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Analysis of Differences in Abnormal Returns, Trading Volume Activity, and Bid–Ask Spread Before and After Stock Splits in Companies Listed on the Indonesia Stock Exchange During the 2020–2024 Period.

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Abstract

This research is driven by the increasing trend in the number of companies implementing stock splits in recent years, which raises important questions about how the market reacts in terms of abnormal returns, trading volume activity, and bid-ask spreads. The objective of this study is to analyze the variation of these three indicators before and after stock splits among companies listed on the Indonesia Stock Exchange during the 2020–2024 period. This research uses an event study methodology with a quantitative approach, relying on secondary data covering stock price information, trading volume activity, and the bid-ask spread within a predetermined event window. The sample was determined using purposive sampling, resulting in 12 companies meeting the selection criteria. The observation period covered 20 trading days, consisting of 10 days before the event (D–10), the day of the event (D0), and 10 days after the event (D+10). The data were analyzed using the Wilcoxon signed-rank test. The results showed no statistically significant differences in abnormal returns, trading volume activity, or bid-ask spreads before and after the stock split.

Keywords: *Stock Split*, *Abnormal Return*, *Trading Volume Activity*, *Bid Ask Spread*.

A. INTRODUCTION

The investment landscape in Indonesia has experienced rapid growth in recent years. This development is reflected in the increasing number of investors each year. Throughout 2024, more than 744 thousand new stock investors were recorded, bringing the total number of stock investors to 6,001,573 Single Investor Identification (SID) accounts (www.idx.co.id, n.d.-b). This growth indicates a strengthening public interest in the Indonesian capital market, despite ongoing uncertainties in both global and domestic economic conditions. The capital market serves as an investment vehicle that provides long-term financial instruments such as stocks, bonds, and mutual funds, and functions as an intermediary between investors and companies or government institutions (cimbniaga.co.id, n.d.). The

capital market has two primary functions: mobilizing public funds to support corporate operational activities and providing investment opportunities for the wider community (Junaedi & Salistia, 2020).

The development of Indonesia's capital market can also be observed through the increasing level of trading activity. The Composite Stock Price Index (CSPI) recorded an annual increase of 0.22%, reaching a level of 7,256.99, with market capitalization amounting to IDR 12,302 trillion (www.idx.co.id, n.d.-a). The average daily transaction value reached IDR 11.8 trillion, with a trading volume of 17.9 billion shares. This condition reflects a high level of investor participation in the stock market, particularly among younger investors who account for approximately 59.81% of the total investor population (www.ksei.co.id, n.d.). As market activity intensifies, investors' demand for relevant and timely information also increases, as information plays a crucial role in influencing investment decisions and stock price fluctuations.

Signaling theory serves as an important foundation for understanding the rationale behind corporate decisions to conduct stock splits. This theory explains that companies convey signals to the public regarding positive future prospects through managerial actions such as stock splits (Hadi Lukito, 2023). These signals are intended to provide investors with indications of a company's condition and future outlook. According to Maulana and Suryandani (2024), signaling theory emphasizes that companies utilize various forms of disclosure or managerial decisions to communicate messages that support the interests of shareholders. Through stock splits, companies aim to signal positive performance and growth potential in the future. Stocks are among the most frequently traded financial instruments in the capital market because they offer relatively higher return potential compared to bonds and can be accessed with smaller capital (Irawan et al., 2022). Excessively high stock prices may discourage investors from trading, prompting companies to implement stock splits to make share prices more affordable (Suharyono et al., 2022). Stock splits may also trigger market reactions in the form of changes in abnormal returns, trading volume activity, and bid–ask spreads.

Abnormal return is defined as the difference between the return realized by investors and the expected return (Fatmawati & Azizah, 2020). Stock splits may lead to changes in abnormal returns, as price reductions often increase demand and price volatility. Previous studies conducted by Haryanto and Lina (2023) and Octaviani and Harianti (2021) found significant differences in abnormal returns before and after stock splits. However, other studies reported no significant differences in abnormal returns surrounding stock split events (Andi et al., 2024). In addition to abnormal returns, stock split events may also affect trading volume activity, which serves as an indicator of market liquidity (Ameci et al., 2021). Studies by Irvangi and Rahmani (2022), Astuti (2024), and Octaviani and Harianti (2021) reported significant differences in trading volume activity before and after stock splits, whereas Haryanto and Lina (2023) found no significant differences.

The bid–ask spread is commonly used to assess stock liquidity. It represents the difference between the highest price buyers are willing to pay (bid) and the lowest price sellers are willing to accept (ask) in the market (Yaseen & Omet, 2021). Several studies, including those by Andi et al. (2024) and Irvangi and Rahmani (2022), found no significant differences in bid–ask spreads surrounding stock split events. Based on the above discussion and the existence of research gaps related to market reactions to stock split events, this study aims to examine and explain the differences in abnormal returns, trading volume activity, and bid–ask spreads before and after stock splits in companies listed on the Indonesia Stock Exchange during the 2020–2024 period.

B. LITERATURE REVIEW

Signaling Theory

Signaling theory explains that companies convey signals to investors through disclosed information in order to reduce information asymmetry between management and external parties (Ayu et al., 2024). The announcement of a stock split is considered a positive signal that reflects management's confidence in the company's future prospects (Hadi Lukito, 2023). According to Maulana and Suryandani (2024), signals may take the form of strategic information regarding managerial actions that represent the company's condition and outlook. When the market perceives such signals as good news, investors respond by increasing demand for the stock, thereby influencing stock prices and returns.

Trading Range Theory

Trading range theory posits that stock prices tend to fluctuate within a certain range that is considered optimal for investors. Excessively high stock prices may reduce liquidity, as they become less affordable for investors (Maulana & Yuliana, 2022). Stock splits are implemented to lower stock prices and return them to an optimal trading range, thereby increasing trading activity (Puteri, 2022). According to Dewi and Syamsiah (2022), stock splits serve as a corporate strategy to improve liquidity and attract a broader base of investors.

Stock Split

A stock split is a corporate policy that divides the nominal value of shares, thereby increasing the number of shares outstanding without altering the company's paid-in capital (Stimi et al., 2020). Stock splits are conducted to reduce stock prices, enhance liquidity, and convey positive signals to the market (Pasaribu, 2023). Oemar and Melani (2020) state that stock splits do not affect a company's cash flows but make share prices more affordable, thus attracting investor interest. The implementation of stock splits often triggers market reactions, which can be observed through changes in returns, trading volume activity, and bid–ask spreads.

Abnormal Return

Abnormal return is defined as the difference between the actual return and the expected return anticipated by investors (Oemar & Melani, 2020). When the actual return exceeds the expected return, the abnormal return is positive; conversely, a negative abnormal return indicates that stock performance falls below expectations. According to Octaviani and Harianti (2021), stock splits may generate abnormal returns because the information embedded in the announcement induces market reactions. Positive abnormal returns occur when investors perceive stock splits as favorable news (Octaviani & Harianti, 2021).

Trading Volume Activity

Trading Volume Activity (TVA) is the ratio of the number of shares traded to the number of shares outstanding within a specific period (Octaviani & Harianti, 2021). TVA is commonly used as an indicator to assess market reactions to new information. Ameci et al. (2021) argue that trading volume activity reflects the total value of stock transactions and indicates the level of investor interest. When stock prices become more affordable following a stock split, trading activity tends to increase, as investors find it easier to engage in transactions (Astuti, 2024).

Bid–Ask Spread

The bid–ask spread is defined as the difference between the bid price (the highest price buyers are willing to pay) and the ask price (the lowest price sellers are willing to accept) (Astuti, 2024). A smaller spread indicates higher stock liquidity. The bid–ask spread is widely used as an indicator of liquidity and market reaction to specific events. Stock splits may reduce the bid–ask spread, as lower prices attract more investors to trade. The more liquid a stock is, the narrower the spread tends to be.

Hypothesis Development

Stock Split and Abnormal Return

From the perspective of signaling theory, companies convey signals to the market through actions that communicate information regarding their future prospects. A stock split is considered a positive signal that reflects management's confidence in the company's future performance (Hadi Lukito, 2023; Maulana & Suryandani, 2024). When management decides to implement a stock split, the market interprets it as an indication that the company has strong fundamentals and is expected to continue growing. This information subsequently influences investor behavior in making investment decisions. If the market perceives the stock split signal as favorable news, demand for the stock increases, leading to higher stock prices and ultimately generating positive abnormal returns (Octaviani & Harianti, 2021). Conversely, if the signal is perceived as weak or negative, abnormal returns may decline. Empirical studies by Haryanto and Lina (2023) and Octaviani and Harianti (2021) demonstrate significant differences in abnormal returns before and after stock split events. Based on the theoretical framework and empirical evidence discussed above, the first hypothesis is formulated as follows:

H1: There is a significant difference in abnormal returns before and after stock splits in companies listed on the Indonesia Stock Exchange during the 2020–2024 period.

Stock Split and Trading Volume Activity

According to trading range theory, excessively high stock prices may reduce trading activity because shares become less affordable for investors (Hadi Lukito, 2023). Stock splits can be implemented as a strategy to return stock prices to an optimal trading range, thereby improving accessibility and encouraging investors to trade more actively (Puteri, 2022). From the perspective of capital market dynamics, lower stock prices following a stock split provide opportunities for retail investors to purchase shares in larger quantities. This increased trading activity may enhance trading volume activity, which reflects investor interest in the company's stock (Ameci et al., 2021). If the market perceives a stock split as a positive signal, trading volume is expected to increase significantly; conversely, a decline in trading volume indicates a weaker market response. Empirical findings by Irvangi and Rahmani (2022) and Octaviani and Harianti (2021) reveal significant differences in trading volume activity before and after stock splits. Therefore, the second hypothesis is formulated as follows:
H2: There is a significant difference in trading volume activity before and after stock splits in companies listed on the Indonesia Stock Exchange during the 2020–2024 period.

Stock Split and Bid–Ask Spread

The bid–ask spread reflects the level of stock liquidity and the degree of information asymmetry in the market. Within the framework of signaling theory, a stock split can be interpreted as a signal that the company has favorable prospects and seeks to enhance investor participation. This signal encourages increased trading activity, which in turn may reduce transaction costs, including the bid–ask spread (Pasaribu, 2023). According to trading range theory, stock splits lower share prices, allowing more investors to participate in trading. Higher trading frequency leads to a narrower bid–ask spread due to increased demand and supply, which reduces the gap between bid and ask prices (Astari & Suidarma, 2020). A lower spread indicates higher liquidity and a more efficient market (Baktyarina & Purnamawati, 2020). Empirical studies by Andi et al. (2024) and Irvangi and Rahmani (2022) find significant differences in bid–ask spreads before and after stock split events. Accordingly, the third hypothesis is formulated as follows:
H3: There is a significant difference in the bid–ask spread before and after stock splits in companies listed on the Indonesia Stock Exchange during the 2020–2024 period.

C. Research Methodology

This study employs an event study design using a quantitative data analysis approach. The population consists of companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2024 period. Samples were selected using purposive sampling based on specific criteria, resulting in 12 companies that conducted stock splits without partial delisting, had complete data availability for the observation period, and did not engage in other corporate actions such as rights issues, dividend distributions, or bonus share issuances around the stock split event. The study utilizes documentary data in the form of historical secondary data obtained through documentation techniques.

D. Results And Discussion

Table 1. Descriptive Statistics Test

	N	Maximum	Minimum	Mean	Std. Deviation
AR Sebelum	12	0, 1249142927	- 0, 913406292	-0, 55269105	0, 1957622961
AR Sesudah	12	0, 2056384785	-0, 199434286	-0, 002695562	0, 0499609815
TVA Sebelum	12	0, 0059900983	0, 000000000	0, 0010179371	0, 0015204088
TVA Sesudah	12	0, 0186034286	0, 000000000	0, 0012250719	0, 0024733913
BAS Sebelum	12	200, 0000000	0, 000000000	13, 37855481	47, 63580076
BAS Sesudah	12	200, 0000000	-200.000000	12, 77430018	63, 34741190

Sumber: Data diolah, 2025

a. Results of the Normality Test Before Applying the Natural Logarithm Method

Table 2. Results of the Normality Test

	AR Sebelum	AR Sesudah	TVA Sebelum	TVA Sesudah	BAS Sebelum	BAS Sesudah
Kolmogorov Smirnov	0, 422	0, 209	0, 252	0, 310	0, 463	0, 460
Asymp. Sig (2-*tailed*)	0, 000	0, 000	0, 000	0, 000	0, 000	0, 000

Source: Processed Data, 2025

Based on the results of the normality test presented in Table 2, it can be observed that the Asymp. Sig. (2-tailed) values for the abnormal return, trading volume activity, and bid–ask spread variables, both before and after the stock split, are less than 0.05. Therefore, it can be concluded that the data are not normally distributed.

b. Results of the Normality Test After Applying the Natural Logarithm Method

Table 3. Results of the Normality Test

	AR Sebelum	AR Sesudah	TVA Sebelum	TVA Sesudah	BAS Sebelum	BAS Sesudah
Kolmogorov Smirnov	0, 160	0, 073	0, 135	0, 086	0, 213	0, 180
Asymp. Sig (2-*tailed*)	0, 003	0, 200	0, 000	0, 019	0, 000	0, 000

Source: Processed Data, 2025

Based on the normality test results presented in Table 3, the findings can be described as follows:

1) The abnormal return variable before the stock split shows an Asymp. Sig. (2-tailed) value of 0.003 (< 0.05), indicating that the data are not normally distributed. In contrast, the abnormal return variable after the stock split shows an Asymp. Sig. (2-tailed) value of 0.200 (> 0.05), indicating that the data are normally distributed..

2) The trading volume activity variable before the stock split shows an Asymp. Sig. (2-tailed) value of 0.000 (< 0.05), indicating that the data are not normally distributed. Similarly, the trading volume activity variable after the stock split shows an Asymp. Sig. (2-tailed) value of 0.019 (< 0.05), indicating that the data are not normally distributed..

3) The bid–ask spread variable, both before and after the stock split, shows an Asymp. Sig. (2-tailed) value of 0.000 (< 0.05), indicating that the data are not normally distributed..

Hypothesis Testing

Table 4. Wilcoxon Signed-Rank Test Results

Variabel	Sig. (2-*tailed*)	Kesimpulan
AR Sebelum dan Sesudah	0, 122	H_1 ditolak
TVA Sebelum dan Sesudah	0, 723	H_2 ditolak
BAS Sebelum dan Sesudah	0, 604	H_3 ditolak

Source: Processed Data, 2025

The hypothesis testing results presented in Table 4 can be described as follows:

1) Results of the First Hypothesis (H1)
The Wilcoxon Signed-Rank Test results show an Asymp. Sig. (2-tailed) value of 0.122 (> 0.05). Therefore, the first hypothesis, which states that there is a significant difference in abnormal returns before and after stock splits in companies listed on the Indonesia Stock

Exchange during the 2020–2024 period, is rejected. This finding indicates that there is no significant difference in abnormal returns before and after stock splits.

2) Hasil Uji Hipotesis Kedua (H_2)
The Wilcoxon Signed-Rank Test results indicate an Asymp. Sig. (2-tailed) value of 0.723 (> 0.05). Thus, the second hypothesis, which proposes a significant difference in trading volume activity before and after stock splits in companies listed on the Indonesia Stock Exchange during the 2020–2024 period, is rejected. Accordingly, the results reveal no significant difference in trading volume activity before and after stock splits.

3) Hasil Uji Hipotesis Ketiga (H_3)
The Wilcoxon Signed-Rank Test results show an Asymp. Sig. (2-tailed) value of 0.603 (> 0.05). Therefore, the third hypothesis, which suggests a significant difference in the bid–ask spread before and after stock splits in companies listed on the Indonesia Stock Exchange during the 2020–2024 period, is rejected. Consequently, the findings indicate no significant difference in the bid–ask spread before and after stock splits..

Discussion

This study examines market reactions to stock split events as proxied by abnormal returns, trading volume activity, and bid–ask spreads in companies listed on the Indonesia Stock Exchange during the 2020–2024 period. The results indicate the following findings:

1. There is no significant difference in abnormal returns before and after stock splits in companies listed on the Indonesia Stock Exchange during 2020–2024. This finding suggests that the market does not exhibit excessive price reactions to stock split events. In other words, investors do not obtain abnormal returns following stock splits. Theoretically, stock splits are often associated with signaling theory, whereby such actions are expected to convey optimistic signals regarding a firm's future prospects. However, the results of this study indicate that such signals lack sufficient strength or are not perceived as substantive by market participants. This may be due to the anticipation of stock split information already being incorporated into stock prices prior to the official announcement, thereby diminishing the likelihood of a significant market reaction..
2. There is no significant difference in trading volume activity before and after stock splits in companies listed on the Indonesia Stock Exchange during 2020–2024. Conceptually, stock splits are intended to enhance stock liquidity by reducing the per-share price, thus facilitating access for small-scale investors. However, the findings of this study contradict this assumption, as price adjustments do not directly lead to an increase in trading volume. This situation indicates that investment decisions are more strongly influenced by firm fundamentals and market sentiment rather than administrative changes in the number of shares outstanding.
3. There is no significant difference in the bid–ask spread before and after stock splits in companies listed on the Indonesia Stock Exchange during 2020–2024. The stability of the bid–ask spread implies that stock splits fail to reduce trading costs or improve transactional efficiency. This result is consistent with the trading volume activity analysis, which also reveals minimal improvement in liquidity following stock splits. Therefore, stock splits tend to be perceived as administrative procedures rather than information signals with material economic implications.

E. Conclusion

This study concludes that stock split events in companies listed on the Indonesia Stock Exchange during the 2020–2024 period do not generate significant market reactions, as reflected in abnormal returns, trading volume activity, and bid–ask spreads. These findings imply that signaling theory is not fully supported in the context of stock split announcements, as such actions are not consistently perceived as positive signals by market participants, particularly when the information has already been anticipated and incorporated into stock prices. Moreover, the results are consistent with the semi-strong form of market efficiency, indicating that publicly available information related to stock splits is rapidly absorbed by the market and does not lead to abnormal pricing or liquidity effects.

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