the Covid-19 PSBB. On March 31, 2020, the President enacted the "PSBB (Large-Scale Social Restrictions) policy." The PSBB was implemented on April 10, 2020, in the Special Capital Region of Jakarta for the first time. However, PSBB is different from PPKM. PPKM (Enforcement of Community Activity Restrictions) is carried out to limit the interaction of a community group or person with people so that PPKM can reduce transmission due to Covid-19. This study uses the first PSBB implementation because the second day has a relatively gentle effect, so it is not too influential.

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Before the PSBB first started on April 10, 2020, which is April 6 to 9, 2020, the JCI managed to extend its strengthening rail for three consecutive weeks. On April 9, 2020, the JCI touched the level of 4,649.08, an increase of 0.55 percent from the closing level of trading the previous week and on April 3, 2020, the JCI was also able to reach the level of 4,623.43 with an increase of 1.71 percent (market.bisnis.com , April 13, 2020). Furthermore, after the enactment of the PSBB, which began on April 10, 2020, on April 17, 2020, the JCI was able to score an increase in stock prices after being sharply corrected with an increase of over 3 percent when the global stock market was strengthening. Furthermore, the JCI closed at 4,634, an increase of 3.44 percent from the previous closing (market.bisnis.com, April 17, 2020).

This study uses the LQ-45 index, which is part of the IDX and is expected to represent the market. The LQ-45 index also "can be used to indirectly observe the reaction of stock prices in the capital market to non-economic events." It is because non-economic events cannot be separated from activities in the capital market (Kusumayanti & Suarjaya, 2018). In this study, the researcher aims to determine the reaction of Indonesian capital market stock prices to implementing PSBB quantitatively using the event study method. Satryo & Wijayanto (2019) explained that this method was carried out by analyzing the stock price of the capital market. This method identifies how the stock price of the capital market reacts to an event (Tanjung, 2021). Researchers used a 15-day observation period, which consisted of seven days before the PSBB (t-7), the initial day of the PSBB implementation on April 10, 2020 (t0), and the days after the initial day of the PSBB implementation (t+7). This observation period can represent PSBB events in response to COVID-19. In this case, the observation period is also suitable for collecting information on stock price reactions in the Indonesian capital market.

In this study, the researcher used a one-sample t-test to see the difference in the mean of the two independent groups. In this study, the data obtained used an interval scale (Setyawarno, 2017). Researchers use abnormal returns as a determinant of changes in stock prices and trading volume activity. By using abnormal returns, researchers can see the reaction of stock prices. Abnormal return is the difference between the actual return and the expected return. An actual return is a return or return on investment that can be seen and calculated through historical data. The expected return is a return or return on investment by the estimated profit expected by investors (Alifah & Yunita, 2021). Researchers also observed "trading volume activity," or the volume of buying and selling shares outstanding at a particular time (Alifah & Yunita, 2021). Observation of the volume of buying and selling shares helps determine the liquidity of stock returns. An improved trading volume indicates a more liquid stock (Rori et al., 2021). If investors take it as a positive indication for information, the demand for shares will exceed the supply, so that trading volume increases, and vice versa (Halimatusyadiyah, 2020). The COVID-19 period, for example, when the first case of COVID-19, PSBB, and PT Biofarma's COVID-19 vaccine test, caused trading volume activity to change significantly. The findings were reported by Alifah & Yunita (2021) and Suwarto & Wulandar (2021). However, for Mardhiah & Yunita (2021), there is no difference in the average buying and selling share volume during these periods.

Research conducted by Alifah & Yunita (2021) as a reference in this study is an international article researched by Indonesians with the research title "Capital Market Reaction to the Announcement of the Covid-19 Vaccine Clinical Trial by PT. Bio Farma Indonesia: A Case Study of the Pharmaceutical Sub-Sector Listed on the IDX 2020." The study did not find any differences in abnormal returns of stocks in the pharmaceutical sub-sector both before and after the COVID-19 vaccine clinical trial by PT. Indonesian Biopharma. The results of the trade volume test of the

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research show the various trade volumes of the pharmaceutical sub-sector before and after clinical trials of the COVID-19 vaccine.

Based on these preliminary findings, the researcher compiled a problem formulation, problem boundaries, research objectives, and research benefits entitled "Analysis of Stock Price Reactions Before and After the Announcement of the First Covid-19 Psbb Implementation on the Lq-45 Index Listed on the Indonesia Stock Exchange".

METHODS

In this study, the population is LQ-45 index stocks, so the technique used is total sampling because the number of samples is the same as the total population. This study uses a quantitative method with an event study approach or event study. Furthermore, the data used is seven days before the PSBB implementation event due to Covid-19 (t-7), one event day and seven days after the PSBB implementation event due to Covid-19 (t+7) with the 10th as t0 on the IDX. Furthermore, using technical data analysis in the form of a Normality Test and One Sample T-Test.

RESULT AND DISCUSSION

Table 1. Normality Test for Abnormal Return

	Asyip. Sig	Information
before_7	.796	Normal
before_6	.929	Normal
before_5	.670	Normal
before_4	.130	Normal
before_3	.155	Normal
before_2	.250	Normal
before_1	.525	Normal
after_1	.892	Normal
after_2	.289	Normal
after_3	.662	Normal
after_4	.427	Normal
after_5	.295	Normal
after_6	.948	Normal
after_7	.597	Normal

Source: Data processed 2022

Table 2. Trading Volume Activity Normality Test

	Asyip. Sig	Information
before_7	.122	Normal
before_6	.218	Normal
before_5	.243	Normal
before_4	.605	Normal
before_3	.650	Normal
before_2	.950	Normal
before_1	.260	Normal
after_1	.270	Normal
after_2	.370	Normal
after_3	.510	Normal
after_4	.322	Normal
after_5	.115	Normal
after_6	.749	Normal

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after_7	.101	Normal

Source: Data processed 2022

Table 3. One Sample T-Test Abnormal Return

Period	tcount	Sig	Information
before 7	-1.766	.084	Not significant
before _6	2.043	.047	Significant
before _5	1.647	.107	Not significant
before _4	4.443	.000	Significant
before_3	1.825	.075	Not significant
before_2	-6.979	.000	Significant
before_1	.249	.805	Not significant
after_1	.110	.913	Not significant
after_2	3.592	.001	Significant
after_3	-1.259	.215	Not significant
after_4	-1.916	.062	Not significant
after_5	1.482	.146	Not significant
after_6	-3.681	.001	Significant
after_7	-3.811	.000	Significant

Source: Data processed 2022

Table 4. One Sample T-test Trading Volume Activity

Period	tcount	Sig	Information
before 7	-1.650	.106	Not significant
before _6	-.905	.370	Not significant
before _5	3.265	.002	Significant
before _4	4.530	.000	Significant
before_3	4.038	.000	Significant
before_2	-8.903	.000	Significant
before_1	.726	.471	Not significant
after_1	-6.938	.000	Significant
after_2	5.154	.000	Significant
after_3	2.737	.009	Significant
after_4	.655	.516	Not significant
after_5	1.372	.177	Not significant
after_6	-4.555	.000	Significant
after_7	.462	.647	Not significant

Source: Data processed 2022

Abnormal Return Test Results Before and After the First Enforcement of PSBB. The results of the observations consist of seven days before the implementation of the PSBB, the first day of the implementation of the PSBB, and seven days after the implementation of the first day of the PSBB. The researcher found that the mean abnormal return was significant at t-6, t-4, t-2, t+2, +6, and t+7. On those days investors seem to react to information. It causes a new price balance so that it is said that the market is reacting to an event, namely the first PSBB.

Seven days before the first day of PSBB, i.e., t-7 to t-1, the researchers found the average abnormal return was significant. Between the days of observation, there is an average of positive and high abnormal returns at t-6, t-4, and t-2. These values indicate a leak of PSBB information, causing the market to react.

Researchers also found a significant average abnormal return seven days after the first implementation of the PSBB, especially at t+2, t+6, and t+7. In those days of observation, the

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researcher found that investors did not react to any information. Therefore, the market reacted to the implementation of the PSBB for the first time.

The market reacted to the first PSBB implementation event, which proved that the first PSBB implementation had a signal or information content by signal theory, where the signal/information that emerged impacted investors in considering and influencing investors' decisions to invest in the capital market. With the market reaction around the first PSBB implementation period, it can be interpreted that the PSBB implementation was the first time to provide information. Hence, the market reacted to the first PSBB implementation event because the first PSBB implementation event prolonged toward a new equilibrium price. In the semi-strong form, stable abnormal returns (more than three-time points) show a slow market response in absorbing information, so they are considered inefficient. Alifah & Yunita (2021) also found no difference in abnormal returns in the pharmaceutical sub-sector in the days leading up to and after the COVID-19 vaccine clinical trial, PT. Indonesian Biopharma.

Test Results for Trading Volume Activity Differences Before and After the First Enforcement of PSBB. A trading Volume Activity test was conducted to see significant differences in trading volume activity before and after the first day of PSBB. The one-sample t-test did not show significant differences in trading volume activity during the three observation periods: seven days before PSBB, the first day of PSBB, and seven days after the first day of PSBB.

Researchers found four days in the first seven days before the first day of PSBB with significant trading volume activity. The days are t-5, t-4, t-3, and t-2. Then, seven days after the first day of PSBB, the researcher found significant trading volume activity at t+1, t+2, t+3, and t+6. From these data, the researcher did not find a significant difference in trading volume activity before and after the event. It also proves that the first day of PSBB impacts increasing stock trading volume. It is also influenced by investors' decisions to complete transactions by signal theory. Investors also observe and study these events. Information causes trading on the stock exchange to increase due to the increase in the number of shares followed by an increase in the number of investors who make transactions in shares.

Changes in stock prices trigger changes in trading volume activity. Changes in stock prices also indicate the reaction of stock prices to an event. Tanjung (2021) also did not find a significant effect on trading volume activity before and after the announcement of the first Covid-19 case in Indonesia.

CONCLUSION

There is no difference in abnormal returns in the observation period, namely t-7, t-6, t-5, t-4, t-3, t-2, t-1 before the first PSBB implementation, at t0 the first PSBB implementation, and t +1, t+2, t+3, t+4, t+5, t+6, t+7 after the first PSBB was implemented. However, there is a reaction or change to the abnormal return, namely at t-6, t-4, t-2, t+2, t+6, and t+7, which causes a reaction to stock prices. It is caused by the market reacting to the first PSBB implementation event, which proves that the first PSBB implementation has a signal or information content by signal theory where the signal/information that appears has an impact on investors in considering and influencing investors' investment decisions.

There is no significant difference between trading volume activity during the observation period, namely -7, t-6, t-5, t-4, t-3, t-2, t-1 before the first PSBB was implemented, at t0 the first PSBB was implemented, and t+1, t+2, t+3, t+4, t+5, t+6, t+7 after the first PSBB was implemented. However, there are changes to trading volume activity, namely at t-5, t-4, t-3, t-2, t+1, t+2, t+3, and

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t+6. It also proves that the first day of PSBB impacts increasing stock trading volume and influences investors' decisions to complete transactions.

Further researchers can increase the research period to not only by 15 days. And not only using the first PSBB enforcement event to test an event's information content and other events such as the second PSBB implementation event, PPKM implementation, and the first vaccine administration in Indonesia. As well as other events related to the company's external factors such as political events that occur in a country. In calculating abnormal returns, you can use other models besides the market-adjusted model, such as the market model and the mean-adjusted model, or you can use three models simultaneously to compare whether the results are consistent.

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