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Analysis Of Abnormal Stock Returns One Week After The First Confirmed Covid-19 Case in Indonesia

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ABSTRACT

This study examines the reaction of the Indonesian capital market to the announcement of the first confirmed COVID-19 case in Indonesia on March 2, 2020, by applying an event study approach to stocks included in the IDX SRI-KEHATI index. The sample consists of 25 companies, with an observation window of 11 trading days (t−5 to t+5) and an estimation period of 60 days. Abnormal returns were calculated using the market model to identify short-term market reactions to unexpected public information. The results indicate that the majority of stocks experienced negative abnormal returns around the event date, reflecting heightened investor uncertainty. On the announcement day (t_0), several major stocks recorded significant negative abnormal returns, such as BBRI (−0.03361), BBNI (−0.03042), BTPS (−0.04307), and a negative accumulated abnormal return (ARTN) of −0.02313. Although a limited number of stocks, including ASII (0.05942) and ANTM (0.03915), showed positive abnormal returns, the overall average abnormal return (AAR) declined sharply after the event. The cumulative average abnormal return (CAAR) continued to decrease throughout the post-event period, indicating a sustained negative market response. These findings support the semi-strong form of the Efficient Market Hypothesis, suggesting that the Indonesian capital market reacts quickly but unevenly to systemic crisis information.

Keywords: Abnormal Return; Event Study; COVID-19 Announcement; IDX SRI-KEHATI; Capital Market Reaction; Efficient Market Hypothesis

INTRODUCTION

The capital market is one of the important indicators in describing the economic condition of a country. Stock price movements in the capital market reflect investors' expectations of economic prospects, government policies, and various external events that have a significant impact. One global event that has had a major impact on stock market dynamics is the COVID-19 pandemic. The first confirmed case of COVID-19 in Indonesia was announced on March 2, 2020, marking the beginning of panic and uncertainty in various sectors, including the financial sector and the capital market.

In the semi-strong form of market efficiency theory proposed by (Fama, 1970), capital markets are said to be efficient if stock prices quickly and accurately reflect available public information. Major events such as the announcement of the COVID-19 pandemic are public information that has the potential to influence the investment decisions of market participants, thereby causing a market reaction in the form of significant changes in stock prices. This reaction can be measured through abnormal returns, which is the difference between actual returns and expected returns that should occur under normal conditions.

Research on abnormal returns is highly relevant for testing the extent to which the Indonesian capital market is responsive to negative global information such as a pandemic. In this context, observations during the week following the first announcement of COVID-19 in Indonesia became a crucial period for identifying investor reactions to the emerging uncertainty.

This study specifically focuses on the IDX SRI-KEHATI index, which contains stocks of companies that are considered to be concerned with environmental, social, and governance (ESG) sustainability. The IDX SRI-KEHATI is interesting to study because the companies included in it generally have a good reputation in managing non-financial risks, which could influence investor perceptions amid a crisis. Whether these sustainable stocks are able to maintain their value or even become more resilient in the face of shocks caused by the pandemic is the main question that will be answered in this study.

This study is also important because it uses a sample of stocks included in the IDX SRI-KEHATI index for the 2022 period, even though the events observed occurred in 2020. This means that historical return data from these sustainable stocks was analyzed to evaluate the impact of the pandemic on market behavior. This approach provides important lessons for regulators, investors, and academics in understanding the dynamics of abnormal returns amid unexpected events. In addition, by using the event study approach, this research can provide empirical evidence regarding the sensitivity of the Indonesian capital market to extraordinary events and how risk perceptions are formed in the short term.

Based on this background, this study is expected to contribute theoretically to the development of literature on market efficiency and abnormal returns, as well as practically to investors and policymakers in managing market risk during crises.

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LITERATURE REVIEW

Abnormal Return

According to (Fatmawati & Azizah, 2020), abnormal return is the excess of the actual return over the normal return. Abnormal return or normal return is the expected return that investors expect. Thus, abnormal return is the difference between the actual return and the expected return. If the actual return is higher than the expected return, then it can be said that an abnormal return has occurred and there is a positive difference, but if the opposite occurs, then there is a negative difference. According to Hartono in (Setiawan & Pramono, 2025), abnormal return or excess return is the excess of the actual return over the normal return. Thus, abnormal return is the difference between the actual return and the expected return. The formula used to calculate abnormal returns is as follows (Widyarti et al., 2021): ARit = Rit – E(Rit)

The actual return is the return that occurs at time t, which is the difference between the current price and the previous price, while the expected return is the return that is expected (estimated) using the expected return equation above (Kadioglu & Kirbas, 2021).

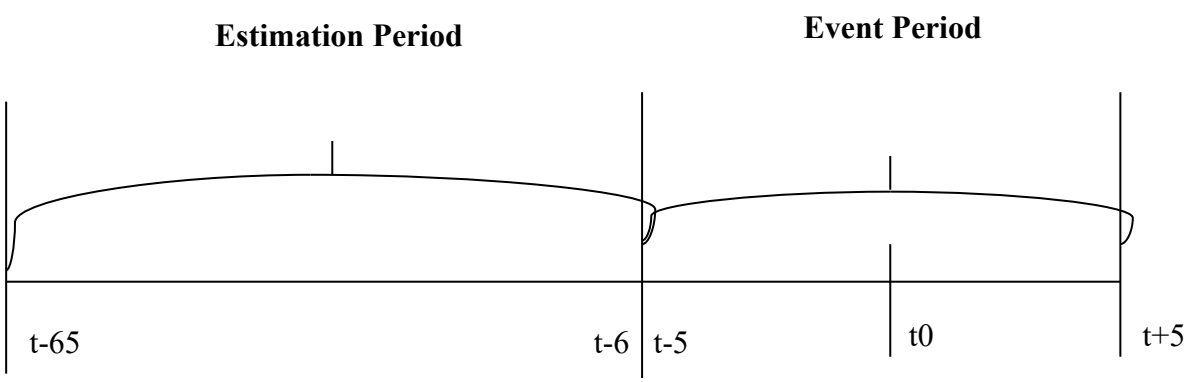
Event Study

According to (Jusman, 2019), an event study is a study that examines market reactions to an event. Event studies can also be used to test the information content of an announcement and to test the efficiency of semi-strong form markets (Sorescu et al., 2017). A company's market value is important for companies (especially those that have gone public) because it reflects the market's (investors') response to what the company has done (MacKinlay, 1997).

Meanwhile, according to (Peterson, 1989:1), an event study is an observation of stock price movements in the capital market to determine whether there are abnormal returns obtained by shareholders in the capital market as a result of a particular event. in (Tiswiyanti & Asrini, 2015), also states that an event study is a study that examines the market's reaction to an event whose information is published as an announcement. Event studies can also be used to test semi-strong market efficiency. More specifically, event studies investigate the market's response to the information content of a particular event announcement. The information content can be good news or bad news (Clarke & Tapia-Schythe, 2021).

RESEARCH METHOD

Research Period in Event Studies



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The event period in this article is 11 days (from t-5 to t+5) for abnormal return analysis. The estimation period used for observation is 60 days (from t-6 to t-65) to calculate α and β with the market model (single index model) to determine the expected return.

Stages of Abnormal Return Calculation

a. Calculating individual stock returns (Ri)

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

Explanation:
$R_{i.t}$ = Return of stock i in period t
P_t = Price of stock i in period t
P_{t-1} = Price of stock i in period t-1

b. Calculating market return (Rmt)

$$R_{mt} = \frac{IHSG_t - IHSG_{t-1}}{IHSG_{t-1}}$$

Explanation:
Rmt = return of the IHSG in period t
IHSGt = IHSG in period t
IHSGt-1 = IHSG in period t-1

c. Calculating ⟨ (Alpha) dan ® (Beta)
In this study, the measurement of stock β (beta) was conducted using a simple regression approach between stock returns and market returns, where the beta coefficient was calculated using the "SLOPE" function in Microsoft Excel. This function produces the slope value of the regression line, which represents the sensitivity of stock returns to movements in market returns.

In this study, the calculation of the α (alpha) value was performed by first calculating the expected return of individual stocks (ERi) and the expected market return (ERm) in the estimation period. After obtaining these two values, α (alpha) was calculated using the formula:

$$⟨ = ERi - (® \times ERm)$$

ERi is the expected return on individual stocks, β is the beta coefficient that reflects systematic risk, and ERm is the expected return on the market. This formula is used to determine the excess return on stocks beyond the compensation for the market risk they contain.

d. Calculating Expected Return for the Event Period
Expected return in this case is calculated using the following equation:

$$E(R_{i.t}) = ⟨_i + ®_i E(R_{mt})$$

Explanation:

$E(R_{i.t})$ = expected return of stock i in period t
$\langle_i$ = portion of stock i return that is not affected by market performance
$®_i$ = sensitivity of stock i return to market movements (also known as the beta of stock i)
$E(R_{mt})$ = E(Rmt) market in period t (using Rmt data during the event period)

e. Calculating Abnormal Returns for Event Periods

$$AR_{i.t} = R_i - E(R_{i.t})$$

Keterangan:
AR_i = abnormal return of stock i in period t
$R_{i.t}$ = return of stock i in period t
$E(R_{i.t})$ = expected return of stock i in period t

RESULTS

This study used a sample of 25 companies listed on the IDX SRI-KEHATI index from December 2022 to May 2023. Daily stock price data for each company was obtained from the official Investing.com website as a credible source of historical data.

Abnormal Return
Table 1. Abnormal Return Calculation Results

Stock Code	AR_{it}										
	t_{-5}	t_{-4}	t_{-3}	t_{-2}	t_{-1}	t_0	t_1	t_2	t_3	t_4	t_5
AALI	0.00235	0.03436	0.00314	0.05605	-0.04381	0.00212	-0.03048	-0.03629	0.02649	0.02219	-0.03237
AKRA	-0.00248	-0.00031	0.00227	-0.00244	-0.01049	-0.00887	-0.04887	-0.04348	0.00419	-0.00098	0.04564
AMRT	0.03257	-0.01544	0.00347	0.01470	-0.02257	0.03538	0.00521	-0.04791	0.01502	-0.00539	0.03427
ANTM	-0.00441	-0.03062	-0.02345	-0.01375	-0.02202	0.03915	0.01811	-0.00220	0.00432	-0.00047	-0.01003
ASII	0.00493	0.02586	-0.00003	0.02826	-0.04667	0.05942	-0.01452	-0.02763	0.01573	-0.02085	-0.00460
BBCA	-0.00172	0.00298	-0.00063	0.00627	0.01417	-0.01738	0.00779	-0.00698	0.00009	-0.01225	-0.00025
BBNI	-0.01094	-0.00680	-0.00666	0.00162	0.01047	-0.01939	-0.03042	-0.00888	-0.01651	-0.03254	-0.03623
BBRI	0.00770	0.00409	0.01229	-0.05045	0.02909	-0.03361	-0.00399	0.00119	-0.01616	-0.00845	0.00550
BBTN	-0.00420	0.00724	0.01565	0.02060	-0.00243	-0.00036	-0.02211	-0.00182	-0.01203	0.00723	-0.01732
BJBR	-0.01273	0.01043	-0.01060	-0.02559	0.01888	0.01456	0.05994	0.02737	-0.00067	0.04140	-0.04503
BJTM	-0.01553	0.01866	-0.00549	0.00785	0.00109	0.00202	-0.00753	0.01176	-0.00601	0.00663	-0.01880
BMRI	-0.00316	0.00458	-0.00151	-0.00947	0.00512	-0.02720	-0.00225	0.00664	0.01651	-0.01893	-0.01644
BNII	-0.00201	-0.00891	-0.01686	-0.03131	-0.06243	0.00383	0.04231	0.01875	0.01759	-0.02171	-0.07594
BRPT	-0.02810	-0.00927	-0.03407	-0.02170	0.02288	-0.02095	-0.01258	0.02982	-0.00213	-0.01539	-0.05255
BSDE	0.00608	0.00717	0.00228	0.01038	-0.00646	-0.00995	0.05131	0.03253	-0.00803	-0.04151	0.01687
BTPS	-0.01647	-0.02427	0.01527	-0.03195	-0.06666	-0.03407	0.04768	0.02523	0.02413	0.01289	-0.05828
CPIN	0.00387	-0.00647	-0.03586	0.04127	-0.00684	0.01288	0.01896	0.01992	0.01436	-0.00060	0.05874
DMAS	0.02002	-0.00983	-0.04194	-0.00581	-0.04129	0.01628	0.00968	-0.03577	-0.02992	-0.01120	-0.04783
DSNG	-0.00007	-0.01236	-0.00617	-0.00789	-0.03796	0.02252	-0.03546	-0.01568	0.03095	0.00887	0.02220
ELSA	-0.01412	-0.00179	-0.03506	0.01668	-0.05966	0.05093	0.05177	-0.02582	0.01342	0.01441	-0.04183
EMTK	0.05311	-0.07858	-0.00102	-0.00169	-0.00485	-0.00697	0.00209	0.00172	0.04998	-0.06821	0.00998
ERAA	-0.04367	0.01362	-0.00203	0.01103	0.01306	0.01030	0.03088	-0.02655	0.00232	0.01128	0.03439
GOOD	0.00632	-0.00035	0.00762	-0.01581	-0.00078	-0.01990	0.01748	-0.00107	-0.00090	0.01790	-0.00072

HEAL	0.00493	-0.00655	-0.02459	0.00222	-0.04213	0.00927	-0.00580	-0.01436	0.00892	-0.00536	-0.05253
ICBP	0.01517	-0.00207	-0.00273	-0.00824	-0.01637	-0.00136	0.06079	-0.01457	0.00165	0.01580	-0.01106
$RRTN_t$	0.00010	-0.00338	-0.00747	-0.00037	-0.01515	0.00315	0.00840	-0.00536	0.00613	-0.00421	-0.01177
$ARTN_{i,t}$	0.00010	-0.00329	-0.01076	-0.01113	-0.02627	-0.02313	-0.01473	-0.02009	-0.01396	-0.01817	-0.02994

This study aims to analyze the reaction of the Indonesian capital market to the first announcement of COVID-19 cases in Indonesia on March 2, 2020, using an event study approach on stocks included in the IDX SRI-KEHATI index for the period December 2022 – May 2023. The research sample consisted of 25 stocks, and observations were made over 11 days, namely five days before to five days after the announcement date (event window t-5 to t+5).

The abnormal return calculation results show that the majority of stocks experienced negative abnormal returns, both before and after the announcement date. This indicates that there is uncertainty and concern among market participants due to the impact of the spread of COVID-19 on national economic activity. For example, BBRI shares showed a negative abnormal return of -0.03361 at t0, which means that the market responded negatively to official information related to the pandemic. Similarly, BBNI (-0.03042), BTPS (-0.04307), and ARTN (-0.02313) shares experienced a decline in abnormal return value on the day of the announcement. Interestingly, in the period before the event (t-5 to t-1), a number of stocks also showed a pattern of consecutive negative abnormal returns. This may reflect the possibility of information leakage or a reaction to global uncertainty that had emerged before the first case was officially announced in Indonesia. For example, ELSA and EMTK stocks showed a consistent pattern of abnormal return declines since before t0.

On the day of the event (t0), some stocks recorded positive abnormal returns, although not very large. Stocks such as ASII and ANTM recorded positive abnormal returns of 0.05942 and 0.03915, respectively. This indicates a variation in investor reactions that may be influenced by sectoral perceptions or expectations of recovery. However, in general, the trend remained dominated by negative market reactions.

In the post-event period (t+1 to t+5), abnormal returns continued to show unstable fluctuations. Some stocks recorded positive values, such as BJBR (+0.05994 at t+1), but the majority of other stocks still showed negative values or only recovered temporarily. This instability reflects market conditions that are full of uncertainty and increased systemic risk due to the pandemic.

In general, the results of this study are consistent with the semi-strong form of the Efficient Market Hypothesis, which states that the market will respond quickly and rationally to public information. The official announcement of the first COVID-19 case in Indonesia proved to be relevant information that impacted the market's short-term reaction. In addition, these results are also in line with several previous studies which state that unexpected events such as a global pandemic can trigger market overreaction, risk adjustment, and high stock price volatility.

Average Abnormal Return Before and After the Event
Table 2. RRTNt Calculation Results Before and After the Event

Stock Code	$RRTN_t$ (Pre)	$RRTN_t$ (Post)	Information
AALI	0.01041911	-0.01009114	Penurunan
AKRA	-0.00169813	-0.00870121	Penurunan

AMRT	0.00254471	0.00023913	Penurunan
ANTM	-0.01885464	0.00194518	Peningkatan
ASII	0.00246860	-0.01037329	Penurunan
BBCA	0.00421424	-0.00232042	Penurunan
BBNI	-0.00246197	-0.02491798	Penurunan
BBRI	0.00054295	-0.00438052	Penurunan
BBTN	0.00737216	-0.00921088	Penurunan
BJBR	-0.00392193	0.01659975	Peningkatan
BJTM	0.00131711	-0.00279104	Penurunan
BMRI	-0.00088636	-0.00289276	Penurunan
BNII	-0.02430334	-0.00379804	Peningkatan
BRPT	-0.01405237	-0.01056775	Peningkatan
BSDE	0.00388918	0.01023262	Peningkatan
BTPS	-0.02481627	0.01033051	Peningkatan
CPIN	-0.00080826	0.02227466	Peningkatan
DMAS	-0.01576893	-0.02300705	Penurunan
DSNG	-0.01289115	0.00217623	Peningkatan
ELSA	-0.01879035	0.00239040	Peningkatan
EMTK	-0.00660664	-0.00088773	Peningkatan
ERAA	-0.00159785	0.01046439	Peningkatan
GOOD	-0.00059980	0.00653856	Peningkatan
HEAL	-0.01322460	-0.01382512	Penurunan
ICBP	-0.00285004	0.01052146	Peningkatan

Table 2 shows that the comparison of abnormal average returns ($RRTN_t$) before and after the announcement of the first COVID-19 case in Indonesia, on stocks included in the IDX SRI-KEHATI index for the period December 2022 to May 2023. The use of $RRTN_t$ in this study aims to measure the direction and intensity of the capital market's reaction to unexpected events in the short term.

The results of the table show that there are variations in the reactions among the stocks observed. Most stocks showed a decline in $RRTN_t$ value after the event, reflecting the market's negative response to the pandemic news. This decline indicates that investors perceived the event as bad news that could potentially reduce the future value of these companies. For example, stocks such as BBNI, BJTM, and HEAL recorded lower $RRTN_t$ values after the event compared to before the event. On the other hand, there were also several stocks that showed an increase in $RRTN_t$ after the announcement of the first COVID-19 case. For example, ICBP, EMTK, and DSNG stocks showed positive $RRTN_t$ values after the event. This indicates that investors may view these stocks as safe havens or have resilient business prospects amid the global health crisis.

In general, these results indicate that the Indonesian capital market reacted to COVID-19 events, although not uniformly across all sectors or stocks. Fluctuations in $RRTN_t$ values indicate that the same information can be interpreted differently by market participants, depending on their expectations and perceptions of each issuer's industry.

Thus, this study provides empirical evidence that announcements of significant external events can influence investor behavior and stock prices, and confirms the importance of event study analysis in understanding capital market dynamics. This knowledge is also

useful for regulators and market participants to anticipate the impact of unexpected information on market stability.
Abnormal Return Average Chart

Figure 1. Abnormal Return Average Chart

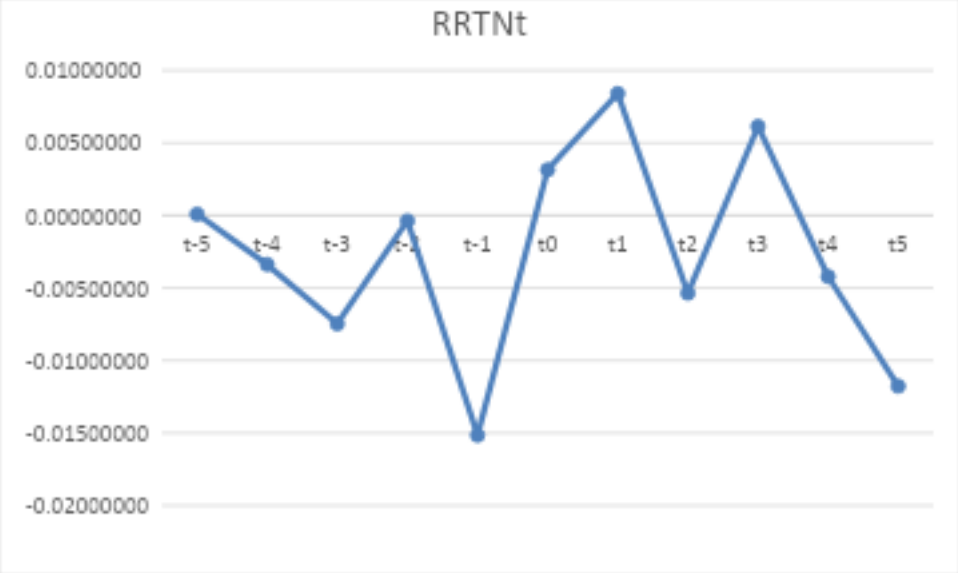

Figure 1 presents a graph of the movement of the Average Abnormal Return ($RRTN_t$) from five days before (t−5) to five days after (t+5) the announcement of the first COVID-19 case in Indonesia. This graph illustrates the dynamics of market response to events that are surprising and highly informative.

Based on the graph, it appears that on day t−1 (one day before the event), the $RRTN_t$ value experienced the sharpest decline, even reaching its lowest point in the entire observation window. This indicates that some market participants may have anticipated the negative impact of the event before it was officially announced, as reflected in increased selling activity that caused negative abnormal returns.

Interestingly, on day t_0 (the day of the event) and t_1 (one day after), there was a significant reversal, with the $RRTN_t$ value turning positive. This indicates that after the event was announced, some investors may have considered the previous market reaction to be excessive (overreaction), or there were expectations that government policies would mitigate the impact. However, unstable fluctuations reoccurred in the following days (t_2 to t_5), with the $RRTN_t$ value oscillating up and down, even returning to the negative zone at t_4 and t_5. This pattern indicates that the market has not yet reached a point of information equilibrium and is still in the process of adjusting to the uncertainty caused by the pandemic.

In general, the inconsistent and volatile movement of $RRTN_t$ reflects market uncertainty and high investor sensitivity to negative news that has not been fully digested by the market. This is in line with the semi-strong Efficient Market Hypothesis (EMH) theory, which states that markets react quickly to public information, although not always efficiently in the short term.

Thus, this graph reinforces the finding that the announcement of COVID-19 cases has a significant effect on abnormal returns in the Indonesian capital market, and shows the phenomenon of overreaction and underreaction in a very short period of time.

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Abnormal Return Average Accumulation Chart

Figure 2. Abnormal Return Average Accumulation Chart

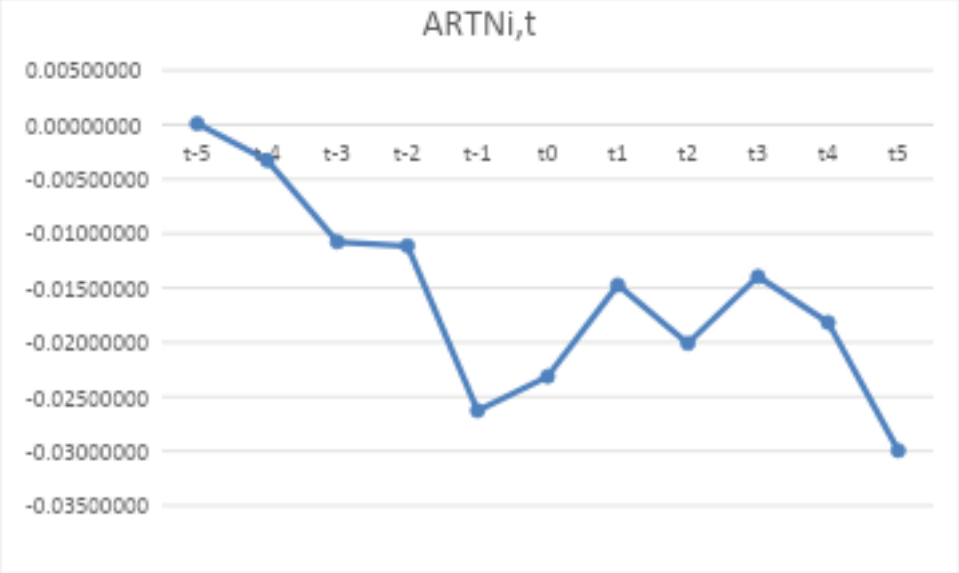

Figure 2 shows the movement of the cumulative average abnormal return (CAAR) of stocks included in the IDX SRI-KEHATI index during the event window period t−5 to t+5. In general, the $ARTN_{i,t}$ trend shows a consistent downward pattern, particularly from t−3 to t+5.

Based on the event study approach as described by (MacKinlay, 1997), the $ARTN_{i,t}$ pattern can be interpreted as the cumulative response of the market to significant information or events. In the context of this study, the continuously declining $ARTN_{i,t}$ value indicates that the market reacted negatively in aggregate, resulting in an accumulation of negative abnormal returns.

The sharp decline seen from t−2 to t0 reflects the market's initial reaction to expectations of the upcoming event, which, in the framework of semi-strong form market efficiency theory (Fama, 1970), can be categorized as a response to public information or information leaks that have been quickly assimilated by investors. This indicates that some market participants had anticipated the impact of the event before the event date, as reflected in the cumulative negative abnormal returns since before t0.

Although there was a slight recovery after t0, $ARTN_{i,t}$ did not return to positive levels and instead experienced another decline at t+5. This fact reinforces the indication that the impact of information on stock value is negative and sustained, potentially caused by market uncertainty, continued negative sentiment, or investor perceptions of medium-term risk.

From the perspective of investors and portfolio managers, these results have important implications. ESG-based investment strategies such as IDX SRI-KEHATI remain vulnerable to the impact of certain events that are considered material by the market. On the other hand, for regulators and issuers, these results signal the need to improve the quality of transparency and speed of information delivery to minimize information asymmetry and market volatility. Overall, these findings reinforce the literature stating

that although ESG stocks are considered more resilient in the long term, in the short term they remain exposed to market sentiment like other conventional stocks (Fernando et al., 2021).

DISCUSSION

The results of the study indicate that the announcement of the first COVID-19 case in Indonesia on March 2, 2020, caused a negative reaction in the capital market, as reflected in the abnormal returns (AR) of the majority of stocks observed. These findings indicate that the Indonesian capital market is sensitive to public information that is unexpected and has a systemic impact.

In general, these research results are consistent with the semi-strong form of the Efficient Market Hypothesis (EMH) (Fama, 1970), in which stock prices respond quickly to newly published information. The decline in abnormal returns on the day of the event (t0) and the period thereafter (t+1 to t+5) shows that investors view the pandemic information as bad news that has direct implications for economic stability and company performance prospects.

However, not all stocks showed a negative reaction. Some stocks, such as ASII, ANTM, and BJBR, recorded positive abnormal returns. This shows that there are differences in investor perceptions between sectors. Issuers in certain sectors may be viewed as more resilient or have promising business prospects amid uncertainty. For example, stocks with a commodity base or sectors that are considered essential can be a safe haven for investors when market risk increases.

In addition, the pattern of abnormal returns that reversed direction at t0 and t+1 indicates the possibility of market overreaction. Investors initially reacted emotionally with massive sell-offs, but then some market participants assessed that the reaction was excessive, leading to a temporary recovery. This phenomenon is in line with previous literature which states that markets are often not entirely rational in the short term (De Bondt & Thaler, 1985).

Variations in stock reactions also emphasize the importance of considering company characteristics in event studies. Stocks included in the IDX SRI-KEHATI index are essentially selected for their high Environmental, Social, and Governance (ESG) standards. However, the results of this study prove that although ESG can be a long-term competitive advantage, in the short term these stocks remain vulnerable to negative global sentiment. This is in line with the research by (Fernando et al., 2021), (Herwany et al., 2021) and (Farooq et al., 2021), which states that ESG stocks are not completely immune to systemic shocks.

In practical terms, the results of this study have important implications for investors and regulators. For investors, portfolio diversification and risk management are still necessary, even for ESG-based stocks. For regulators, these findings indicate the need for rapid, transparent, and effective communication policies in crisis conditions to minimize market panic, the result in line with the research by (Indrayono, 2021) and (Dang Ngoc et al., 2021).

Thus, this discussion confirms that the Indonesian capital market responded quickly to the COVID-19 event, but the reaction was heterogeneous among issuers and often characterized by short-term overreaction.

CONCLUSION

This study aims to analyze the response of the Indonesian capital market to the first announcement of a confirmed COVID-19 case in Indonesia on March 2, 2020. Using an event study approach and analyzing 25 stocks included in the IDX SRI-KEHATI index for the period December 2022 – May 2023, this study evaluates the abnormal stock returns that occurred during the event window period. The data was processed using quantitative methods by calculating daily abnormal returns, normal average returns (RRTN), accumulated abnormal returns (ARTN), and comparing AAR values before and after the event.

The abnormal return calculations show that the market reacted negatively to the event, as reflected in the dominance of negative abnormal returns after the event date (t_0). The AAR_t graph shows intense fluctuations around day 0, with negative values dominating after the announcement, indicating that market participants viewed this information as a threat to economic stability and business activity. This reaction shows that the market collectively adjusted its return expectations in response to uncertainty.

Furthermore, a comparison of the average abnormal returns before and after the event reinforces the previous findings. The average AAR before the event was relatively more stable and positive, while after the event it experienced a sharp decline. These findings support the hypothesis that the announcement of the first COVID-19 case caused a significant change in investor expectations and reflected the uncertainty that affected investment decisions across the board.

The $RRTN_t$ (daily normal average return) graph shows that although stocks in the IDX SRI-KEHATI index performed stably during normal times, there was a significant decline after day 0. This indicates that even ESG-based stocks, which are generally assumed to be more stable in the long term, still experience pressure due to systemic events. This decline shows that the market is not entirely rational in the short term and is more influenced by collective negative sentiment.

The $ARTN_{it}$ (accumulated abnormal return per individual) chart further reinforces this conclusion. Most issuers in the index experienced negative accumulated returns during the event window. The negative accumulation that occurred in several stocks even continued for several days after the event, indicating that the market reaction was not only instantaneous but also sustained, and showing that it took time for investors to fully process the crisis information.

Overall, this study indicates that the Indonesian capital market responds quickly and negatively to unexpected events, especially those with systemic potential such as a pandemic. These findings are consistent with the semi-strong form of the Efficient Market Hypothesis (Fama, 1970), in which stock prices react to public information in a short period of time, although in practice market reactions are not always proportional and rational in the short term (Imani et al., 2020).

The results of this study have a number of important implications, both in academia and in capital market practice: 1. Theoretical implications: this study reinforces the significance of the event study method in identifying market reactions to external events. The main contribution lies in the use of ESG index stocks as the subject, which are rarely the main focus in analyses of market reactions to global shocks (Kumajas et al., 2022). This study opens up opportunities for further research exploring the differences in sensitivity between conventional stocks and sustainability-based stocks to systemic risk.

Practical Implications: For investors, these findings confirm that although ESG-based stocks have long-term advantages, they remain vulnerable to short-term pressures caused by global crises. Therefore, portfolio management approaches must continue to pay attention to risk diversification and uncertainty management. For regulators and capital market authorities, these results signal that the market is highly responsive to public information. Therefore, the dissemination of accurate and timely information is crucial to avoid panic and information asymmetry among investors. For issuers included in the ESG index, this study reflects that risk communication and sustainability strategies must be strengthened in the face of crisis situations to maintain investor perception and stock price stability.

LIMITATION

This study has several limitations that need to be considered when interpreting the results. First, the observation period was limited to an 11-day event window (t-5 to t+5), so the results of the study reflect the short-term reaction of the capital market. The long-term impact of the COVID-19 pandemic on abnormal returns cannot be fully revealed in this study.

Second, the research sample only focused on stocks included in the IDX SRI-KEHATI index for the period December 2022 – May 2023. This limits the generalization of the research results, as it does not cover all stocks on the Indonesia Stock Exchange (IDX) or other sectors that may have different characteristics in responding to crisis events.

Third, the event study method used only considers abnormal return variables without including other factors such as volatility, trading volume, or investor sentiment, which also have the potential to influence market reactions.

Fourth, the use of historical data with a market model approach (single index model) assumes that the relationship between stock returns and market returns is linear and stable throughout the estimation period. This assumption may not be entirely accurate in crisis conditions characterized by high uncertainty and potential changes in investor behavior.

Finally, this study relies solely on secondary data from online sources (Investing.com), so limitations related to accuracy, completeness, and possible differences in data recording still need to be considered.

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DECLARATION OF CONFLICTING INTERESTS

The author declares that there is no potential conflict of interest, either financial or non-financial, in the preparation of this article. All analyses and findings are presented independently for academic purposes and the advancement of knowledge.

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