

ANALYSIS OF ABNORMAL RETURNS BEFORE AND DURING THE COVID-19 PANDEMIC ON HOTEL, RESTAURANT AND TOURISM SUB-SECTOR STOCKS LISTED ON IDX

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ABSTRACT

The purpose of this study was to determine the difference in average abnormal returns before and during COVID-19 in hotel, restaurant and tourism sub-sector stocks listed on the IDX. The type of data used in this study is secondary data. Determination of the sample in this study using purposive sampling method with certain criteria so that 37 samples were obtained. The analysis technique used in this research is one-sample t-test and paired sample t-test with an observation period of 100 days. This study uses daily data on hotel, restaurant and tourism sub-sector stocks. The results of the one-sample t-test show that the abnormal return is not significant around the window period so it can be concluded that covid-19 has no effect on abnormal return. Meanwhile, the results of the paired sample t-test show a significance value of $0.876 > 0.05$. From these results it can be concluded that there is no significant difference in average abnormal returns before and during the COVID-19 pandemic.

Keywords : Abnormal return; Event Study; COVID-19

I. INTRODUCTION

The year 2020 seems to be a new historical record for the world. All parts of the world were faced with a pandemic. The Coronavirus Disease-2019 (COVID-19) outbreak spread rapidly and affected production and people's lives. Throughout 2020, this pandemic has paralyzed the economy and caused economic crises around the world (Purwanto, 2021). Indonesia is one of the many countries in the world that is also affected by the occurrence of

COVID-19. Indonesia experienced an economic shrinkage of 4.1%. The Central Bureau of Statistics (2019) revealed that Indonesia's economic growth in the third quarter based on prevailing prices of Gross Domestic Product (GDP) decreased by IDR 379.7 trillion. The contraction of the Indonesian economy is still caused by weak public consumption so that import performance has also experienced a deep contraction due to very limited domestic activity (PPN / Bappenas, 2020).

This pandemic also has an impact on the economic sector such as the capital market. Trading that occurs on the stock exchange is certainly affected as a result of the COVID-19 event. This is characterized by a decline that can be said to be quite drastic in the Composite Stock Price Index (JCI) on the Indonesia Stock Exchange (IDX). The JCI continued to experience a slump until it finally reached its lowest position at the level of 3,937.63 on March 24, 2020. From the closing position in 2019 with a range of 6,299.53, it is evident that the JCI experienced a very rapid decline of 37.49%. The Indonesia Stock Exchange (IDX) was forced to temporarily suspend the buying and selling of shares. This was caused by the securities index which continued to decline drastically exceeding 5% on the same day (Melani, 2021). The COVID-19 pandemic that occurred in Indonesia affected the capital market and this event provided negative signals (bad news) for investors. Investors who have share ownership prefer to trade back their shares to avoid losses (Saraswati, 2020).

Various industrial sectors ranging from the financial sector, tourism, manufacturing, and the food and beverage sector have been affected by the COVID-19 pandemic (Kartikaningsih, 2020). One sector that has been severely affected by the pandemic is the hotel, restaurant and tourism sector (Nasution et al., 2020). According to the Handbook of the Ministry of Tourism, Indonesia's

tourism sector is one of the sectors that is very good in its development (Kemenparekraf, 2020).

In 2020, namely after COVID-19, the country's foreign exchange experienced a sharp decline so that the foreign exchange generated by the tourism sector in 2020 was only IDR 45.4 trillion. In addition, another thing that affects state revenue besides the tourism sector is the hotel sector. In 2016-2018, the hotel room occupancy rate increased significantly. Then experienced a decline but not significant in 2019 by 3.94% and in 2020 experienced a sharp shrinkage of 21.02%. The decline in hotel occupancy and the lack of tourists has an impact on restaurants or restaurants where the majority of consumers come from tourists (Nasution et al., 2020).

Apart from providing services, companies listed on the Indonesia Stock Exchange (IDX) in the hotel, restaurant and tourism sub-sector also have share ownership. With conditions such as the COVID-19 event, it will certainly have an influence on the shares of the restaurant, hotel and tourism sector (Mailangkay et al., 2021). According to Deasy Lestary Kusnandar (2020), a market will respond to very important information because it is able to cause changes in terms of prices which will then make changes to abnormal returns. Abnormal Return is the result before and after the event in the form of the difference that exists between

the expected profit and the actual profit (Agfah & Azhari, 2021).

The theory applied in this research is signaling theory. Signal theory explains information which can then influence investment decision making and cause market reactions. Spence was someone who first introduced this theory in 1973 (Darmayanti et al., 2021). Ross (1977) in signal theory stated that investors react to the stock market based on information that can have an impact on the company and the stock market. The occurrence of the COVID-19 pandemic in Indonesia is a form of information that can influence stock market conditions (Wicaksono & Adyaksana, 2020). Information that has been published shows a signal for investors making investment decisions. If the published information is considered to be a good signal, then it can be said that this news will influence changes in abnormal returns where abnormal returns increase, and vice versa (Hartono, 2017).

II. RESEARCH METHOD

In this study, the method applied is the event study method, which has a definition as a research method that functions as a tool to calculate its effect on an event (event) (Irmayani, 2021). In this study, an event that is considered a published announcement is the COVID-19 event. The data used are daily closing stock prices. This test applies a research period of 100 days, namely

50 days before the COVID-19 pandemic, and 50 days during the COVID-19 pandemic.

The population used in this study are all companies listed on the Indonesia Stock Exchange (IDX). This study uses a method to determine the research sample criteria called the purposive sampling method. The sampling criteria applied in the research conducted consisted of:

Table 1 Research Sample Criteria

No.	Criteria	Amount
1.	All companies listed on the Indonesia Stock Exchange during the observation period	713
2.	Excluded: Companies not engaged in hotels, restaurants and tourism.	(667)
3.	Hotel, restaurant and tourism sub-sector companies listed on the Indonesia Stock Exchange (IDX) during the observation period.	46
4.	Excluded: Companies that experienced corporate actions during the observation period	(2)
5.	Excluded: Companies that are suspended and delisted during the observation period.	(0)
6.	Excluded: Companies that did not publish their daily stock reports during the observation period.	(7)
7.	Total companies used as research samples.	37

The variable in this study is abnormal return, where abnormal return is the excess of the actual return over the normal return. The following is the calculation formula for abnormal return carried out in this study:

i. Calculating Actual Return

$$R_{i,t} = \frac{P_{i,t} - P_{i,t-1}}{P_{i,t-1}}$$

Description:

$R_{i,t}$ = actual return of issuer i on day t

$P_{i,t}$ = stock price of issuer i on day t

$P_{i,t-1}$ = stock price of issuer i at time t-1

ii. Calculating Market Return (R_m)

$$R_m = \frac{IHSg_t - IHSg_{i,t-1}}{IHSg_{i,t-1}}$$

Description:

R_m = market return at time t

IHSgt = Composite Stock Price Index at at time t

IHSgt-1 = Composite Stock Price Index at at time t-1

iii. Calculating Abnormal Return

Abnormal return is the difference between actual return and expected return. The calculation of expected return in this study uses the market adjusted model method so that the expected return is the same as the market return. Then the calculation of abnormal return uses the following formula:

$$AR_{i,t} = R_{i,t} - R_m$$

Description:

$AR_{i,t}$ = abnormal return of stock i on day t

$R_{i,t}$ = actual stock return i on day t

R_m = expected return of stock i on day t

III. RESULTS AND DISCUSSION

Descriptive Statistics

Descriptive test aims to provide an overview of the minimum, maximum, mean, and standard deviation values of the related variable calculations. The variable in this study is Abnormal Return. Based on the results of the descriptive test that has been carried out, it can be described as follows:

Tabel 2 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
BEFORE	50	-.0269	.0550	.001475	.0143029
AFTER	50	-.0275	.0568	.001442	.0145898
Valid N (listwise)	50				

Based on the table above, the average abnormal return of hotel, restaurant and tourism sub-sector stocks before the COVID-19 pandemic was 0.001475 with a standard deviation of 0.0143029. Meanwhile, during the COVID-19 pandemic, the average abnormal return corrected by 0.001442 with a standard deviation of 0.0145898. The analysis results show that there is a reaction by investors to the COVID-19 pandemic which results in differences in abnormal returns before and during the COVID-19 pandemic.

Normality Test

The normality test in this study was carried out to determine whether the data was normally distributed or not. In this study, to determine the normality of a data, Kolmogrov-Smirnov was used with a significance value of 0.05.

**Tabel 3 Normality Test
 One-Sample Kolmogorov-Smirnov Test**

		BEFORE	AFTER
N		50	50
Normal Parameters ^{a,b}	Mean	.001475	.001442
	Std. Deviation	.0143029	.0145898
	Asymp. Sig. (2-tailed)	.104 ^c	.175 ^c

Based on the table above, the one-sample Kolmogorov Smirnov normality test results were obtained before the COVID-19 pandemic with a significance level of 0.104 and during the COVID-19 pandemic had a significance level of 0.175. Based on the normality test results in the table above, it can be concluded that the abnormal stock return data distribution of the hotel, restaurant and tourism sub-sector before and during the COVID-19 pandemic has a normal distribution because it has a significance level of more than 0.05.

Hypothesis Test

Hypothesis testing in this study uses one sample t-test and paired sample t-test with the aim of testing information content by finding variations or differences in abnormal returns between before and during the occurrence of COVID-19 which has an impact on the hotel, restaurant and tourism sub-sectors. This test was conducted using SPSS version 25 and the following results were obtained:

1. One Sample t-test

Based on the results of the one sample t-test test during the observation period before the COVID-19 pandemic, 9 days produced a significant abnormal return and 41 days produced an insignificant abnormal return, while the test results during the COVID-19 pandemic, namely 14 days produced a significant abnormal return and 31 days produced an insignificant abnormal return. Thus, most of the abnormal returns are insignificant, namely sig. > 0.05. Based on this, it can be concluded that H0 is accepted, which means that there is no effect of COVID-19 on abnormal stock returns in the hotel, restaurant and tourism sub-sector.

2. Paired Sample T-test

Based on the results of the paired sample t-test, it shows that the average abnormal return before and during the COVID-19 pandemic has a significance value of 0.876. The significance level in this study is $\alpha = 0.05$ which means that the significance value is greater than 0.05, so H0 is accepted and H1 is rejected. Thus, it can be concluded that there is no significant difference in abnormal stock returns in the hotel, restaurant and tourism sub-sector before and during the COVID-19 pandemic.

Discussion

From the tests carried out, hypothesis testing using the one sample t-test test on abnormal stock returns in the hotel, restaurant and tourism sub-sectors listed on the Indonesia Stock Exchange (IDX) resulted in the conclusion that the COVID-19 pandemic has no effect on abnormal returns. This is indicated by most of the significance values obtained are more than 0.05. In addition, another hypothesis test conducted is the paired-sample t-test. From the paired-sample t-test results, it is concluded that there is no significant difference in abnormal returns 50 days before and 50 days during the COVID-19 pandemic. The paired sample t-test test shows a significance value of 0.876. This significance value is greater than 0.05 so it can be concluded that there is no significant difference between before and during the event, so H1 is rejected.

Although there is no significant difference, when viewed from the average abnormal return during the event which is lower at 0.001442 compared to before the event at 0.001475, it can be interpreted that there was a negative market reaction when the COVID-19 pandemic broke out in Indonesia. This is in line with the grand theory in this study, namely signal theory. Referring to the foundation of signaling theory, which explains if an event can provide a signal and result in a reaction due to

information in the market (Kusnandar & Bintari, 2020).

The results of this study are in line with previous studies that have been conducted, namely research by Feria-Domínguez et al. (2017) and Feranita (2018) which show that there is no significant difference in abnormal returns in the period before and during unexpected events.

IV. CONCLUSION

Based on the research that has been conducted related to the analysis of differences in abnormal returns before and during the COVID-19 pandemic in the hotel, restaurant and tourism sub-sector stocks listed on the Indonesia Stock Exchange, it can be concluded that there is no significant difference in abnormal returns in the 50-day period before and 50 days during the COVID-19 pandemic in Indonesia. This is indicated by the abnormal returns of most companies that did not experience significant changes both before and during the pandemic.

This is in line with the one-sample t-test conducted. The one-sample t-test shows that around the window period there is no significant abnormal return. This is indicated by the significance value which is mostly > 0.05 . This is supported by the paired-sample t-test hypothesis test that was also conducted. From the paired-sample t-test, a significance value of $0.876 > 0.05$ was obtained. From the results of this test, it can be concluded that the information

derived from the event is not enough to make stock price movements abnormal in 37 companies, so there is no significant change in abnormal returns. In addition, this indicates that investors are not interested in investing throughout the study period.

In this study, there are limitations. The first limitation is that this research has limitations in 3 sectors, this may not be generalized to other sub-sectors, so the suggestion for future research is to make comparisons with other sub-sectors, this research only focuses on abnormal returns, so it is hoped that future researchers will add other research variables such as transaction volume, and this research only has a limited observation period of 100 days, while COVID-19 occurred for 2 years, so it is hoped that future research can conduct research with a longer period.

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