

Capital market reaction to the announcement of PSBB and PPKM policies on consumption industry companies listed on the IDX (Study on food and beverages sector companies)

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ABSTRACT

This article presents to find out the market's reaction to abnormal return and trading volume activity indicators to the PSBB and PPKM policies. The policy is still a hot topic of discussion among researchers, making many studies carried out since 2021. This study aims to find out and analyze the differences in Average Abnormal returns and trading volume activity on shares of consumption companies before and during the PSBB and PPKM policies. This study used a quantitative descriptive method using secondary data with a descriptive statistical test. It continued with a classical assumption test using the paired sample T-test method. Several conclusions can be drawn that there is no significant difference in abnormal returns before and during the PSBB policy and PPKM policy; there are significant differences in stock trading volumes before and during the PPKM policy. The limitation of this study is that this study uses short window periods that are unlikely to be able to capture events as a whole.

KEYWORDS

Abnormal Return; Trading
Volume Activity; Stock Market;
PSBB; PPKM

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Introduction

The Indonesian government has also begun efforts to prevent and stop the spread of the Covid-19 virus in various ways. The government began to stop school activities by shutting them down, then changing how education is online to reduce the spread. The government also regulates physical distancing, prohibits not being allowed to go out if you do not wear a mask to the community, PSBB (Large-Scale Social Restrictions), work from home (work from home), PPKM (Enforcement of Community Activity Restrictions), and so on.

PSBB was first implemented in Jakarta starting on April 10, 2020, and was carried out until January 25, 2021. PSBB itself has been regulated in Government Regulation Number 21 of 2020, which refers to Law Number 6 of 2018 concerning Health Quarantine

PPKM is contained in the Instruction of the Minister of Home Affairs Number 1 of 2021 to all regional heads in Java and Bali. PPKM targets limited restrictions on community activities based on cities and districts. The implementation of PPKM consists of several points, such as limiting offices by implementing work from home (WFH) by 75 percent and work from an office (WFO) by 25 percent. Then, carry out teaching and learning activities online. On-site dining or drinking restaurants are only allowed at 25 percent—restrictions on operating hours for shopping centers or malls until 19.00 WIB.

This pandemic has badly impacted the economic sector, especially the movement of the stock exchange in Indonesia. This pandemic also significantly impacted the capital market, as the Stock Price Index around the world decreased drastically. The JCI in Indonesia experienced a sharp decline and touched its lowest level of Rp.3,937 (Sugianto, 2020).

Fluctuations in stock prices can be influenced by several factors such as the large number of shares traded, information or news that occurs on the stock exchange, the condition or situation of the company and the country's economy, as well as current issues that occur in a country (Siswantoro, 2020).

According to Siswantoro (2020) Capital market efficiency can be distinguished into three parts: first, capital market efficiency in a weak form where the current price of securities reflects all past (historical) information. Secondly, the market efficiency form is half strong. That is, the current price of the security reflects all past (historical) information and information published at the moment. Third, the market is efficient from strong, i.e., the current price of securities reflects all past (historical) information, currently published information, and unpublished information. The results of research by Istifarida & Asakdiyah (2017) Based on the results of research on the efficiency of the conventional capital market in weak forms in stock stocks incorporated in the LQ45 index of the Indonesia Stock Exchange for the 2014-2015 period, it is concluded that the conventional capital market can be said to be efficient in weak form by using stock price information in the 2014-2015 period.

Literature review

The concept of market efficiency

According to (Tandelilin, 2001), an efficient market is one in which the price of all traded securities has reflected the available information. This concept implies the existence of a process of the price of security towards a new equilibrium price in response to new information entering the market. The information is not limited to finances but includes socioeconomic events, political information, and other information. According to Fama (1970), the forms of efficient markets can be grouped into three market hypotheses. The three forms referred to are:

1. Weak form of the efficient market hypothesis hypothesis hypothesis,
2. The market hypothesis of the efficient half-strong form (a semi-strong form of the efficient mockup of the hypothesis),
3. The hypothesis of the market efficient form is strong (strong form of the efficient mockup hypothesis).

Each form of efficient market describes how much the market absorbs the information.

Based on the results of research conducted by Utami (2018) in the journal Weak Form Market Efficiency in the Capital Markets of Indonesia, Malaysia, and South Korea during the 2008 Global Economic Crisis Period, it can be concluded that the Indonesian Capital Market has been efficient in a weak form.

Event study

According to Tandelilin (2017), an event study can be interpreted as a science that studies the influence of an event on market reactions which can be reflected through stock prices in the market at the time the event occurs and sometime after the event occurs. The indicators used in this study are Abnormal return (AR) and Trading volume activity (TVA) to see whether there is a capital market reaction.

Event studies can be grouped into several types, including (1) Conventional Event Studies, (2) Cluster Event Studies, (3) Unexpected Event Studies, and (4) Sequential Events Studies. Of the four types of event studies, this study is included in the type of unanticipated event study because previous cases of Covid-19 have never occurred and cannot be predicted, which are sudden and unexpected (Tandelilin, 2017). According to Jogiyanto (2010), the reason for conducting an event study is that the event study directly measures the influence of the event on the company's stock price at the time of the event. After all, the stock price was available at the time the event occurred.

Event window

Jogiyanto (2010) calls it a window because, like a house window, an event that is happening and the effects of an event can be observed through an existing window. The window period should be as short as possible. Several studies have shown that, depending on the event, a short window period can better capture the event's significant effects (Ryngaert & Netter, 1990).

For example, research by Dann et al. (1977) found that the market reacts within 15 minutes of a company-specific information announcement event. Research by Mitchell & Netter (1989) showed that the market reacted within 90 minutes of the news of the proposed new federal tax rules. These events indicate a short window period. The research of McWilliams & Siegel (1997) collected several studies of events in the field of management and found the length of the window varies, with the shortest window length being three days, that is, one day before the event, the day of its event, and the day after its event which is usually written as (-1, +1) and the longest is 181 days (-90, +90).

Abnormal return

Return is the result obtained from an investment. Shares are proof of ownership of the company's assets that issued the shares. Abnormal return is the result of the profit obtained by investors from a stock investment made. Abnormal returns can be in the form of realization returns that have already occurred or returns of expectations that have not yet occurred but are expected to occur in the future (Jogiyanto, 2010).

An abnormal return or profit rate is more accurately said to be the percentage change in stock price. Abnormal capital market returns can change (up or down) at any time. Abnormal returns versus positive with risk, meaning that the greater the risk borne by shareholders, the greater the profit will be, and vice versa (Brigham & Houston, 2019).

Stock price

According to Widoatmojo & Toruan (2004), the share price in BEI is determined according to the law of demand and supply or bargaining power. The more people who want to buy shares, the stock price tends to move up. On the contrary, the more people who want to sell shares, the stock price will tend to decline. According to Darmadji & Fakhrudin (2012), the stock price is the price that occurs on the exchange at a particular time. Stock prices can change up or down in a matter of speedy time, in minutes, and even change in a matter of seconds. This can happen because it depends on the demand and supply between the buyer of the stock and the seller of the stock. Volatile stock prices encourage investors to be more observant in making investment decisions. The company's share price is one indicator of achieving company success (Siswantoro, 2020).

Trading volume activity

According to Prijati (2019) stock trading volume is a comparison between the number of shares traded (transaction volume) and the number of shares outstanding. Trading volume is a form that can be used to assess the market's reaction to information other than the stock price. Stock trading can be measured by *Trading volume activity* (TVA). This change can be seen in the strength of demand and supply of shares made by investors in the capital market (Hanifah, 2020). The strength of demand and supply can be reflected in the total shares traded or the volume

of transactions that can be accessed daily through a particular website. The ups and downs of stock trading volumes can reflect the information absorbed by investors. The increasing TVA shows that investors can absorb information as good information (good news). On the contrary, if TVA decreases, then the information is considered by investors as insufficient information (bad news).

Hypothesis

Effect of policy efforts to stop the spread of covid-19 on the difference in average abnormal returns before and after the event

Jogiyanto (2010) expressed his opinion that the difference between actual and expected returns explains the abnormal return. Abnormal return is better known as abnormal return, which can be defined as a return obtained from abnormal conditions that cause changes in the value of the company and make investors react in the form of an increase in stock prices or vice versa. In addition to using abnormal returns, parameters to see the information content of an event can also use trading volume activity. This can be done by looking at the ratio of the number of shares traded at that time to the number of shares outstanding. Trading volume activity will respond to events containing information, indicating that the capital market will react to an event. Therefore, in this study, the following hypotheses were designed:

H₁: There is a significant difference in the average abnormal return before and after the implementation of the PSBB policy

H₂: There is a significant difference in average trading volume activity before and after the implementation of the PSBB policy

H₃: There is a significant difference in the average abnormal return before and after the implementation of the PPKM policy

H₄: There is a significant difference in average trading volume activity before and after the implementation of the PPKM policy

Methods

The data analysis method in this study was carried out quantitatively, followed by hypothesis testing, which will be measured using statistics through the Statistical Package For Social Science (SPSS) program version 25. The thing that needs to be done before the hypothesis test is to conduct a normality test using the K-S test (Kolmogorov-Smirnov). Furthermore, hypothesis testing is carried out using the Paired Sample T-Test if the data is usually distributed. Sujarweni (2016) explained that the paired t-test sample was used to determine whether there was an average difference between the two free samples. However, if the data is not normally distributed, an alternative to hypothesis testing can be done using the Wilcoxon Sign Rank Test. Unlike sign tests that only look for differences, Wilcoxon also calculates the value of the difference.

Participants

The population used in this study is several historical data on food and beverages sector companies listed on the Indonesia Stock Exchange (IDX) from 2020-2021.

Table 1. Purposive sampling criteria

No	Criteria	Total
1.	consumption industry companies in the food and beverages sector listed on the IDX within the research period (period 2020 - 2021).	34
2.	Consumption industry companies with stock prices and active activity volume trading data in the period April 10, 2020, to August 2, 2021	(15)
The number of companies that became the research sample		19
Total number of research samples		19

Instruments

This study has one dependent variable and two independent variables. These variables are listed in Table 2.

Table 2. The variable measurements

Variable	Proxies	Measurement
Y	Event Study	(1) is the announcement of the implementation of the PSBB policy in Indonesia starting April 10, 2020, based on Government Regulation Number 21 of 2020 concerning Large-Scale Social Restrictions in the Context of Accelerating Covid-19 Handling signed by President Joko Widodo, (2) Announcement of the implementation of the PPKM policy starting from January 26, 2021.

X1	Abnormal Return	$RRTNi,t = \frac{\sum RTN i_t}{TN}$
X2	Trading Volume Activity	$TVAit = \frac{Vi,t}{Vm,t}$

Data analysis

The data analysis method in this study was carried out quantitatively, followed by hypothesis testing, which will be measured using statistics through the Statistical Package For Social Science (SPSS) program version 25. The thing that needs to be done before the hypothesis test is to conduct a normality test using the K-S test (Kolmogorov-Smirnov). Furthermore, hypothesis testing is carried out using the Paired Sample T-Test if the data is usually distributed. Sujarweni (2016) explained that the paired t-test sample was used to determine whether there was an average difference between the two free samples. However, if the data is not normally distributed, an alternative to hypothesis testing can be done using the Wilcoxon Sign Rank Test. Unlike sign tests that only look for differences, Wilcoxon also calculates the value of the difference.

Results

Descriptive statistic

Table 3. Descriptive Statistical Abnormal Return and Stock Trading Volume Before and During PSBB Policy

Variable	N	Minimum	Maximum	Mean	Std. Deviation
AR Before PSBB	19	-0.10902	-0.00578	-0.0675539	0.02774300
AR During PSBB	19	-0.11658	0.01015	-0.0635083	0.02787279
TVA Before PSBB	19	0.00029	2.40150	0.2573342	0.58604828
TVA During PSBB	19	0.00013	3.02507	0.2891016	0.72924761

Table 4. Descriptive Statistical Abnormal Return and Stock Trading Volume Before and During PPKM Policy

Variable	N	Minimum	Maximum	Mean	Std. Deviation
AR Before PPKM	19	-0.16442	-0.00675	-0.0747416	0.03996407
AR During PPKM	19	-0.13354	0.00051	-0.0691458	0.03573247
TVA Before PPKM	19	0.00145	6.81782	1.0643119	2.14776159
TVA During PPKM	19	0.00091	6.15921	0.8127095	1.86121990

On average, in all companies, the period before and after the PSBB announcement showed a negative value by experiencing a decrease after the announcement of -0.0676; -0.0635, and a standard deviation more significant than the average with a positive value of 0.02774; 0.02787. While on average, in all companies, both the period before and after the announcement, PPKM showed a negative value by experiencing a decrease after the announcement of -0.0747; -0.0691, and a standard deviation more significant than the average with a positive value of 0.03996; 0.03573 This can identify that the announcement of PSBB and PPKM does not have information content that market participants can absorb, so there is no investor reaction after the announcement of PSBB and PPKM. Meanwhile, in the announcement, PPKM also has a value of 0.00145, while after PPKM with a value of 0.00091, the maximum value of stock trading volume before and after PPKM has decreased, namely 6.81782 and after PPKM of 6.15921. However, the average in all companies in both the period before and after the announcement of PPKM showed quite different values, namely 1.0643 and 0.8127. The standard deviation of the entire company has decreased, with a positive value level of 2.14776; 1.86122. When viewed from the average stock trading, this can show that the announcement of PSBB and PPKM can only slightly influence stock trading volume, even with a negative value level.

Normality test

Table 5. Normality Test of Abnormal Return PSBB Data

Variable	N	Mean	Std. Deviation	Absolute	Positive	Negative	Test Statistic	Asymp. Sig. (2-tailed)
AR Before PSBB	19	-0.0676	0.02774	0.156	0.156	-0.067	0.156	0.200 ^{c,d}
AR During PSBB	19	-0.0635	0.02787	0.170	0.170	-0.124	0.170	0.151 ^c

From Table 3, the magnitude of Kolmogorov-Smirnov (K-S) is the value of Asymp. The Sig (2-tailed) is 0.200 and 0.151, where this figure is greater than the significant value of 0.05. Based on the results of the data normality test, which shows that the abnormal data of the distributed return is expected.

Table 6. Normality Test of Abnormal Return PPKM data

Variable	N	Mean	Std. Deviation	Absolute	Positive	Negative	Test Statistic	Asymp. Sig. (2-tailed)
AR Before PPKM	19	-0.0747	0.03996	0.186	0.132	-0.186	0.186	0.083 ^c
AR During PPKM	19	-0.0691	0.03573	0.154	0.120	-0.154	0.154	0.200 ^{c,d}

From Table 4 of the magnitude of Kolmogorov-Smirnov (K-S), the value of Sig (2-tailed) is 0.083 and 0.200, which is greater than the significant value of 0.05. Based on the results of the data normality test, which shows that the abnormal data of the distributed return is expected.

Table 7. Normality Test of PSBB Trading Volume Activity data

Variable	N	Mean	Std. Deviation	Absolute	Positive	Negative	Test Statistic	Asymp. Sig. (2-tailed)
TVA Before PSBB	19	0.2573	0.58605	0.350	0.350	-0.330	0.350	0.000 ^c
TVA During PSBB	19	0.2891	0.72925	0.399	0.399	-0.346	0.399	0.000 ^c

Table 8. Normality Test of PPKM Trading Volume Activity data

Variable	N	Mean	Std. Deviation	Absolute	Positive	Negative	Test Statistic	Asymp. Sig. (2-tailed)
TVA Before PPKM	19	1.0643	2.14776	0.391	0.391	-0.330	-0.310	0.391
TVA During PPKM	19	0.8127	1.86122	0.396	0.396	-0.346	-0.331	0.396

Based on the results of normality testing, Table 5 and Table 6 on the Kolmogorov method show that all observation periods have almost the same significant levels of 0.000 and 0.000. This means the sig level is smaller than 0.05 or ($\alpha \leq 0.05$). When viewed from the absolute value between the period before and after the announcement of the PSBB, it has an increase of 0.350; 0.399. At the same time, the absolute value between the period before and after the PSBB announcement had an increase of 0.391; 0.396. So on, the Kolmogorov Smirnov (K-S) method shows that the data on the stock trading volume is not normally distributed.

Paired sample t-test

Table 9. PSBB Paired Sample T-test Results

Variable	N	Correlation	Sig.
Pair 1 AR Before PSBB & AR During PSBB	19	0.928	0.000

The test results in table 4.7 show that based on all data, 19 companies correlate with variables before and during PSBB of 0.928 with a p signification value of 0.000. Based on Table 7, it can be concluded that the average abnormal return per day before and after the PSBB announcement in companies listed on the Indonesia Stock Exchange did not experience a significant difference

Table 10. PPKM Paired Sample T-test Results

Variable	N	Correlation	Sig.
Pair 1 AR Before PPKM & AR During PPKM	19	0.907	0.000

The test results in table 8 show that based on all data, 19 companies correlate with the variables before and during PPKM of 0.907 with a p signification value of 0.000. Based on Table 8, it can be concluded that the abnormal average return per day before and after the announcement of PPKM in companies listed on the Indonesia Stock Exchange did not experience a significant difference

Test Wilcoxon Signed Ranks Test

Table 11. Wilcoxon Signed Ranks Test Results PSBB Test

Variable	Z	Asymp. Sig. (2-tailed)
TVA Before PSBB- TVA during PSBB	-0.402 ^b	0.687

Based on the results of the Wilcoxon Signed Rank Test calculation in Table 9, the Z value obtained is -0.402 with a p-value (Asymp. Sig 2 tailed) of 0.687 which is greater than the value of 0.05 (α) so that the stock trading volume before and after the PSBB announcement there is no significant difference between before and after the PSBB.

Table 12. Wilcoxon Signed Ranks Test Results PSBB Test

Variable	Z	Asymp. Sig. (2-tailed)
TVA Before PPKM- TVA during PPKM	-2.736 ^b	0.006

Based on the results of the Wilcoxon Signed Rank Test calculation in Table 10, the Z value obtained is -2.736 with a p-value (Asymp. Sig 2 tailed) of 0.006 which is less than the value of 0.05 (α) so that the stock trading volume before and after the PSBB announcement there is a significant difference between before and after the PSBB.

Discussion

Differences in abnormal returns before and after the PSBB policy announcement

Based on the table of t-test results of paired samples, it is known that there is no significant difference in abnormal returns before and after the announcement of the PSBB policy. From these results, it can be concluded that the announcement of a good PSBB in the previous period will not provide a better rate of return in the next period. This states that the market does not respond too much to the PSBB policy decisions around the research period, seven days before and seven days after the PSBB. This can also be because the policy that has been published says it is likely that the information was known before the announcement date, so there is no chance around that date. In addition, the knowledge of PSBB investors can also influence decision-making to respond well or poorly. The absence of an abnormal difference in returns at the time of the announcement is likely due to investors not wanting to be speculative in holding/obtaining shares; this is due to their ignorance of the company's motives/motivations in facing pandemic policies. It can also be that the results indicate that the information about the announcement of the PSBB policy spread in the market is evenly distributed (symmetrical information). This happens because of the exact predictions from investors about the motivation of companies facing a pandemic so that the distribution of information in the capital market is immediate. In the end, no investor has more information to get a return above normal.

Research conducted in Indonesia related to the difference in abnormal returns to the PSBB policy carried out by Aprilia (2020), Kusnandar & Bintari (2020), and Sahputra et al. (2022) concluded that there was a significant difference in abnormal returns. However, different results were shown by Kinasih et al. (2020), Novita & Suryani (2021.), and Annisaul & Anwar (2021) that abnormal returns did not have significant differences. Based on previous research, we know that abnormal returns have been studied with different results. Therefore, more research is needed to reconfirm the abnormal factor of return.

Differences in trading volume activity (TVA) before and after the PSBB policy announcement.

The results showed that the p-value (Asymp. Sig 2 tailed) of 0.687, which is greater than the value of 0.05 (α), so that the stock trading volume before and after the announcement of the PSBB policy there is no significant difference between before and after the PSBB. If the PSBB policy increases, the stock trading volume will have no effect. This shows that the announcement of the PSBB policy has no influence or difference in trading volume activity. The results of this test indicate the same thing as the previous abnormal return, where the possibility of information, especially for investors who are informed through the Indonesia Stock Exchange, is still unable to provide positive information for investors so that they consider the PSBB policy announcement as an expected announcement or do not provide economic value. The level of expectations of investors to obtain stock returns is the same. With the same level of expectation among these investors, the activity of trading volume has not changed, and the stocks traded are illiquid.

Research conducted in Indonesia related to the difference in trading volume activity to the PSBB policy carried out by Azmi & Barnas (2021), Setyawati et al. (2021), and Talumewo et al. (2021) concluded that there was a significant difference in trading volume activity. However, different results are shown by Aprilia (2020), Kinasih et al. (2020), and Sahputra et al. (2022) that trading volume activity does not have significant differences. Based on previous research, we know that trading volume activity has been studied with different results. Therefore, more research is needed to reconfirm the trading factor of volume activity.

Differences in abnormal returns before and after the PPKM policy announcement.

Based on the table of t-test results of paired samples, it is known that there is no significant difference in abnormal returns before and after the announcement of the PPKM policy. From these results, it can be concluded that the announcement of PPKM in the previous period will not provide a better rate of return in the next period. This states that the market does not respond too much to PPKM policy decisions around the research period, namely, 7 days before and 7 days after PPKM. This can also be because the policy that has been published says it is likely that the information was known before the announcement date, so there is no chance around that date. In addition, investors' knowledge of PPKM can also influence decision-making to respond well or poorly. The absence of an abnormal difference in returns at the time of the announcement is likely due to investors not wanting to be speculative in holding/obtaining shares; this is due to their ignorance of the company's motives/motivations in facing pandemic policies. It can also be that the results indicate that the information about the PPKM policy announcement that is

spread in the market is evenly distributed (symmetrical information). This happens because of the exact predictions from investors about the motivation of companies facing a pandemic so that the distribution of information in the capital market is immediate. In the end, no investor has more information to get a return above normal.

Research conducted in Indonesia related to the difference in abnormal returns to PPKM policies carried out by Azmi & Barnas (2021), Fadillah & Mansur (2020), and Rori et al. (2021) concluded that there was a significant difference in abnormal returns. However, different results were shown by Akhadiyah & Isbanah (2021), (Sambuuri et al. (2020), Larasati et al. (2021), and Wayan et al. (2020) that abnormal returns did not have significant differences. Based on previous research, we know that abnormal returns have been studied with different results. Therefore, more research is needed to reconfirm the abnormal factor of return.

Differences in trading volume activity (TVA) before and after the PPKM policy announcement.

The results showed the p-value (Asymp. Sig 2 tailed) of 0.006, which is less than the value of 0.05 (α), so the stock trading volume before and after the announcement of the PPKM policy there is a significant difference between before and during PPKM. If the PPKM policy increases, the stock trading volume will have an effect. This shows that the announcement of the PPKM policy has an influence or difference in trading volume activity. The results of this test indicate something different from the abnormal return and trading volume activity before,

which means that the market Reacts to the Announcement of the Implementation of PPKM Adjustments. Trading Volume Activity before the announcement is negative, followed by positive Trading Volume Activity after the announcement of the enactment of PPKM, which indicates that the event gives a positive signal to the market. This event has the information content that causes market participants to react to the event. This shows that in the event period, there is a content of information received by the market, which increases stock trading volume activity. It can be concluded that the announcement of the implementation of PPKM adjustments is good news, so it affects investors' interest in investing.

Research conducted in Indonesia related to the differences in trading volume activity to the PPKM policy carried out by Azmi & Barnas (2021), Setyawati et al. (2021), and Talumewo et al. (2021) concluded that there was a significant difference in trading volume activity. However, different results are shown by Akhadiyah & Isbanah (2021), (Sambuuri et al. (2020), Larasati et al. (2021), and Wayan et al. (2020) that trading volume activity does not have significant differences. Based on previous research, we know that trading volume activity has been studied with different results. Therefore, more research is needed to reconfirm the trading factor of volume activity.

Conclusion

This study aims to find out and analyze the differences in Average Abnormal returns and trading volume activity on stocks of consumption companies before and during the announcement of PSBB and PPKM policies. The study's findings are to draw conclusions based on previous research and answer the question of how relevant the research on the topic is today.

Several conclusions can be drawn based on the results of the tests and discussions that have been carried out. First, there is no significant difference in the abnormal return before and during the PSBB and PPKM policies. These results indicate that information about the announcement of the PSBB and PPKM policies spread across the market has been evenly distributed. Second, there is no significant difference in trading volume activity before and during the PSBB policy. Third, there are significant differences in stock trading volume before and during the PPKM policy. This indicates that the event gives a positive signal to the market and has the information content that causes market participants to react to the event.

The limitation of this study is that this study uses a short window period with a period of 15 days, which is unlikely to be able to capture the event as a whole. The indicators used are limited abnormal returns and transaction volume. For further research, it is recommended to conduct research with a more extended window period with the intention that the window period can capture its events as a whole. Further research is suggested to be able to conduct research by adding indicators to market reaction variables such as stock prices so that the results obtained are by expectations and adding to the company's object to be studied so that the research results can be appropriately applied.

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References

- Akhadiyah, L., & Isbanah, Y. (2021). Analisis Komparatif Abnormal Return dan Trading Volume Activity Emiten Sektor Mining Berdasarkan Pengumuman Kasus Pasien Covid-19 Pertama di Indonesia. *Jurnal Ilmu Manajemen*, 9(3), 979-989. <https://doi.org/10.26740/jim.v9n3.p979-989>

- Annisaul, M., & Anwar, M. (2021). Analisis Perbedaan Abnormal Return Sebelum Dan Sesudah Pengumuman Covid-19 Sebagai Pandemi Global Oleh Who (Studi pada Pasar Modal Negara-Negara ASEAN). *Jurnal Fair Value*, 4(1), 236-245.
- Aprilia, A. F. (2020). Pengaruh Covid-19 Terhadap Pasar Modal Indonesia dengan Menggunakan Abnormal Return, Trading Volume Activity dan market Capitalization. *Skripsi*.
- Azmi, N. N., & Barnas, B. (2021). Analisis Abnormal Return dan Trade Volume Activity Sebelum dan Sesudah Pengumuman Kebijakan Restrukturisasi Kredit Pandemi. 2(1), 154-164.
- Brigham, E. F., & Houston, J. F. (2019). *Dasar-Dasar Manajemen Keuangan* (14th ed.). Salemba Empat.
- Dann, L. Y., Mayers, D., & Raab Jr, R. J. (1977). Trading rules, giant blocks, and the speed of price adjustment. *Journal of Financial Economics*, 4(1), 3-22.
- Darmadji, T., & Fakhruddin. (2012). *Pasar Modal di Indonesia* (4th ed.). Salemba Empat.
- Fadillah, R., & Mansur, M. (2020). Perbandingan Abnormal Return Saham Sebelum Dan Sesudah Perubahan Waktu Perdagangan Selama Pandemi Covid-19. 139-145.
- Hanifah, N. (2020). Dampak Kasus Burning Sun Terhadap Harga Saham Perusahaan Entertainment Di Korea Selatan. *Fakultas Bisnis Dan Ekonomika Universitas Islam Indonesia*.
- Istifarida, A. L., & Asakdiyah, S. (2017). Analisis Efisiensi Pasar Modal Konvensional Bentuk Lemah Di Bursa Efek Indonesia Periode 2014-2015. *Jurnal Fokus Manajemen Bisnis*, 7(2), 101. <https://doi.org/10.12928/fokus.v7i2.1738>
- Jogiyanto, H. (2010). Teori portofolio dan analisis investasi. *Edisi Ketujuh. BPFE. Yogyakarta*.
- Kinasih, H. W., Laduny, M. F., Ekonomi, F., & Dian, U. (2020). Analisis Komparatif Abnormal Return , Cumulative Abnormal Return dan Trading Volume Activity : Event Study Kedatangan Vaksin Sinovac. *November*.
- Kusnandar, D. L., & Bintari, V. I. (2020). Perbandingan Abnormal Return Saham Sebelum dan Sesudah Perubahan Waktu Perdagangan Selama Pandemi Covid-19. 2(2), 195-202.
- Larasati, D., Heronimus, L., & Kelen, S. (2021). Apakah Pembatasan Sosial Berskala Besar (PSBB) Berdampak Terhadap Average Abnormal Return ? (Studi Pada Pasar Modal Indonesia). 12(1), 1-8.
- McWilliams, A., & Siegel, D. (1997). Event studies in management research: Theoretical and empirical issues. *Academy of Management Journal*, 40(3), 626-657.
- Mitchell, M. L., & Netter, J. M. (1989). Triggering the 1987 stock market crash: Antitakeover provisions in the proposed house ways and means tax bill? *Journal of Financial Economics*, 24(1), 37-68.
- Novita, & Suryani, A. W. (2021). Covid-19 dan Abnormal Return Saham Industri Farmasi. 7(2), 190-207.
- Prijati, N. L. R. (2019). Perbedaan Harga Saham Dan Volume Perdagangan Saham Sebelum Dan Sesudah Stock Split. In *Jurnal ilmu dan riset manajemen* (Vol. 8).
- Rori, A., Mangantar, M., & Maramis, J. B. (2021). Reaksi Pasar Modal Terhadap Pengumuman Pembatasan Sosial Berskala Besar (Psbh) Akibat Covid-19 Pada Industri Telekomunikasi Di Bei. 9(1), 851-858.
- Ryngaert, M., & Netter, J. (1990). Shareholder wealth effects of the 1986 Ohio antitakeover law: Its real effects. *JL Econ & Org.*, 6, 253.
- Sahputra, A., Dharma, F., & Amelia, Y. (2022). Analisis Perbandingan Abnormal Return Dan Trading Volume Activity Sebelum Dan Sesudah Diumumkannya Kasus Pertama Covid-19. 15(1), 29-40.
- Sambuari, I. B., Saerang, I. S., Maramis, J. B., & Ratulangi, U. S. (2020). Reaksi Pasar Modal Terhadap Peristiwa Virus Corona (Covid-19) Pada Perusahaan Makanan Dan Minuman Yang Terdaftar Di Bursa Efek Indonesia. 7(3), 407-415.
- Setyawati, R. L., Diana, N., & Mawardi, M. C. (2021). Dampak Pandemi Covid-19 Terhadap Average Abnormal Dan Volume Transaksi (Studi Perusahaan Lq45 Di Bursa Efek Indonesia). *Jurnal Riset AKuntansi*, 10(4), 93-100. www.idx.co.id
- Siswanto, S. (2020). Efek diumumkan kasus pertama Covid-19 terhadap harga saham dan total saham yang diperdagangkan. *Jurnal Akuntansi, Keuangan, Dan Manajemen*, 1(3 SE-Articles), 227-238. <https://doi.org/10.35912/jakman.v1i3.38>
- Sugianto, D. (2020). Perjalanan IHSG Sejak RI Positif Virus Corona. *Detik.Com*. <https://finance.detik.com>.
- Sujarweni, V. W. (2016). *Kupas tuntas penelitian akuntansi dengan SPSS*.
- Talumewo, C. Y., Rate, P. Van, & Untu, V. N. (2021). Reaksi Pasar Modal Indonesia Sebelum Dan Sesudah Pengumuman Pemberlakuan New Normal (Event Study Pada Perusahaan Bunn Yang Terdaftar Di Bursa Efek Indonesia) Indonesian Capital Market Reaction Before and After the Announcement of Implementation New Norm. *Jurnal EMBA*, 9(4), 1466-1475.
- Tandelilin, E. (2001). *Analisis investasi dan manajemen portofolio*. Yogyakarta: Bpfe.
- Tandelilin, E. (2017). *Pasar modal manajemen portofolio & investasi*. Yogyakarta: PT Kanisius.
- Utami, A. T. (2018). Efisiensi Pasar Bentuk Lemah Pada Pasar Modal Indonesia, Malaysia dan Korea Selatan Periode Krisis Ekonomi Global 2008. *Jurnal Inspirasi Bisnis Dan Manajemen*, 2(2), 101. <https://doi.org/10.33603/jibm.v2i2.1476>
- Wayan, N., Irmayani, D., & Denpasar, P. N. (2020). Dampak Pandemic Covid 19 Terhadap Reaksi Pasar Pada Sektor Consumer Goods Industry Di Bursa Efek Indonesia. 12, 1227-1240.
- Widoatmojo, S., & Toruan, R. L. (2004). *Cara cepat memulai investasi saham: panduan bagi pemula*. Elex Media Komputindo.