

# The Impact of the Covid-19 Pandemic on the Market Reaction in the Telecommunications Sector on the Indonesia Stock Exchange

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## ABSTRACT

The purpose of study is to find out the impact of the COVID-19 pandemic as a national emergency on returns in the telecommunications sector stocks listed on the Indonesia Stock Exchange as seen from the difference in average abnormal returns of stocks before and after the Government determined the implementation of Emergency Community Activity Restrictions (PPKM) on 3-20 July 2021 on the islands of Java and Bali. The population in this study is the telecommunications industry sector companies on the Indonesia Stock Exchange. By using the census sampling method covers the entire population. The study focused on the window period, namely 10 days before and 10 days after the event date. Data were analyzed using paired sample t-test. From the research conducted, it is known that there is no difference before and after the COVID-19 emergency PPKM was applied to the Market Reaction in the Telecommunications Sector at the Jakarta Stock Exchange.

**Keywords:** Capital Market; Event Study; Abnormal Return; Pandemic COVID-19

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## 1. Introduction

The second wave of Covid-19 strikes Indonesia. The mention of the second wave cannot be separated from the continued increase in additional Corona cases to the increase in the distribution of red zones in the country. The COVID-19 Handling Task Force presented data as of 27 June 2021, which showed that there were 60 districts/cities included in the red zone category or high risk zone for COVID-19 infection. Even on Wednesday 30 June 2021, additional Corona cases broke a record at 21,807.

This increase in Corona cases occurred 1 week after the Eid holiday. This condition was exacerbated by the entry of a new variant of Corona into Indonesia. The increase, which started one week after the Lebaran holiday period, shows that the impact caused by the long holiday can actually occur very quickly. Initially the increase looks normal and not too significant. However, entering the 4th week post-holiday period, the gains increased sharply and lasted for three weeks until reaching the second peak in the last week. In addition, this can also be due to the emergence

of several new COVID-19 variants that have entered Indonesia, exacerbated by high mobility.

The policy of imposing restrictions on micro community activities (PPKM) which is no longer effective is also an early sign of the second wave of Corona happening in Indonesia. The government has implemented a stricter restriction, namely emergency PPKM throughout Java-Bali from 3 to 20 July 2021. The government is targeting a decrease in additional COVID-19 cases during the implementation of emergency PPKM.

The “New Normal” which includes social distancing and working from home, they all rely on the internet and their cell phones to work and study. Thus, the author assesses that telecommunication companies still have good prospects in the midst of the Covid-19 pandemic. According to the author, further analysis needs to be done whether the emergency PPKM policy announced by the government can be used as information for investors by analyzing how quickly the market will react to the announced policies so that economic stability can be directly seen from the state of the capital market reaction when the event was announced.

The purpose of the current study is to examine the impact of the COVID-19 pandemic as a national emergency on returns on shares of the telecommunications sector listed on the Indonesia Stock Exchange as seen from the difference in average abnormal returns of stocks before and after the Government stipulates the implementation of the Implementation of Community Activity Restrictions (PPKM). Emergency on 3-20 July 2021 in Java and Bali Pulau.

## **2. Literature Review**

### *2.1 Capital Market*

The definition of the capital market in accordance with Law Number 8 of 1995 concerning the Capital Market (UUPM) is an activity related to the Public Offering of Securities Trading, Public companies relating to the securities they issue, as well as institutions and professions related to securities. According to Tandelilin (2010), the capital market is a market that brings together investors who have excess funds with investors who need funds by transacting securities.

Events in a country can affect the capital market. The market can react when it hears information about the event. Information can be used by investors as a basis for making investment strategies and decisions so that they can obtain maximum profits.

### *2.2 Enforcement of Emergency Community Activity Restrictions (PPKM)*

The implementation of Emergency Community Activity Restrictions (PPKM) is a policy used by the government as a way to control the rate of transmission of COVID-19. Previously, the government also implemented PSBB and Micro PPKM policies. The Large-Scale Social Restriction Regulation (PSBB) came into effect on April 17, 2020, then the government imposed a new term to reduce the risk of a higher spread in a number of areas under the name PPKM. However, because it is considered ineffective, another new term has emerged, namely Micro PPKM which will take place from February 9 to 22, 2021. In early June 2021, the government again applies the term Emergency PPKM.

*2.3 Stock Returns.*

Return (return) of an investment is the result obtained from investment in the capital market. According to Jogiyanto (2003:109) Return is the result obtained from investment. Returns can be in the form of realized returns that have occurred or expected returns that have not occurred but are expected to occur in the future.

*2.4 Expected Return*

Future profits are compensation for the time and risk of the investment. In the context of investment, future profits reflect expectations that are not necessarily realized. Therefore, future profits are better known as expected returns (Tendelilin, 2010:101).

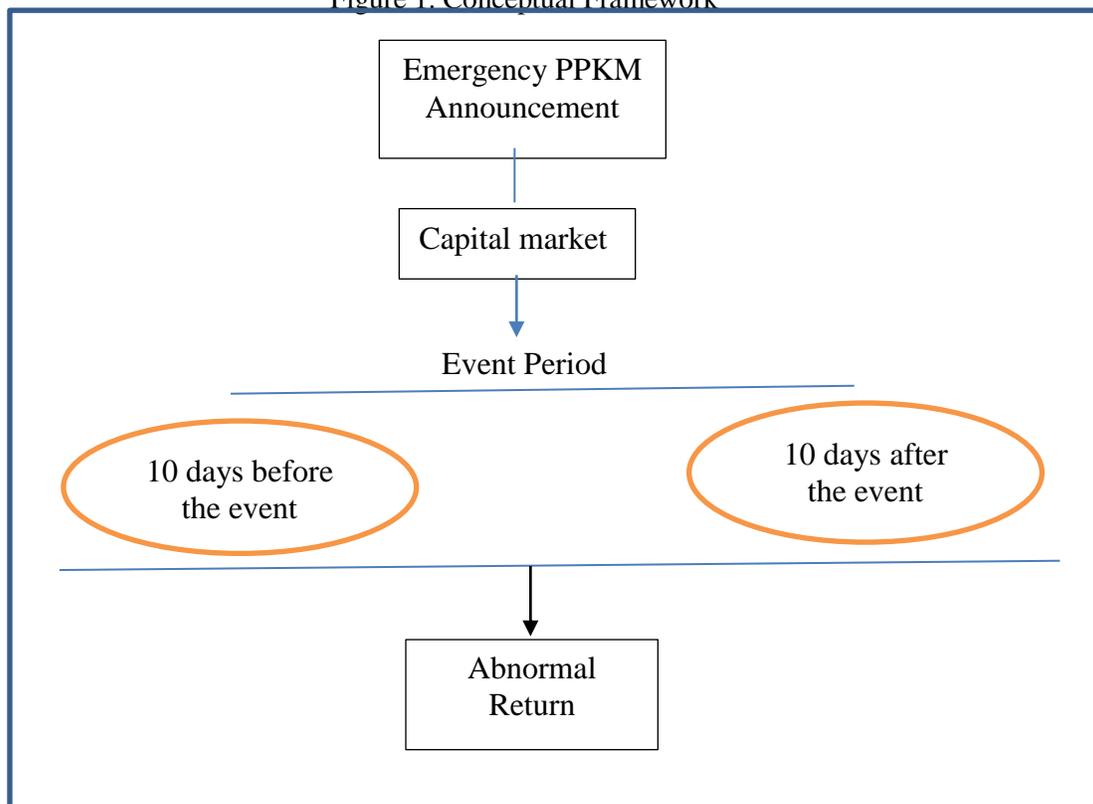
*2.5 Abnormal Return*

Abnormal return in Indonesian is an abnormal return. Abnormal return is the difference between the actual return and the expected return. According to Jogiyanto (2013: 609) abnormal return is the excess of the actual return to normal return which is the expected return by investors (expected return).

**3. Research Methodology**

*3.1 Conceptual Framework*

Figure 1. Conceptual Framework



Research Hypothesis:

H1: It is suspected that there is no difference in the average abnormal return of telecommunications sector companies on the Indonesia Stock Exchange after the announcement of the Covid-19 Emergency PPKM

H2: It is suspected that there is no difference in the average abnormal Trading Volume Activity in telecommunications sector companies on the Indonesia Stock Exchange after the announcement of the Covid-19 Emergency PPKM

This research is a type of event study research, namely research that observes the impact of information announcements on security prices. Event study research focuses on examining the market's reaction to a particular event or occurrence. Descriptive analysis was carried out based on secondary data obtained from the Indonesia Stock Exchange (IDX), whose data was accessed through the website [www.idx.co.id](http://www.idx.co.id) and [www.finance.yahoo.com](http://www.finance.yahoo.com).

This study takes a sample of 6 telecommunications companies listed on the Indonesia Stock Exchange which are considered to represent the condition of the Indonesian stock market during the COVID-19 pandemic. The event period is the period around the event that is used to test abnormal return changes.

The data collection method used in this study is the documentation method, reading various literatures, financial references and journals, news on the internet, and direct download of stock prices, volume and number of shares by visiting the Indonesia Stock Exchange market website.

### 3.2 Variable Operational Definition

3.2.1 Abnormal Return, or abnormal return is the excess of the real return over the normal return (expected return) or the positive or negative difference between the actual return and the expected return.

$$\text{Abnormal Return (AR)} = \text{Expected Return} - \text{Stock Return}$$

3.2.2. Calculating stock returns with the formula:  $R = \frac{P_t - (P_{t-1})}{(P_{t-1})}$

Information:

R = rate of return (return) shares

P<sub>t</sub> = stock price in period t

P<sub>t-1</sub> = stock price in period t-1 (previous)

3.2.3. Expected Return is calculated by the formula:  $ER = \frac{\sum y}{N}$

3.2.4. Trading Volume Activity is calculated by the formula:  $TVA = \frac{\text{number of shares traded}}{\text{number of shares outstanding}}$

3.2.5. Expected TVA is calculated by the formula:  $\text{Expected TVA} = \frac{\sum \text{TVA}}{N}$

3.2.6. Abnormal TVA is calculated by the formula:  $\text{Abnormal TVA} = \text{Expected TVA} - \text{Actual TVA}$

3.2.7. The Observation Period is the period of days before (-10) and days after (+10) the COVID-19 Emergency PPKM Event

### 3.3 Data Analysis Techniques

Paired sample t test or often referred to as Paired-sample t test is a method used to test the difference between two observations. This kind of test is carried out on subjects who are tested for situations before and after the process, or subjects in pairs.

### 3.4. Table

Table 1. Test Results Paired Samples t-Test  
Paired Samples Test

|         |                      | Paired Differences |                |                 |  | t      | df | Sig. (2-tailed) |
|---------|----------------------|--------------------|----------------|-----------------|--|--------|----|-----------------|
|         |                      | mean               | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference<br>Lower Upper |        |    |                 |
| Pairs 1 | Before - After       | 174.83333          | 454.52851      | 185.56049       | -302.16508 651.83175                                     | .942   | 5  | .389            |
| Pair 2  | TVA_bef -<br>TVA_Aft | -16685,0000        | 40869.73636    | 166850000       | -59575.15793 26205.15793                                 | -1,000 | 5  | .363            |

Source: data processed 2021

Table 2. Test results paired sample t test

|         |         | Paired Sample Statistics |   |                    |                   |
|---------|---------|--------------------------|---|--------------------|-------------------|
|         |         | mean                     | N | Std. Deviation     | Std. Error Mean   |
| Pairs 1 | before  | 2946.5000                | 6 | 2640,42828         | 1077.95033        |
|         | After   | 2771.6667                | 6 | 2350.99482         | 959.78962         |
| Pair 2  | TVA_bef | 77163674912.333          | 6 | 118749323193.56187 | 48479208187.51240 |
|         | TVA_Aft | 77163691597.333          | 6 | 118749362126.95349 | 48479224082.00296 |

Source: data processed 2021

## 4. Results

Based on the results of data processing using SPSS in Table 1., overall 6 sectors of telecommunication companies on the Indonesia Stock Exchange, it is known that sig. is 0.389 which means that  $0.389 > 0.05$  and Average Trading Volume Activity sig. is 0.363 which means  $0.363 > 0.05$ , then H1 is accepted which means there is no significant difference in average abnormal return before and after the COVID-19 Emergency PPKM event. Likewise with H2, there is no significant difference in Average Trading Volume Activity before and after the COVID-19 Emergency PPKM event.

The results of the Paired sample t-test show that there is no difference in the market reaction before and after the COVID-19 Emergency PPKM event on shares in the telecommunications sector on the Indonesia Stock Exchange. afterward. Investors are not affected by the COVID-19 Emergency PPKM and do not really care about this information.

Based on the results of the analysis in Table 2. The average abnormal return after the COVID-19 Emergency PPKM is smaller than before the COVID-19 Emergency PPKM seen from the significance results. The average abnormal return before the COVID-19 Emergency PPKM is 2946.5000 and after the event 2771.6667.

## **6. Conclusion**

Based on the results of research on the difference in the average Abnormal Return and the average Trading Volume Activity 10 days before the COVID-19 Emergency PPKM and after the COVID-19 Emergency PPKM, it can be concluded that there is no significant difference between before the event and after the event. This means that capital market players in Indonesia are not affected by these events and are not affected by the information, because they are already used to the COVID-19 pandemic. They still believe that the economy in Indonesia due to COVID-19 will soon recover.

Furthermore, Trading Volume Activity does not have a significant difference between before the event and after the event. This means that trading or buying and selling of shares in Indonesia tends to remain unchanged and has no effect on the events or announcements of the COVID-19 Emergency PPKM.

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