Differences In Stock Trade Frequency Due To Announcement Of Large-Scale Social Restrictions (Psbb) Due To Covid-19 In Transportation Companies Listed On The Indonesia Stock Exchange

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ABSTRACT

The aim of this research is to find out whether there is a difference in the trading frequency of transportation companies before and after information regarding the announcement of Large-Scale Social Restrictions (PSBB). The population of this research is all transportation companies listed on the Indonesia Stock Exchange for the 2020 period. The sampling technique uses the *purposive sampling method.* The test equipment used in this research is the *Paired Sampe Test T-Test.* The research results show that there is a significant difference in trading frequency between before and after information regarding the announcement of Large-Scale Social Restrictions (PSBB).

Keywords: **Trading Frequency, *Market Reaction,* Large-Scale Social Restrictions**

1. INTRODUCTION

The Indonesian capital market has shown its development with the highest number of IPO companies in 2019 in ASEAN. The greater the role of the capital market in economic activity, the more sensitive the market reaction to events around it. At the end of 2019, the world was shocked by the emergence of a new virus called the 2019 Novel Coronavirus (*Covid-19*), better known as the corona virus, which first appeared in the city of Wuhan, China. Corona Virus is a group of viruses that infect the respiratory system and can be transmitted.

Corona virus has been reported in more than half of the countries in the world. More. In Indonesia the first case of Corona Virus occurred in early March. What was conveyed by President Joko Widodo in his speech at the Presidential Palace, Jakarta on March 2 2020. To overcome the impact of *Covid-19* , President Jokowi decided in a Cabinet Meeting on March 31 2020 to deal with the *corona virus case* by implementing large-scale social restrictions. Large or PSBB which allows local governments to limit activities carried out, activity restrictions include school and workplace closures, restrictions on religious activities, and/or restrictions on activities in public places or facilities. Conditions like this will certainly have an impact on

national economic conditions, especially the transportation sector.

Based on the phenomenon, the decision to implement Large-Scale Social Restrictions (PSBB) will influence the economy and the reaction of the Indonesian capital market. *Event* studies can be used to test the information content of an event. This information content test is intended to see the market reaction to an event. If an event has strong information content, then the market will react when news about an event is received by the market. This reaction is measured using frequency indicators trading. Frequency of stock trading activity is one way to see the reaction to information entering the capital market (Silviyani et al, 2014).

The transportation sector has a very important role in supporting the economic growth of society and is the lifeblood of a country's economic development. Transportation is a basic need of society which is very important for the stability and continuity of community activities and government, so company shares are still able to make profits even though financial conditions are deteriorating. For this reason, it can be seen whether the transportation sector is able to survive in the unstable conditions of the country due to the Corona virus incident. In this study, we will test the significant differences in trading frequency of transportation companies before and after information regarding the announcement of Large-Scale Social Restrictions (PSBB).

2. LITERATURE REVIEW

Stock trading frequency is the number of stock trading transactions in a certain period (Silviyani et al., 2014). Frequency describes how many times an issuer's shares are traded within a certain time period. The higher the trading frequency of a stock indicates that the stock is more actively traded. Frequency of stock trading activity is one of the ingredients for seeing reactions to information entering the capital market in Taslim and Wijayanto (2016).

An increase in demand for shares will increase trading frequency. Increasing the frequency of trading transactions means that share prices will be pushed up so that share returns will also increase. The information content can also influence the value of stock trading. The greater the frequency of trading shares in a stock, it can be concluded that transactions in that stock are very active, this can be influenced by the large number of investors interested in investing in that stock. This way you can find out whether the shares are of interest to investors or not.

Stock trading frequency is indeed an element of information to see the market reaction to information entering the capital market. The frequency of stock trading can be formulated as follows (Pratiwi & Suryono, 2020).

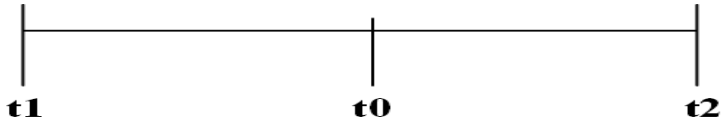
$$FPS_{i,\,t} = \frac{\text{Jumlah frekuensi saham yang diperdagangkan}}{\text{Jumlah hari saham yang dipedagangkan}}$$

event study is a study that studies the capital market reaction to an event whose information is published as an announcement. *Event Study* can be used to test the information content of an announcement and can be used to test semi-strong form market efficiency. Event studies are a tool that is usually used in testing the information content of various announcements or events, event studies can also be used to test semi-strong form market efficiency (Hartono, 2017). Events are defined as information that can change the value of a company at a certain time. The following is an explanation of events:

1. Types of Study Incident
According to Hartono (2010), event studies can be classified into four categories. The four categories include:
   a. Content information
      If the announcement contains information, it will cause a reaction by the market which is indicated by *abnormal* returns.
   b. Efficiency market
      This market information test is a continuation of the efficient market test. If a market can provide a fast response, then it can be said that the market is information efficient.
   c. Efficiency model
      Research related to model evaluation is used in event studies in determining which model will be selected according to specified conditions.
   d. Explanation metric
      metric further explains market reactions and abnormal *returns* as research variables (Hartono, 2010)

2. Study structure incident
The structure of an event study shows the form of the event study. The event study structure consists of a window period and an estimation period.
   a. Window Period
      According to Jogianto (2017: 669) the estimation period is generally the period before the event. The event period *is* also called the observation period or *event window* . Here is a picture from the window period :

Window Period



Picture 1. Window Period

In the window period there are three symbols, the first t1 is for the period before the event occurs and t2 is the symbol after the event occurs. Meanwhile, t0 is the day the event occurred. The period determination is adjusted to the selected events and announcements. Generally, this window period is used, ranging from 3 days to 121 days for daily data,

while for monthly data it ranges from 3 months to 12 months (Hartono, 2017).

Rori (2021) has conducted research and concluded that there is a significant difference in abnormal stock returns before and after the PSBB announcement due to Covid-19 March 31 2020. Then Maylangkay, (2021) obtained different results in the research, namely that there was no significant difference in average abnormal returns . Between 5 days before and 5 days after the policy implementation event PSBB. Previously, Sambuari (2020) had also conducted research and concluded that no significant differences were found . However, it reacts to trading frequency which can be seen in terms of stock trading activity. In contrast to Taslim (2016), stock trading frequency influences company value . In line with Muhammad (2021) who found that there were significant differences in average *abnormal return* , TVA, and *security return variability* before and after Jokowi-Ma'ruf's inauguration.

So that a hypothesis can be made in this research, namely

H_1 It is suspected that there is a difference in the frequency of share trading before and after the announcement of the PSBB announcement in Indonesia in Indonesia in transportation companies registered in Indonesia BEI

3. RESEARCH METHODS

This research is a type of quantitative descriptive research, meaning that this research will describe the research object and use stock price figures, shares traded, and the frequency of shares that occurred in the 10 days before and after March 31 2020.

Population and Sample

Population is a generalized area of objects/subjects that have certain qualities and characteristics that are determined by researchers to be studied and then draw conclusions (Sugiyono 2016: 80). The total population of the objects studied are transportation companies registered on the IDX, totaling 28 companies.

The sample is part of the number and characteristics of the population. The sample in this study was determined using the purpose sampling method, which is a technique for determining samples with certain considerations (Sugiyono, 2017). Determining the sample in this study by looking at shares listed on the Indonesia Stock Exchange (BEI) in the transportation sector which were members of IDX during the event period. By choosing companies that trade their shares in the time window 16 March - 15 April 2020. The information that researchers need is, closing price , number of shares traded (*volume*), number of shares in circulation (*listed share*) and frequency. Researchers used a *purposive sampling method* with criteria that is:

1. Including transportation companies listed on the Indonesian Stock Exchange (IDX).
2. Has closing price data *from* March 16 to April 15 2020 which does not add up 0.
3. Has data on the amount traded (*volume*) from 16 March to 15 April 2020 which does not add up 0.
4. Have data on the number of shares in circulation (*listed share*) from 16 March to 15 April 2020 which do not add up 0.
5. Has frequency data from 16 March to 15 April 2020 which does not add up 0.

After looking at all the transportation company data, the companies that had the complete data required by the researchers were selected as samples, namely 11 companies.

Collection Techniques data

The type of data used is ratio data which has an absolute zero value. The data source used is secondary data, to obtain Closing Price data *and* trading frequency obtained via *www.idx.co.id.* In this documentary research, data was obtained by directly downloading stock prices, stock trading frequency and the number of shares in circulation by visiting websites or sites related to the Indonesian capital market.

Research Variables and Definitions Operational

In this research, the dependent variable is the reaction of the Indonesian capital market to transportation companies. Independent variable Frequency Trade is the number of stock trading transactions in a certain period (Silviyani et al., 2014). Frequency describes how many times an issuer's shares are bought and sold within a certain time period. The higher the trading frequency of a stock indicates that the stock is more actively traded.

$$FPS_{i,\,t} = \frac{\text{Jumlah frekuensi saham yang diperdagangkan}}{\text{Jumlah hari saham yang dipedagangkan}}$$

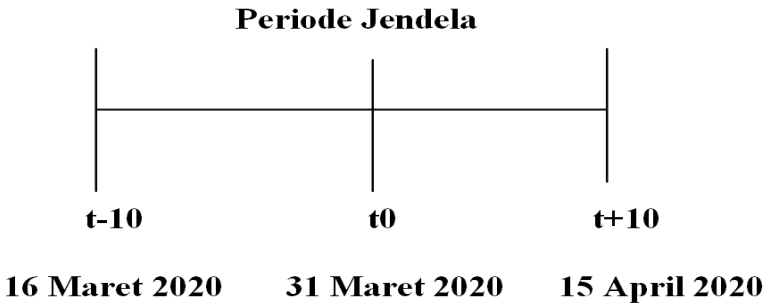
Analysis Techniques Data

The method used to carry out data processing, analysis testing and discussion in this research is event study. In general, the stages of event study carried out in this research include:

1. Determine the events that will be researched and see the market reaction in this research. The event studied was the announcement of Large-Scale Social Restrictions (PSBB) due to *Covid-19* on March 31 2020.
2. Identify the event and the date the event occurred. After determining the events to be

researched, the next stage is to identify the events by determining the population and research sample. The research sample was selected based on certain predetermined criteria . Then look for data on the announcement date, daily closing stock price data, and daily stock trading volume. The date of the published event is designated as *event day* (t-0).

3. Determines the length of the window (*event window*). The length of the window period in this study is 21 stock trading days, starting from t-10 before the announcement to t+10 after the announcement is made. Commonly used window lengths are 3 days to 250 days for daily. The use of a window period that is not too long in this research is because a window period that is too long is feared that the research results will be influenced by other factors (Junizar & Septiani, 2013).



4. Determine the stock trading frequency before and after incident.
5. Conduct descriptive analysis to see the description or characteristics of research data.
6. Carrying out classical assumption tests
7. Carrying out statistical testing to test hypotheses and interpreting and analyzing test results hypothesis.
8. Draw conclusions based on test results statistics.

Testing Hypothesis

Paired Sample T-Test (Sample Test pair)

According to Ghozali (2018) *Paired Sample T-Test* is a test of the average difference between two paired samples which are the same subject but have experienced different treatment . The *Paired Sample T-Test* is carried out by comparing the difference between two average values with the standard error of the difference in the average of two samples. So the purpose of this difference test is to compare the means of two groups that are not related to each other . This research uses *Paired Sample T-Test* to test whether there is a difference in average frequency before and after the inauguration of the announcement Large-Scale Social Restrictions (PSBB) due to *Covid-19* . This research uses a significance level of $\alpha = 5\%$ with the following test criteria:

Wilcoxon Signed Rank Test Test

The Wilcoxon Signed Rank Test is a non-parametric test used to analyze paired data because

there are two different treatments (Pramana, 2012). *The Wilcoxon signed rank test* is used if the data is not normally distributed.

4. RESULTS AND DISCUSSION

Statistics Descriptive

The following is a description of the data from the variables *average abnormal return, average trading volume activity* and trading frequency, presented as follows:

Table. 4.1 Descriptive Statistical Test Results

	N	Minimum	Maximum	Mean	Std. Deviation
FPS before	11	38.0	8,788.8	1157.355	2,599.3173
FPS after	11	39.8	10113.1	1440.7545	2981.0789
Valid N (listwise)	11				

The minimum value for the FPS variable for transportation companies before the announcement of Large-Scale Social Restrictions (PSBB) due to *Covid-19* was 38.0 and the maximum value was 8,788.8. The average for the previous FPS variable was 1157.355 with a standard deviation of 2,599.3173. The minimum value for the FPS variable for transportation companies after the announcement of Large-Scale Social Restrictions (PSBB) due to *Covid-19* was 39.8 and the maximum value was 10113.1. The average for the previous FPS variable was 1440.7545 with a standard deviation of 2981.0789.

Testing this hypothesis was carried out using the *paired t difference test* at a significance level of 0.05. Following are the results of the hypothesis test in the table 4.2.

Table 4.2
Test Results of Different *Paired Samples t Test* Trading Frequency Before and After PSBB

		t	df	Sig. (2-tailed)
Pair 1	FPS before - FPS after	2,678	10	.024

Based on the test results contained in table 4.2, the calculation results show a t-calculated value of 2.678 > 2.26216. So it can be concluded that Ha is accepted. In other words, there is a difference in trading frequency before and after the announcement of Large-Scale Social Restrictions (PSBB) due to *Covid-19* . Next, a significance test was carried out by comparing sig. (2- *tailed*) with α. Table 4.2 shows Sig. (2- *tailed*) 0.024 < 0.05. So it can be concluded that there is a significant difference in trading frequency before and after the announcement of Large-Scale Social Restrictions (PSBB) due to *Covid-19* by transportation companies.
The test results show that there is a significant difference in stock trading frequency between

before and after the PSBB announcement due to Covid-19. Based on these results it can be concluded that The hypothesis is that there is a difference in the frequency of share trading before and after the announcement of the PSBB in Indonesia in transportation companies registered on the IDX. This means that the market reacted to the event of implementing the PSBB policy on transportation companies registered on BEI.

The event of implementing the PSBB policy made investors quickly respond to the information that emerged. Investors caught the negative signal conveyed through the implementation of the PSBB policy which had the implication of increasing trading volume in the market. This information is *bad news* for investors, because there is a sentiment that causes investor panic after the increasing number of positive Corona victims, so that investors do *panic selling* . As a result, foreign investors' funds in the domestic stock market continue to experience withdrawal towards gold investments when the stock market is shaky. This can be seen from the increase in global gold prices followed by Antam's precious metal which jumped 12.14%. However, daily test results pasrsial (before vs after) show results Which No significant.

This means that this event has an impact on stock trading activities but the daily fluctuations are small, so that there is almost no visible reaction, even though the reaction actually exists. The results of this research are in accordance with and support research findings from Sambuari, et al (2020) which stated that trading frequency shows significant differences, which means that there is market panic regarding trading activity after the event, so that there is a difference in frequency before and after the event in terms of trading transactions.

5. CLOSING

Based on the results of the analysis, the author can draw conclusions through hypothesis testing using the *paired* sample T-test . There is a significant difference in the trading frequency of transportation companies before and after information regarding the announcement of Large-Scale Social Restrictions (PSBB). When an event occurs, investors must be able to analyze information correctly regarding stock prices and the content of the information, whether it is good news or bad news, in order to obtain the desired feedback.

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