

Market Reactions to Emergency Community Activity Restrictions Policy

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ABSTRACT

This research uses the event study method to test the reaction of capital markets before and after the announcement of the Emergency Community Activity Restrictions (PPKM) policy. The observation period includes 7 days before and 7 days after the event. By using purposive sampling method, the research sample amounts to 29 stocks of the hotel, restaurant, and tourism companies listed on the Indonesia Stock Exchange. The hypothesis is tested with Paired Samples T-Test for those with normal distribution and Wilcoxon Signed Ranks Test for those with no normal distribution. The results showed that there was a difference in average trading volume activity. While average abnormal return and average security return variability did not have significant differences around the announcement. This research implies that stock investors need to consider information about government policies or other non-economic events to appropriately sort out relevant information to sell or maintain stocks under the risks and returns expected by investors.

Keywords : *abnormal return, trading volume activity, security return variability, the emergency ppkm policy, event study.*

ABSTRAK

Penelitian ini menggunakan metode studi peristiwa yang bertujuan untuk menguji reaksi pasar modal sebelum dan setelah pengumuman kebijakan Pemberlakuan Pembatasan Kegiatan Masyarakat (PPKM) Darurat. Periode pengamatan meliputi 7 hari sebelum dan 7 hari setelah peristiwa. Teknik pengambilan sampel menggunakan purposive sampling sehingga diperoleh sampel penelitian berjumlah 29 saham sub sektor hotel, restoran, dan pariwisata yang terdaftar di Bursa Efek Indonesia. Hipotesis diuji dengan Paired Sample T-Test untuk data berdistribusi normal dan Wilcoxon Signed Ranks Test untuk data berdistribusi tidak normal. Hasil uji hipotesis menunjukkan bahwa terdapat perbedaan average trading volume activity. Sedangkan average abnormal return dan average security return variability tidak mengalami perbedaan signifikan di sekitar pengumuman. Implikasi dari penelitian ini adalah investor saham dapat mempertimbangkan informasi terkait kebijakan pemerintah ataupun peristiwa non ekonomi lainnya sebelum berinvestasi saham agar secara tepat dapat memilah informasi yang relevan guna mengambil keputusan menjual atau mempertahankan saham sesuai dengan risiko dan return yang diharapkan investor.

Kata kunci : *abnormal return, trading volume activity, security return variability, ppkm darurat, studi peristiwa.*

INTRODUCTION

The Covid-19 pandemic has caused a state of emergency in Indonesia. Since the Covid-19 outbreak in Indonesia on March 2, 2020, the Indonesian government has issued various policies. However, confirmed cases of Covid-19 in Indonesia were increasingly uncontrolled where after the Eid holiday in 2021 there was a spike of 207,685 cases (covid19.go.id, 2021). This situation is

exacerbated by the spread of a new type of virus, SARS-CoV-2 (Delta). In response to this condition, Joko Widodo, President of the Republic of Indonesia, through a press conference at Istana Merdeka on July 1, 2021, announced the Implementation of the Emergency Community Activity Restrictions (PPKM) policy. Based on the instructions of the Minister of Home Affairs No. 15 of 2021, the Emergency PPKM policy will be implied from July 3-20, 2021 for Java and Bali regions. Meanwhile, outside the Java and Bali, it is implied in 15 regencies and cities.

On the other hand, the implementation of the Emergency PPKM policy also has the potential to hamper the pace of the economy due to various restrictive rules of the Emergency PPKM policy. Furthermore, this policy also causes negative effects that are felt by many sectors, especially in the hotel, restaurant, and tourism sectors. Tourism areas are 100 percent closed during the implementation of Emergency PPKM policy. As a result, the (Central Statistic Agency, 2021) states the number of tourists visiting as of July 2021 was only 127,249 or decreased 91 percent compared to July 2019, before the existence of Covid-19. The hospitality and restaurant business sectors were also hit due to the decline in tourist visits. The occupancy rates of the hospitality sector decreased by 10-15 percent. Furthermore, restaurant sector turnover has decreased by 70-90 percent because of the regulations stating that restaurants are not allowed to serve dine-in, and shopping centers are required to close temporarily.

This decline in performance will also have an impact to the company's activities on the Indonesia Stock Exchange (IDX). Especially the shares of the restaurant, hotel, and tourism sub-sectors as the performance of issuers decreases, the trading profits obtained will decrease (Lolu & Kelen, 2021). Investor often looks at the internal factors and external factors of the company before investing in an issuer so considering the negative impact experienced by the restaurant, hotel, and tourism sectors due to the Emergency PPKM policy will certainly be a consideration for investors in making decisions. In addition, during the Covid-19 pandemic, investors tend to withdraw their investments and consideration about the worst schemes in anticipation because there is a fear of investing (Kizys et al., 2021). This happened because the Covid-19 pandemic had an impact on the decline in people's economic conditions due to most companies being forced to close-down, the turnover of small entrepreneurs decreased, and mass layoffs (Siswantoro, 2020). Those are affecting the decrease in income or funds owned by the investors.

Therefore, it can be assumed that the presence of the Emergency PPKM policy is alleged to have affected investor sentiment, especially in the shares of the hotel, restaurant, and tourism sub-sectors. Liu, et al. (2020) states that investor sentiment affects the stock market significantly. When the market is trending up then investors behave optimistically. Conversely, when the market is in a downward trend, investor sentiment becomes relatively pessimistic. This situation often causes short-term overreactions carried out by the investors. Although the event of the Emergency PPKM policy announcement did not intervene on the stock exchange directly but every event which informed to the public in the form of announcements in various media can make the stock exchange more sensitive to the surrounding environment. However, this event is used by the investors as information to predict profits in the future with minimal risk. This is supported by signaling theory, the data released as an announcement will give investors signals that affect the investment decision-making process (Spence, 1973). Investors will react negatively if the Emergency PPKM policy announcement gives a negative signal (bad news). Conversely, investors react positively if the event

gives a positive signal (good news). Furthermore, based on efficient capital market theory that the investors react quickly to an announcement, thus the market can be categorized in the form of informationally semi-strong form (Fama, 1970). A market can be categorized as a semi-strong form when investors react to new information indicated by price changes or abnormal return.

The composite stock price index increased slightly by 0.01 percent on a weekly basis to IDR 6,023.01 and traded in the range of IDR 5,913.6-6,043.4. Meanwhile, the average value of daily trading transactions during the week was observed to decrease from IDR 11.46 trillion to IDR 10.17 trillion compared to the previous week. This condition better than the announcement large-scale social restrictions (PSBB) policy in July 2020, which fell 0.45 percent to trade in the range of IDR 4,623.89 with trade transactions of IDR 5.37 trillion (Yahoo Finance, 2021).

To prove that the announcement of the Emergency PPKM policy has more impact on the shares of the hotel, restaurant, and tourism sub-sectors, the event study method will be applied. The study of events is carried out by observing the impact of the announcement of information and its effect on activities in the capital market (Bodie et al., 2006). The reaction of stock prices will be reflected from the change in average abnormal return (AAR). The reaction of the stock buying and selling activity will be reflected from the change in average trading volume activity (ATVA). Furthermore, the changes in the variability of stock returns are reflected from the change in average security return variability (ASRV).

A previous study by Baker, Bloom, & Terry (2020) tested stock market behavior by comparing several variants of viruses that had previously occurred globally, there are Avian Influenza, SARS, Swine Flu (H1N1), Ebola, Mers, and Covid-19. It was concluded that there has never been a virus that causes a daily decline in stocks more than during the Covid-19 pandemic. Meanwhile, research conducted by Heyden et al. (2020) found that the US and European stock markets show different reactions to the announcement of the first case and the first death in a country. There was no significant abnormal return difference after the announcement of the first case of Covid-19, but there was a significant abnormal return differences after the announcement of the first death due to Covid-19. A similar study with different results was conducted by Sambuari, Saerang, & Maramis (2020) which examined the impact of the announcement of the first case of Covid-19 on food and beverage companies listed on the IDX. The result of the study found that there were no significant differences in abnormal return, trading frequency, and market capitalization.

Due to the research gap, there are inconsistencies in the results of previous research related to non-economic events and differences in the capital market. This suggests that the market does not always respond to an event. Therefore, researchers are interested to observe non-economic events and then observe their reactions to the capital market. This research will analyze the information content of non-economic event through market reactions by tested the strength of the Emergency PPKM policy announcement as well as its reaction to the capital market looking at changes in the average abnormal return, average trading volume activity, and average security return variability in the shares of the hotel, restaurant, and tourism sub-sectors listed on the Indonesia Stock Exchange.

LITERATURE REVIEW

Signaling Theory

Signaling theory was discovered by Spence (1973) and Ross (1977), this theory is useful for describing behavior when two parties (individuals or organizations) have access to different information that is beneficial to the investor. Jogiyanto (2017) explained that the information published as an announcement will give investors a signal in investment decision-making. When information is announced, market participants first interpret and analyze the information as good news or bad news.

Efficient Capital Market Theory

The concept of efficient markets was discovered and popularized by (Fama, 1970). The faster market conditions respond to new information, the more efficient the market will be. The efficient market is classified into a weak form, a semi-strong form, and a strong form. This research tries to test market efficiency in the form of a semi-strong or event study. A market can be categorized as a semi-strong form when investors react to new information indicated by price changes or abnormal return (Tandelilin, 2010).

Abnormal Return

Abnormal return (AR) is the difference between expected and realized returns in the form of profits or losses that should not occur (Eshghi, 2021). Abnormal return occurs because of the presence of new information or new events responded by investors in the form of increases or decreases in stock prices. The abnormal form of return is divided into two, namely positive and negative. The following formula can be used to measure abnormal return:

$$AR_{it} = R_{it} - E(R_{it})$$

Description:

AR_{it} = abnormal return of shares-i in t-period

R_{it} = actual return of shares-i in t-period

$E(R_{it})$ = expected return-i in t-period

Trading Volume Activity

Trading volume activity (TVA) is a comparison between the number of shares traded with the number of shares of a company outstanding in each period (Agustin, 2017). The number of shares traded and the stock price are interrelated because TVA is one of the factors driving the stock price (Ananda et al., 2020). The following formula is used to measure trading volume activity:

$$TVA_{i,t} = \frac{\sum \text{the number of shares traded in day-t}}{\sum \text{the number of shares of a company outstanding in day-t}}$$

Security Return Variability

Security return variability (SRV) is an indicator of the variability of a stock's rate of return used to observe whether the market values information as something that can cause changes in return (A'la and Asandimitra, 2017). SRV measures the degree of uncertainty when the event occurs

relative to the period outside the event (Pope & Inyangete, 1992). The value of the SRV can be determined using the following formula :

$$SRV_{it} = \frac{(AR_{it})^2}{V(AR_i)}$$

Description:

SRV_{it} = security return variability of shares-i in t-period

AR_{it} = abnormal return of stock-i in t-period

$V(AR_i)$ = abnormal return variant in estimated period

RESEARCH METHOD

This research will use an event study approach and including quantitative research with secondary data in the form of prices and stock trading activities. These values are processed with statistical tools to analyze the difference in average abnormal return, average trading volume activity, and average security return variability in hotel, restaurant, and tourism sub-sector stocks before and after the announcement of the Emergency PPKM policy.

The event period throughout the 14 days of the exchange is chosen with the expectation that the market has fully reacted and avoided other events that appeared during the observation period. Because, according to McWilliams & Siegel (1997), if the distance of the event window is too long, it will reduce the strength of the statistical test and the difficulty of isolating the event window from the confounding effect. The event day in this study is July 1, 2021. The research period includes 7 days before (June 22, 2021) and 7 days after (July 12, 2021) the announcement of the Emergency PPKM policy.

In this study, the selected population is 35 hotel, restaurant, and tourism companies listed on the Indonesia Stock Exchange. The sample collection technique uses purposive sampling, with criteria: (1) remain included in the stock group of the hotel, restaurant, and tourism sub-sectors during the observation period; (2) do not implement corporate action; and (3) actively trade for at least 7 days during the event period. Thus, 29 samples were obtained that met the criteria.

Analytical techniques used are quantitative descriptive statistical tests, data normality tests, and hypothesis tests. The normality of the data will be tested with the Shapiro-Wilk test. Normally distributed data will be tested using the Paired Samples T-Test. While non-normal distribution data will be tested with the Paired Samples Wilcoxon Signed Rank Test. Data processing will be processed using Stata 16 program.

Hypothesis Development

The Effect of Emergency PPKM policy Announcement on Abnormal Return

Based on efficient capital market theory, the market can be categorized as a semi-strong efficient form when there is a reaction to stock prices or abnormal return. The information contained consists of past and current information that can affect price changes. Thus, abnormal return (AR) occur due to the new information or new events that potentially change the value of the company and are reflected through investor reactions to prices or abnormal return (Fama, 1970).

A previous study by Alam et al. (2020) examined the impact of the lockdown on the Indian stock market. The result showed that there was a significant abnormal return difference during the lockdown stage. A similar study by Liu et al. (2020) also found that the Covid-19 pandemic had a significant influence on abnormal return where Asian market stocks reacted faster to the Covid-19 outbreak than European stock markets.

This theory and previous research were also supported by Bringham & Houston (2010) who states that external factors can affect stock returns. Furthermore, Bamber (1986) states that (Bamber, 1986) abnormal return reflect investor confidence. Based on various theories and previous research, the hypothesis is formed :

- H1:** There is a significant difference between average abnormal return before and after the announcement of Emergency PPKM policy in the shares of the hotel, restaurant, and tourism sub-sectors

The Effect of Emergency PPKM policy Announcement on Trading Volume Activity

Based on signal theory, information published as an announcement will provide signals for investors (Jogiyanto, 2017). If investors are pessimistic about information (bad news), it will reduce the number of share purchases. On the other hand, if investors look optimistically at information (good news), it will increase the number of purchases (Spence, 1973). The reaction of stock buying and selling can be reflected in trading volume activity (TVA).

Research conducted by Siswantoro (2020) found that there was a significant difference in the TVA variables of hotel, restaurant, and tourism sub-sector stocks. Another study with a similar result was conducted by Ali et al. (2020) who tested the impact of the terrorist incidents on the Pakistan stock exchange. It was concluded that the event has affected investor sentiment and confidence because there was a significant trading volume activity difference before and after the event.

Bamber (1986) states that the volume of shares traded reflects the activity of investors upon receipt of new information. The implementation of the Emergency PPKM policy has caused major changes in mobility, so it is suspected the announcement of this policy can cause market reactions which are reflected in trade activities. Therefore, this study states the hypothesis:

- H2:** There is a significant difference between average trading volume activity before and after the announcement of Emergency PPKM policy in the shares of the hotel, restaurant, and tourism sub-sectors

The Effect of Emergency PPKM policy Announcement on Security Return Variability

In market efficiency theory, it is discussed regarding the relationship between the information obtained and the price of the security (Fama, 1970). Therefore, the investment decisions that the investor makes describe all the information. Testing of profit rates and share price responses can be reflected through the security return variability (SRV) differences (Husnan et al., 1996). Furthermore, there is a comparative analysis conducted by Saragih et al. (2019) states that there was a significant SRV difference before and after the 2004 presidential election in the first round.

The SRV variable can be applied to measure whether the capital market assesses the existence of an event as having information content by looking at whether the distribution of returns differences during the event. Thus the impact due to heterogeneous information can also be detected using the SRV variable (Wadhani & Wibawa, 2022). The implementation of the Emergency PPKM policy during increasing Covid-19 cases and the existence of a new variant is expected to cause a market reaction which is reflected in the distribution of stock returns. Therefore, the hypothesis in this study can be stated as follows :

- H3:** There is a significant difference between average security return variability before and after the announcement of Emergency PPKM policy in the shares of the hotel, restaurant, and tourism sub-sectors

Models of Framework

Based on the discussion above, the conceptual framework is presented in Figure 2.



Figure 1. Conceptual Framework

RESULTS AND DISCUSSION

Table 1. Quantitative Descriptive Statistical Test Results

Variable	N	Mean	Std. Deviation	Minimum	Maximum
AAR Before Event	29	-.00139	.01234	-.02689	.02381
AAR After Event	29	-.00232	.01583	-.03584	.06758
ATVA Before Event	29	.00447	.01317	8.01e-08	.06147
ATVA After Event	29	.00228	.00732	1.23e-08	.03582
ASRV Before Event	29	177,54865	315,42036	29,12709	1495.21635
ASRV After Event	29	249,65458	590,15369	44.09845	3080.99923

Source: Data processed with Stata 16 (2022)

Based on table 1, in the period before the event, the lowest AAR value is -0.02689 (PT Hotel Fitra International Tbk.) and the highest value is 0.02381 (PT Pembangunan Graha Lestari Indah Tbk.) The standard deviation value $>$ so that the distribution of data is uneven because the difference in data from one another is far from the mean. While in the period after the event, the lowest AAR is -0.03584 (PT Citra Putra Realty Tbk) and the highest is 0.06758 (PT Tourindo Guide Indonesia Tbk). Furthermore, the standard deviation value $>$ the mean so that the distribution of data is uneven.

ATVA before the announcement, the lowest value is 0.00000 (PT Jakarta Setiabudi Internasional Tbk). While the highest value is 0.06147 (PT Jaya Bersama Indo Tbk). The standard deviation value $>$ mean so that the distribution of data is uneven. The period after the event, the lowest ATVA value is 0.00000 (Jakarta International Hotel & Development Tbk). While the highest value is worth 0.03582 (PT Surya Permata Andalan Tbk). Furthermore, the standard deviation value $>$ the mean so that the distribution of data is also uneven.

Before the announcement, the lowest ASRV value is 29.12709 (PT Destinasi Tirta Nusantara Tbk) while the highest value was 1495.21634 (PT MNC Land Tbk). The standard deviation value $>$ mean so that the distribution of data is uneven. After the event, the lowest ASRV value is 44.09845 (PT Bukit Uluwatu Villa Tbk) while the highest value is 3080.99923 (PT Pembangunan Jaya Ancol Tbk). The standard deviation value $>$ mean so that the distribution of data is also uneven.

Table 2. Data Normality Test with Shapiro-Wilk After Outlier Data Removal

Variable	N	Prob > z	Information
AAR Before Event	26	0.07438	Normal
AAR After Event	26	0.43150	Normal
ATVA Before Event	24	0.00000	Not Normal
ATVA After Event	24	0.00003	Not Normal
ASRV Before Event	20	0.00437	Not Normal
ASRV After Event	20	0.00000	Not Normal

Source: Data processed with Stata 16 (2022)

The table 2 describes that the average abnormal return before and after the event has a p-value of $>$ 0.05, so the distribution data is normal. Meanwhile, the ATVA and ASRV data before and after the event have a p-value of $<$ 0.05 so the distribution data is not normal. Thus, the average abnormal return before and after the event will be tested with a Paired Sample T-test. While average trading volume activity and average security return variability before and after the event will be tested with Paired Samples Wilcoxon Signed Rank Test.

Table 3. Paired Samples T-test Results for Average Abnormal Return

Variable	N	t	Df	Pr(T > t)
AAR Before Event	26	0.5205	25	0.6073
AAR After Event	26			

Source: Data processed with Stata 16 (2022)

Based on table 3, the results of the average abnormal return differences test in table 3 show the degree of freedom value is 25 and a p-value of $0.6073 > 0.05$. Based on these results, H1 is rejected or there is no significant average abnormal return difference before and after the announcement of the Emergency PPKM policy on the shares of hotel, restaurant, and tourism sub-sectors.

Table 4. Wilcoxon Signed Rank Test Result for Average Trading Volume Activity

Variable	N	z	Prob > z
ATVA Before Event	29	3.146	0.0027
ATVA After Event	29		

Source: Data processed with Stata 16 (2022)

Show in table 4, the results of average trading volume activity difference test in table 4 show the obtained Z value is 3.146 and a p-value of $0.0027 < 0.05$. Based on these results, H2 is accepted or there is a significant average trading volume activity difference before and after the announcement of the Emergency PPKM policy on the shares of hotel, restaurant, and tourism sub-sectors.

Table 5. Wilcoxon Signed Rank Test Result paired samples for Average Security Return Variability

Variable	N	z	Prob > z
ASRV Before Event	29	-2.000	0.3580
ASRV After Event	29		

Source: Data processed with Stata 16 (2022)

Based on the data on table 5, the results of average security return variability difference test in table 5 show the obtained Z value is -2.000 and a p-value of $0.3580 > 0.05$. So that H3 is rejected or there is no significant average security return variability difference before and after the announcement of the Emergency PPKM policy on the shares of hotel, restaurant, and tourism sub-sector.

Discussions

Based on the calculation results obtained that the AAR value decreased from -0.00139 to -0.00232 or down 68 percent. However, after another test obtained a p-value of $0.6073 > 0.05$ so H1 is rejected. There is no significant AAR difference before and after the announcement of the Emergency PPKM policy. According to Mailangkay et al. (2021), the absence of changes in AAR before and after events indicates that the entire market responds to events as a matter of course because it is recognized as the usual event. Before the Emergency PPKM policy, there have been several policies issued by the government to overcome Covid-19 cases such as large-scale social restrictions (PSBB) policies, New Normal policies, and Micro PPKM. Thus, the Emergency PPKM policy becomes another policy implemented to overcome the spread of Covid-19 in Indonesia. In market efficiency theory, it is said that the market is categorized as a semi-strong efficiency market

if the price of the security reflects all published information where it can be measured by changes in abnormal return or stock price. Therefore, the proof of the efficient form of the half-strong market informationally by Fama (1970) was not supported in the event of the announcement of the Emergency PPKM policy. This result is in line with the research by Mailangkay et al. (2021) which stated that the implementation of the large-scale social restrictions (PSBB) policy did not cause a reaction to the abnormal return of the hospitality sub-sector stocks because the Covid-19 outbreak event occurred first and the PSBB policy is one of the impacts of the event so investors have anticipated the existing events. Similarly, the research conducted by Muthaharia & Yunita (2021) found that there was no significant abnormal return difference on LQ45 index stocks before and after the announcement of the new normal by President Joko Widodo.

Furthermore, the ATVA value after the event increased from 0.00447 to 0.00228 or down 49 percent. After another test, a p-value of $0.0017 < 0.05$ is obtained. This means that there is a significant ATVA difference before and after the announcement of the Emergency PPKM policy so that H2 is accepted. The decline that occurred in the ATVA indicates that the market reacted negatively where investors became more cautious when deciding to buy and sell in the capital market (Diantriasih et al., 2018). Various rules of the Emergency PPKM policy require the public to limit all their activities including visiting tourist attractions. Based on the Central Statistics Agency (2021), it was recorded that the number of tourists visit as of July 2021 was only 127,249 or a drop of 91 percent compared to the period of July 2019, before the existence of Covid-19. As a result, the hospitality and restaurant business sector were also hit so that the company's revenue also decreased. The significant decline that occurred in this ATVA is in line with the signal theory where investors catch negative signals (bad news) on the announcement of Emergency PPKM policy. Bad news has potential to give detrimental effect to investors, in this condition a sell-off can be the option chosen by investors. This result is in line with research conducted by Diantriasih, et al. (2018) which found that there were significant differences in ATVA before and after the 2018 DKI Jakarta regional head election. However, there were no significant differences in AAR and ASRV. Similarly, the research by Siswanto (2020) found that there was significant ATVA difference in the stocks of the hotel, restaurant, and tourism sub-sectors before and after the announcement of the first Covid-19 case in Indonesia. This happened because the Covid-19 pandemic has made investors more selective in investing their shares.

Furthermore, the value of ASRV increased from 177.54865 to 249.65458 or up 40 percent. However, after another test, it is obtained a p-value of $0.3251 > 0.05$. It shows that, ASRV before and after the announcement of the Emergency PPKM policy did not have a significant difference so H3 is rejected. According to Diantriasih, et al. (2018), the absence of differences in ASRV during the event period indicates that the event does not have strong enough information content as the overall market tends to respond to the event as a normal event. This kind of information can cause a common perception among the investors so that it does not get a response. This can happen because there have been several policies implemented to overcome the spread of Covid-19 in Indonesia. Thus, the form of a semi-strong efficient market is not supported by the event of the announcement of the Emergency PPKM policy. This result is in line with research conducted by Nugraha & Suroto (2019) which found that there was no significant ASRV difference in Jakarta Islamic Index stocks before and after the 2019 presidential election. This happened because investors took a wait-and-

see action. Similarly, the research by Diantriasih, et al. (2018) found that there was no significant ASRV difference in LQ45 index stock before and after the 2018 DKI Jakarta regional head election

CONCLUSION AND SUGGESTION

Based on the results of the research, this study concluded that there is a difference in average trading volume activity. While average abnormal return and average security return variability do not have significant differences before and after the event. The decrease in trading volume activity showed that the information contained in the Emergency PPKM policy announcement give a negative signal (bad news) so that investors were more careful in conducting transactions on the shares of the hotel, restaurant, and tourism sub-sectors.

This research implies that stock investors need to consider information about government policies or signals from other non-economic events to precisely sort out and analyze relevant information. Thus, investors can make decisions to sell or maintain shares under the risks and returns expected by investors.

There are several limitations in this study. First, this study used only 3 parameter variables. Second, the sample is limited to shares of the hotel, restaurant, and tourism sub-sectors. There are still few companies' that are also affected by the Emergency PPKM policy. Third, the event under study focuses only on one event. For further research, it is expected to consider different models in the study, add variables that may occur in the event study (e.g. market capitalization, trading frequency activity, stock prices, etc.), add other observation objects which also affected by the Emergency PPKM policy that make the result more generalizable, and develop similar research with different events.

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