American International Journal of Business Management (AIJBM)
ISSN- 2379-106X, www.aijbm.com Volume 4, Issue 01(January 2021), PP 16-20

Event Study of the Impact of Covid 19 on Stock Price Movements in Indonesia

Ramly[1] Linda Arisanty Razak[2] Alamsjah[3] Ainun Ariza[4]
Universitas Muhammadiyah Makassar [1-4]

ABSTRACT: This study aims to examine the covid 19 event on stock price movements in each company sector in Indonesia. Based on existing data, almost every sector of the company experienced a decline (correction), especially banking, followed by various sectors on the Indonesia Stock Exchange. This type of research is an event study where the data used is secondary data in the form of the company's historical price from the events before covid 19 and after covid 19. The calculation technique used in this study uses abnormal returns for stock price movement data and various electronic media data for testing different paired sample test. The results of the analysis using the paired sample test stated that only the PSBB event had differences in abnormal returns before and after the event. While the 3 events in this study, namely the Wuhan lockdown, Italy lockdown and the confirmation of the first case in Indonesia, did not have a difference in abnormal returns before and after the event.

Keywords: event study, historical price

I. INTRODUCTION

Every country has a capital market which aims to create facilities to meet the demand and supply of capital. The capital market is a place and means of meeting between sellers and buyers who conduct securities transactions. One of the securities that are transacted on the capital market is shares. Shares are said to be evidence of participation or proof of ownership of a company that allows variable investment returns and risks. The state or development of stocks in Indonesia is measured by an index, namely the Composite Stock Price Index (IHSG) (Arde and Kesuma, 2017).

The capital market in a country can act as a means for companies to increase their long-term funding needs by selling shares or issuing bonds (Jogiyanto 2007). The capital market as an economic instrument is strongly influenced by various events that contain information. An event will contain information if the event can affect the stock price which then causes investors to change and reconsider their decisions (Sjahrir, 1995). The magnitude of the effect of events on capital market conditions can be seen through stock price movements.

Stocks in the capital market are very sensitive to internal and external factors. Internal factors can be controlled by the company while external factors cannot be controlled by the company. External factors consist of economic factors and non-economic factors. One of the external factors that can affect stock price movements is the Covid 19 outbreak found in Wuhan China.

Covid 19 is a type of Corona Virus which not only affects the health side of world citizens, but this virus also affects the global economy to Indonesia. This virus was first discovered in Wuhan, China in December 2019. On January 23, 2020, China imposed a lockdown in Wuhan. This has an impact on the global economy, especially in China.

After the president's announcement on March 2, 2020, which stated that Covid 19 entered Indonesia for the first time and the World Health Organization (WHO) on March 13, 2020, which stated that Covid 19 was a pandemic, had a huge impact on the Indonesian capital market. The Jakarta Composite Index (JCI) experienced a sharp decline. Previously, IHSG was in the position of 5,000, finally it decreased to the level of 4,000. One of the evidences was at the close of stock trading on March 18, 2020. JCI closed down 138.78 points or 3.11% to 4,317.96 position. If calculated in the past month, the JCI has fallen by 26.96%. In addition to the decline in the JCI, Indonesia also experienced a decline in the rupiah exchange rate against the United States dollar, which previously was around 14,400, which continued to increase up to Rp. 16,625 per US dollar.

The difference in stock price fluctuations before and after the Covid 19 incident indicates the impact of events that occurred on the issuer's share price. Likewise, the difference in trading volume before and after the event shows the reaction of investors in the capital market to events. This difference shows the information content of the events that occurred. The information content of an event can be seen from the reaction of investors through the abnormal return given to investors in the presence of the event. An event that contains information will provide an abnormal return for investors, on the other hand, if the information content of the event does not exist, it will not provide an abnormal return for investors.

As is the case with research conducted by Febiana and Soewarno (2018) which states that the explosion of the Bali Bombing 1 and the Australian Embassy Bombings showed a difference in abnormal returns before and after the incident. This is in accordance with the theory used that investors will react to information in events so as to create an efficient market. Markets classified in this event are categorized into semi-strong markets because the price of the security reflects all the information published during the event period, then investors absorb this information for consideration in making investment decisions.

Research conducted by Badilo (2018) shows that there is a significant difference between the stock price index before and after the United States policy regarding a review of countries receiving generalized system preferences in 2018 where this policy led to an increase in the stock price index of Thailand, India. , Brazil, and Indonesia in this case the policy announcement had a significant and positive impact.

Problem Formulation

Based on the background described, the formulation of the problem in this study is are there differences in stock price movements before and after Covid 19?

II. LITERATURE REVIEW

1. Efficient Market Theory

Fama (1970) defines the mode market as follows: A securities market is said to be efficient if the prices of the securities fully reflect "available information. According to Fama (1970), the Efficient Market is divided into 3, namely the Efficiency of the weak Form Market, the Efficiency of the Half Strong Form Market and the Efficiency of the Strong Form Market.

2. Abnormal Return

The abnormal return that occurs is useful to see the efficiency of the market. The market is said to be inefficient if one or several market players can enjoy abnormal returns within a certain period of time. Abnormal returns are tested to determine the market reaction to an event. The appropriateness of market response is related to whether the market reacts properly. This is indicated by the direction of the market response is positive or negative. This indicator appears from a positive abnormal return for good news and negative for bad news (Tandelilin, 2010: 571). Abnormal return can be considered to represent stock price movements which is the dependent variable in this study. Abnormal Return is the difference between the actual return or the expected rate of return (expected return). The abnormal return formula is as follows:

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

3. Empirical review

Research conducted by Febiana and Soewarno (2018) which states that the explosion of the Bali Bombing 1 and the Australian Embassy Bombing shows a difference in abnormal returns before and after the incident. This is in accordance with the theory used that investors will react to information in events so as to create an efficient market. Markets classified in this event are categorized into semi-strong markets because the price of the security reflects all the information published during the event period, then investors absorb this information for consideration in making investment decisions.

In line with this research, research conducted by Badilo (2018) shows that there is a significant difference between the stock price index before and after the United States policy regarding a review of countries receiving generalized system preferences in 2018 where the policy led to an increase in the index. share prices of Thailand, India, Brazil and Indonesia, in this case the policy announcement, had a significant and positive impact.

In contrast to this study, Sparta and Wijaya (2013) show that the Bali II bombing incident which occurred on October 1, 2005 and the explosion at the JW Marriot Hotel and the Ritz Carlton Hotel on 17 July 2009 did not actually trigger an abnormal return where the average abnormal return. not significant. The results of other studies show that there is no difference in the average abnormal return, both in the five days before the bombing event and in the five days after the bombing event.

In line with this study, Arde and Kesuma (2017) provide data testing results using paired samples t-test showing that there is no significant difference between the average abnormal returns obtained by all companies listed in the LQ45 index on the Indonesia Stock Exchange before and after. attack in the Sarinah area.

4. Hypothesis

The hypothesis in this study is that there are differences in stock movements before and after the Covid 19 incident.

III. RESEARCH METHOD

This research is an event study. Jogiyanto (2013) also defines an event study as a study that studies market reactions to an event whose information is published as an announcement. The objective of event studies is to examine the market reaction in the observed period of time to the price of securities around the timing of the event (Peterson, 1989). The location in the study was carried out in Indonesia. To obtain secondary data in the form of share prices by visiting, namely www.finance.yahoo.com. The time needed in this study is approximately two months, from July to October 2020. The population in this study is all stock prices of companies listed on the Indonesia Stock Exchange which are entered into LQ45. The sample of this research is shares of companies that have been active since the Covid 19 incident.

The independent variable in this study is the Covid 19 Event starting when China released information on the Wuhan lockdown, when Italy was the representative of Europe, and when Jokowi confirmed the existence of Indonesian citizens and when Indonesia carried out the PSBB. News in China, Italy, Indonesia has had a huge impact on the movement of stocks in Indonesia so that this information benchmark becomes a benchmark for measuring the Covid 19 incident.

IV. RESULTS AND DISCUSSION

The results of statistical tests are shown in table 1. The table shows a sample size of 45 companies with the largest average obtained during the 6 days before PSBB event of 0.2281. Meanwhile, the smallest average was obtained in the event 6 days after the Italian lockdown.

Tabel 1 Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	CAR 6 Before Wuhan	.0091	45	.17397	.02593
	CAR 6 After Wuhan	.0062	45	.11460	.01708
Pair 2	CAR 3 Before Wuhan	.0051	45	.16914	.02521
	CAR 3 After Wuhan	.0068	45	.09028	.01346
Pair 3	CAR 6 Before Italia	.1532	45	1.21345	.18089
	CAR 6 After Italia	-.1149	45	.11035	.01645
Pair 4	CAR 3 Before Italia	.1669	45	1.35003	.20125
	CAR 3 After Italia	-.0785	45	.08661	.01291
Pair 5	CAR 6 Before Confirm INA	-.0144	45	.08728	.01301
	CAR 6 After Confirm INA	.1570	45	1.21718	.18145
Pair 6	CAR 3 Before Confirm INA	-.0177	45	.04479	.00668
	CAR 3 After Confirm INA	.1914	45	1.20133	.17908
Pair 7	CAR 6 Before PSBB	.2281	45	.86364	.12874
	CAR 6 After PSBB	.1563	45	.97407	.14521
Pair 8	CAR 3 Before PSBB	.2138	45	.85374	.12727
	CAR 3 After PSBB	.1458	45	.97878	.14591

Table 2 below shows the results of the paired sample test. This test is used to test the hypothesis in this study.

Tabel 2 Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	CAR 6 Before Wuhan - CAR 6 After Wuhan	.00292	.08788	.01310	-.02349	.02932	.223	44	.825
Pair 2	CAR 3 Before Wuhan - CAR 3 After Wuhan	-.00175	.08762	.01306	-.02808	.02457	-.134	44	.894
Pair 3	CAR 6 Before Italia - CAR 6 After Italia	.26805	1.18318	.17638	-.08742	.62351	1.520	44	.136
Pair 4	CAR 3 Before Italia - CAR 3 After Italia	.24538	1.32742	.19788	-.15342	.64419	1.240	44	.222

Pair 5	CAR 6 Before Confirm INA - CAR 6 After Confirm INA	-.17139	1.21604	.18128	-.53673	.19395	-.945	44	.350
Pair 6	CAR 3 Before Confirm INA - CAR 3 After Confirm INA	-.20917	1.20056	.17897	-.56986	.15151	-1.169	44	.249
Pair 7	CAR 6 Before PSBB - CAR 6 After PSBB	.07183	.16810	.02506	.02133	.12234	2.867	44	.006
Pair 8	CAR 3 Before PSBB - CAR 3 After PSBB	.06802	.17969	.02679	.01404	.12201	2.539	44	.015

The research hypothesis states that there are differences in stock movements before and after the Covid 19 incident. Based on table 2 above, it can be seen that only at the time of the PSBB event had a significant effect on the difference in stock prices before and after the event, while 3 other events had no significant effect. The difference in share prices 6 days before and 6 days after PSBB has a very large effect on stock prices (0.006). So it can be concluded that the hypothesis in the study is accepted.

This finding is not in line with the research of Sparta and Wijaya (2013) which shows that the Bali II bombing that occurred on October 1, 2005 and the explosion at the JW Marriot Hotel and the Ritz Carlton Hotel on 17 July 2009 did not actually trigger an abnormal return where on average the abnormal return is not significant. The results of other studies show that there is no difference in the average abnormal return, both in the five days before the bombing event and in the five days after the bombing event. However, these findings are in line with research conducted by Febiana and Soewarno (2018) which states that the Bali Bombing 1 and the Australian Embassy Bombing events showed differences in abnormal returns before and after the incident. This research is also in line with research conducted by Badilo (2018) showing the results that there is a significant difference between the stock price index before and after the United States policy regarding a review of countries receiving generalized system preferences in 2018 where the policy led to an increase in the price index. shares of Thailand, India, Brazil and Indonesia in this case the policy announcement had a significant and positive impact.

With the PSBB Indonesia event which had an abnormal return before the event which was different from the abnormal return after the event, it can be said that the event affected the Indonesian capital market during the event period. This affects the psychology of investors which causes panic selling. In accordance with the theory used as a reference in this study, investors will interact with information in the event period so that it can be said to be an efficient market. The efficient market that occurs in this event is classified as half strong because the price of the securities will reflect all information published during the event period, then investors will absorb this information as a consideration for decision making in investing in the Indonesian capital market.

The other three events had no difference in abnormal returns before and after the Wuhan lockdown, Italy lockdown and the confirmation of the first case in Indonesia. This is because in this event the psychology of investors still tends to be stable so that panic selling has not occurred. This causes the abnormal return when the event tends to have no difference.

V. CONCLUSIONS AND SUGGESTIONS

Based on the results of the analysis that has been done, it can be concluded that the events at the time of PSBB Indonesia had different abnormal returns before and after the event. Meanwhile, 3 other events, namely the Wuhan lockdown, Italy lockdown and the confirmation of the first case in Indonesia, did not have a difference in abnormal returns between before and after the incident. This is because the psychology of investors at the time of the PSBB event tends to experience panic selling.

Further research is expected to be carried out in other sectors based on the events that cause abnormal returns to be different.

REFERENCE

[1]. Hadi, Nor. 2013. *Pasar Modal; Acuan Teoritis dan Praktis Investasi di Instrumen Pasar Modal.* Yogyakarta: Graha Ilmu.

[2]. Jogiyanto, H. 2010. *Teori Portofolio Dan Analisis Investasi*. Yogyakarta: BPFE UGM.

[3]. Jogiyanto, H. (2013). Metodologi Penelitian Bisnis Salah Kaprah dan Pengalaman-Pengalaman, Edisi Keenam. Yogyakarta: BPFE-Yogyakarta.

[4]. Mandelbort, Benoit. 1966. *Forecast of Future Price, unbiased markets, and "martingale" models.* The Journal of Bussiness, 39 (1):242-255

[5]. Peterson, Pamela P., 1989. *Event Study: A Review of Issue and Methodology*. Quartely Journal of Bussiness and Economic, Vol. 28, No 3 Summer

[6]. Sjahrir. 1995. *Tinjauan Pasar Modal*. Jakarta: PT Gramedia Pustaka Utama.

[7]. Tandelilin, Eduardus. 2010. *Portofolio dan Investasi: Teori dan Aplikasi*. Edisi Pertama. Yogyakarta: Kanisius

[8]. Andri, Y. (2013). Capital Market Reaction At Indonesian Stock Exchange. *Jurnal Nominal*, *II*(II).

[9]. Arde, M., & Kesuma, K. (2017). Studi Peristiwa Tragedi Sarinah Terhadap Pasar Modal Indonesia. *None*, *6*(6), 254419.

[10]. Badilo, E. K. (2018). *Amerika Serikat Mengenai Pengkajian Ulang Negara-Negara Penerima Generalized System Preferences Pada Tahun 2018 (Studi pada Negara-Negara Penerima GSP Tahun 2015-2017 dengan Ekspor Terbesar ke Amerika)*. *72*(1), 11–18.

[11]. Fama, E. F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *The Journal of Finance*, *25*(2), 383. https://doi.org/10.2307/2325486

[12]. Febiana, C. C., & Soewarno, N. (2018). Reaksi Harga Saham Di Pasar Modal Indonesia Terhadap Peristiwa Teror Bom Periode 2002-2017. *Jurnal Akuntansi Universitas Jember*, *15*(2), 20. https://doi.org/10.19184/jauj.v15i2.6882

[13]. Feranita, N. V. (2014). Reaksi Pasar Modal Indonesia Terhadap Peristiwa Bencana Alam Tsunami Di Aceh Tanggal 26 Desember 2004. *Majalah Ilmiah "DIAN ILMU," 13*(2), 1–18.

[14]. Sparta, & Wijaya, E. (2013). Dampak Bom Bali Ii, Jw Marriotts Dan Ritz-Carlton Terhadap Harga Saham Di Bursa Efek Indonesia (Study Kasus Saham Industri Perbankan. *Portal Kopertis Wilayah III*, 1–41. http://portal.kopertis3.or.id/handle/123456789/1430

[15]. Wardhani, L. S. (2013). Reaksi Pasar Modal Indonesia Terhadap Peristiwa Pemilihan Gubernur DKI Jakarta Putaran II 2012 (Event Study pada Saham Anggota Indeks Kompas 100). *Sinergi*, *2*, 129–142.

**Corresponding Author: Ramly*
[1](Universitas Muhammadiyah Makassar)