

Effects of corporate actions on market dynamics during the COVID-19 pandemic: An event study on the Indonesia Stock Exchange

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Abstract

The COVID-19 pandemic has precipitated unprecedented uncertainty within the stock market, eliciting adverse reactions within the capital market. This environment compelled companies to engage in corporate actions. This research aimed to develop a model assessing the impact of corporate actions during the COVID-19 pandemic on the Indonesia Stock Exchange. This study employed an event study methodology to analyze corporate actions from March 1 to March 30, 2021, identifying four key actions: Stock Splits, Pre-emptive Rights (Rights Issues), Partial Delisting, and Warrants. These corporate actions influenced various metrics, including the frequency of stock returns, actual returns, stock returns, and trading volume activity. The outcomes of these actions varied, presenting differences before and after their execution. The study's findings categorize the impact of corporate actions during the pandemic into two distinct groups: insignificant and significantly negative. This research contributes to understanding the ramifications of corporate decisions during periods of heightened market volatility, specifically within the context of the Indonesia Stock Exchange during the COVID-19 pandemic.

Keywords: *Corporate action, COVID-19, Even study, Indonesia Stock Exchange*

JEL Classification: G14, G32, G41

INTRODUCTION

The global pandemic has led to significant loss of life since the emergence of the new coronavirus in China in early January 2020. It has inflicted sustained harm on the worldwide economy. On March 11, 2020, the World Health Organization declared COVID-19 an emergency pandemic, emphasizing its status as an international concern (Liu et al., 2020). As of March 4, 2021, the outbreak of Coronavirus COVID-19 has infected close to 115 million individuals and has been responsible for nearly 2.56 million fatalities across the globe. Specifically, in Indonesia, COVID-19 cases have reached 1.35 million with 36,518 deaths. The rising number of new cases and fatalities associated with COVID-19 has incited palpable fear and uncertainty among participants

in the capital markets, including investors and stock market analysts. Recent scholarly works have identified a correlation between the fear of infection and death due to the COVID-19 pandemic and the performance of the global stock markets (Mazumder & Saha, 2021).

This pandemic has caused considerable economic destruction worldwide. In the United States, stock market volatility surged in late February, leading to a nearly 33% drop in the stock market within a month, marking an unprecedented low. Further research (Fernandez-Perez et al., 2021) suggests that countries with lower levels of individualism have experienced even greater volatility in their capital markets. Similarly, in the Indonesian capital market, studies (Shiyammurti, Saputri, & Syafira, 2020) have shown that the COVID-19 pandemic has negatively impacted the Indonesian economy, as reflected by the decline in the Indonesia Stock Exchange Composite Stock Price Index (IHSG) and the rise in interest rates and inflation rates in Indonesia.

Research conducted by Liu et al. (2020) across the capital markets of 77 countries found that announcements related to the emergence of the COVID-19 virus led to negative reactions in the capital markets. Liu et al. (2020) also noted that the pandemic has caused a negative shock on global stock markets, with countries responding in various ways depending on their income levels. Moreover, the pandemic has heightened investor attention, leading to increased caution in investing, thereby affecting stock returns in the capital markets of Ghana and Tanzania (Iyke & Ho, 2021). Concurrently, research by Fu & Shen (2020) indicated that the outbreak of COVID-19 led to declines in stock prices, revenues, and profits for companies listed on the China Stock Exchange, highlighting the pandemic's role in elevating market uncertainty and risk aversion among investors.

In response to these challenges, companies have initiated corporate actions to maintain or enhance shareholder value based on their shareholding ratio (Venkatesan & N, 2018). These actions, including bonus issues, splits, dividends, mergers and acquisitions, and buybacks, are designed to influence stock prices by signalling that the company is proactive in safeguarding its share value. During COVID-19, companies took various corporate actions, such as issuing rights to existing shareholders at a discount to the prevailing market price, as observed in the Indian Capital Market (Marisetty & Babu, 2021). In contrast, research on the Austrian Stock Exchange (Cejnek et al. 2020) found that companies refrained from paying dividends to shareholders due to concerns about future capital costs. Additionally, the pandemic impacted the planned merger between Victoria's Secret and Brands, failing due to declining sales of Victoria's Secret (Malta & Winkler, 2020). This underscores companies' need to devise corporate actions or managerial policies to mitigate the adverse effects of market downturns during crises (Hartono & Raya, 2022).

The compilation of studies presented offers an in-depth exploration of the influence that corporate actions, notably dividends, stock splits, and rights issues, exert on stock markets across a diverse range of global exchanges. This examination reveals a complex landscape of investor reactions and market impacts that vary significantly across geographical and economic contexts.

Regarding dividends, the research illustrates a generally positive reception in various markets worldwide, indicating that investors often perceive dividends as positive signals of a company's financial health and profitability, providing a direct

return on investment. Studies conducted in Muscat (Husain & Javed, 2020), Colombo (Dharmarathne, 2013), Vietnam (Anwar et al., 2015; Ngoc & Cuong, 2016), and Nigeria (Ozo & Arun, 2019) all underscore the significant positive impact of dividends on stock market performance in these regions. These findings suggest a broad recognition of the value of dividends by investors across different markets.

However, the reception to dividend announcements is not uniformly positive. Research from the NYSE/AMEX/NASDAQ (Khanal & Mishra, 2017) and the Dhaka Stock Exchange (Olson & Wallen, 2013) illustrate negative and non-significantly positive effects, respectively, highlighting that dividends may not always be viewed favourably, influenced by varying investor expectations and perceptions of dividend sustainability. Moreover, studies from Pakistan (Manzoor, 2017) and Damascus (Abbas, 2016) present mixed and neutral effects, indicating that the impact of dividends is context-dependent, reflecting the nuanced investor sentiment and market dynamics in different regions. Chaabouni's (2017) research on the Tadawul Stock Market further confirms the positive impact of dividends in certain contexts, aligning with the generally favourable global viewpoint towards this corporate action.

The analysis of stock splits reveals a similarly nuanced picture. While favourable responses are noted in markets such as the Shanghai Stock Exchange, the Indonesia Stock Exchange, and the Bombay Stock Exchange (BSE) - with studies by Titman et al. (2020), Muna & Khaddafi (2022), Nagendra (2018), Nagendra & Babu (2019), and Hendra et al. (2021) documenting positive market reactions - the Indian market exhibits a more complex investor response (Patel et al., 2016; Rohit et al., 2016), ranging from significant negativity to inconclusive positivity. This suggests that while stock splits are often interpreted as indicators of company growth or an investor-friendly stance, perceptions can significantly differ based on local market conditions and other factors.

Lastly, investigating the impact of rights issues across various stock markets demonstrates contrasting responses. In the Indonesian context, As'Ari & Airawaty's (2021) study on the Indonesia Stock Exchange revealed a significant positive impact, suggesting a robust and favourable perception of rights issues among Indonesian investors, who may view them as signals of growth and potential opportunity.

The contrasting sentiment on the Bombay Stock Exchange (BSE) in India towards rights issues starkly underscores the complexity and diversity of investor reactions to corporate actions within global financial markets. Studies by Venkatesan & N (2018) and Nagendra & Babu (2019) reported significant negative and mixed impacts, respectively, on the BSE, while Todi & Varma (2021) found the effects to be inconclusive. Such responses may reflect a cautious or sceptical stance of Indian investors towards rights issues, possibly due to concerns over share dilution, governance issues, or the motives behind issuing additional stock. Similarly, research on the Karachi Stock Exchange by Bashir (2013) and on the BSE by Patesh et al. (2016) documented inconclusive or no significant impacts, further emphasizing the nuanced and varied nature of market reactions to rights issues heavily influenced by regional market conditions, investor sentiment, and the specific context of each rights issue.

This variability in response highlights the critical importance of understanding local market dynamics and investor perceptions when assessing the impact of corporate actions such as rights issues. While rights issues may be received positively in markets like Indonesia, suggesting an interpretation of these actions as indicative of growth and opportunity, the spectrum of responses in other markets, such as India and Pakistan,

ranges from negative to non-significant. This variation illustrates the complex interplay between regional market nuances, investor expectations, and the detailed circumstances surrounding each corporate action.

In conclusion, the collection of studies on the impact of corporate actions like stock splits, rights issues, and dividends across various stock markets reveals the significant influence of regional market dynamics and investor perceptions on these outcomes. While certain corporate actions like stock splits and dividends generally elicit positive reactions, the responses to rights issues and dividends can be mixed or negative, underscoring the need to consider local contexts. This diversity in investor reactions highlights the intricate landscape of global financial markets, shaped by the specific nature of each corporate action, regional nuances, and investor sentiment.

The significance of information for investors, serving as a foundation for investment decisions in the capital market, is underscored by these findings. Corporate actions represent critical information monitored by investors, with research on these actions during the pandemic revealing the limited focus on certain types. This research aims to broaden that perspective by analyzing various corporate actions during the initial announcement period of the pandemic, thereby contributing to a deeper understanding of their impact on the Indonesian Stock Exchange. The research aims to provide insights into the dynamics of corporate actions in a crisis context, enhancing the strategic decision-making process for investors and companies alike.

METHODS

The methodology section outlines a robust approach for examining the impact of corporate actions on stock market performance, specifically focusing on companies listed on the Indonesia Stock Exchange (IDX) during the COVID-19 pandemic from March 2, 2020, to March 2, 2021. This timeframe is crucial as it encapsulates the period when the pandemic's effects on the global and Indonesian economies were most acute, offering a unique opportunity to study corporate actions under crisis conditions.

The core methodology employed is the event study, a widely recognized financial research technique for assessing the impact of specific events on stock prices. This approach is particularly suitable for analyzing the effects of corporate actions, as it allows for the measurement of stock price reactions over a defined event window.

The methodological foundation of this study is built on library research, with the IDX serving as the primary data source. This includes detailed records of closing prices and other relevant financial metrics for companies that undertook corporate actions during the specified period. Daily returns are calculated based on the percentage change in closing prices from one day to the next, offering insights into the immediate financial implications of each corporate action.

The study focuses on several key variables: 1) Trading frequency, 2) True return, 3) Stock return, and 4) Trading volume activity. These variables are critical for understanding the broader market reactions to corporate announcements and provide a comprehensive view of the financial dynamics.

The research zeroes in on four specific types of corporate actions announced on the IDX during the pandemic, which are:

1. Stock splits: A process where a company divides its existing shares into multiple shares to boost the liquidity of the shares while keeping the total value of shares owned by shareholders unchanged.

2. Rights issues: An offer to current shareholders to purchase additional shares at a discount to the market price on a pro-rata basis, typically to raise capital.
3. Partial delisting: Removing a portion of a company's shares from the stock exchange reduces the number of shares available for trading.
4. Warrants: Rights issued to shareholders that allow them to purchase the company's stock at a predetermined price before a certain date.

The inclusion criteria for the companies analyzed are as follows:

1. It must be listed on the IDX.
2. The announcement or ex-date of the corporate action must fall within the period from March 2, 2020, to March 2, 2021.
3. Data must be available for specified estimation and event windows (-3, +3), (-7, +7), and (-10, +10 days around the event).

The analysis uses statistical tests through data processing with the SPSS software. Specifically, the Paired Sample t-test tests the differences between observations before and after the corporate events. This test is instrumental in determining whether the corporate actions have statistically significant effects on the stock prices and other financial metrics of the companies involved.

RESULTS AND DISCUSSION

This section examines the research outcomes on the impact of corporate actions during the COVID-19 pandemic on the Indonesia Stock Exchange. Through an in-depth analysis, this segment aims to comprehensively understand how specific corporate manoeuvres—Stock Splits, Rights Issues, Partial Delisting, and Warrants—have influenced market dynamics in this unprecedented period. The following paragraphs will dissect these corporate actions individually, scrutinizing their effects on various market indicators such as stock returns, trading frequency, and overall market performance.

This discussion seeks to unveil the immediate impacts of these actions and contextualize their significance against the backdrop of the pandemic's broader economic repercussions. By correlating our findings with theoretical frameworks and existing literature, we strive to offer insights that contribute to a more nuanced understanding of the intricate interplay between corporate strategy and market response during times of crisis.

Stock split

The outcomes from the recapitulation calculations of the paired sample test on corporate actions, specifically stock splits, are illustrated in Table 1. The data elucidate significant variances in the impact of such corporate actions during the pandemic compared to earlier research findings. Current studies suggest that, throughout the pandemic, these corporate strategies, notably stock splits, have failed to produce any tangible effects. This finding contrasts sharply with the results of past research, which uniformly highlighted a significant positive impact of stock splits on market indicators, both before and after the pandemic period. This discrepancy suggests a possible alteration in market dynamics or investor behaviours amidst the pandemic, calling into question the previously established understanding of the influence of stock splits on the financial markets.

Table 1. Recapitulation of paired sample test stock split

Corporate Action/ Even Period	Mean		t-sat	Sig. (2-tailed)	Test Results
	Before	After			
Trading frequency					
Periods -3 and +3	7566.8	6778.0667	1.035	0.318	Not significant
Periods -7 and +7	5623.6286	5509.3143	0.137	0.892	Not significant
Periods -10 and -10	4755.26	5296.08	-0.867	0.39	Not significant
True return					
Periods -3 and +3	0.0263467	-0.01052	1.746	0.103	Not significant
Periods -7 and +7	0.0146029	-0.0050829	1.939	0.061	Positive significant
Periods -10 and -10	0.009534	-0.004684	1.907	0.062	Positive significant
Stock returns					
Periods -3 and +3	0.03804	0.0381667	-0.005	0.996	Not significant
Periods -7 and +7	0.0265429	0.0228429	0.33	0.744	Not significant
Periods -10 and -10	0.021544	0.029772	-0.917	0.363	Not significant
Trading volume activity					
Periods -3 and +3	0.01454	0.0160933	-0.34	0.739	Not significant
Periods -7 and +7	0.0112457	0.0123229	-0.474	0.639	Not significant
Periods -10 and -10	0.009562	0.011528	-1.181	0.243	Not significant

This observation diverges from the study by Harjoto et al. (2020), positing that the frequency of stock returns influences the bid-ask spread in manufacturing companies undergoing stock splits. The scholarly examination of the consequences of stock splits on various global stock exchanges has unearthed a complex panorama of market reactions. The study by Titman et al. (2020) on the Shanghai Stock Exchange uncovered a notable positive impact on stock return, trading volume, and abnormal return, suggesting an optimistic market view towards stock splits in this arena. A similar positive trajectory was observed in the Indonesia Stock Exchange, with research by As’Ari & Airawaty (2021), alongside Muna & Khaddafi (2022), identifying significant uplifting effects on stock prices, returns, and trading volumes. In contrast, the narrative shifts when considering the Bombay Stock Exchange (BSE) and the National Stock Exchange, where Marisetty & Madasu (2021) identified mixed outcomes, underlining the diversity of investor responses. Venkatesan & Nagaraj (2018), along with Patel et al. (2016), documented significant negative impacts, forming a stark contrast with the positive findings by Nagendra & Babu (2018b, 2018a, 2019). This dichotomy within the Indian market indicates a complex and divided investor reaction towards stock splits. Concurrently, Hendra et al. (2021) on the Bursa Efek Indonesia reported significant positive effects, aligning with the favourable outlook in Indonesian markets. Rohit et al. (2016) also contributed to this nuanced picture by reporting a positive, albeit statistically insignificant, effect on the BSE.

The evaluation of the stock market's reaction to stock splits over varied time frames presents a comprehensive narrative of market behaviour and investor response. Initially, the examination of Trading Frequency across short-term (-3 to +3 days), medium-term (-7 to +7 days), and long-term (-10 to +10 days) intervals reveals a uniform pattern of stability. When the focus shifts to true return, a similar trend of non-significance is observed across all time frames, signifying a consistent level of profitability or loss from stock trades. However, a notable divergence is seen in the analysis of Stock Returns, where a positive significance in Stock Returns emerges in both medium-term (-7 and +7 days) and long-term (-10 and -10 days) periods. Regarding Trading Volume Activity, a consistent lack of significant change is noted across all examined time frames, suggesting that the volume of stock trading remains

unaffected by stock splits.

Based on the findings in Table 1, we can conclude that there are disparities in the outcomes of the research conducted by different scholars compared to earlier studies. The research results indicate that corporate actions such as stock splits, as undertaken by the researchers, yielded results that exhibited no impact during the pandemic. Conversely, previous research findings demonstrated a substantial positive pre- and post-pandemic influence.

In assessing the stock market's response across different time frames, our research with the stock split variable could be narrated by these results: Starting with Trading Frequency, it's notable that across all the periods evaluated - the short-term (-3 and +3 days), the medium-term (-7 and +7 days), and the longer-term (-10 and +10 days) - there's a consistent pattern: Trading Frequency does not exhibit any significant changes. This suggests stability in how often stocks are traded, regardless of the time frame surrounding specific market events. This research differs from the research conducted by Harjoto et al. (2020), which states that the frequency of stock return affects the bid-ask spread; this research was conducted on manufacturing companies that do stock splits. Meanwhile, the period of 3 days, 7 days, and 10 days before and after the issuance of the stock split does not affect the actual return of the stock.

Moving to true return, the trend observed is remarkably similar. In each of the periods studied, True Return remains consistently non-significant. This indicates uniformity in the overall profitability or loss from stock trades, hinting at an underlying steadiness in the market's performance over time, irrespective of the duration considered. This research supported the research conducted by Hanafie & Diyani (2016) before the COVID-19 pandemic. They stated that the stock split event did not affect the return that investors would receive. Meanwhile, in the 7 days before and after the issuance of the stock split, it does not affect the average stock return.

However, an interesting divergence emerges when we shift our focus to Stock Returns. While in the immediate short-term period (-3 and +3 days), the impact on Stock Returns is insignificant, this changes as we look further out. Stock Returns become positively significant in both the medium-term (-7 and +7 days) and longer-term periods (-10 and +10 days). This shift underscores a delayed but positive market response regarding stock returns, suggesting that the market may take time to absorb and react to new information or events.

Lastly, trading volume activity, like trading frequency and true return, consistently lacks significant change across all time frames. This implies that short-, medium-, or long-term events do not significantly impact the amount of stock trading activity. This contradicts research by Hanafie & Diyani (2016), which states that the stock split event significantly affected abnormal returns and trading volume activity before the pandemic. The negative relationship states that the average trading volume activity has decreased compared to before the stock split event. This can be caused because investors still do not fully believe that companies that do stock splits will provide large returns.

This analysis depicts a stock market characterized by resistance to immediate-term fluctuations following stock splits yet demonstrating a propensity for positive returns over more extended periods. This pattern may reflect a market that initially approaches new information cautiously but gradually adapts, fostering positive growth in stock returns over time. Concurrently, the stability observed in trading frequency,

volume, and true returns illustrates a stable market unaffected by temporal corporate events. This research aggregation highlights the varied and intricate nature of stock market reactions to corporate actions, such as stock splits, evidently shaped by regional market dynamics and investor sentiment.

Right issues

Data from the paired sample test calculations concerning corporate actions in the form of rights issues are detailed in Table 2. The analysis based on the table highlights the subtle distinctions between the results of recent investigations into rights issues during the pandemic and the conclusions of prior research. Contemporary studies indicate that corporate actions, particularly rights issues, amid the pandemic have varied in impact, ranging from negligible to significantly positive. This contrasts the results of earlier research, which generally indicated either significantly negative or positive impacts, albeit frequently lacking in significance.

Table 2. Recapitulation of paired sample test right issues

Corporate Action/ Even Period	Mean		t-sat	Sig. (2-tailed)	Test Results
	Before	After			
Trading frequency					
Periods -3 and +3	5358.8395	5417.9012	-.038	.970	Not significant
Periods -7 and +7	5528.1693	5766.0582	-.226	.822	Not significant
Periods -10 and -10	5901.1444	5420.6074	.597	.551	Not significant
True return					
Periods -3 and +3	-0.007481	0.010738	-2.213	.030	Negative significant
Periods -7 and +7	0.002431	0.003221	1.939	0.061	Not significant
Periods -10 and -10	0.003901	0.004443	-.132	.895	Not significant
Stock returns					
Periods -3 and +3	-0.005668	0.012517	-2.208	.030	Negative significant
Periods -7 and +7	0.004252	0.005114	0.33	0.744	Not significant
Periods -10 and -10	0.005703	0.006339	-.144	.885	Not significant
Trading volume activity					
Periods -3 and +3	0.056067	0.003699	1.506	.136	Not significant
Periods -7 and +7	0.028907	0.004626	1.619	.107	Not significant
Periods -10 and -10	0.024203	0.00425	1.894	.059	Positive significant

When evaluating the stock market's response to rights issues across different time frames, a consistent theme emerges across all periods studied—short-term (-3 and +3 days), medium-term (-7 and +7 days), and long-term (-10 and +10 days). Trading frequency, across these intervals appears to be insignificantly affected, indicating a stable pattern in trading activities that seems resilient to the timing of surrounding events. This finding challenges the research by Yakup & Cahyadi (2016), which posited a correlation between the issuance of rights issues and the trading frequency on the Indonesia Stock Exchange.

The narrative evolves with the consideration of true return. In the short-term phase, a distinct negative significance suggests an initial market downturn in trade profitability, possibly reflecting an immediate, reactive sentiment. However, as the perspective broadens to medium and longer terms, this trend dissipates, signalling a return to market equilibrium or a stabilization in overall profitability over time. This observation contradicts the findings of Ramesh & Sivarajah (2014) on the Indian Stock Exchange and similarly challenges the research by Otieno & Ochieng (2015) on the Nairobi Securities Market.

Stock returns exhibit a parallel trend. A negative significance in the short-term

period aligns with an immediate adverse reaction, which does not persist into the medium and long term. This transient nature of stock returns suggests a market capability to absorb and adjust to initial shocks over time.

Trading volume activity unfolds a different narrative. While the short and medium terms show no significant change, indicating a stable trading volume despite rights issues, the long-term period witnesses a positive significant increase. This delayed enhancement in trading activity may reflect market adjustments or a cumulative response to earlier events.

The investigation into the effects of rights issues on stock exchanges across Indonesia, India, and Pakistan unveils the multifaceted reactions of global financial markets to such corporate manoeuvres. In Indonesia, As'Ari & Airawaty (2021) noted a significant uplift in stock prices and returns following rights issues, underscoring robust market optimism and confidence within the Indonesia Stock Exchange. This positive reception starkly contrasts with the scenario in the Indian market, where Venkatesan & Nagaraj (2018) identified a significant downturn, as evidenced by Cumulative Average Abnormal Returns (CAAR) on the Bombay Stock Exchange (BSE), hinting at a more sceptical or adverse investor perspective towards rights issues in India. In Pakistan, specifically on the Karachi Stock Exchange (KSE), Bashir (2013) recorded a positive yet statistically insignificant reaction, suggesting a neutral or tentative stance among market participants towards rights issues.

Additionally, this patchwork of reactions—from positive in Indonesia to mixed and neutral in India and Pakistan—underscores the intricate and varied nature of market responses to corporate actions like right issues, influenced by regional investor sentiment and market dynamics. This aligns with further observations by Rohit et al. (2016) on the BSE, adding complexity to the Indian context with a positive but insignificant impact.

Based on the findings presented in Table 2, it is evident that there are notable differences between the outcomes of recent research and those of prior studies. Generally, the current research indicates that during the pandemic, corporate actions in the form of rights issues have yielded results ranging from having no significant impact to a positive significant effect, diverging from earlier research, which typically demonstrated outcomes that were either significantly negative or positive, albeit often not significantly so.

In our assessment of the stock market's response across different time frames, the narrative of our research on the right issue variable unfolds as follows: There is a consistent theme across all studied periods—short-term (-3 and +3 days), medium-term (-7 and +7 days), and long-term (-10 and +10 days)—beginning with trading frequency. In each of these windows, the trading frequency remains insignificantly impacted, suggesting a steady rhythm in trading activities unaffected by the surrounding temporal events. This variable disproves the research by Yakup and Cahyadi (2016), which states that there is a relationship between the issuance of rights issues and the frequency of shares traded on the Indonesia Stock Exchange.

However, the narrative shifts when we consider the true return. In the immediate short-term period (-3 and +3 days), there's a marked negative significance, hinting at a downturn in profitability from trading activities. But as we expand our view to the medium and longer terms, this trend fades into insignificance, pointing towards a normalization or an equilibrium in the market's overall profitability over time. This contrasts with the findings of Ramesh and Sivarajah (2014) and is further challenged by

Otieno & Ochieng (2015).

Stock returns mirror this pattern, registering a negative significance in the short term but stabilizing in the medium and longer terms, reflecting the market's resilience. Lastly, trading volume activity presents a unique trend with delayed but increased trading activity, supporting observations by Wahyuni (2014) and Tiswiyanti & Asrini (2015) for the Indonesian market, indicating no significant difference in trading volume activity before and after the announcement of the rights issue.

In summary, this analysis reveals a stock market that initially exhibits reactive behaviour, particularly regarding returns and profitability, but demonstrates a tendency towards stabilization over time. Immediate events may induce short-term fluctuations in true return and stock returns, but these effects do not endure, highlighting the market's adaptive resilience. Trading frequency shows remarkable consistency, unaffected by temporal events, while trading volume activity reveals a significant long-term increase, underscoring a nuanced, delayed market response to rights issues.

Partial delisting

The recapitulation calculation of the paired sample test on corporate actions, with a particular focus on partial delisting, is documented in Table 3. This table reveals a notable absence of prior event study research on corporate actions concerning partial delisting, both before and during the pandemic. Such a void underscores the innovative contribution of the current investigation to the body of literature on event studies within the pandemic context, particularly by illuminating the dynamics of corporate actions involving partial delisting. Furthermore, it accentuates the distinctive strategy of the Indonesian capital market in implementing partial delisting as a corporate action amidst the pandemic, a tactic not observed in other markets.

Table 3. Recapitulation of paired sample test partial delisting

Corporate Action/ Even Period	Mean		t-sat	Sig. (2- tailed)	Test Results
	Before	After			
Trading frequency					
Periods -3 and +3	525.222222	4893	-1.055	.306	Not significant
Periods -7 and +7	875.2857	6343.7857	-1.935	.060	Negative significant
Periods -10 and -10	809.8833	5189.3167	-2.185	.033	Negative significant
True return					
Periods -3 and +3	-0.090793	0.008691	-2.029	.058	Negative significant
Periods -7 and +7	0.051663	0.00847	.511	.612	Not significant
Periods -10 and -10	0.026514	0.005098	.362	.719	Not significant
Stock returns					
Periods -3 and +3	-0.0907934	0.0086909	-2.029	.058	Negative significant
Periods -7 and +7	0.0516628	0.0084697	.511	.612	Not significant
Periods -10 and -10	0.0265137	0.0050977	.362	.719	Not significant
Trading volume activity					
Periods -3 and +3	0.0004194	0.0115239	-.992	.335	Not significant
Periods -7 and +7	0.0008326	0.0105988	-1.683	.100	Negative significant
Periods -10 and -10	0.0008008	0.0080562	-1.775	.081	Negative significant

Upon examining the stock market's response to partial delisting over various time frames, the following observations were made: Initially, in the short-term aftermath of the partial delisting event, trading frequency exhibits no significant alteration, indicating a market maintaining its usual pace of trading activities. However, a shift is observed in the medium and long-term analyses, where trading frequency demonstrates a negative significance, suggesting a declining trend in the frequency of trades. This could reflect

an increasing market caution or reevaluating investment strategies in light of the delisting.

In terms of true return, an immediate negative impact is noted in the short term, indicative of a decrease in profitability following the delisting event. Nonetheless, this adverse effect is transient, with true return showing stabilization and no significant medium- and long-term change. This pattern indicates an initial reactive phase in market returns, succeeded by a period of adjustment and normalization.

Stock returns follow a similar path. The short-term period has a negative significance, echoing the immediate negative response in true return. This finding supports the findings of Truong et al. (2023), who investigated the impact of delisting on stock returns within the Vietnam stock market. However, this initial setback in stock returns does not persist, and a significant recovery is noted in later periods, suggesting that the market eventually regains its balance, overcoming the initial adverse effects on investment returns.

Lastly, trading volume activity reveals a lagged reaction. While the immediate period surrounding the delisting (-3 to +3 days) sees no significant change in trading volume, a negative significance becomes apparent in the extended periods (-7 to +7 days and -10 to +10 days). This trend points to a gradual reduction in trading volume, emerging as a longer-term market adjustment to the new circumstances post-delisting.

This detailed analysis outlines how the stock market demonstrates resilience and adaptability when confronted with a partial delisting event. It draws attention to several key factors that underpin this resilience, notably digital transformation and market sentiment.

Digital transformation, propelled by integrating technologies such as the Internet of Things (IoT), cloud computing, big data, and analytics, empowers companies to innovate and create new business models. These technological advancements enable firms to sustain operations and revenue flows during difficult periods like the COVID-19 pandemic. Companies that have adopted digital transformation are often more successful in navigating crises, as their business models are more flexible and robust against market fluctuations. This flexibility significantly contributes to the stock market's overall resilience, with industries housing digitally advanced companies likely to show enhanced performance and durability. Additionally, as measured by Internet search trends, market sentiment plays a crucial role in influencing stock market dynamics. Research has established a positive relationship between the volume of searches for a specific stock and its subsequent trading volume. This relationship suggests that investor interest and sentiment, reflected through search trends, can, to some extent, forecast market trends. Particularly during the COVID-19 pandemic, internet search trends offered prompt insights into market sentiment, aiding in comprehending the stock market's steadfastness amidst abrupt economic disruptions, as Ding et al. (2020) noted.

Despite the initial stability in trading frequency and volume, the market witnessed a rapid return decline, followed by a stabilization period and a decrease in trading activities. This pattern indicates a stage of market adjustment and strategic reassessment in reaction to the challenges introduced by the partial delisting.

Warrant

Data concerning the paired sample test on corporate actions in the form of Warrants are encapsulated in Table 4. The examination of corporate action warrants, as

indicated by the data in the table, highlights the absence of any prior event study investigating the implications of warrant issuance, both preceding and following the pandemic. This gap underscores the novelty of the present research, contributing to the discourse on event studies within the pandemic era by providing fresh insights on corporate action warrants. Notably, the Indonesian capital market stood out in executing warrant issuance as a corporate action during the pandemic.

Table 4. Recapitulation of paired sample test Warran

Corporate Action/ Even Period	Mean		t-sat	Sig. (2- tailed)	Test Results
	Before	After			
Trading frequency					
Periods -3 and +3	850.6026	700.5769	.860	.392	Not significant
Periods -7 and +7	937.4121	673.022	2.174	.031	Positive significant
Periods -10 and -10	873.0038	678.1154	1.948	.052	Positive significant
True return					
Periods -3 and +3	-0.002923	-0.010731	.848	.399	Not significant
Periods -7 and +7	0.000198	0.006511	-.444	.658	Not significant
Periods -10 and -10	0.00505	0.005915	-.083	.934	Not significant
Stock returns					
Periods -3 and +3	0.0177605	0.0098457	.859	.393	Not significant
Periods -7 and +7	0.0207971	0.0270132	-.437	.663	Not significant
Periods -10 and -10	0.0255842	0.0263781	-.077	.939	Not significant
Trading volume activity					
Periods -3 and +3	0.002273	0.00143099	1.780	.079	Positive significant
Periods -7 and +7	0.0021557	0.00131086	3.239	.001	Positive significant
Periods -10 and -10	0.00211101	0.00157668	2.165	.031	Positive significant

In the immediate aftermath of the warrant issuance, trading frequency exhibited no significant alterations during the short-term interval (-3 to +3 days). This suggests that introducing warrants initially leaves the market's trading cadence undisturbed. However, a discernible shift is observed as the analysis extends into medium (-7 to +7 days) and long-term (-10 to +10 days) periods. In these phases, trading frequency shows a positive significance, indicating increased market engagement and a ramp-up in trading activities as time progresses post-warrant issuance.

Conversely, true return exhibits a remarkable consistency, remaining non-significant across all evaluated periods. This constancy suggests that the warrant event does not significantly impact the actual profitability or losses from trading, maintaining a steady performance across various time frames.

Similarly, stock returns do not deviate from this pattern of stability, being consistently non-significant throughout all periods. This consistency in stock returns points to a market reaction that is either indifferent or non-responsive to the warrant issuance in terms of investment returns.

However, the narrative takes a turn when analyzing trading volume activity. Initially, this metric demonstrates a positive significance in the short term, a trend that persists and is maintained in the medium and long term. This pattern signifies an immediate and sustained growth in the trading volume, highlighting a strong and lasting market response regarding trading activity.

This comprehensive analysis delineates a nuanced perspective on the market's response to the issuance of warrants. While the impact on investment profitability and returns (as measured by true return and stock returns) remains stable and unaffected, there is a pronounced and significant increase in market activity, as evidenced by heightened trading frequency and trading volume activity, especially notable from the

medium to the long term. This suggests that, although the warrant issuance may not have directly influenced investor returns, it effectively stimulated market activity, enhancing both the frequency and volume of trades over an extended timeframe.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The analysis of corporate actions across different markets, particularly during the COVID-19 pandemic, has revealed that these events have a discernible impact on various market metrics, including the frequency of stock returns, actual returns, stock performance, and trading volume activity. The effects observed vary significantly, indicating that corporate actions can lead to diverse outcomes in the financial markets. Specifically, in the context of the Indonesia Stock Exchange during the pandemic, corporate actions have predominantly resulted in either no significant effect or a negative impact on the market metrics mentioned above. The outcomes demonstrate even greater variability when broadening the scope to include other stock markets and different types of corporate actions.

This variability underscores the complexity of drawing general conclusions about the impact of corporate actions on stock markets. It highlights the difficulty in applying a one-size-fits-all approach to understanding these effects, raising questions about the continued relevance and application of event studies in financial analysis.

Recommendations

Given the findings and conclusions of this study, a cautious approach is recommended for investors concerning the timing of their investment transactions surrounding corporate actions. Specifically, investors are advised to refrain from making investment transactions (trading) within 3 days, 7 days, and 10 days before and after a corporate action. Instead, investors are encouraged to engage in transactions outside of these periods to avoid the volatility and uncertainty associated with these events.

Despite the challenges in deriving overarching conclusions from event studies due to the diverse outcomes observed across different markets and corporate actions, these studies remain invaluable for providing insights into market dynamics. They offer a critical lens through which investors, analysts, and policymakers can understand how corporate actions influence market behaviour. This understanding is crucial for formulating strategies, making informed investment decisions, and potentially mitigating adverse effects in future market scenarios. Therefore, the pursuit of event studies, especially when approached with a nuanced understanding and consideration of the varied contexts in which corporate actions occur, continues to hold significant relevance in financial analysis and decision-making.

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