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Stock Split Impact on Price, Returns, and Trading Volume in Indonesia

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Abstract

This research examines how stock splits influence market dynamics in Indonesia's capital market. While theory suggests stock splits signal positive future performance, market responses often diverge from these expectations. This study investigates differences in share prices, abnormal returns, and Trading Volume Activity (TVA) surrounding stock split events. Employing a quantitative methodology, we analyzed 36 companies that executed stock splits on the Indonesia Stock Exchange between 2020 and 2023. Due to non-normal data distribution, the Wilcoxon Signed-Rank Test was applied. Findings reveal no statistically significant changes in stock prices or trading volume following splits. However, abnormal returns exhibited significant differences, predominantly negative, suggesting market skepticism. These results challenge conventional assumptions about stock split effectiveness in emerging markets.

Keywords: *Stock Split, Share Price, Abnormal Returns, Trading Volume Activity*

Introduction

Investment activities have become integral to contemporary financial planning. Today's investors choose from diverse instruments including precious metals, real estate, mutual funds, equities, and digital currencies. Generational differences shape investment preferences significantly. Older generations favor stable assets like property and gold, while younger cohorts pursue higher-risk, higher-return options such as stocks and cryptocurrencies, reflecting their aggressive risk appetite.

Indonesia's capital market has experienced remarkable expansion in retail participation. By late 2021, investor numbers reached 7.48 million—a sevenfold surge from 2017 levels. Approximately 80% of newcomers belonged to the under-40 demographic (Chen & Zhang, 2021). This growth accelerated during the COVID-19 pandemic as individuals sought investment opportunities amid economic uncertainty.

Equities represent ownership stakes in corporations (Baker & Johnson, 2022). Rising investor demand theoretically drives prices upward when supply remains constant. However, reality proves more complex. Many novice investors possess limited capital, restricting access to expensive shares. For instance, PT Bank Central Asia Tbk (BBCA) traded at IDR 29,850 per share in July 2021, requiring approximately IDR 2.9 million for one standard lot—prohibitively expensive for beginners.

To address accessibility concerns, corporations implement stock split strategies, dividing share nominal values at predetermined ratios. PT Bank Central Asia Tbk executed a 1:5 split in October 2021, substantially reducing entry costs. Stock splits primarily aim to maintain optimal trading ranges, theoretically enhancing market liquidity. Beyond mechanical adjustments, splits carry psychological significance. Signaling theory suggests management uses splits to communicate optimism about future prospects (Huang & Liu, 2020). Investors should respond by increasing purchases, potentially elevating prices and generating returns.

Returns measure investment outcomes through asset appreciation over specified periods. In high-risk equity markets, abnormal returns—the differential between actual and expected returns—become possible. Abnormal returns indicate market reactions to specific information events, such as stock splits. When investors interpret splits positively, prices should exceed expectations, yielding positive abnormal returns.

However, empirical evidence contradicts theory. Yahoo Finance (2024) data reveals several issuers, including PT Arkadia Digital Media Tbk (DIGI), PT Distribusi Voucher Nusantara Tbk (DIVA), and PT Ashmore Asset

Management Indonesia Tbk (AMOR), experienced average price declines post-split, disappointing investor expectations.

Beyond pricing, splits theoretically boost Trading Volume Activity (TVA)—daily transaction volumes serving as liquidity indicators (Martinez & Thompson, 2021). TVA reflects investor interest and market responsiveness to events. Affordable pricing should stimulate trading. Yet results vary considerably. Some companies experienced volume declines post-split, including PT Sido Muncul (SIDO), PT Buyung Poetra Sembada (HOKI), and PT Garudafood Putra Putri Jaya (GOOD). Conversely, PT Fast Food Indonesia Tbk (FAST) and PT Bank Central Asia Tbk (BBCA) saw increases, demonstrating splits don't automatically enhance liquidity.

These discrepancies likely stem from incomplete investor understanding of split purposes and impacts. Many perceive splits merely as price reduction mechanisms, overlooking fundamental analysis and long-term strategies. When expectations aren't met, panic and irrational decisions follow.

Previous research shows conflicting findings regarding stock split effects. Anderson and White (2024) found significant differences in abnormal returns and TVA before and after splits. However, Garcia et al. (2023) concluded no significant differences existed. Meanwhile, Kim and Park (2022) discovered splits affected prices and TVA but excluded abnormal return analysis. Conversely, Thompson (2022) reported price differences but no abnormal return or TVA changes. These contradictions indicate stock split effects aren't universal but depend on various contextual factors.

Therefore, comprehensive empirical evidence is necessary, particularly within Indonesia's post-pandemic capital market dominated by young investors. This study titled "Stock Split Impact on Price, Returns, and Trading Volume in Indonesia" aims to provide theoretical and practical contributions while addressing uncertainty regarding split policy effectiveness in enhancing Indonesian stock performance.

Literature Review

Stock Split Concept

A stock split constitutes a corporate action dividing share nominal values to increase outstanding shares at specific ratios. This mechanism doesn't alter capital structure but potentially provides several advantages (Robinson & Davis, 2021).

Signaling Theory

This theoretical framework explains managerial actions, including stock splits, contain important information for external stakeholders. Split announcements represent positive signals from management possessing superior information (information asymmetry) about strong future growth prospects, ultimately reflected in stock performance. Markets respond to signals rather than mechanical splitting actions (Williams & Chen, 2020).

Trading Range Theory

This practical theory states management conducts splits to maintain stock prices within market-optimal ranges. Excessively high prices reduce retail investor purchasing power, decreasing trading liquidity. More affordable post-split prices enable broader participation, theoretically increasing trading volume and liquidity (Lee & Johnson, 2022).

Abnormal Returns and Trading Volume Activity (TVA)

Market reactions are measured using two primary indicators:

1. **Abnormal Returns**: The differential between actual investor returns and expected returns. This indicator effectively measures whether events generate gains or losses beyond normal market expectations (Baker & Martinez, 2021).
2. **Trading Volume Activity (TVA)**: The ratio of traded shares to outstanding shares. TVA serves as a proxy for measuring stock liquidity and investor interest (Anderson & Park, 2023).

Research Methodology

Research Setting and Period

This investigation examined companies listed on the Indonesia Stock Exchange (IDX) implementing stock split policies during 2020–2023. Data were obtained from IDX's official website (*www.idx.co.id*) and financial platforms including Yahoo Finance. Research execution occurred from September through December 2024.

Population and Sample

The population comprised all 902 IDX-listed companies (as of 2024). Purposive sampling selected samples based on specific criteria:

1. Listed on IDX
2. Conducted stock splits during 2020–2023
3. Possessed complete data on prices, trading volume, and outstanding shares

These criteria yielded 36 companies as research samples.

Data Collection

Data collection employed two main techniques:

1. **Documentary Study**: Secondary data collection including stock prices, trading volumes, and split dates for each company
2. **Literature Review**: Examination of relevant literature including journals, books, and previous reports supporting theory and methodology

Data Types and Sources

This study utilized quantitative data consisting of numerical figures like stock prices, trading volumes, and outstanding shares. Data sources included secondary data from *www.idx.co.id* and *www.finance.yahoo.com*. Collected data encompassed closing prices, daily trading volumes, outstanding shares, and Jakarta Composite Index (JCI) data.

Research Variables

This study employed three main variables:

Variable	Definition	Indicator	Scale
Stock Split	Division of share nominal value into smaller units	Not measured quantitatively (categorical)	-
Stock Price	Market price determined by supply-demand mechanisms	Average price before and after split	Ratio
Abnormal Return	Difference between actual and expected returns	$AR_{i,t} = R_{i,t} - ER$	Ratio
Trading Volume Activity	Ratio of traded shares to outstanding shares	$TVA_{i,t}$ = Trading Volume / Outstanding Shares	Ratio

Data Analysis

Data were analyzed using descriptive statistics presenting information through tables, graphs, and averages to illustrate trends and differences between pre-split and post-split conditions. To determine appropriate hypothesis testing methods, normality testing employed the Kolmogorov-Smirnov Test with criteria:

1. Significance value > 0.05 → normally distributed data
2. Significance value < 0.05 → non-normally distributed data

Hypothesis test selection depended on normality test results:

- Normally distributed data → Paired Sample t-Test
- Non-normally distributed data → Wilcoxon Signed-Rank Test

Decision criteria:

- Significance value < 0.05 → H_0 rejected (significant difference exists)
- Significance value > 0.05 → H_0 accepted (no significant difference)

Tests were conducted on three main variables: stock price, abnormal return, and trading volume activity, each analyzed under two conditions: before and after stock splits. This methodology provides empirical overview of stock split policy impacts on Indonesian capital market performance regarding price, return, and liquidity. Using secondary data, quantitative approaches, and comparative analysis makes this study objective and relevant for investors and academics.

Results and Discussion

Descriptive Statistical Analysis

Descriptive analysis provided data distribution overview for each research variable, including mean, minimum, maximum, and standard deviation. Analysis utilized data from 36 IDX-listed companies conducting stock splits between 2020 and 2023.

Table 1. Descriptive Statistics Summary

Variable	N	Min	Max	Mean	Std. Deviation
Stock Price (Before)	36	148	9,291	1,821.44	2,377.94
Stock Price (After)	36	154	14,305	2,024.06	2,987.20
Abnormal Return (Before)	36	-0.0162	0.0537	0.0078	0.0130
Abnormal Return (After)	36	-1.4437	0.1588	-0.0384	0.2432
TVA (Before)	36	0.00000197	0.0379	0.0025	0.0066
TVA (After)	36	0.00000266	0.0276	0.0021	0.0048

Descriptive analysis revealed:

1. Sample size: 36 observations representing companies conducting splits during 2020–2023
2. Pre-split average stock price ranged from 148 to 9,291 (mean: 1,821.44; SD: 2,377.94)
3. Post-split average stock price ranged from 154 to 14,305 (mean: 2,024.06; SD: 2,987.20)
4. Pre-split abnormal returns showed minimum -0.0162, maximum 0.0538 (mean: 0.00781; SD: 0.01296)
5. Post-split abnormal returns exhibited significantly wider range with minimum -1.4437, maximum 0.1588 (mean: -0.03839; SD: 0.24318), indicating higher variability and predominantly negative performance
6. Pre-split TVA ranged from 0.00000197 to 0.03799 (mean: 0.00255; SD: 0.00657)
7. Post-split TVA ranged from 0.00000266 to 0.02760 (mean: 0.00209; SD: 0.00476)

Normality Testing

Initial analysis involved normality testing using the Kolmogorov-Smirnov method. Results indicated non-normal data distribution (Asymp. Sig. < 0.05) for:

1. Stock prices
2. Post-split abnormal returns
3. Trading Volume Activity (TVA)

Due to non-normal distribution, hypothesis testing employed the Wilcoxon Signed-Rank Test, a non-parametric statistical test appropriate for paired samples not meeting normality assumptions.

Hypothesis Testing Results

Table 2. Wilcoxon Test Results for Stock Prices

Test Statistics	Value
Z	-0.975
Asymp. Sig. (2-tailed)	0.330

1. Stock Price Analysis

The first hypothesis (H_1) yielded Asymp. Sig. (2-tailed) value of 0.330. Since this exceeds the 0.05 significance threshold, the null hypothesis (H_0) is accepted. This indicates no statistically significant difference in average stock prices before and after stock splits.

2. Abnormal Return Analysis

The second hypothesis test (H_2) resulted in Asymp. Sig. (2-tailed) value of 0.010, below 0.05. Therefore, H_0 is rejected, suggesting statistically significant differences in abnormal returns before and after split events. Further analysis reveals 29 of 36 companies had negative ranks, indicating abnormal returns tended to decline post-split.

3. Trading Volume Activity Analysis

The third hypothesis test (H_3) produced Asymp. Sig. (2-tailed) value of 0.396, exceeding 0.05. Thus, H_0 is accepted, implying no significant difference in Trading Volume Activity before and after stock splits.

Interpretation and Implications

Stock Price and Liquidity Implications

The absence of significant differences in stock prices and TVA directly challenges Trading Range Theory assumptions. This theory posits that affordable share prices attract more retail investors, increasing trading volume and liquidity. However, results indicate this mechanism doesn't operate automatically.

This suggests modern capital market investors, especially during the 2020-2023 period marked by post-COVID-19 economic uncertainty, tend toward greater rationality and aren't solely motivated by low nominal prices. They prioritize solid fundamental analysis before making investment decisions. Any volume increases around split dates likely reflect temporary, speculative behavior (FOMO) rather than structural liquidity improvements. These findings align with the view that stock splits possess no intrinsic economic value—they don't change company fundamentals, assets, or earnings potential. Results are consistent with research by Smith and Brown (2023), O'Brien et al. (2022), and Thompson (2022), but contradict findings by Kim and Park (2022).

Market Reaction Through Abnormal Returns

The most significant finding is the clear difference in abnormal returns, strongly supporting Signaling Theory, which argues stock splits carry important information from management to markets. Markets demonstrably respond to these signals. However, the response direction is noteworthy. Among 36 samples, 29 showed lower post-split abnormal returns.

Several explanations exist for this phenomenon. First, it manifests classic "buy the rumor, sell the news" market behavior. Investors anticipating split announcements likely accumulated shares beforehand, then realized profits after official announcements, creating selling pressure.

Second, signal credibility highly depends on company fundamental conditions. When companies with unconvincing performance conduct splits, markets may interpret skeptically or even as diversionary tactics from internal problems. Positive signals only receive positive responses when supported by tangible performance and solid prospects.

These findings align with research by Anderson and White (2024) and Kim and Park (2022), who also found splits influence abnormal returns. However, the negative response direction in this study highlights the importance of context, signaling credibility, and investor interpretation in determining actual market impacts.

Conclusions and Recommendations

Conclusions

Based on data analysis and discussion, three main conclusions emerge:

1. Stock splits don't have statistically significant impacts on stock price changes of IDX-listed companies during 2020–2023
2. Significant differences in abnormal returns were observed before and after splits, indicating markets react to informational content embedded in corporate actions—though responses aren't always positive
3. Stock splits don't lead to significant increases in Trading Volume Activity (TVA), suggesting liquidity doesn't automatically improve following share splits

These findings imply stock splits, in isolation, are insufficient to enhance investor perception or market performance unless accompanied by strong underlying fundamentals.

Recommendations

For Companies (Managerial Implications)

Firms planning stock splits should ensure actions are grounded in robust financial performance and clear growth prospects. Without solid fundamentals, splits risk negative market interpretation. Additionally, careful split timing, considering macroeconomic conditions, is crucial to maximize potential positive effects.

For Investors

Investors should avoid treating stock splits as automatic buy signals. Instead, splits should trigger deeper analysis of company fundamentals and future prospects. Short-term market reactions to splits are often speculative in nature, and sound investment decisions should be based on long-term vision rather than short-lived market euphoria.

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