Analysis of Market Responses to Lockdown Effect of Covid-19 Pandemic in Indonesia and Malaysia (Studies on Companies Listed on Jakarta Islamic Index and FTSE Bursa Malaysia Hijrah Syariah Index)

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Article Info:	Abstract

The announcement of lockdowns in Indonesia and Malaysia due to Covid-19 affected the formation of stock price fluctuations because stock prices continued to change, known as volatility. Measurements on the stock market that occur as a result of an event use the market response that is determined by abnormal returns and trading volume activity. The purpose of this study was to analyze abnormal returns and trading volume activity on the lockdown effect in Indonesia and Malaysia. This type of research is quantitative. The samples used were 19 companies listed on the Jakarta Islamic Index which were consistently listed during the lockdown due to Covid-19 and the 10 best constituents on the FTSE Bursa Malaysia Hijrah Syariah. The data analysis technique used is the normality test using the Kolmogorov-Smirnov test and the significance test. The results of the study showed that there was no reaction to abnormal returns when setting the Large Scale Social Restrictions policy and Imposing Restrictions on Community Activities in Indonesia, but there was a reaction to abnormal returns when setting the Movement Restriction Order policy in Malaysia. As for trading volume activity, there was no reaction to the enactment of the Large-Scale Social Restrictions policy, the Enforcement of Restrictions on Community Activities, and Orders to Restrict Movement in Indonesia and Malaysia.

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INTRODUCTION

Information shocked the world, namely the outbreak of the Corona Virus Disease 2019 (Covid-19) which hit the city of Wuhan, Hubei province, China in December 2019. As many people mysteriously develop pneumonia, the sale of live for no animals at the Huanan seafood wholesale market is suspected to be responsible for the disease. In humans, coronaviruses cause respiratory tract

infections that are generally mild, such as the common cold, although some forms of the disease, such as SARS, MERS, and Covid-19, are more deadly.

Thus far, 6,525,120 of Covid-19 have been reported cases in Indonesia since President Joko Widodo originally made the announcement on March 2, 2020. This data relates to information made available by the Covid-19 Task Force and accessible to the general public on the Covid- 19.go.id website. As a result of this disaster that hit the world, the term Lockdown emerged in several countries such as Indonesia and Malaysia. A lockdown is an emergency protocol to prevent people, groups of people, or the general public from leaving or entering, or into an area. Lockdown protocols can only be set by parties who have authority.

To overcome the impact of Covid-19, President Joko Widodo has decided in a Cabinet Meeting on March 31 2020 to handle the coronavirus case by implementing Large-Scale Social Restrictions/Pembatasan Sosial Berskala Besar (PSBB) which are no longer a discourse and allow local governments to limit activities carried out. Meanwhile, Malaysia began imposing a lockdown from March 18, 2020, to March 31, 2020 and extended it to April 14, 2020. Malaysian Prime Minister Muhyiddin Yassin again extended the Movement Control Order (MCO) policy or restrictions on the movement of citizens until May 12, 2020, this is the third time that the Malaysian government extending the MCO policy to convince the government how successful it is in controlling the new type of coronavirus or Covid-19.

Before Covid-19, which led to the issuance of the lockdown policy implemented by the Indonesian government, developments in the Islamic capital market initially went well, but at the end of 2019, there was panic in the world with the arrival of a health crisis known as the Covid-19 Pandemic. This crisis has bad effect on all aspects of people's lives, especially on the economic and social aspects. The outbreak of Covid-19 may impact many financial markets. However, whether the observed financial market effects are direct (arising from concerns about the economic impact of the virus and its accompanying effects on investors' portfolio choices) or indirect (for example, due to contagion from other financial markets) is not yet clearly known and understood.

After the President of the Republic of Indonesia Joko Widodo made announced the Covid-19 incident, Composite Stock Price Index/Indeks Harga Saham Gabungan (IHSG) was 5,455 at the close of the first trading session and closed in the second trading session at 5,361, dropping to a level of 1.01% on that day. The Central Statistics Agency/Badan Pusat Statistik (BPS) announced economic growth data as seen from the Gross Domestic Product (GDP) for the third quarter of 2020. BPS had previously announced an economic contraction in the second quarter of 2020. Economic growth in the second quarter of 2020 decreased sharply to -5.32% compared to the second quarter of 2019 (year on year).

Economic improvement with sharia principles also occurs in close countries, namely Malaysia. Just like Indonesia, Malaysia also has Islamic stock indices, one of which is the FTSE Bursa Malaysia Hijrah Shariah Index (FTFBMHS). The same thing happened in Malaysia after the Malaysian government officially implemented the Movement Control Order (MCO) from 1 June to 14 June 2021 as a total lockdown for two weeks to reduce the number of Covid-9 sufferers, in Malaysia the state of the Malaysian Stock Exchange has fallen. Reporting from Blomberg Bursa Malaysia

KLCI's FTSE Index experienced a 1.6% correction from the start of trading one week in May 2021. This correction was the deepest since March 31, 2021.

Interestingly, 2 out of 11 countries in the Southeast Asia Region, namely Indonesia, and Malaysia, implement a dual capital market system, which calculates a composite index for conventional and Islamic stocks with different indexes. In Indonesia, it is known as the Composite Stock Price Index/Indeks Harga Saham Gabungan (IHSG) for conventional stocks and Jakarta Islamic Index (JII) for Islamic stock indexes. Whereas in Malaysia there is the FTSE as a conventional stock index and the FTSE Hijrah for Sharia stocks.

A Covid-19 event is an event that will be tested for its information content on stock movements in the capital market using the event study method. The signal theory involves two parties management and outside investors to give signals. This theory also states that stakeholders will respond to the size of the company so that it has an impact on the value of the company. This reaction can be measured using returns and abnormal returns as price changes. Many potential investors and investors take advantage of certain events to obtain abnormal returns. When a market is inefficient, a return is higher than the typical return. Apart from abnormal returns, another indicator that influences fluctuations in stock price changes in information content are by looking at trading volume activity. Trading volume activity is used to see the reaction of the capital market by looking at the movement of stock trading volume in the capital market.

Based on the background above, measuring the market response that occurred as a result of the lockdown during the Covid-19 pandemic can be measured through several aspects such as abnormal returns and trading volume activity. So the researcher is interested in conducting research with the title "Analysis of Market Responses to Lockdown Effect of Covid-19 Pandemic in Indonesia and Malaysia (Studies on Companies Listed on Jakarta Islamic Index and FTSE Bursa Malaysia Hijrah Syariah Index)"

RESEARCH METHODS

This section contains the research design used (methods, data types, data sources, data collection techniques, data analysis techniques, variable measurement) written in flowing paragraph form (no bullets or numbering).

This research is descriptive with a quantitative approach. Descriptive research is research conducted to provide a more detailed description of a symptom or phenomenon. Quantitative method using main data numbers whose analysis uses statistics. That is an analysis to test the differences between variables using data from Composite Stock Price Index/Indeks Harga Saham Gabungan (IHSG) report and Trading Volume Activity during the Covid-19 incident. This research approach also uses the Event Study method which measures the level of abnormal returns.

The data source used is a secondary source obtained from the website www.idx.co.id in the form of data on all companies listed on Jakarta Islamic Index (JII) and www.ftse.russel.com for companies listed on FTSE Bursa Malaysia Hijrah Syariah Index (FTFBMHS), and www.yahoo.finance for some other necessary data. Meanwhile, stock price data is taken from daily closing price data during the event period. Secondary data is data obtained indirectly from the research object. Secondary data obtained is from an internet site, or from a reference that is the same as what is being researched by the author.

The population in this study are stocks included in Jakarta Islamic Index (JII) for the period December 2019 to November 2022 based on the List of Sharia Securities/Daftar Efek Syariah (DES) released by the Financial Services Authority for 2019-2022 and the best constituents listed on the FTSE Bursa Malaysia Hijrah Malaysia (FTFBMHS). Of the 30 stocks indexed by Jakarta Islamic Index (JII), only 19 issuers were used as samples because they were consistent on Jakarta Islamic Index (JII) list for 7 consecutive periods. The sampling technique in this study used a purposive sampling method. Purposive sampling is a sampling technique based on certain objectives and considerations. The consideration used is the criteria:

1. Companies with active and consistent status are listed for every period required by researchers on Indonesia Stock Exchange (IDX) and Malaysia Stock Exchange/Bursa Efek Malaysia (BEM) in 2022.
2. Have stock data needed for the research period (2020-2022).
3. For sharia shares on Indonesian Stock Exchange (IDX), only those listed on Jakarta Islamic Index (JII), and for sharia shares on Malaysia Exchange, only those listed on FTSE Bursa Malaysia Hijrah Syariah (FTFBMHS).

No.	Stock code	Issuer
1	ADRO	Adaro Energy Tbk
2	ANTM	Aneka Tambang (persero) Tbk
3	BRPT	Barito Pacifik Tbk
4	CPIN	Charoen Pokphand Indonesia Tbk
5	EXCL	XL Axiata Tbk
6	ICBP	Indofood CBP Sukses Makmur Tbk
7	INCO	Vale Indonesia Tbk
8	INDF	Indofood Sukses Makmur Tbk
9	INTP	Indocement Tunggal Prakarsa Tbk
10	JPFA	JAPFA Comfeed Indonesia Tbk
11	KLBF	Kalbe Farma Tbk
12	MNCN	Media Nusantara Citra Tbk
13	PGAS	Perusahaan Gas Negara (Presero) Tbk
14	PTBA	Bukit Asam Tbk
15	TLKM	Telekomunikasi Indonesia (Persero) Tbk
16	TPIA	Chandra Asri Petrochemical Tbk
17	UNTR	United Tractors Tbk
18	UNVR	Unilever Indonesia Tbk

19	WIKA	Wijaya Karya (Persero) Tbk

Source: OJK Sharia Securities List, 2022

No.	Company	Sector
1	Tenaga Nasional	Electricity
2	PETRONAS Chemicals Group Bhd	Chemical Material
3	Sime Darby Plantation	Food Manufacturer
4	Axiata Group Bhd	Penyedia Layanan Telekomunikasi
5	IOI	Food Manufacturer
6	IHH Healthcare	Health Service Provider
7	Digi.com	Telecommunications Service Providers
8	PPB Group	Food Manufacturer
9	Telekom Malaysia	Telecommunications Service Providers
10	Petronas Gas	Gas Water and Multi-utility

Source: FTSE Russel, 2022

The data collection method in this study is a literature study, where data collection comes from various books, journals, internet sites, and other scientific literature. In this documentary research, researchers directly download stock prices, volumes, and the number of outstanding shares by visiting websites or sites related to the Indonesian capital market. Then collect data and record the necessary data. The research variable is anything in any form determined by the researcher to be studied so that information is obtained about it, then conclusions are drawn. The variables used in this study are:

No	Variable	Variable Definitions	Measurement	References
Independent Variable (X)				
1	Abnormal return (X1)	The difference between the actual return and the expected return of each stock.	$AR_{i,t} = R_{i,t} - E(R_{i,t})$	(Hartono, 2018)
2	Trading Volume	Comparison between the	TVA $= scompany\ shares\ traded\ at$	(Hartono, 2018)

	Activity (X$_2$)	number of shares traded and the number of shares outstanding.	$\frac{time\ t}{shares\ outstanding\ at\ time\ t}$	
Dependent Variable (Y)				
3	Lockdown Effect (Y)	Market reaction due to closing access in an area.		(Hartono, 2018)

The normality test in this study used the Kolmogorov-Smirnov (K-S) test. The Kolmogorov-Mirnov (K-S) test has the advantage of being able to avoid differences in perception between observers and is simpler. If the data is normally distributed, the Paired Sample (t-test) or paired t-test will be used. While the data is not normally distributed, the hypothesis test used is a non-parametrically Wilcoxon Signed Ranks Test.

The significance test used is using a probability value of 5%. If t-count > t-table, then the second hypothesis has a significant abnormal return. TVA calculation is done by comparing the number of company shares traded with the total number of company shares outstanding during the study period. This data analysis test will use SPSS Statistics by inputting the required stock data.

The observation period in this study has a span of 51 trading days. This consists of an estimation period of 30 days and a window period of 21 days, namely 10 days before the announcement date (H-10), 1 day at the time of the announcement (even date, H=0), and 10 days after the announcement date (H+10).
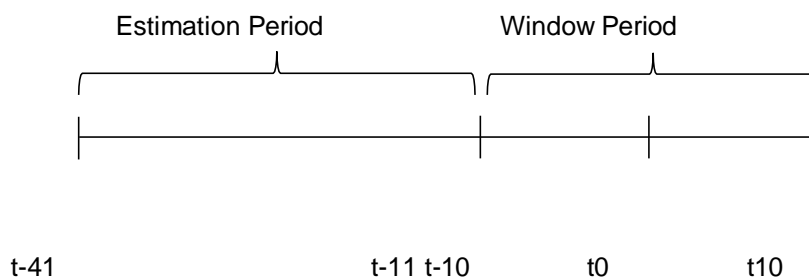
RESULT AND DISCUSSION

Table 1.

Test Statistics[a]

	AAR After PSBB Policy Determination - AAR Before PSBB Policy Issuance
Z	-.561[b]
Asymp. Sig. (2-tailed)	.575

Source: Data processed (SPSS), 2023

Results in AAR before normal distribution, and vice versa in AAR after abnormally distributed. So the first hypothesis testing uses the Wilcoxon Signed Rank Test method because one of the data is not normally distributed. The test results in table 4.1, show that the event of estabilishing the PSBB policy gets an Asymp value Sig. (2-tailed) of 0.575 which is greater than the acceptable signification value of 5% (0.05). Looking at the test results above, the event of estabilishing the PSBB policy as measured by Average Abnormal Rerturn stated that there was no significant effect.

Table 2.
Paired Samples Test

| | | Paired Differences | | | | | | | Sig. (2-tailed) |
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | t | df | |
					Lower	Upper			
Pair 1	AAR Before PPKM Policy Extension - AAR After PPKM Policy Extension	.0019700	.0129811	.0041050	-.0073161	.0112561	.480	9	.643

Results in AAR before normal distribution, as well as in AAR after normal distribution. So the first hypothesis testing uses the Paired Samples t-test method because both data are normally distributed. The test results in table 2, show that the PPKM policy determination event obtained the Asymp value Sig. (2-tailed) of 0.643 which is greater than the acceptable signification value of 5% (0.05). Looking at the test results above, the program for extending the PPKM policy as measured by Average Abnormal Return. So the test estabilishment of the PPKM policy on May 10, 2022 has no significant effect, there is a difference in AAR.

Table 3.
Paired Samples Test

			Paired Differences						Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	
Pair 1	AAR Before PPKM Policy Extension - AAR After PPKM Policy Extension	-.0026400	.0049356	.0015608	-.0061707	.0008907	-1.691	9	.125

Results in AAR before normal distribution, as well as in AAR after normal distribution. So the first hypothesis testing uses the Paired Samples t-test method because both data are normally distributed. The test results in table 3, show that the PPKM policy determination event obtained the Asymp value. Sig. (2-tailed) of 0.125 i.e. greater than the acceptable signification value i.e. at the rate of 5% (0.05). Looking at the test results above, the program for extending the PPKM policy as measured by Average Abnormal Return. So the result test states that the extension of PPKM policy with AAR after the extension of PPKM policy on October 4, 2022 has no sifnificant effect, there is a difference AAR.

Table 4.
One-Sample Kolmogorov-Smirnov Test

		AAR Before MCO Policy Assignment	AAR After MCO Policy Assignment
N		10	10
Normal Parameters[a,b]	Mean	-.808300	.002400
	Std. Deviation	2.8865012	.0063828
Most Extreme Differences	Absolute	.509	.281
	Positive	.289	.281
	Negative	-.509	-.231
Test Statistic		.509	.281
Asymp. Sig. (2-tailed)		.000[c]	.025[c]

Source: Data processed (SPSS), 2023

The normality test with Kolmogorov-Smirnov (K-S) in table 4 above, shows the Asymp results. Sig. (2-tailed) of AAR 10 days before and 10 days after MCO in the 10 best constituents listed on FTFBMHS obtained values of 0.000 and 0.025 respectively of their supposed values (5% or 0.05). The results in AAR before MCO policy determination are abnormally distributed, as well as in AAR after abnormally distributed MCO policy determination. So it is stated to have an effect which means that there is a difference between AAR before the determination of the MCO policy with AAR after determining the MCO policy.

Table 5.

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	
Pair 1	ATVA Before the Exit of PSBB Policy - ATVA After the Exit of PSBB Policy	-.0127700	.0804356	.0254360	-.0703101	.0447701	-.502	9	.628

Results in ATVA before normal distribution, as well as in ATVA after normal distribution. So the first hypothesis testing uses the Paired Samples t-test model test method because both data are normally distributed. The test results in table 5, show that the event of setting the PSBB policy obtained the Asymp value. Sig. (2-tailed) of 0.628 greater than the acceptable signification value of 5% (0.05). Looking at the test results above, the program for extending the PSBB policy as measured by Average Trading Volume Activity. So the result of the study stated that there no significant influence.

Table 6.
Paired Samples Test

		Paired Differences						d f	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t		
					Lower	Upper			
Pair 1	ATVA Before PPKM Policy Extension - ATVA After PPKM Policy Extension	-.0001800	.0006088	.0001925	-.0006155	.0002555	-.935	9	.374

Results in ATVA before normal distribution, as well as in ATVA after normal distribution. So the first hypothesis testing uses the Paired Samples t-test model test method because both data are normally distributed. The test results in table 6, show PPKM policy extension event on October 4, 2022, obtained the Asymp value. Sig. (2-tailed) of 0.374 greater than the acceptable signification value of 5% (0.05). Looking at the test results above, the PPKM policy extension event on May 10, 2022, as measured by the Average Trading Volume Activity. The result of the study states that there no significant effect.

Table 7.
Test Statistics[a]

	ATVA After PPKM Policy Extension - ATVA Before PPKM Policy Extension
Z	-1.687[b]
Asymp. Sig. (2-tailed)	.092

Source: Data processed (SPSS), 2023

The results in ATVA before normal distribution, while in ATVA after distribution are abnormal. So the first hypothesis testing uses the Wilcoxon Signed Rank Test method because one of the data is not normally distributed. The test results in table 7, show PPKM policy extension event on October 4, 2022, obtained the Asymp value. Sig. (2-tailed) of 0.092 greater than the acceptable signification value of 5% (0.05). Looking at the test results above, the PPKM policy extension

event on October 4, 2022, as measured by Average Trading Volume Activity. The result states that it had no significant effect.

Table 8
Test Statistics[a]

	ATVA After MCO Policy Exit - ATVA Before MCO Policy Assignment
Z	-.952[b]
Asymp. Sig. (2-tailed)	.341

Source: Data processed (SPSS), 2023

The results in ATVA before distribution are abnormal, while in ATVA after normal distribution. So the first hypothesis testing uses the Wilcoxon Signed Rank Test method because one of the data is not normally distributed. The test results in table 8, show that MCO policy determination event obtained the Asymp value. Sig. (2-tailed) of 0.341 i.e. greater than the acceptable signification value of 5% (0.05). Looking at the test results above, the MCO policy setting event was responded to negatively by market participants after the MCO policy setting event as measured by the Average Trading Volume Activity, but it was declared to have no effect.

The share price of JII companies that were consistently active before and after the Covid-19 lockdown in the entertainment industry tended to increase. Namely XL Axiata, Media Nusantara Citra, and Telecommunications companies which on average showed an increase in stock prices after the announcement of PSBB and PPKM in Indonesia. Likewise, the food and beverage and pharmaceutical industry companies have experienced an increase in stock prices in several companies such as Indofood CBP Sukses Makmur, Indofood Sukses Makmur, Japfa Comfeed Indonesia, and Kalbe Farma. Some factors cause no difference in stock returns before and after the Covid-19 announcement in Indonesia, including the possibility that information about Covid-19 has been leaked, so the market does not respond aggressively to information about the announcement circulating (Anindya, 2021).

Different from the normality test results on abnormal returns due to PSBB and PPKM in Indonesia, there was a reaction to abnormal returns due to MCO in Malaysia which is in line with this study. This is because investors have lost confidence in the Malaysian government in overcoming the pandemic and are taking profit-taking actions with the existence of the MCO policy which triggers abnormal returns on companies listed on the FTFBMHS.

In the phenomenon of the announcement of Covid-19 as a pandemic by the World Health Organization, it can be seen that the content of information in the Covid-19 lockdown announcement is not strong enough (Sari, 2021). So the market does not show a reaction to this event. This lockdown announcement cannot be said to be a positive (good news) or negative (bad news) signal because there is not enough change in stock trading volume.

Insignificant trading volume activity indicates that this lockdown announcement has weak information content and investors do not feel any strong signals as a result of this announcement. The results of this study are in line with the research of (Sari, 2021) previously said that there was no significant difference in trading volume activity during PSBB and PPKM in Indonesia. Similarly, the research of (Fauziah & Venusita, 2021) resulted in no reaction during the MCO lockdown in Malaysia in his research.

The effect on Trading Volume Activity after the announcement occurred was due to investors who tend to apply a wait-and-see strategy. Wait and see is a strategy where investors wait, observe, and analyze stock movements. During this strategy, investors do not make stock transactions either selling or buying. This is done until investors find the right momentum to sell their shares again.

CONCLUSION

Based on the results of hypothesis testing, it can be concluded that MCO had an abnormal reaction at the time of setting the lockdown policy in Malaysia. However, PSBB and PPKM did not have an abnormal reaction at the time of setting the lockdown policy in Indonesia. As for trading volume activity, PSBB, PPKM, and MCO, there was no market reaction at the time of the lockdown policy in Indonesia and Malaysia. This shows that the establishment of lockdown policies gave the market reaction to several events in the capital market.

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